

CO-OPERATIVE ENTREPRENEURS
and
AGRIBUSINESS DEVELOPMENT

**A study towards the development of
agribusiness co-operatives
in Indonesia**

By

Lukman Mohammad Baga



Philipps-Universität Marburg

2013

Co-operative Entrepreneurs and Agribusiness Development
A study towards the development of agribusiness co-operatives
in Indonesia

Inaugural - Dissertation

zur

Erlangung der wirtschaftswissenschaftlichen Doktorwürde
des Fachbereichs Wirtschaftswissenschaften
der Philipps-Universität Marburg

eingereicht von:

LUKMAN MOHAMMAD BAGA
MA.Ec. aus **Gorontalo (Indonesien)**

Erstgutacher:	Prof. Dr. Michael Kirk
Zweitgutachter:	Prof. Dr. Hans-H. Münkner
Einreichungstermin:	8. Mai 2013
Prüfungstermin:	27. August 2013
Erscheinungsort:	Marburg
Hochschulkenziffer:	1180

Erklärung 1.

Ich versichere an Eides statt, dass ich die Arbeit selbständig angefertigt und andere als die angegebenen Hilfsmittel nicht benutzt sowie jede wörtlich oder inhaltlich übernommene Stelle kenntlich gemacht habe.

Erklärung 2.

Ich versichere an Eides statt, dass ich die Dissertation „Co-operative Entrepreneurs and Agribusiness Development, A Study Towards the Development of Agribusiness Co-operatives in Indonesia “ zu keinem früheren Zeitpunkt einem anderen Fachbereich zur Beurteilung vorgelegt habe und mich bislang keiner anderen Doktorprüfung unterzogen habe.

Marburg, August 2013

Lukman Mohammad BAGA

ACKNOWLEDGMENTS

I wish to express my heartfelt gratitude to Prof. Dr. Michael Kirk, Institute for Cooperation in Developing Countries, Philipps University of Marburg for his conscientious supervision, constant encouragement, constructive criticisms and understanding during the preparation and the implementation of the research and especially during the preparation of the manuscript. His contribution to this study has been immeasurable.

I owe special debt to Prof. Dr. Hans-H. Münkner, who provided me an opportunity to do PhD program at Institute for Cooperation in Developing Countries, and for his enlightening teaching and guidance relating to the development of co-operatives, especially in the beginning of my study in Marburg. His willingness to provide counsel whenever required is also greatly appreciated.

I am grateful to the Indonesian Government for allowing me to take doctorate program in Germany, and also to DAAD (der Deutsche Akademische Austauschdienst) for providing my scholarship.

I am also grateful to all colleagues at Bogor Agricultural University and all friends for steady encouragement and support during the period of my study. Especially I am indebted to Aziz, my partner of discussion during the finishing step of manuscript finalization and for his cheerful technical assistance.

I would like to express my deep gratitude to my parents and parents in law and all of my relatives in Indonesia, who love, support and constantly pray to me.

Finally, sincere appreciation and gratitude to my beloved wife Dewi Wahyuni for the gift of her enthusiasm, endless patience and sincere pray, and for all my beloved children: Azka, Rifqy, Shidqu, Atika as well as Syauqy for a debt of time and neglect throughout this study.

Marburg, August 2013

Lukman Mohammad BAGA

SUMMARY

LUKMAN MOHAMMAD BAGA, “Co-operative Entrepreneurs and Agribusiness Development, A Study Towards the Development of Agribusiness Co-operatives in Indonesia”, a dissertation submitted under the supervision of **PROF. DR. MICHAEL KIRK** and **PROF. DR. HANS-H. MÜNKNER**.

Although Indonesia has enormous agribusiness resources, this sector has not been developed well to strengthen national economic development. In fact, this sector seems to be neglected. The low quality of human resources available to Indonesian farmers is a serious problem that needs attention. This is related to the low quality of education and skills possessed by farmers, their limited capital and small land ownership, as well as their low level of entrepreneurship, which leads to low productivity and low quality of farm products. These problems are exacerbated due to the low bargaining power of farmers in selling their products. Therefore, the situation of Indonesian farmers is worsening over time, which in turn leads to a low contribution of the agriculture sector in the Indonesian economy. Therefore, efforts to develop the agribusiness sector must first be pursued through institutional development that is oriented towards the economic and social development of farmers. An institutional form considered to be suitable for such development is the co-operative. This is because, on one hand, co-operatives are mandated in the Indonesian Constitution. On the other hand, co-operative institutions have demonstrated their immense ability in the development of agribusiness in other countries. The problem is, Indonesia is still in the early stages of the search for effective methods of co-operative development.

The Indonesian government has made great efforts to develop agricultural co-operatives. However, it is still difficult to develop co-operative institutions in Indonesia. Through an officialization program which started in 1974, the government began establishing Village Unit Co-operatives (KUDs) as agricultural and rural co-operatives. As originally planned, that officialization phase of KUDs was to be soon followed by a de-officialization phase, which was to be characterized by reducing the government's intervention in the development of KUDs. However, this officialization phase was continued, even more intensively than before. The KUD evaluation process is also biased towards government interests. This has caused the KUD to be continually dependent on government programs; entrepreneurial abilities of KUD leaders are not getting better, but worse. The officialization program of the KUD had to be stopped in 1998 with regard to the post-crisis economic recovery program. Since then, the KUD has had to be independent, and the success of the KUD depends on the entrepreneurial abilities of their leaders to optimally utilize any agribusiness resources abundant in their respective rural areas.

This study aims to examine the extent to which entrepreneurial characters of co-operative leaders is related to the success of agribusiness co-operatives, so that the findings can be used to form strategies for developing agribusiness co-operatives. This general objective can be achieved through some of the following operational objectives, namely to: (1) analyze factors that influence the development of co-operatives to determine success levels of agribusiness co-operatives in Indonesia; (2) identify characteristics of co-operative entrepreneurs in successful agribusiness co-operatives; (3) evaluate the effectiveness of co-operative education and training (CET) programs in Indonesia; and (4) formulate strategies for developing co-operative entrepreneurs and agribusiness co-operatives in Indonesia.

The research was conducted in thirty dairy co-operatives in the Provinces of West Java and East Java. The determination of dairy co-operatives as the object of study was done deliberately, because dairy co-operatives in Indonesia are established in one of two ways, either in the form of a KUD which is established by government policy (top-down approach) or in the form of a Non-KUD, which is established naturally by dairy farmers (bottom-up approach). Analyses were conducted on the performance of co-operatives in 2000, and on the growth of co-operative businesses over five years (1996-2000). The data collected were analyzed in terms of the business and organizational aspects of co-operatives. Business variables include the production of milk, business volume from various business units and financial variables, while organizational variables included the performance of co-operative leaders, implementation of co-operative principles, co-operative dynamics, networks and processes within the organization. The types of data used were secondary data, namely the annual reports of each co-operative for five years (1996-2000), and annual reports of the GKSI (The Union of Indonesian Dairy Co-operatives) as secondary dairy co-operatives in Indonesia. In addition to this, primary data were collected by using several types of questionnaires. Research respondents included co-operative boards of directors (BOD), managers, employees, and members and non-members of co-operatives, coming to a total of 420 respondents.

A total of 171 business variables and 50 organizational variables were processed using Principle Component Analysis (PCA) in order to determine each eigenvalue. The eigenvalue was then used as a reference of success indicators for dairy co-operatives. Some business variables which had the highest eigenvalue were: (1) Total sales and Total cost figures, together with their growth; (2) Total business turnover, particularly feed and milk units, together with their growth; (3) Number of matured and lactation cows; and (4) sales and total cost per employee. Meanwhile, some organizational variables which had the highest eigenvalue were: (1) members' acceptance of BOD and the activeness of the chairman; (2) The implementation of the 7th and 2nd principles of co-operatives, namely concern for community and democratic member control; (3) interaction between members and co-operative businesses and the number of

employees; (4) frequency of external visits; and (5) controlling process as well as interaction and influencing processes in organizations.

Furthermore, two indices were made, one each for business and organizational variables. After this was done, both of these indexes were plotted to form quadrants, in which the thirty dairy co-operatives distributed themselves into four typologies. The best co-operatives were those in the typology of Quadrant-I, which had relatively better performance in both business and organizational aspects than those in the other typologies. There were ten co-operatives in Quadrant-I, four co-operatives in Quadrant-II, and ten and six co-operatives in Quadrant-III and IV, respectively. The success of co-operatives in Quadrant-I could serve as learning references for other co-operatives in terms of determining development programs which would be more focused and systematic. Additionally, the two indices were then processed into a single index called the Dairy Co-operative Development Index, which sorted the thirty sample co-operatives from best-to-worst performance.

The performance of co-operative leaders was analyzed by comparing their performance among quadrants. The variables compared were individual variables (i.e. education and training and work experiences) and psychological variables associated with entrepreneurial characters (i.e. locus of control, social motives, risk-taking attitude and some other entrepreneurial characteristics). A statistical test was used to determine whether the character of co-operative leaders was significantly different among quadrants, particularly between Quadrant-I and the other Quadrants. This study shows that co-operative leaders in Quadrant-I have traits frequently recognized as entrepreneurial traits, namely the highest score for internal locus of control and the need for achievement, an ideal graph form of social motives, as well as a moderate risk-taking attitude.

To examine the third operational objective, the study observed the implementation of CET programs which were conducted by the government, co-operative movements, universities and NGOs. The data used were both primary and secondary data. Secondary data was taken from the annual reports of co-operative training institutions, secondary co-operatives (GKSI and PUSKUD), as well as from literature, while the primary data was obtained from 58 co-operative lecturers from 32 universities throughout Indonesia. Primary data was also obtained from 206 students who were taking co-operative studies at four sampled universities. In addition to this, expert interviews were conducted with eight co-operative experts, using the Analytical Hierarchy Process (AHP) method. The result showed that the implementation of CET programs in Indonesia was still not effective in supporting the development of co-operatives. The co-operative experts agreed that the ineffectiveness of CET programs was mostly due to poor development systems, in which the level of coordination among the CET institutions was still inadequate. Furthermore, the experts believed that the CET methods needed to be improved, with a focus on co-operative leaders and the youth.

A review of the implementation of co-operative education at universities showed that co-operative education was still not capable of motivating students to contribute to the development of co-operatives. In addition to the unpreparedness of co-operative lecturers, very limited references and inappropriate curriculum were some other factors acknowledged by the respondents as the source of problems. Hence, there is a need to establish strong synergy among universities, as well as between universities and the co-operative movement, in order to realize effective CET.

Based on the findings obtained from this study, strategies for developing co-operative entrepreneurs (CE) and agribusiness co-operatives in Indonesia can be formulated. The strategy proposed for developing CE consists of developing its three pillars, namely: (1) building understanding and confidence in co-operatives, (2) developing business and technological knowledge and skills, and (3) developing altruistic leadership skills. These three pillars of CE need to be strengthened among the existing co-operative leaders, and can also be developed among the leaders of other existing organizations and for the youth. Meanwhile, the strategy for developing agribusiness co-operatives prioritizes the development of the existing agribusiness co-operatives, which is formulated while referring to the typology of co-operatives and Co-operative Development Index. In addition to that, co-operative development is also directed towards the development of new agribusiness co-operatives. This is important with regards to the abundance of agribusiness resources in rural areas. In any case, this will be more effective if it is accompanied by a strengthening of the roles played by co-operative entrepreneurs.

ZUSSAMENFASSUNG

LUKMAN MOHAMMAD BAGA, "Die genossenschaftlichen Unternehmern und die Entwicklung des Agribusiness, eine Studie zur Entwicklung von Agribusiness Genossenschaft in Indonesien“, eine eingereichte Dissertation unter der Aufsicht durch **PROF. DR. MICHAEL KIRK** und **PROF. DR. HANS-H. MÜNKNER**.

Obwohl Indonesien enorme Agribusiness-Ressourcen besitzt, ist dieser Bereich noch nicht gut entwickelt, um die nationale ökonomische Entwicklung voranzutreiben. Es scheint, dass dieser Bereich vernachlässigt ist. Mangelnde Qualität der Humanressourcen in der Landwirtschaft stellt ein seriöses Problem dar, welches mehr Aufmerksamkeit erfordert. Dies hängt mit der niedrigen Bildung der Landwirte, ihrer begrenzten Finanzmittel und Grundstücke, sowie mit ihrem niedrigen Niveau bzgl. der unternehmerischen Fähigkeit zusammen. All diese Ursachen führen zur niedrigen Produktivität und niedrigen Qualität der Produkte. Das Problem wird durch die niedrige Verhandlungsstärke der Landwirte beim Vertrieb ihrer Produkte weiter verschlimmert. Deshalb verschlechtert sich die Situation der indonesischen Landwirte mit der Zeit. Folglich ist es logisch, dass der Agribusiness-Sektor nur einen niedrigen Beitrag zur gesamten Wirtschaft Indonesiens leistet. Eine Verbesserung der Agribusiness-Bereiche muss in erster Linie durch eine institutionelle Entwicklung verfolgt werden, die eine Förderung der wirtschaftlichen und sozialen Situation der Landwirte als Primärziel hat. Eine institutionelle Form, die für solche Entwicklung als geeignet betrachtet werden kann, ist die Genossenschaft. Die Erklärung dafür ist einerseits die Verankerung der Genossenschaften in der indonesischen Verfassung. Andererseits haben die Genossenschaften in den anderen Ländern gezeigt, dass sie fähig sind, die Entwicklung des Agribusiness zu fördern. Das Problem ist, dass sich Indonesien immer noch in der früheren Phase der Suche nach effektiven Methoden zur Entwicklung der Genossenschaft befindet.

Die indonesische Regierung unternahm bereits große Anstrengungen zur Förderung von landwirtschaftlichen Genossenschaften. Trotzdem ist es immer noch schwierig, eine genossenschaftliche Institution in Indonesien zu entwickeln. Durch ein offizielles Programm, das im Jahr 1974 gestartet wurde, begann die Regierung KUD (Genossenschaft auf der ländlichen Gegend) zu etablieren. Der Plan sah vor, dass es nach dem Schritt Formalisierung dieser Institution der nächste Schritt sofort erfolgte, nämlich eine Deformalisierung der Institution, die durch die Reduzierung der Intervention der Regierung gekennzeichnet werden sollte. Leider fand die Deformalisierung nicht statt. Im Gegenteil nahm der Einfluss des Staates sogar zu. Dies führt dazu, dass KUD sehr abhängig von den Programmen der Regierung ist. Die unternehmerische Fähigkeit der KUD-Führungskräfte wurde nicht besser, sogar schlechter. Im Zuge der Wiederaufbau Indonesiens nach der Wirtschaftskrise im Jahr 1998 wurde KUD schließlich vom Staat getrennt. Seitdem musste KUD unabhängig

agierte und der Erfolg von KUD hing von nun an lediglich von den eigenen Führungskräften ab.

In dieser Studie wurde der Beitrag der Führungskräfte der Genossenschaft hinsichtlich deren unternehmerischen Fähigkeit zum Erfolg der Genossenschaft untersucht. Welche Strategien wurden von ihnen zur Entwicklung der landwirtschaftlichen Genossenschaft formuliert? Diese allgemeine Zielsetzung der Studie konnte durch folgende Unterpunkte erzielt werden: (1) Faktoren, die die Entwicklung der Genossenschaft beeinflussen können, sind zu analysieren, um Erfolgslevel von landwirtschaftlichen Genossenschaft in Indonesien zu definieren. (2) Merkmale von genossenschaftlichen Unternehmern, die bereits erfolgreich sind, sind zu identifizieren. (3) Die Effektivität der durchgeführten Schulungs- und Bildungsprogrammen im Bereich Genossenschaftswesen ist zu evaluieren. (4) Strategien zur Entwicklung der genossenschaftlichen Unternehmern und der landwirtschaftlichen Genossenschaften in Indonesien sind zu formulieren.

Die Studie wurde in dreißig Molkerei-Genossenschaften in den Provinzen West Java und Ost Java durchgeführt. Die Molkerei-Genossenschaften in Indonesien wurden entweder durch die Initiative der Regierung (Top-Down Ansatz) im Rahmen KUD-Programm oder durch Eigeninitiative der Milchbauer als nicht KUD-Genossenschaft (Bottom-Up Ansatz) gegründet. Aus diesem Grund wurde die Entscheidung für die Auswahl der Molkerei-Genossenschaft als Objekt der Studie bewusst getroffen. Die Performance der Genossenschaft im Jahr 2000 und das Wachstum des genossenschaftlichen Business über die fünf Jahre (1996-2000) wurden in dieser Studie analysiert. Die gesammelten Daten wurden hinsichtlich der geschäftlichen und organisatorischen Aspekte der Genossenschaft untersucht. Geschäftliche Variablen umfassen die Milchproduktion, das Geschäftsvolumen aus verschiedenen Geschäftseinheiten und finanzielle Variablen, während organisatorische Variablen die Performance der Führungskräfte der Genossenschaft, die Implementierung der Prinzipien der Genossenschaft, die Dynamik der Genossenschaft, Netzwerke und Prozesse in der Organisation beinhalten. Die verwendeten Daten sind Sekundärdaten, nämlich die Jahresberichte der einzelnen Genossenschaften über den Zeitraum vom Jahr 1996-2000 (fünf Jahre) und die Jahresberichte der indonesischen Molkerei-Genossenschaft Union (GKSI) als Sekundär Molkerei Genossenschaften in Indonesien. Darüber hinaus wurden Primärdaten durch mehrere Arten von Fragebogen gewonnen. 420 Personen wurden befragt. Die Teilnehmer waren Vorstandsmitglieder, Managers, Angestellten, Mitglieder sowie Nicht-Mitglieder der Genossenschaften.

Eine Summe von 171 geschäftlichen und fünfzig organisatorischen Variablen wurde mit Hilfe Principle Component Analysis (PCA) verarbeitet, um den einzelnen Eigenwert zu bestimmen. Der Eigenwert wurde anschließend als Referenz des Erfolgsindicators für Molkerei-Genossenschaft verwendet. Einige geschäftliche Variable mit dem höchsten Eigenwert waren (1) Gesamtabsatz und Gesamtkosten, zusammen mit ihrem Wachstum; (2) Gesamtumsatz, insbesondere Futter- und

Milcheinheiten, zusammen mit ihrem Wachstum; (3) Anzahl der gereiften und laktierenden Kühen; und (4) Verkäufe und Gesamtkosten pro Beschäftigte. Einige organisatorische Variablen mit dem höchsten Eigenwert waren: (1) Die Akzeptanz der Vorstandsmitglieder bei den Mitgliedern und die Handlung des Vorstandsvorsitzenden; (2) Die Implementierung der 7. und 2. Prinzipien der Genossenschaft, nämlich soziale Pflichten (Sorgen) in der Gemeinde und demokratische Kontrolle durch die Mitglieder; (3) Interaktion zwischen Mitglieder und genossenschaftlichen Geschäften und die Anzahl der Beschäftigten; (4) Häufigkeit der externen Besuche; und (5) Controlling Prozess sowie Interaktions- und Einflussprozesse innerhalb der Organisation.

Darüber hinaus wurden zwei Indizes jeweils für die geschäftliche und organisatorische Variable konstruiert. Beide Indizes wurden grafisch dargestellt um Quadranten zu formen, um die dreißig Molkerei-Genossenschaften in vier verschiedenen Typologien zu gruppieren. Die besten Genossenschaften gehörten zur Typologie im Quadrant-I mit der besten Performance sowohl in der geschäftlichen als auch in den organisatorischen Aspekten. Es waren zehn Genossenschaften im Quadrant-I, vier im Quadrant-II, sowie zehn und sechs in Quadrant-III und -IV. Der Erfolg der Genossenschaften im Quadrant-I konnte als Lernreferenz für die anderen Genossenschaften dienen, nämlich in Sache gezielte Entwicklungsprogramme, die mehr fokussiert und systematisch wurde. Zusätzlich wurde aus den zwei Indizes ein Single-Index abgeleitet, nämlich der sogenannte Molkerei-Genossenschaft Entwicklungsindex, der die 30 teilnehmenden Genossenschaften in Genossenschaften mit bester bis zur schlechtesten Performance.

Die Performance der Führungskräfte der Genossenschaft wurde durch Vergleich ihrer Leistung in den Quadranten analysiert. Die Vergleichsvariablen waren individuelle Variable (d. h. Bildung, Schulung und Berufserfahrung) und psychologische Variable, die mit unternehmerischer Charakteristik verbunden sind (d. h. Kontrollüberzeugung, soziale Motiven, innere Einstellung zur Risikobereitschaft und einige andere unternehmerische Charakteristik). Eine statistische Bewertung wurde durchgeführt, um zu ermitteln, ob die Charaktere der Führungskräfte aus den unterschiedlichen Quadranten signifikant voneinander unterschiedlich waren, insbesondere, zwischen Quadrant-I und den anderen Quadranten. Diese Studie zeigt, dass Führungskräfte aus Quadrant-I besitzen Merkmale, die häufig als unternehmerische Merkmale bekannt sind, nämlich die höchste Punktzahl für innere Kontrollüberzeugung und das Streben nach Leistung, eine ideale Form der sozialen Motive, sowie eine moderate Einstellung zur Risikobereitschaft.

Zur Untersuchung der dritten Zielsetzung dieser Studie wurde die Implementierung der CET Programme (die genossenschaftliche Schulungs- und Bildungsprogrammen) durch die Regierung, genossenschaftliche Bewegungen, Universität und NGOs observiert. Die verwendeten Daten waren sowohl Primär- als auch Sekundärdaten. Sekundärdaten wurden aus den Jahresberichten der genossenschaftlichen Schulungsinstitutionen, sekundäre Genossenschaften (GKSI und

PUSKUD) sowie aus der Literatur entnommen, während die Primärdaten aus 58 Genossenschaft-Dozenten aus 32 Universitäten im ganzen Land gewonnen wurden. Des Weiteren wurden Primärdaten aus 206 Studenten ermittelt, die gerade das Studienfach Genossenschaft in vier verschiedenen Universitäten besuchten. Hinzu kamen Expertengespräch mit acht Experte im Bereich Genossenschaft. Für das Expertengespräch wurde das AHP-Verfahren (Analytical Hierarchy Process) verwendet. Die Ergebnisse zeigten dass die Implementierung der CET Programme in Indonesien war noch nicht effektiv hinsichtlich der Förderung zur Entwicklung der Genossenschaften. Die Genossenschaft-Experten sind einig, dass die Ineffektivität der CET Programme durch die unzureichende Entwicklungssysteme verursacht wurde. Das Niveau der Koordinierung innerhalb der CET Institutionen sind inadäquat. Des Weiteren glauben die Experten dass die CET Methoden verbessert werden mussten. Die notwendige Verbesserung sollte sich auf die Genossenschaftsführungskräfte und die Jugend konzentrieren.

Eine Überprüfung der Implementierung der genossenschaftlichen Bildung an den Universitäten zeigte, dass die genossenschaftliche Bildung noch nicht in der Lage war, die Studenten zu motivieren, um in der Entwicklung der Genossenschaft mitzuwirken. Zusätzlich zu den unvorbereiteten Genossenschaft Lehrbeauftragten waren sehr begrenzte Literaturstellen und ungeeignete Lehrplan einige Faktoren, die durch die Befragte als die Quelle der Probleme bezeichnet wurden. Demzufolge ist es notwendig, eine starke Synergie zwischen den Universitäten zu etablieren, sowie zwischen den Universitäten und der Genossenschaftsbewegung, um effektive genossenschaftliche Bildung zu realisieren.

Basierend auf den Erkenntnissen in dieser Studie können Strategien zur Entwicklung der genossenschaftlichen Unternehmern (co-operative entrepreneur, CE) und Agribusiness Genossenschaften in Indonesien formuliert werden. Drei Säulen zur Entwicklung der CE werden hier vorgeschlagen, nämlich (1) Aufbau von Verständnis und Selbstvertrauen in den Genossenschaften, (2) Entwicklung von Business und technologisches Wissen und Fähigkeiten, und (3) Entwicklung altruistischer Führungsstärke. Diese drei Säulen der genossenschaftlichen Bildung müssen innerhalb der bestehenden Genossenschaftsführungskräfte verstärkt werden. Auch innerhalb der Führungskräfte anderer Organisationen und der Jugend können die Säule angewendet werden. Inzwischen liegt der Schwerpunkt der Strategie zur Entwicklung der Agribusiness Genossenschaften in der Entwicklung der existierenden Agribusiness Genossenschaften. Die Formulierung der Strategie verweist auf die Typologie der Genossenschaft und den Genossenschaft Entwicklungsindex. Des Weiteren wird die Bildung neuer Agribusiness Genossenschaften als Ziel der Entwicklungsarbeit der bestehenden Genossenschaften verfolgt. Dies ist notwendig im Bezug auf den Überfluss an Agribusiness Ressource in den ländlichen Gegenden. In jedem Fall wird dies mehr effektiv, wenn dies durch eine Verstärkung der Rolle der CE begleitet wird.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	v
SUMMARY	vi
ZUSSAMENFASSUNG	x
TABLE OF CONTENTS	xiv
LIST OF TABLES	xviii
LIST OF FIGURES	xxi
LIST OF APPENDICES	xxiv
LIST OF ABBREVIATIONS	xxv
CHAPTER – I	
INTRODUCTION	1
1.1. Indonesia and the Economic Crisis	1
1.2. Research Problems	5
1.2.1. The Problems of Indonesian Agriculture	5
1.2.2. The Problems of Agribusiness Co-operatives in Indonesia	8
1.2.3. The Problems of Co-operative Entrepreneurship	11
1.3. Research Objectives	13
1.4. The Relevance of the Study	13
1.5. The Outline of the Book	14
CHAPTER – II	
LITERATURE REVIEW	17
2.1. Agricultural Development in Indonesia	17
2.2. Agribusiness Development	20
2.3. Co-operatives and Agribusiness	25
2.4. The Evaluation of Co-operative Performances	27
2.5. Co-operatives in Indonesia	30
2.5.1. The Position of Co-operatives in the Indonesian Economy	30
2.5.2. Village Unit Co-operatives (KUD)	32
2.5.3. The Officialization Phases of KUD	35
2.5.4. The Problems of Co-operative Education and Training in Indonesia	37
2.6. Entrepreneurs and Co-operatives	39
2.6.1. Entrepreneurs and Economic Development	39
2.6.2. Characteristics of Entrepreneurs	40
2.6.3. Co-operative Entrepreneurs	41
2.6.4. Co-operative Leaders as Entrepreneurs	42
2.6.5. Co-operative Entrepreneurs and Entrepreneurial Energy	45
2.6.6. The Importance of Motivation for Co-operative Entrepreneurs	48

CHAPTER - III	
RESEARCH METHODOLOGY.....	51
3.1. Theoretical Framework	51
3.2. The Stages of Study	59
3.2.1. Data Collection	62
3.2.2. The Survey of Agribusiness Co-operatives	62
3.3.2. The Survey of Universities	67
3.3.3. Case Studies	68
3.4. Data Processing and Analysis	69
3.4.1. The Analysis of Co-operative Performances	70
3.4.2. The Analysis of Co-operative Leaders	74
3.4.3. The Evaluation of Co-operative Education at Universities	78
3.4.4. Strategy for Developing Co-operative Leaders.....	79
CHAPTER - IV	
MILK AGRIBUSINESS IN INDONESIA.....	81
4.1. Milk Agribusiness	81
4.2. Milk Commodity	82
4.3. The History of Dairy Co-operatives in Indonesia	86
4.3.1. The Development of Milk Production	88
4.3.2. The Development of Milk Prices	89
4.4. Dairy Co-operative Institution	89
4.5. Dairy Co-operatives During the Economic Crisis	91
4.6. Lessons Learned	95
CHAPTER - V	
THE PERFORMANCE OF DAIRY CO-OPERATIVES.....	99
5.1. General Characteristics of Co-operative Samples	99
5.2. The Performance of Dairy Co-operatives	101
5.2.1. The Business Performance of Dairy Co-operatives	101
5.2.2. The Organizational Performance of Dairy Co-operatives	112
5.3. The Typology of Dairy Co-operatives in Indonesia	114
5.3.1. Business Index	115
5.3.2. Organization Index	117
5.4. Benchmarking of Performance among Typologies	122
5.4.1. Benchmarking of Business Performances	122
5.4.2. Benchmarking of Organizational Performances	124
5.5. Dairy Co-operative Development Index	127
5.6. Lessons Learned	128
CHAPTER - VI	
THE PERFORMANCE OF CO-OPERATIVE LEADERS.....	133
6.1. The Background of Co-operative Leaders	133
6.1.1. Individual Variables	133
6.1.2. Work Experiences	134
6.1.3. Training Experiences	136

6.2.	The Entrepreneurial Characters of Co-operative Leaders	138
6.2.1.	Social Motives (Need for Achievement, Need for Affiliation, Need for Power)	138
6.2.2.	Internal Locus of Control	140
6.2.3.	Moderate Risk Taking	140
6.2.4.	Other Entrepreneurial Characteristics	141
6.3.	Lessons Learned	143

CHAPTER - VII

THE PERFORMANCE OF CO-OPERATIVE EDUCATION AND TRAINING IN INDONESIA.....

		147
7.1.	The Role of the Government	147
7.1.1.	Co-operative Education by the Government	149
7.1.2.	Co-operative Trainings by the Government	150
7.2.	The Role of the Co-operative Movement	154
7.2.1.	Co-operative Education by the Co-operative Movement	154
7.2.2.	Co-operative Trainings by the Co-operative Movement	155
7.3.	NGO Institutions	156
7.4.	Analytical Hierarchy Process for Developing Co-operative Leaders in Indonesia	157
7.5.	Lessons Learned	161

CHAPTER - VIII

THE PERFORMANCE OF CO-OPERATIVE EDUCATION AT UNIVERSITIES.....

		165
8.1.	The Faculty Members and Activities of Co-operative Development	166
8.1.1.	Individual Backgrounds of Faculty Members	166
8.1.2.	Implementation of Education, Research and Community Service on Co-operative Issues	167
8.1.3.	Correlation Analysis	170
8.1.4.	The Curriculum of Co-operative Education	171
8.1.5.	The Availability of References for Co-operative Lectures	172
8.1.3.	The Effectiveness of Co-operative Education at Universities	175
8.2.	The Students of Universities and Activities of Co-operative Development	176
8.2.1.	Students' Opinion to Co-operative Lectures	177
8.2.2.	Enthusiasm of Students Regarding Co-operative Lectures	179
8.2.3.	Student Access to Participating in Activities Related to Co-operatives	180
8.2.4.	Motivation to Work in Co-operative Institutions	181
8.2.5.	Correlation Analysis	183
8.3.	Lessons Learned	185

CHAPTER - IX	
STRATEGY FOR DEVELOPING CO-OPERATIVE ENTREPRENEURS	189
9.1. The Need of Co-operative Entrepreneurs	189
9.2. The Three-Pillar Strategy for Developing Co-operative Entrepreneurs	192
9.2.1. Understanding and Confidence in Co-operatives	194
9.2.2. Business and Technological Knowledge/Skills	195
9.2.3. Altruistic Leadership Skills	197
9.3. Strategic Alliance in Co-operative Entrepreneur Development	200
CHAPTER - X	
STRATEGY FOR DEVELOPING AGRIBUSINESS CO-OPERATIVES	
IN INDONESIA.....	203
10.1. Strategy for Developing Existing Agribusiness Co-operatives	203
10.1.1. Benchmarking Strategy	204
10.1.2. Strategy for Business Development	205
10.1.3. Strategies for Organizational Development	209
10.1.4. Strategies for Leadership Development	210
10.1.5. Other Strategies	211
10.2. Alternative Strategies for Developing New Agribusiness Co-operatives ..	213
CHAPTER – XI	
CONCLUSIONS AND RECOMMENDATIONS.....	217
11.1. Conclusions	
11.1.1. The Performance of Agribusiness Co-operatives	217
11.1.2. The Performance of Co-operative Leaders	220
11.1.3. The Performance of Co-operative Education and Training	220
11.1.4. Strategies for Developing Agribusiness Co-operatives	221
11.2. Recommendations	222
REFERENCES	225
APPENDICES	247

LIST OF TABLES

		Page
Table 3.1.	The Explanation of the Three Methods of Research	62
Table 3.2.	The Distribution of Co-operative Samples based on Districts / Municipalities	65
Table 3.3.	The Number of Co-operative Samples Based on Some Classifications	66
Table 3.4.	The Type of Used Questionnaires in the Survey of Dairy Co-operatives	66
Table 3.5.	The Number of Student Samples in the Four Surveyed Universities	68
Table 3.6.	The Fundamental Scale of Analytical Hierarchy Process	80
Table 4.1.	The Number of Cows and Milk Production in Some Countries	81
Table 4.2.	The Development of Milk Production per Five Years (1984-2000)	88
Table 4.3.	The Development of Milk Prices in Indonesia (1979-2000)	89
Table 4.4.	The Development of Dairy Co-operatives per Five Years (1979-2000)	90
Table 4.5.	National Milk Production and Consumption Projections, 2000-2020	94
Table 5.1.	The Description of 30 Surveyed Dairy Co-operatives	100
Table 5.2.	Selected Variables of Milk Production and Its Growth	102
Table 5.3.	Business Turnover and Its Average Growth per Year	107
Table 5.4.	The Share of Selected Business Turnover and Its Growth	108
Table 5.5.	Selected Financial Performance (in Millions of Rp)	109
Table 5.6.	The Group Variable of Operating Statement and Its Growth	116
Table 5.7.	The Group Variable of Business Turnover and Its Growth	116
Table 5.8.	The Group Variable of Milk Production	116
Table 5.9.	The Group Variable of Productivity Ratio	117
Table 5.10.	The Group Variable of Board of Directors	118
Table 5.11.	The Group Variable of Co-operative Principles	118
Table 5.12.	The Group Variable of Co-operative Dynamic	118
Table 5.13.	The Group Variable of Network and Development	119
Table 5.14.	The Group Variable of Organizational Process	119

Table 5.15.	Significant Differences in Operating Statement and Its Growth	122
Table 5.16.	Significant Differences in Business Turnover and Its Growth	122
Table 5.17.	Significant Differences in Milk Production	123
Table 5.18.	Significant Differences in Productivity Ratio	123
Table 5.19.	Significant Differences in Opinion on Directors	124
Table 5.20.	Significant Differences in Co-operative Dynamics	125
Table 5.21.	Significant Differences in the Implementation of Co-operative Principles	125
Table 5.22.	Significant Difference in Networking and Development	126
Table 5.23.	Significant Differences in Organizational Processes	127
Table 6.1.	The Individual Variables of Co-operative Leaders	133
Table 6.2.	The Work Experiences of Co-operative Leaders	135
Table 6.3.	Training Organizer and Evaluation of the Training Programs	136
Table 6.4.	The Training Experiences of Co-operative Leaders	137
Tabel 6.5.	The Social Motives, Locus of Control and Moderate Risk Taking Variables of Dairy Co-operative Leaders	138
Table 6.6.	The Psychological Variables of Dairy Co-operative Leaders	141
Table 7.1.	The Achievements of LAPENKOP in 1996, 1998 and 2001	156
Table 8.1.	The Background of Co-operative Lecturers	166
Table 8.2.	The Implementation of Education, Research and Community Services on Co-operative Issues at the Sampled Universities	168
Table 8.3.	The Potency of Universities to Implement Education, Research and Community Service on Co-operative Issues	170
Table 8.4.	Correlation Analysis between the Education Backgrounds of Co-operative Lecturers and the Implementation of Education, Research and Community Service on Co-operative Issues	171
Table 8.5.	The Percentage of Respondents based on the Method of Co-operative Lectures	171
Table 8.6.	The Syllabi of Co-operative Lectures	173
Table 8.7.	The Percentage of Respondents based on the Availability and Access to References Related to Co-operative Issues	174
Table 8.8.	Correlation Analysis between Education Backgrounds of Co-operative Lecturers and Access to Informational Sources about Co-operatives	175
Table 8.9.	The Percentages of Respondent Opinions Regarding the Weaknesses of Universities in Co-operative Education	176

Table 8.10.	The Percentage of Students Based on Their Experiences with Co-operative Issues	176
Table 8.11.	The Students' Opinions Regarding Co-operative Lectures	178
Table 8.12.	Student Enthusiasm Regarding Co-operative Lectures	179
Table 8.13.	The Access of the Students to Activities Related to Co-operatives	181
Table 8.14.	The Percentages of Students Based on Their Motivation to Work in Co-operative Institutions	182
Table 8.15.	Correlation Analysis between Student Backgrounds and Their Willingness to Work in Co-operative Institutions (Graduate Level)	184
Table 8.16.	Correlation Analysis between Students' Background and Their Willingness to Work in Co-operative Institutions (Undergraduate Level)	185
Table 10.1.	Alternative Strategies for Developing Existing Agribusiness Co-operatives	204

LIST OF FIGURES

	Page
Figure 1.1. The Growth of GDP by Sector at 1993 Constant Market Prices (In Trillions of Rp)	2
Figure 1.2. The Broadening of Seven Inequalities that Destroyed Social Cohesiveness in Indonesia	3
Figure 1.3. The Average Growth of Agricultural Sub-sectors in Indonesia (Percent)	4
Figure 1.4. A Map of Indonesia	5
Figure 1.5. The Vicious Cycle of Farmer’s Problems in Indonesia	6
Figure 1.6. The Outline of the Book	15
Figure 2.1. A Comparison Between a Traditional and an Emerging Perspective of Competitiveness of the Food and Agribusiness Sector	21
Figure 2.2. Existing Agribusiness System in Indonesia	22
Figure 2.3. Required Skills in Each Business Cycle Phase	44
Figure 2.4. Primary Leader and Secondary Leader Overlap	45
Figure 2.5. The Types of Entrepreneurs	45
Figure 2.6. Kirchoff Typology in “Dynamic Capitalism”	46
Figure 2.7. The Explanation of Entrepreneurial Behavior	48
Figure 3.1. The Type of Entrepreneurs Relating to Co-operative’s Performances	56
Figure 3.2. The Study Framework of Developing Co-operative Entrepreneurs and Agribusiness Co-operatives in Indonesia	60
Figure 3.3. The Relation of the Three Research Methods in the Study	61
Figure 3.4. The Distribution of 30 Surveyed Dairy Co-operatives in the the Provinces of West Java and East Java.....	65
Figure 3.5. The Analysis Steps of Co-operative Entrepreneurs	69
Figure 3.6. The Analysis Steps of Co-operative Performances	73
Figure 3.7. Plotting Indexes into Quadrant	74
Figure 3.8. Benchmarking Processes to Better Typologies	75
Figure 3.9. The Personal Graphic of Social Motives.....	76
Figure 3.10. Comparison Analysis between Groups of Students Based on Faculties and Program Levels	79
Figure 4.1. The Determining Factors of Milk Production	83

Figure 4.2.	The Determining Factors of Milk Quality	84
Figure 4.3.	Job Descriptions between GKSI and Primary Dairy Co-operatives in Terms of Milk Agribusiness Development	90
Figure 4.4.	Indonesian Milk Production (1994-2000)	91
Figure 4.5.	The Trend of Cows Ratio and Milk Production per Lactation Cows	91
Figure 4.6.	The Trend of Milk Price (1994-2000)	92
Figure 4.7.	The Trend of Cow Population and Milk Production (1969-1999) .	96
Figure 4.8.	The Trend of Absorted Labor by Milk Agribusiness (1979-1999)	96
Figure 4.9.	The Role of Co-operative Entrepreneur in Developing the Milk Agribusiness System in Indonesia	98
Figure 5.1.	The Implementation of Co-operative Principles by Type of Co-operative	112
Figure 5.2.	Organizational Process Based on Type of Co-operative	114
Figure 5.3.	The Eigenvalues of Business Group Variables	115
Figure 5.4.	The Eigenvalues of Organizational Group Variables	117
Figure 5.5.	The Distribution of 30 Sampled Dairy Co-operatives into Four Typologies	121
Figure 5.6.	The Implementation of Co-operative Principles by the Typology of Co-operatives	125
Figure 5.7.	Comparison Organizational Process by Typology of Co-operatives	126
Figure 5.8.	Dairy Co-operative Development Index of 30 Sampled Dairy Co-operatives	128
Figure 6.1.	The Personal Graphs of Co-operative Leaders	139
Figure 7.1.	Support Systems for Developing Human Resource of Co-operatives in Indonesia	148
Figure 7.2.	The Percentage of Trainees by Courses which were Conducted by PUSDIKLATKOP (97/98-99/00)	151
Figure 7.3.	The Percentage of Trainees by Courses which were Conducted by BADIKLATKOPs (97/98-99/00)	152
Figure 7.4.	The Number of Trainees at BADIKLATKOP of East Java Based on the Origin of Institutions	153
Figure 7.5.	The Number of Trainees from KUDs at BADIKLATKOP of East Java	153
Figure 7.6.	Analytical Hierarchy Process for Developing Co-operative Leaders	158
Figure 7.7.	Co-operative Leader-Entrepreneurs and Co-operative Education .	163

Figure 9.1. Three Pillars for Developing Co-operative Entrepreneurs	193
Figure 9.2. Knowledge and Skill Development Offered by Different Faculties	193
Figure 9.3. Different Strengths between University and LAPENKOP	201
Figure 9.4. Strategic Alliance between Co-operative Movement and Universities in Developing Co-operative Human Resources	202

LIST OF APPENDICES

	Page
Appendix 1. Indonesian Economic Conditions	249
Appendix 2. The Potency of Agriculture in Indonesia	250
Appendix 3. Problems of Agriculture in Indonesia	252
Appendix 4. Co-operative Development in Indonesia	254
Appendix 5. The Criteria of KUD Mandiri and the Top Model KUD	255
Appendix 6. The Identity of Co-operative	257
Appendix 7. The Market Share of Agricultural Co-operatives in the EU Countries	259
Appendix 8. The List of Sampled Universities in the Study	260
Appendix 9. The Financial Ratio that Used in Analysis	261
Appendix 10. The Comparison Dimension between Mechanistic and Organic Organizations	263
Appendix 11. Milk Standard based on Indonesian National Standardization (SNI)	264
Appendix 12. The Development of Milk Agribusiness in Indonesia (1979 – 2000)	265
Appendix 13. The Performance of Milk Production	266
Appendix 14. The Performance of Business Turnover	268
Appendix 15. The Financial Performances of the 30 Sample Dairy Co-operatives	272
Appendix 16. The Implementation of Co-operative Principles	275
Appendix 17. The Result of T-Test for the Implementation of Co-operative Principles and Organizational Process	276
Appendix 18. The Eigenvalue of Each Group Variable of Business and Organizations	277
Appendix 19. The Business and Organizational Performance of Dairy Co-operatives based on Quadrants	281
Appendix 20. Dairy Co-operative Development Index	286

LIST OF ABBREVIATIONS

AHP	Analytical Hierarchy Process
AKOP	<i>Akademi Koperasi</i> = Co-operative College
AMT	Achievement Motivation Training
ANOVA	Analysis of Variance
BADIKLATKOP	<i>Badan Pendidikan dan Pelatihan Koperasi</i> = Co-operative Education and Training Agency (at Province level)
BIMAS	<i>Bimbingan Masal</i> = National Guidance Program (on Agricultural Production)
BKCSI	<i>Badan Koordinasi Koperasi Susu Indonesia</i> = Coordination Agency for Indonesian Dairy Co-operatives
BPPC	Badan Pengembangan dan Pemasaran Cengkeh = Clove Development and Marketing Agency
BPS	<i>Badan Pusat Statistik</i> = The Central Statistic Agency
BPS-KPKM	<i>Badan Pengembangan Sumberdaya Koperasi dan Pengusaha Kecil Menengah</i> = Small-Medium Enterprises and Co-operative Resource Development Agency
BULOG	<i>Badan Urusan Logistik</i> = National Logistic Agency
BUSEP	<i>Bukti Serap</i> = proof of purchase
BUUD	<i>Badan Usaha Unit Desa</i> = Village Unit Enterprises
CAMT	Co-operative Motivation Achievement Training
CCD	Center of Co-operative Denmark
CCN	Corruption, Collusion and Nepotism
CDI	Co-operative Development Index
CE	Co-operative Entrepreneur
CET	Co-operative Education and Training
CM	Co-operative Management
CMEC	Co-operative Member Education and Communication
CSMED	Co-operative and Small-Medium Enterprises Development
CVHS	Co-operative Vocational High Schools = <i>Sekolah Menengah Kejuruan Koperasi</i>
DASES	Department of Agricultural Sosio-Economics Studies
DCDI	Dairy Co-operative Development Index
DEKOPIN	<i>Dewan Koperasi Indonesia</i> = Indonesian Co-operative Council

DEKOPINDA	<i>Dewan Koperasi Indonesia Daerah</i> = Indonesian Co-operative Council – District Office
DEKOPINWIL	<i>Dewan Koperasi Indonesia Wilayah</i> = Indonesian Co-operative Council – Provincial Office
Drh	<i>Dokter hewan</i> = Veterinarian
EV	Eigenvalue
FA	Faculty of Agriculture
FE	Faculty of Economics
FOB	Free on Board
FORMASI	<i>Forum Kerjasama Pengembangan Koperasi</i> = Co-operation Forum for Co-operative Development
FYD	Five Year Development
GAPPSIP	<i>Gabungan Petani Peternak Sapi Perah Pangalengan</i> = Pangalengan Union of Dairy Farmers
GDP	Gross Domestic Product
GKSI	<i>Gabungan Koperasi Susu Indonesia</i> = The Union of Indonesian Dairy Co-operatives
GNP	Gross National Product
HKTI	<i>Himpunan Kerukunan Tani Indonesia</i> = Indonesian Farmer Association
ICA	International Co-operative Alliance
IKIP	<i>Institut Keguruan dan Ilmu Pendidikan</i> = Teachers College
IKOPIN	<i>Institut Manajemen Koperasi Indonesia</i> = Indonesian Institute for Co-operative Management
IMF	International Monetary Fund
INKUD	<i>Induk Koperasi Unit Desa</i> = Secondary Co-operative of KUD at National Level
Inpres	<i>Instruksi Presiden</i> = Presidential Decree
IPB	<i>Institut Pertanian Bogor</i> = Bogor Agricultural University
IPS	<i>Industri Pengolahan Susu</i> = Milk Processing Industry (MPI)
ITB	<i>Institut Teknologi Bandung</i> = Bandung Technological University
KAN	<i>Koperasi Agro Niaga</i> = Agricultural Marketing Co-operative
KANDEPKOP	<i>Kantor Departemen Koperasi</i> = Co-operative District Office
KANWILKOP	<i>Kantor Wilayah Koperasi</i> = Co-operative Provincial Office
KOPERTA	<i>Koperasi Pertanian</i> = Agricultural Co-operatives

KPBS	<i>Koperasi Peternak Bandung Selatan</i> = Dairy Co-operative of South Bandung
KPLP	<i>Koperasi Peternak Lembu Perah</i> = Dairy Farmer Co-operative
KPS	<i>Koperasi Peternak Sapi</i> = Dairy Farmer Co-operative
KPSBU	<i>Koperasi Peternak Sapi Bandung Utara</i> = Dairy Farmer Co-operative of North Bandung
KSS	<i>Koperasi Sehat Sempurna</i> = Perfect Healthy Co-operative
KTNA	<i>Kelompok Tani Nelayan Andalan</i> = Mainstay Group of Farmers and Fishermen
KUD	<i>Koperasi Unit Desa</i> = Village Unit Co-operatives
KUNAK	<i>Kelompok Usaha Peternakan</i> = Group of Livestock Business
KUT	<i>Kredit Usaha Tani</i> = Agricultural Credit
KUTT	<i>Koperasi Usaha Tani Ternak</i> = Dairy Farm Co-operative
LAPENKOP	<i>Lembaga Pendidikan Koperasi</i> = Co-operative Education Agency
LAPENKOPDA	<i>Lembaga Pendidikan Koperasi Daerah</i> = District Co-operative Education Agency
LAPENKOPWIL	<i>Lembaga Pendidikan Koperasi Wilayah</i> = Provincial Co-operative Education Agency
LKMD	<i>Lembaga Ketahanan Masyarakat Desa</i> = Village Defense Institution
LSM / LPSM	<i>Lembaga Swadaya Masyarakat / Lembaga Pengembangan Swadaya Masyarakat</i> = Non Government Organization
M	Million
MCSMED	The Ministry of Co-operative and Small-Medium Enterprises Development
MPI	Milk Processing Industry
n-Ach	Need for Achievement
n-Aff	Need for Affiliation
NGO	Non-Government Organization
n-Pow	Need for Power
ONED	Outsider Non-Executive Directors
PCA	Principal Component Analysis
PCL	Primary Co-operative Leader
PLPP	<i>Pusat Latihan Pasca Panen</i> = Training Center for Post Harvest
PTP/PNP	<i>Perusahaan Negara Perkebunan</i> (State Plantation Company)

PUSDIKLATKOP	<i>Pusat Pendidikan dan Pelatihan Koperasi</i> = Center for Co-operative Education and Training (at National level)
PUSDIKOP	<i>Pusat Pendidikan Koperasi</i> = Co-operative Education Center
PUSKUD	<i>Pusat Koperasi Unit Desa</i> = The Center of KUD (The Secondary Co-operative of KUD at Provincial Level)
PUSLATPENKOP	<i>Pusat Pelatihan dan Penataran Koperasi</i> = Centre for Co-operative Training and Upgrading
Q-I, -II, -III, -IV	Quadrant-I, -II, -III, -IV
ROI	Return on Investment
Rp	Rupiah (Indonesian currency)
SCU	Semester Credit Unit, <i>Sistem Kredit Semester</i>
SKB	<i>Surat Keputusan Bersama</i> = Agreement Letter
SM-CSME	State Ministry of Co-operative and Small-Medium Enterprise
SMEA	<i>Sekolah Menengah Ekonomi Atas</i> = High School of Economics
SMK Koperasi	<i>Sekolah Menengah Kejuruan Koperasi</i> = Co-operative Vocational High School (CVHS)
SPDC	Single purpose dairy co-operative
SSS	Supporting Service Sub-System
TKPN	<i>Tim Koordinasi Persusuan Nasional</i> = The Coordination Team of National Milk Development
TPC	Total Plate Count
TQM	Total Quality Management
TS	Total Solid
UG Program	Under-graduate or diploma program = <i>pendidikan non gelar</i>
UNIBRA	<i>Universitas Brawidjaya</i> = Brawidjaya University
UNPAD	<i>Universitas Padjadjaran</i> = Pajajaran University
YPK	<i>Yayasan Pendidikan Koperasi</i> = The Foundation of Co-operative Education.
WCCQ	World Class Co-operative Quality
WILUD	<i>Wilayah Unit Desa</i> = Village Unit Areas

CHAPTER – I

INTRODUCTION

1.1. Indonesia and the Economic Crisis

Indonesia was noted to have very impressive economic growth in the global economy before the Asian Crisis in 1997.¹ Indonesia's economy grew very well, with macroeconomic stability and a decreasing poverty rate.² But monetary shocks since the mid-1997s, with the depreciation of the rupiah against the US\$, triggered the initial economic crisis in Indonesia.³ At the time of monetary crisis, the GDP drastically contracted by 13% in 1998, the inflation rate increased to 58%, import growth contracted to 30.9%, and exports also contracted to 10.5%.⁴ Many industrial groups, mostly those not based on local resources, were forced into bankruptcy. As a result, unemployment rose rapidly and the poverty rate increased further.⁵

The monetary crisis was aggravated by the destruction of the national banking system and swelling foreign debt. The national banks faced a very difficult period. Several state banks had merged, while many private banks were closed by the government.⁶ Industrial manufacturing sectors were also hit hard. Figure 1.1 shows drastically declining performance for some economic sectors in 1998, namely: the financial sector, manufacturing industry sector, construction sector, and trade, hotels and restaurants, while the agricultural sector was one of the few sectors that still showed positive growth.

¹ In 1993 the World Bank published a report entitled 'The East Asian Miracle: Economic Growth and Public Policy', which highlighted the economic progress in eight states of East Asia, namely: Hong Kong, Japan, South Korea, Taiwan, Singapore, Indonesia, Thailand and Malaysia. These eight countries earned the nickname 'the eight High-Performing Asian Economies' (HPAE's) due to a record of success that other countries should emulate (See, for example, Arifin, 1998; Young C Kim (Ed), 1997, p. 266).

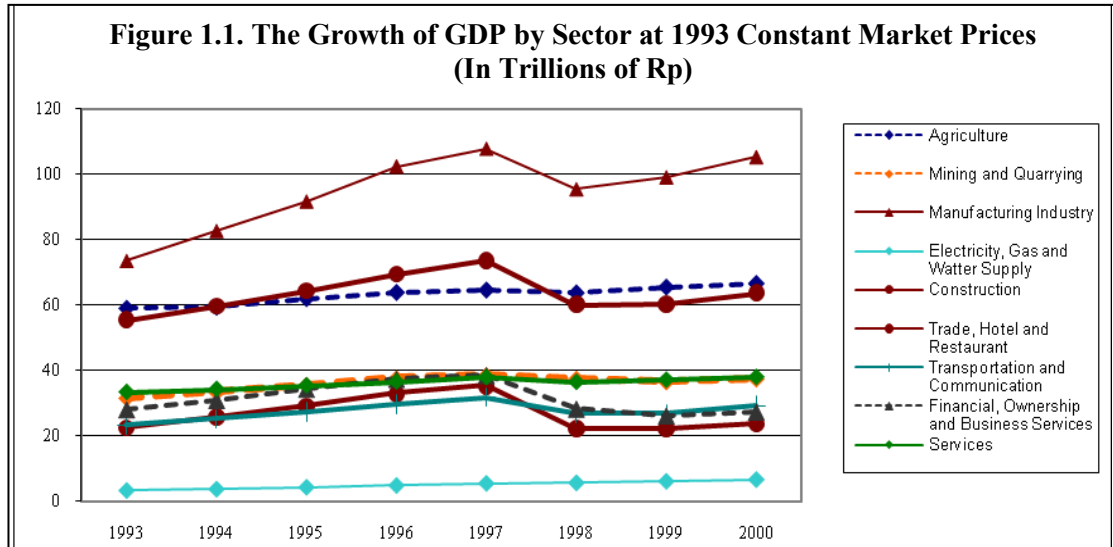
² During that time the average growth of GNP per capita per year was above 5%, a higher rate compared with that in low- and middle-income countries (see Daryanto, 1999, p. 61). The inflation rate each year could be reduced below two digits, and the numbers of people who lived below the poverty line fell from 60% in 1970 to 11% in 1996.

³ The monetary crisis that occurred in 1997 started with the weaker exchange rate of the rupiah against foreign currencies, especially the US dollar. The triggering factor was the collapse of the Thai Bath as a result of speculation in the foreign exchange market, which then spread to Indonesia, Malaysia and the Philippines. But the mistakes of past development policies had caused inequality to worsen Indonesia's economic situation. The monetary crisis led to a banking crisis, economic crisis, social crisis and even a crisis of trust (see, for example: Dumary, 2003, p. 4; Krugman, 2001, pp. 98-104; Chaniago, 2001, pp. 289-298; Röpke, 2000, pp. 546-551).

⁴ See Asian Development Outlook, 2001, 1998, 1996

⁵ The World Bank estimated that until the end of 1998 there were about 20 million people who were unemployed, and the ILO (1998) estimated unemployment to be 15% of the labor force (Daryanto, 1999; p. 63).

⁶ Compared to 1996, the number of private banks in 2000 was about half, from 164 to 83 banks. See further Gie, 1999, pp. 109-197.



Source: *Badan Pusat Statistik* (The Central Statistic Agency), several years.

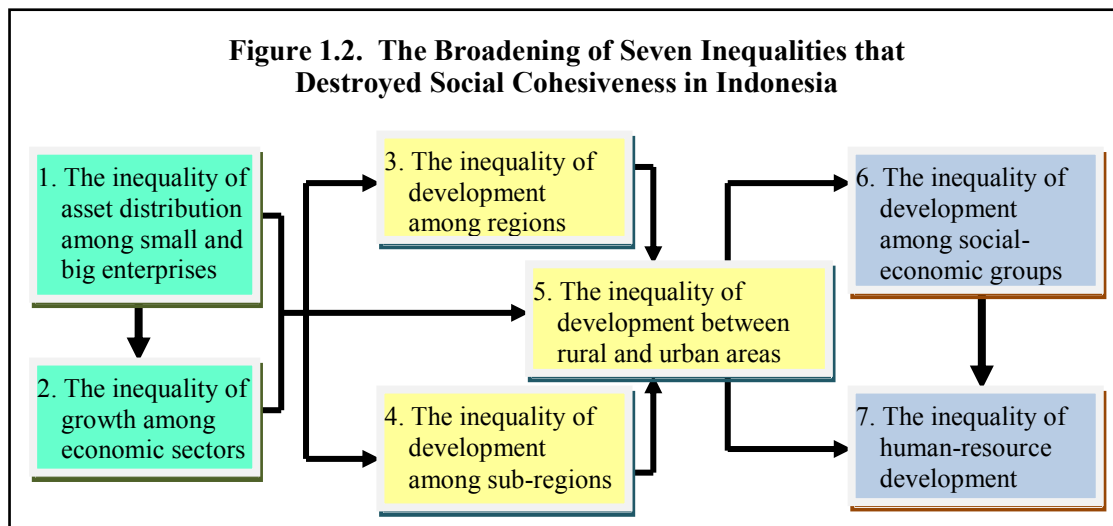
Economic experts have analyzed various economic factors that might cause the crisis. Basri (2002) said the crisis in Indonesia was related to economic activities in which consumption was higher than production, as well as imports being greater than exports. On top of that, the financial sector was unbalanced with the real sector, which further worsened economic conditions. Meanwhile, McLeod (1999) stated that the Indonesian economic crisis was caused by policy mistakes regarding the exchange rate in responding to external pressure.⁷ However, Aziz (1998), similar to Montes (1998), stated that the mistakes had been caused not only by monetary mismanagement, but also by the carelessness of the private sector and the government since 1994 in the use of credit from foreign banks with low interest in the project sector of “non-traded goods” with high risk and speculation.⁸

After reviewing other factors beyond monetary aspects, Chaniago (2001) concluded that there was an important factor that had been ignored by economists in terms of the causes of financial crisis, namely the weathered economic structure, which resulted in the destruction of social cohesiveness among Indonesian people. The damage to social cohesion was characterized by seven types of inequalities, as shown in Figure 1.2.⁹

⁷ See Chaniago, 2001, p. 298. He concluded the writing of McCleod Ross H, “Indonesia's Crisis and Future Prospect” in Karl D. Jackson (ed.), *Asian Contagion: The Causes and Consequences*, Singapore: Institute of Southeast Asian Studies, 1999, pp. 209-240. See also Sjahrir (1998), Wibisono (1998), Gie (1999) and Tambunan (1998).

⁸ *Ibid*, pp. 300-303.

⁹ Some experts have analyzed a variety of these inequalities, among them: Sanim, 1998, p. 16; Solahuddin, 1998, p. 2; Intan and Sa'id, 2003. However, Chaniago (2001, pp. 234-249), provides an in-depth analysis in his book entitled "*Gagalnya Pembangunan* (The Failure of Development)".



Source: Adapted from Chaniago, 2001 (figured by Author)

The first inequality was seen in the amount of allocated credit, which six state banks easily granted to just a few large enterprises, as well as the ignored violation of private banks in allocating credit which exceeded the legal lending limit, to finance companies under the same holding company. In contrast, it was very difficult for small-scale enterprises to obtain credit. The second inequality was seen in the high growth in the industrial and property sectors, but at the same time the agricultural sector was neglected and even sacrificed by the rapid conversion of agricultural land to non-agricultural uses.¹⁰

The third, fourth and fifth inequalities were spatial inequalities, which are logical consequences of the previous two inequalities. Alignments of large companies which led to economic development were concentrated in the elite areas of large cities,¹¹ while rural development was neglected, though most of the Indonesian people live in rural areas. As a result, these spatial inequalities in turn led to inequality among social-economic groups¹² and ultimately to the inequality of the sort most seldom highlighted by economists, namely inequality in human resource development in Indonesia, particularly in the lower strata of society.

Based on these facts, Chaniago argued that the crisis in Indonesia was different from those of other countries, whereby the crisis in Indonesia was not just a financial crisis, but is more accurately called a crisis of development, which included social,

¹⁰ Indonesia's economic development policy at that time was intended to make Indonesia an industrial country (Dumary, 1996, p. 63; Saragih, 2001; Sanim, 1998, p. 16; Solahuddin, 1998, p. 2).

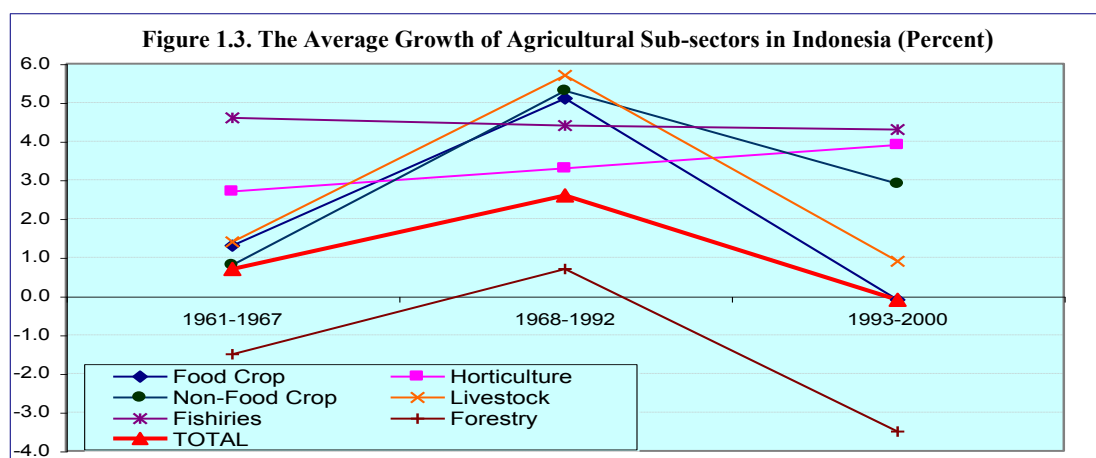
¹¹ About 70% of the money was circulating in Jakarta, Indonesia, and about 60% of total investment in Indonesia was in the Greater Jakarta area (JABOTABEK = Jakarta, Bogor, Tangerang and Bekasi), (see Yustika, 2002, p. 101).

¹² The growth of the Gini Ratio in Indonesia showed no significant improvement during the last thirty years, whereas at the same time there was an increase in income per capita. See Yustika, 2002, pp. 100-101).

economic and political crises.¹³ Therefore, economic recovery in Indonesia cannot be achieved solely by solving the economic problems, without linking them with efforts to rebuild social cohesiveness by reducing existing socio-economic inequalities.

In line with the above arguments, the crisis of 1998 seems to be the turning point in correcting Indonesia's economic development strategy. Many Indonesian economists agree that strategy development needs to get back on efforts to create a better agricultural sector. This is because the agricultural sector has an important role in the Indonesian economy.¹⁴ In addition to being the source of the livelihoods of more than 60% of residents in Indonesia, the agricultural sector had also generated a demand for food and industrial raw materials, as well as for export commodities which bring in a lot of foreign currency. The facts showed that, during the crisis, the agricultural sector had become a safety net for the economy, as this sector is relatively resilient against monetary shocks, can accommodate many workers who are out of work from other sectors, does not require a large production cost, and generates a relatively quick yield.¹⁵

The economic crisis in 1998 was expected to become a turning point in the revival of the Indonesian agricultural sector, which had been experiencing negative growth for a long time (Figure 1.3). So it was not only that an economic recovery could be realized, but also that farmers' income and welfare could be increased, which in turn could reduce the socio-economic inequalities faced by the people of Indonesia.



Source: The Coordinating Ministry for the Economy, 2005, p. 19

¹³ Chaniago, *op. cit.*, p. 311. See also Yoneda, 2000, pp. 29-34.

¹⁴ At the beginning of the New Order government, the economic development priority was the agricultural sector. However, after Indonesia achieved self-sufficiency in rice production in 1984, attention in the agricultural sector was reduced, diverted to financial sector development, construction and industry (for the economic reform in Indonesia, see for example, Wardhana, 1998, pp.126-143, and Dasgupta, 1998, pp.209-233). But with the 1998 crisis, many economists and experts insist that Indonesia's economic development orientation should have returned to agricultural sector development. See: Tampubolon, 2000; Yustika, 2002, p. 105; Solahuddin, 1998; Sanim, 1998; Arifin, 2004; Sa'id and Intan, 2001, p. 49; Saragih, 2000; Daryanto, 2001; Ismail, 2000; Syam and Ma'arif, 2004; Suprpto, 1999; Sadjad, 2003; Tjondronegoro, 2000; Dillon, 1999; Dahruri, 2000; Didu, 1999; Wibowo and Putra, 2000, Wirakartakusumah, 1998.

¹⁵ Cf. Suprpto (1999) and also Daryanto (1999, p. 63).

1.2. Research Problems

1.2.1. The Problems of Indonesian Agriculture

Indonesia is the world's largest archipelago nation, situated on the equator, having 17,504 islands that extend along 3,977 miles between the Indian and Pacific Oceans (Figure 1.4). As this territory is near the equator, Indonesia has year-round sunshine with a moderately high temperatures (between 26^o-30^oC) and sufficient rainfall. This suggests that in terms of its ecology and economy, Indonesia is an area with a very large agricultural potential.¹⁶ This potential can generally be seen from its large production potential and a huge market potential.

Figure 1.4. A Map of Indonesia



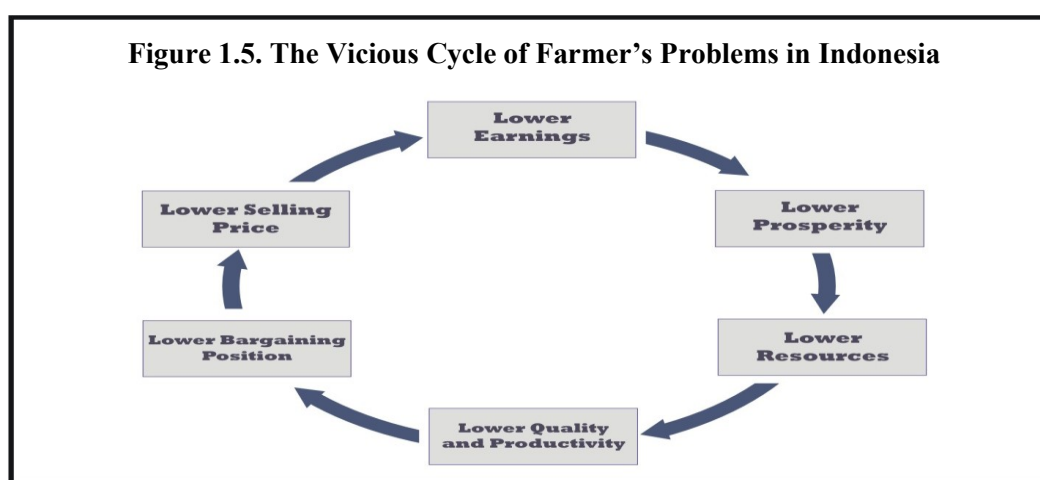
Indonesia produces many excellent products which are exported to many countries. In the plantation sub-sector, Indonesia is a major manufacturer for various commodities, such as: oil palm, rubber, coffee, tea, cocoa, tobacco and pepper.¹⁷ In the fisheries sub-sector, Indonesia is known as a shrimp- and tuna-exporting country. Meanwhile, in the forestry sub-sector, Indonesia is a producer of wood and most of world's rattan. (see Appendix 2). Only in the crops and livestock sub-sector does Indonesia still have to meet a high domestic demand, which even has to be met through a very high level of imported products.¹⁸

¹⁶ See Rhee *et al.*, 2004. Indonesia, with 17,000 islands, is a mega-biodiversity country that is ranked first in the world for number of mammals, palms, swallowtail butterfly, and parrot species. Further, it is the center of plant species diversity for a number of genera and is one of the world's centres of species diversity of hard corals and many groups of reef-associated flora and fauna. See also Soekmadi, 2002, p. 1.

¹⁷ History noted that it was these plantation commodities that had attracted the Portuguese, British and Dutch in the 16th century and they then colonized Indonesia for more than 350 years (see Geertz, 1983, pp. 48-87). Some cases of plantations can be seen in Sabil, 2005, pp. 18-36 for the case of sugar cane/sugar; Yahmadi, 2007, pp. 128-134 and Siswoputranto, 1993, pp. 25-27 for the case of coffee).

¹⁸ In 1998 Indonesia's rice imports reached the highest quantity in the history, reaching 7.1 million tons (see Nuhung, 2006, p. 168). As for beef, although the level of per capita consumption was still relatively low, at around 1.71 kg/per capita, Indonesia still had to import in large quantities, where in 2002 total imports were about 600-700 thousand heads (see Daryanto, 2007, pp. 78-79).

Although Indonesia has a variety of agricultural products which are in demand in domestic and overseas markets, Indonesian farmers in rural areas are still living in poverty.¹⁹ This is due to the quality of farmers' human resources and the limited ownership of productive assets. The average education level of Indonesian farmers is basic (primary school) education,²⁰ while the average farmers' land ownership is only 0.3 hectares (see Appendix 3). Most agricultural cultivation done by Indonesian farmers is categorized as micro and small enterprises.²¹ Both of these issues have become a part of the vicious cycle of agricultural development in Indonesia. They have resulted in low agricultural productivity and product quality, so that the bargaining position of farmers in selling their products is lower, which in turns leads to the low level of farmers' income, as well as the low level of farmers' welfare (Figure 1.5).²²



Source: Author's own depiction, 2000

To break the vicious cycle, efforts are needed to increase farmers' income, by enhancing the selling value and adding value to the agricultural products they produce. Increasing the added value of agricultural products can be done by processing the agricultural products from fresh products into various kinds of processed products that

¹⁹ Most of Indonesia's population lives in rural areas as farmers. The poor population in rural areas in 1980 was 28.4%, which decreased to 14.30% in 1990. In 1999 it rose again into 26.0% (see Appendix 3).

²⁰ In 1998, of the 33.5 million people working in the agricultural sector, about 85% of them had a low education (not graduating from the six years of the primary education level), and the remaining 15.3% were at the secondary education level, and only 0.3% had a tertiary education (see Sanim, 2000, p. 100).

²¹ Small-scale farmers are known as landless farmers. The number of landless farmers has been steadily increasing. In 1993 the number of landless farmer households amounted to 10.8 million, but in 2003 it increased to 13.7 million, or an increase of 2.7% per year (Nuhung, 2006, pp. 70-71).

²² Cf. Suryana and Mardiyanto, 2001, pp. 54-55; Yustika, 2002, p. 135.

have better utility in terms of form, time and place. In other words, there is a need to develop agriculture-based industries in rural areas of Indonesia.²³

Increasing selling values can be achieved by improving market access as well as the bargaining position of farmers so that they can obtain better prices. Increased farmer's income is expected to increase the ownership of assets and the capital of farmers, which in turn will motivate farmers to improve production.

In other words, agricultural development in Indonesia needs to be undertaken by using an integrated agribusiness system approach among on-farm subsystems of agricultural production, namely their processing and marketing subsystems, and could even include the provision of a production factor availability subsystem and supporting subsystems.²⁴ It was Davis and Goldberg (1957), who first coined the concept of agribusiness, which later became popular in Indonesia as one of the best solutions for the post-crisis development of agriculture. This concept was also expected to be able to improve the competitiveness of the Indonesian agricultural sector in the era of global markets (Saragih, 1998). Especially for farmers in Indonesia, the majority of who are at the micro-level, the agribusiness system approach is expected to help them to increase incomes and welfare by optimizing the utilization of their resources.

However, there are many constraints for farmers to develop their processing and marketing subsystems. These constraints are both internal and external. Internal constraints are related to the low quality of human resources available to farmers, which makes it difficult for them to access technology, market and capital, whereas external constraints are related to the business environment, which is often not conducive for small farmers to obtain a favorable farm-gate price.²⁵

Indonesian farmers are generally small-scale businesses; thus, they would not be able to overcome the internal and external constraints individually. Farmers must build

²³ There are many advantages for the industrial development of agriculture in rural Indonesia. In addition to increasing the added value and productivity of agriculture, it is also an instrument of income distribution, improves the industrial structure over the inequalities of this bias to the many capital-intensive and large scale industries in urban areas, reduces the process of urbanization, and development of rural economy at a time and increases the attractiveness of investment in rural areas (see Sumarjo, 2006 pp. 119-125).

²⁴ The agribusiness system consists of five subsystems, namely: first is the upstream agribusiness subsystem, which provides tools and input factors for agricultural production. Second is the on-farm subsystem, which produces primary agricultural products. The down-stream agribusiness subsystem consists of two subsystems, namely the processing subsystem, which processes primary agricultural products into processed products, and the marketing subsystem, which markets products in the domestic and international markets. The fifth subsystem is the supporting subsystem, namely all activities that provide services for agribusiness development in the previous four subsystems, such as financial institutions, research and development institutions, educational institutions, training and extension, and the institution of policy makers (see Saragih 1998; Soeharjo, 1997).

²⁵ The various inequalities argued by Chaniago (2001) described the existence of market dominance by a small group of enterprises who are not fair and who do not provide the opportunity for farmers to get good trade value of their agricultural product (also see Soedjono, 1997, pp. 77-85; Schwarz, 1994, pp. 153-157)

their business in conjunction in order to achieve efficient skills of technology and economy, so that they can improve their bargaining position in marketing their products. Therefore, the presence of strong farmer's institutions is a common need among farmers. Many experiences in many developed and developing countries have shown that a farmer's co-operative is an effective institution to work on behalf of the interests of farmers. It can even be said that the success of agribusiness development will depend on the strength of the condition of the farmer's co-operative.²⁶

By considering the above arguments, there are some fundamental questions related to institutional co-operative farmers in Indonesia. What is the condition of farmers' co-operatives in Indonesia? How have farmers' co-operatives in Indonesia been doing in their role in developing agribusiness systems that will benefit their members? Have the existing agribusiness co-operatives been able to improve the bargaining position of farmers in negotiating good selling prices, as well as adding value to their agricultural products?

1.2.2. The Problems of Agribusiness Co-operatives in Indonesia

Agricultural co-operatives in Indonesia are not new. In 1960, the *Sentra* Rice Program was developed by focusing on rice production centers, covering 1,000 hectares for each center. Farmers involved in the program were given credit for fertilizer, seeds, and money, at a 12.5% annual interest rate. This program was followed by the convening of the National Guidance Program (BIMAS), which was enhanced by four activities, namely extension services, credit services, service of input production and processing and marketing services. At that time, the agricultural co-operatives (KOPERTA) which developed were expected to support programs such as BIMAS. KOPERTA was established from the bottom line (bottom-up approach) based on the need to serve the farmers, especially in the distribution of production facilities. However, due to poor management, KOPERTA could not perform its role properly, particularly in the distribution of input production.²⁷

The agricultural co-operatives development that had not been in line with expectations caused the government to issue Presidential Decree No. 4 of 1973 regarding the formation of Village Unit Enterprises (*Badan Usaha Unit Desa* or

²⁶ See van Bekkum and van Dijk (Eds) (1996); Aschhoff Gunther and Eckart Henningsen (1996); Cobia David (1989); Konopnicki and Vandewalle (1978); National Agricultural Co-operative Federation (1998) for the case of Agricultural Co-operatives in Korea; Mascarenhas (1988) for the case in India; Fujitani Chikuji (1991) for the case in Japan; etc.

²⁷ See Suwandi (1986, pp. 30-32); Soetrisno (1988, pp. 247-249).

BUUD)²⁸ which was the embryo of Village Unit Co-operatives (*Koperasi Unit Desa* or KUD).²⁹ BUUD development aimed to support the BIMAS program.³⁰

BUUD grew to become KUD in 1976, and then in 1978 the existence of KUD was no longer constrained to a village, but could cover an administrative Sub-District.³¹ Thus, the development of KUD was initiated by the government (with a top-down approach).³² The existence of these co-operatives continued to be strengthened by the issuance of Presidential Decree No. 4 of 1984, which made the KUD the only co-operative authorized to operate in rural areas.³³

The government's heavy focus on KUD caused the number of KUD to grow rapidly. In 1995, the number of KUD reached 9,240 units (see Appendix 4). However, this rapid increase in quantity in some cases sacrificed the quality level of KUDs.³⁴ Therefore, there is the question of whether or not the top-down approach taken by the government was really able to realize the KUD as a co-operative which is able to run as hoped. Are KUD conditions better than other types of other agricultural co-operatives (Non-KUD) which operate in rural areas? Which of the two types of co-operatives (KUD versus Non-KUD) provides better benefits for their efforts to improve the welfare of farmers-members?

²⁸ BUUD formation coincided with the global crisis in energy and food, so the government had to set the pace of BUUD as "tools of government policy", specifically to provide a national food stock towards self-sufficiency in food, with all the other supporting programs such as: the distribution of fertilizer, planting sugar cane intensification program, and others.

²⁹ KUD formation as an organization to empower farmers in rural areas in Indonesia referred to the program: the Farmers Association in Taiwan, which was the basis for rural development as part of a program of industrialization; agricultural co-operatives in Japan, which were developed to democratize the agricultural sector; and agricultural co-operatives in South Korea as a part of rural development in South Korea (Soedjono, 2000; Soetrisno, 2001, pp. 145-148).

³⁰ In order to support the BIMAS program, the formation of KUD was carried out on a massive scale and was imposed by the government, which in turn made the existence of KUD not firmly rooted among the farmers. (Soedjono, 2000b; Suwandi, 1986, pp. 48-69; Djohan, 1996, pp. 93-102).

³¹ This was based on Presidential Decree No. 2 of 1978, in which the limited coverage of village units would cover more than one village, to be associated with the desire to increase the scale of a larger co-operative business (see Suwandi, 1986, pp. 77-88; Soetrisno, 2001, pp. 145-158).

³² The effectiveness of the top-down approach or the creation of state-sponsored co-operatives has long been debated among co-operative experts (Koch, 1985; Hanel, 1992, pp. 159-167). To anticipate the needs of the development of co-operatives in developing countries, Hanel describes an alternative which is called as a three-phased model. Hanel explicitly reveals cases of the development of co-operatives in Indonesia as an illustration of this model. The three stages are: (1) officialization, (2) de-officialization and (3) autonomy (see also Soedjono, 1985, pp. 275-296). A three-phase plan of KUD can be seen in the National Plan for the Accelerated Growth of Rural Co-operatives (see the Department of Co-operatives, Government of Indonesia, 1985).

³³ De-officialization as a second stage in the development of the KUD was, in fact, not going well (Swasono, 1997, pp. 28-31; Rasyad, 1997, pp. 28-32; Soedjono, 2000b, pp. 77-81). Even the officialization stage was intensified with the issuance of Presidential Decree No 4 of 1984, where all types of co-operatives in rural areas, including KOPERTA, had to join the KUD, or be disbanded, except for some types of co-operatives that obtained special permission from the Minister of Co-operatives at the time, as in the case of dairy co-operatives (see Djohan, 1997, p. 36)

³⁴ Cf. Krisnamurthi, 2000, pp. 32-35.

Along with the de-officialization phase of the KUD in the beginning of 1988, the development of KUD began to be directed towards the formation of KUD *Mandiri* (Self-Reliant KUDs).³⁵ The Self-Reliant KUD Program was an attempt to improve the quality of the KUD. Self-reliant status will be obtained by KUD if it can meet the thirteen criteria for a Self-Reliant KUD as set by the government.³⁶ Difficulties were encountered when the performance of co-operatives was in fact not permanent, such as when the criteria could be met by a KUD at a certain time, but not at other times. There is no available information indicating that there was a co-operative with self-reliant status which was later degraded to being non-self-reliant. This was, of course, not desired by the government, because it would indicate a failure of the government program to foster co-operatives.

Even though there was an implicit demand for KUDs with self-reliant status to continue to improve their performance, new status ratings were needed after KUD *Mandiri* were established, as a way to accommodate the variety of improvements in the performance of KUDs. In that context, some new predicates were brought into being, such as the “Best KUD”, or “Model KUD” and even “Top Model KUD”, which was done by adding some new criteria to be met (see Appendix 5). Problems arose when the government had to provide an assessment of the performance of a KUD, in which the government tended to be subjective in assessing their own work.³⁷ The subjectivity of the government in providing this assessment in turn made KUD conditions fragile, and this fragility was clearly visible when the monetary crisis occurred.

When the monetary crisis hit, the economic reform program initiated by the IMF required the government to abolish policies that protected KUDs.³⁸ In 2000, there were 217 KUDs categorized as Self-reliant KUD, but the reality showed that these KUDs were totally inactive. This phenomenon indicated that co-operative assessment results were in fact invalid. This was possible because the success indicators were determined subjectively by the government, as they were connected with the interest of evaluating a government program for rural economic development.

Referring to the criteria of KUD self-reliance, there was an impression that KUD success was determined more from the business aspects, while other aspects which are

³⁵ Cf. Bundschu, 1995, p. 205.

³⁶ These criteria include the performance of the business and organization of the KUD (see Appendix 5). But there were many problems with the use of the KUD performance appraisal system, where the status obtained by a KUD was not in accordance with its actual conditions. (See for example; Soetrisno, 2001, pp. 159-175, Nasution, 2002, pp. 17-29).

³⁷ The existence of government subjectivity was seen in a variety of variables that served as success indicators of KUD, which were determined based on the desires of government; for example, the co-operative must have a membership of 25% of the villagers, should not have any outstanding debts, etc. (see Appendix 5).

³⁸ For example, with the issuance of Presidential Decree No 18 of 1998 which abolished Presidential Decree No. 4 of 1984 on monopoly rights to operate rural co-operatives (see for example: Firdaus and Susanto, 2004, p. 27).

also essential for KUD, such as organizational aspects, were neglected.³⁹ Therefore, some questions that then arise are: What appropriate methods can be used to measure the success levels of co-operatives in Indonesia? What success indicators should be used to measure the success levels of co-operatives in Indonesia?⁴⁰

1.2.3. The Problems of Co-operative Entrepreneurship

It is an irony that agricultural co-operatives are not well developed in Indonesia, as it is a country that has a huge potential for agribusiness. Many experts have tried to identify the factors that led to the underdevelopment of agricultural co-operatives in Indonesia. Several factors commonly put forward are the lack of co-operative capital and low managerial skills in managing co-operative businesses. On this account, the government has made efforts to develop programs related to capital growth as well as the management of co-operatives. However, government efforts to enhance the capacity of co-operatives have still not worked properly; they even appear to have created a very high dependency of co-operatives on government assistance.

For sure there are more fundamental issues that are still rarely highlighted in comparison, namely the problem of low quality or even the absence of entrepreneurs in the development of co-operatives.⁴¹ It is precisely the amount of assistance from the government which has inhibited the growth of entrepreneur development among co-operative leaders. The entrepreneurial role in co-operative institutions did not develop well because most of co-operative activities were operated through centralized planning by the government. Whereas, the presence of co-operative entrepreneurs (CE) is essential for the development of co-operatives, especially in the era of global markets which demand not only the availability of production factors, but also a touch of innovation in running businesses. This problem was seen in the lacking capacity of agribusiness co-operatives (in this case is KUDs) to deal with rapid changes that occurred in their environment during the economic crisis in Indonesia.⁴²

³⁹ See Djohan, 1996, pp. 93-109, who states that the KUD is better known as an instrument of government policy or a "co-operative program", which gives more attention to the aspects of co-operative business. See also Nasution, 2002, pp. 17-29; Yusdja, 2005, pp. 257-268).

⁴⁰ There are several new emerging methods for evaluating the success level of the co-operatives, which give equal concern to the importance of business as well as the organizational aspects of co-operatives, for example: (1) the Ladder Development Assessment method, developed by the Canadian Co-operative Association; (2) the Co-operative Identity Index, developed by Daniel Côté (University of Montreal, Canada); and (3) the Grid Model, developed by ICA-ROAP (See Soedjono, 2003, pp. 1-10).

⁴¹ Parnell (1999, pp. 297-298) stated that entrepreneurship is the missing ingredient in the development of co-operatives. The entrepreneurial role can be played by the leaders of co-operatives, either those which already exist or have the potential to be developed. Röpke (1992, p.60) even argues that promoting co-operatives needs to focus on promoting co-operative entrepreneurship.

⁴² Röpke studied the problems of the importance of co-operative entrepreneurship in the development of co-operatives in Indonesia, especially on the issue of trade liberalization and the economic reforms process (See Röpke, 2004, On Creating Entrepreneurial Energy in the *Ekonomi Rakyat*, The Case of

Efforts to improve the quality of the human resources of co-operatives have actually been a concern for a long time, both for the government and the co-operative movement itself.⁴³ In 1969 the government established the Center for Co-operative Education (PUSDIKOP), which was accompanied by the opening of its branches in every province. In 1983, The Ministry of Co-operatives established a training center for the official co-operatives, so that PUSDIKOP could concentrate on human resource development for the co-operative movement.⁴⁴

Meanwhile, in society, co-operative education at senior high schools⁴⁵ has been going on for a long time, and even co-operative colleges have been established in several regions of Indonesia. A university for co-operatives going by the name of *Institut Manajemen Koperasi Indonesia* (Indonesian Institute for Co-operative Management or IKOPIN) was established in Sumedang (West Java) in 1983. Co-operative education has even long been a subject of study in many universities.⁴⁶ However, very few of the programs for developing co-operative pioneers are actually associated with entrepreneurial traits.

The Indonesian Co-operative Council (DEKOPIN), as the apex of the co-operative movement in Indonesia, has also organized co-operative training programs. In 1995, DEKOPIN formed the Institute for Co-operative Education (LAPENKOP), as an institution of education and training contained within the organizational structure of DEKOPIN. Although the level of attention given to human resource development programs for co-operatives is quite high, to date there has still not been a significant impact on the number of effective co-operative entrepreneurs, who are needed for the development of co-operatives. There is, therefore, a major question to be investigated; namely, how effective are co-operative education and training (CET) institutions in Indonesia at developing co-operative entrepreneurs? In particular, to what extent can Indonesian universities provide graduates who are ready to develop agribusiness co-operatives? What strategies should be developed in response to the problem of low quality co-operative entrepreneurs in the development of agribusiness co-operatives in Indonesia?

Indonesian Co-operatives. A paper presented at the National Seminar on Reinventing Identity, and Repositioning of Co-operatives in the Indonesian Economy, Bandung, August 18, 2004).

⁴³ Cf. Hassan, 1987, p. 114.

⁴⁴ Cf. Prakash, 1986, p. 48.

⁴⁵ Cf. Hatta, 1987, pp. 221-236. In a Seminar on Co-operation in Yogyakarta in 1958, Mohammad Hatta emphasized the importance of co-operative education programs at the upper secondary level as one of the mechanisms of human resource procurement that was expected to assist the development of co-operatives.

⁴⁶ Cf. Sumodwirjo, 1983, p. 33. Based on a decision of the Minister of Teaching, Education and Culture in 1952, co-operative education was taught at universities and secondary schools in Indonesia.

1.3. Research Objectives

This study aims to examine the extent to which entrepreneurial characters of co-operative leaders is related to the success of agribusiness co-operatives, so that the findings can be used to form strategies for developing agribusiness co-operatives. This objective can be attained through some of the following operational objectives, namely to:

- 1) Analyze factors that influence the development of co-operatives to determine the success levels of agribusiness co-operatives in Indonesia.
- 2) Identify the characteristics of co-operative entrepreneurs in successful agribusiness co-operatives.
- 3) Evaluate the effectiveness of co-operative education and training programs in Indonesia.
- 4) Formulate strategies for developing co-operative entrepreneurs and agribusiness co-operatives in Indonesia.

1.4. The Relevance of the Study

The need for co-operative entrepreneurship with regard to agribusiness development has been an important issue in Indonesia in the last decade, particularly in regards to the economic crisis. However, there are still few empirical studies devoted to this subject. Besides this, it is not easy to find study findings on the issue of human resource development for agribusiness co-operatives in Indonesia. Therefore, this study is expected to yield important contribution for broadening empirical research on this important topic.

This study is an attempt to discover the real problems faced in agribusiness system development, as done through the co-operative movement in Indonesia. This study also tries to construct an appropriate method for determining key success indicators for agribusiness co-operatives in Indonesia. This is very important because the currently-used success indicators are biased towards government interests. By using the appropriate indicators, the performance of agribusiness co-operatives can be fairly evaluated. In addition to this, this study attempts to establish a typology of co-operatives, by paying equal attention to the business performance as well as the organizational performance of co-operatives. By knowing co-operative typology, it is expected that programs of co-operative development can be more easily determined by the co-operative movement, the government or other related stakeholders.

This study is also concerned with problems faced by CET institutions in Indonesia, particularly with regard to developing the qualities needed by co-operative leader-entrepreneurs to successfully develop their agribusiness co-operatives. A deep evaluation was carried out on the various CET institutions, with particular regard to the problems of co-operative education in Indonesian universities. The result of this study is

expected to be beneficial for CET institutions in Indonesia, in terms of formulating CET programs which are effective, efficient and productive.

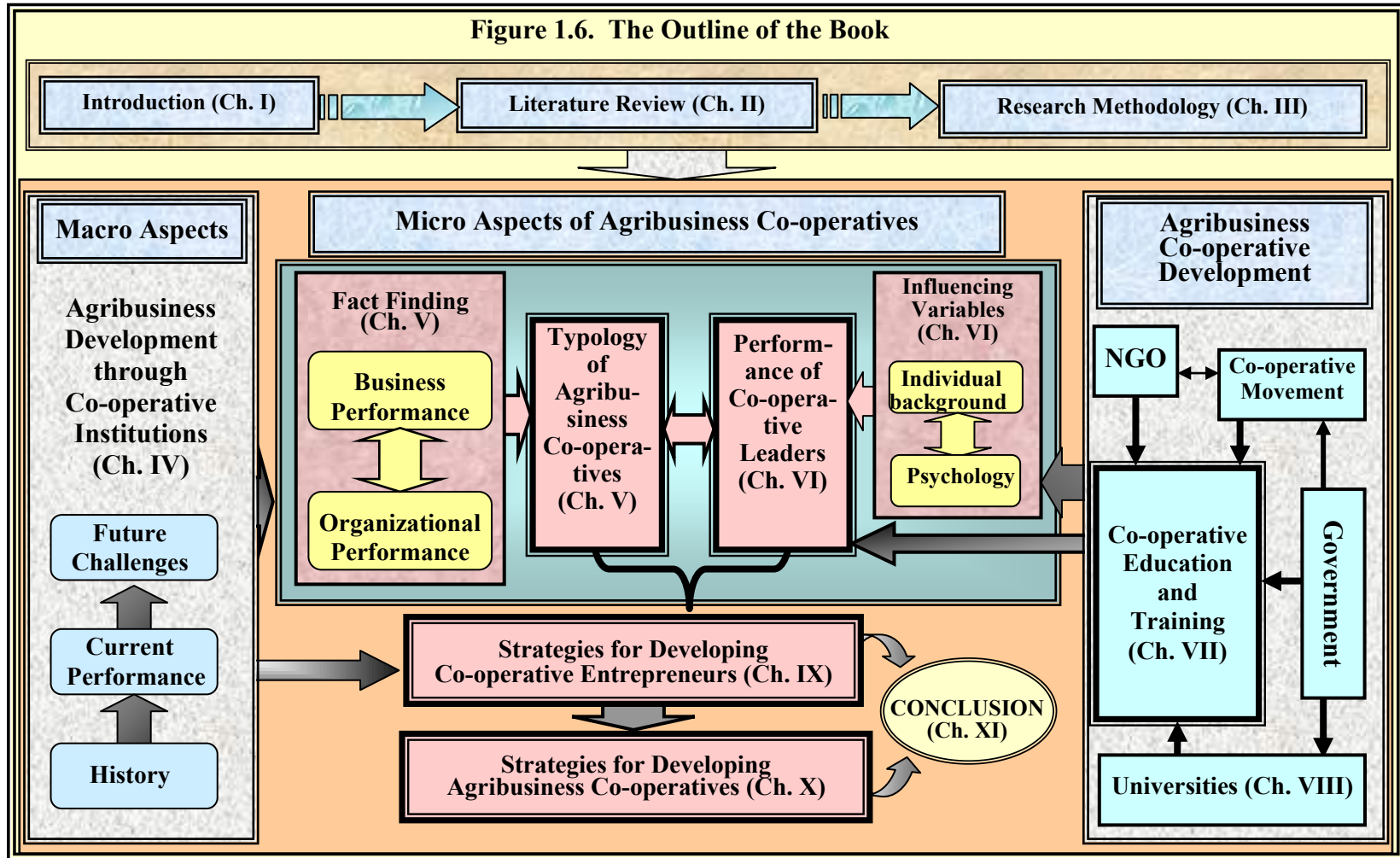
Finally, this study will formulate alternative strategies for developing co-operative entrepreneurs that are in line with the development of successful agribusiness co-operatives in Indonesia. It is hoped that such alternative strategies, as well as the process of formulating the strategy, will be of benefit for those who are concerned with the development of agribusiness co-operatives in Indonesia.

1.5. The Outline of the Book

This book was written based on the phases of study that were carried out, as shown in Figure 1.6. This book begins with the introductory chapter (Chapter I), which describes the background of the research, the formulation of the problem, and research objectives, as described in sub-chapters. This is followed by a literature review in Chapter II and then a description of the methodology of the research (Chapter III). The study results and discussion are presented in several chapters.

Chapter IV gives an example of agribusiness development in Indonesia which involves the role of co-operatives. Milk agribusiness was selected for reasons explained in Chapter III. Chapter V presents the results of studies, elaborating on various variables that objectively affect co-operative performance, based on the aspects of businesses as well as organization. The process of establishing a typology of agribusiness co-operatives is also explained in this chapter. Chapter VI elaborates on the performance of co-operative leaders of the dairy co-operatives used as the samples in the research. It describes the background of co-operative leaders, in addition to examining some of their personal traits which may be related to entrepreneurial character. Based on the results of the study as explained in Chapter V and Chapter VI, specific traits of co-operative entrepreneurs could then be identified.

Furthermore, Chapter VII discusses the performance of CET programs in Indonesia, and this is followed by Chapter VIII, which discusses the performance of co-operative education carried out by universities in Indonesia. Based on all of the findings in this study, the following two chapters discuss alternative strategies for developing co-operative entrepreneurs (Chapter IX) and developing agribusiness co-operatives in Indonesia (Chapter X), respectively. The book's final chapter (Chapter XI) consists of the conclusion as well as recommendation of the study.



Source: Author's own depiction, 2003

CHAPTER – II

LITERATURE REVIEW

2.1. Agricultural Development in Indonesia

Indonesia's large territory and its location in the tropics have made it rich in economic resources to produce agricultural products.⁴⁷ Thus, agriculture has a great potential for Indonesia as an economic sector to support the growth and development of national economics. Kuznets (1964) analyzed the role of the agricultural sector as supporting the growth of national economics in four contributions, those being: (1) the contribution of products, here agriculture in addition to the availability of food supplies, as well as supplies for industrial manufacturing sectors such as textiles, and the food and beverage industry; (2) the market contribution, that is, when agricultural products result in the formation of a large domestic market for both producers of goods and consumer goods; (3) the factor of production contribution, when there is a surplus transfer of capital from agriculture to non-agriculture in economic development; and (4) the foreign exchange contribution, when the agricultural sector can be a source for the balance of trade and the balance of payments, either by exporting agricultural products or by expanding to meet the product needs that are still imported.⁴⁸

Agricultural development, which is intrinsically capable of being a major sub-sector in the economy of developing countries such as Indonesia, has in fact not been as easy as expected. One cause of neglecting agricultural sector is the undervalued views of economists and politicians regarding the agricultural sector.⁴⁹ Many factors that have caused economists to undervalue the agricultural sector, among others, are: (1) the contribution or market share of the agricultural sector to the Gross Domestic Product (GDP) has decreased; (2) Real prices of agricultural commodities tend to decrease, especially when they are compared with the industrial and services sectors; (3) The widening price gap between world and domestic prices of agricultural commodities, or the prices at the producer and consumer levels, are highly correlated with asymmetrical market structure. Meanwhile, the devalued attitude against the agricultural sector has been caused more by rational as well as the personal calculation of politicians on the political benefits that can be obtained if they support the agricultural sector (also called pseudo alignments).⁵⁰ These pseudo alignments in turn bring adverse effects for policies that have: (1) urban bias, (2) biased industrialization policies that is adverse,⁵¹ (3)

⁴⁷ Indonesia consists of more than 17,000 islands that are spread over an area of 1.9 million km² of land and 5.1 million km² of water.

⁴⁸ See Tambunan, 2001 p. 32; Atmanto in Yustika, 2002, p. 107.

⁴⁹ See Arifin, 2004, p. 19.

⁵⁰ See Arifin, 2004, p. 20.

⁵¹ For example Saragih (1998, pp. 239-242) argues that the agricultural sector has become a victim to the industrialization strategy in Indonesia.

dualistic ideas⁵² about economy that have been applied in Indonesia through the Nucleus-Plasma pattern⁵³ with dichotomous characteristics that have been so damaging to the traditional farming sector.

Arifin (2004) describes Indonesian agricultural development in five phases: the consolidation phase, high growth phase, deconstruction phase, crisis phase, and the phase of transition and decentralization. The consolidation phase occurred between 1967-1978. During this phase, the government paid attention to agriculture. Alignments of national economic development strategy were based on agriculture, making this sector experience high growth. Agricultural production growth reached 6.8% with the rates increasing for food productivity to reach 5.6%. The increasing food productivity in turn led Indonesia to rice self-sufficiency in 1984, and brought agricultural development to a high-growth phase (1978-1986). However, success in rice self-sufficiency turned out to be a disaster for the agricultural sector. The government is no longer trying as hard as during the previous phase, because the agricultural sector is considered to be developing by itself. Government policies in agriculture tend to be distorted. The economic development policy was oriented to industrialization and neglected the agricultural sector (deconstructive phase). The adverse effect of this policy was the imbalance of development,⁵⁴ which indirectly caused the monetary crisis in 1998. At the time of the monetary crisis (crisis phase), the agricultural sector had become the safety-net of Indonesia (1998-2000). However, due to the lack of attention during the previous phase, this sector only grew by 1-2%, which in turn made this sector incapable of creating jobs.⁵⁵ The existence of economic and political decentralization policies in regional governance and the financial balance between the central and regions (transition and decentralization phase) remains a question for Indonesian agribusiness development. In this phase, agriculture development was adapted to the decentralization

⁵² The dualistic economic concept is derived from Hypothesis JH Boeke (1953). This hypothesis expresses that traditional and modern sectors can grow and expand together if managed better and objectively. But in their implementation, a company (as the nucleus) which is expected to guide smallholder farmers (as plasmas), in fact uses its power to create monopsonistic market structure with determinant of price, while smallholders are only the recipients of the price due to their low bargaining position. See also in Arifin, 2004.

⁵³ The nucleus-plasma pattern commonly applied in Indonesia is NES (Nucleus Estate Smallholders). The purposes of the NES are four: 1. The establishment of resettlement of poor farmers to increase their income; 2. The cultivation of crops and food by farmers; 3. The integration of production, processing and marketing; and 4. State Plantation Company (PTP/PNP) tasked to guide these activities, because they have the required expertise, capital and experience. Farmers would receive a certain area of land as a long-term loan that would begin to be repaid at the time the plants began to produce, namely in the fifth to seventh year of palm oil and rubber (see Mubyarto, 1988).

⁵⁴ The inequality of development which resulted in the inequalities between sectors, regions, sub-regions, villages and cities was an integral part of multidimensional crisis which destroyed Indonesia. See Chaniago, 2001, pp. 234-249.

⁵⁵ This situation made the agricultural sector becomes more marginalized, which in turn also made farmers marginalized. The success of the agricultural sector in the face of the economic crisis in fact brought new problems, namely low agricultural productivity and income disparities between sectors, so the imbalance between sectors became a problem. Agriculture will not be able to support the national economy on its own.

and regional autonomy that the government rolled out. Agricultural development was expected to contribute to improving regional independency basis.

In general, Indonesian agriculture can still be categorized as traditional agriculture. Norton and Alwang (1993) describe the general characteristics of traditional agriculture as follows: (1) Agriculture done by small-scale farming, managed by close family members with business decision-making still being integrated with household decisions. Most agricultural products are to meet their needs and the rest are sold in traditional markets. (2) Full utilization of land is conducted by the use of labor under capacity. Land that is used in traditional agriculture is generally relatively small (1-3 hectares). In some places, land is a scarce factor and will be more limited in line with the growth of population. As a result, the ratio of labor per hectare of land used is very high. (3) The use of labor depends on the season in the agricultural cycle. (4) Productivity resulting from purchasing inputs is low when compared to the utilization of manpower. (5) Traditional agriculture is economically rational because it is done with high motivation with farming methods derived from generation to generation to achieve a better standard of living.⁵⁶

In order to increase agricultural productivity, the government began trying to change their policy in agriculture from traditional agriculture to modern agriculture, namely with the establishment of the Village Unit Areas (*Wilayah Unit Desa* = WILUD) and Village Unit Co-operatives (*Koperasi Unit Desa* = KUD). Then, the government also issued the program of *Panca Usaha* (the five efforts) that included the use of quality seeds and other inputs, credit, processing, marketing and agricultural extension. Based on this, then National Logistics Agency (*Badan Urusan Logistik* = BULOG) was formed as a national institution to manage and stabilize the price at the farmer and consumer level. Investment in irrigation facilities was also developed. Finally, all these efforts succeeded in increasing rice production significantly, and even to reach rice self-sufficiency in 1984 (Tampubolon, 2000)

The programs policy as mentioned previously was designed based on Modern Agriculture Policy Theory by Mosher (1967). Mosher set out the five absolute requirements and the five supporting requirements that are needed to build modern agriculture. The five absolute requirements are: (1) market availability for agricultural produce, (2) technology availability which continuously develops; (3) local supply of input factors, (4) production incentives for farmers, and (5) the availability of transport which is smooth and continuous. Missing one of these requirements will terminate agriculture development. In addition to this, the five support requirements are: (1) education, (2) production credit, (3) collective activities among farmers, (4) improvement and expansion of agricultural area, and (5) the existence of a national plan for agricultural development. Therefore, agricultural development cannot develop the aspects of agricultural cultivation (on-farm) on its own, but must be accompanied by

⁵⁶ See Yustika, 2002, pp. 117-121.

other aspects related to both upstream (i.e. input supply) and downstream (i.e. processing and marketing) activities.

Saragih (2001) states that agricultural development needs to be transformed from the old paradigm, i.e. agriculture into a new paradigm, i.e. agribusiness. The development of upstream subsystems is expected to provide benefits to farmers in the form of lower price of production facilities with high quality and guaranteed availability, whereas the development of downstream subsystems is expected to provide a positive side to the price levels received by farmers.⁵⁷ With the new paradigm, the agricultural sector is expected to have not only a comparative advantage but also a competitive advantage in global markets.

2.2. Agribusiness Development

The definition of agribusiness has often been identified with farming, which causes ambiguity because agribusiness and agriculture are essentially different. Agriculture in the broad sense includes the entire chain of solar energy harvesting process, both directly and indirectly through the process of photosynthesis and other support to human life, that covers the aspects of science, technology, and society. It includes field crops, horticulture, animal husbandry, fishery, plantation and forestry.⁵⁸

The traditional understanding of agribusiness includes activities outside the farm gate (beyond the farm gate, off-farm).⁵⁹ Off-farm activities may include activities related to on-farm activities, such as industry and trade of farm production facilities, industrial processing activities, marketing activities and activities that provide necessary services such as banking, transport, insurance or storage.

Downey and Erickson (1987) reveal that the definition of agribusiness should involve a broader view encompassing the total food production and distribution system. So there is no longer a separation between on-farm and off-farm. However, in Downey and Erickson's definition, agribusiness does not yet include the importance of other elements outside of the elements directly related to processing of the agribusiness products from the procurement input factors to a final product that can be accepted by consumers.⁶⁰

The definition of agribusiness from Downey and Erickson is similar to that of Davis and Goldberg, when they first popularized the term of agribusiness in 1957. According to Davis and Goldberg (1957) agribusiness is: "the sum total of all

⁵⁷ Cf. Yustika, 2002, pp.145-146.

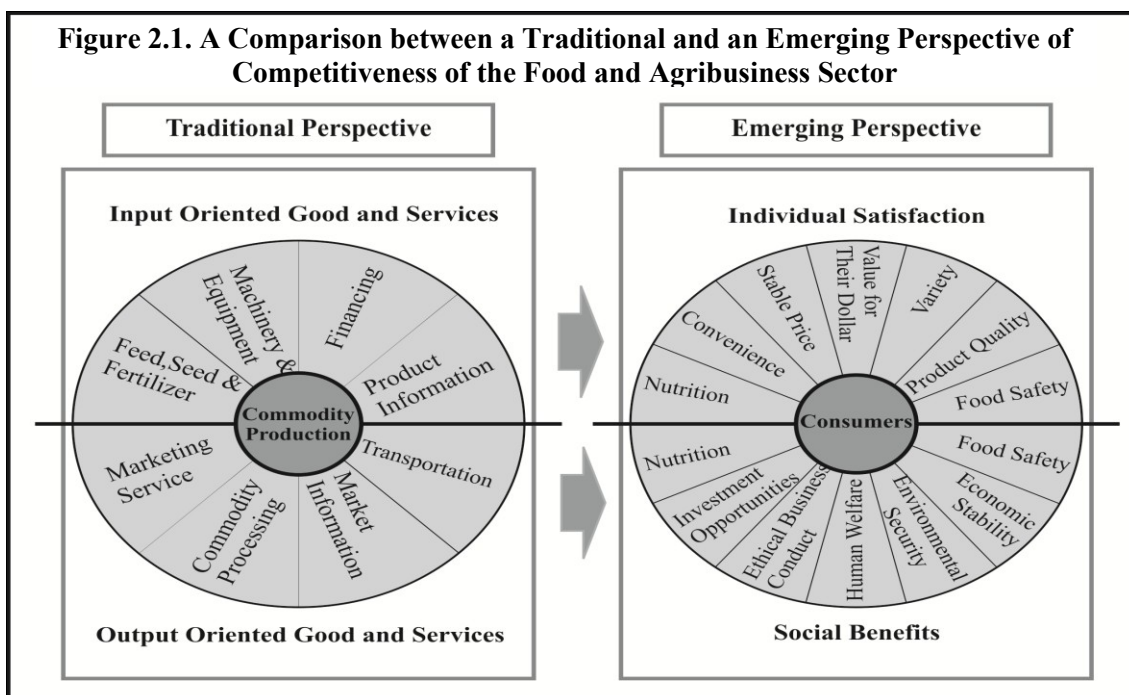
⁵⁸ This understanding is used by the Bogor Agricultural University (IPB) as a reference for agricultural education taught at that university (see Saragih, 2001, p. 1).

⁵⁹ Cf. Biere, 1988 in Daryanto and Daryanto, 1999.

⁶⁰ Note for the Figure which was illustrated by Downey and Erickson, (1987, *Agribusiness Management*, 2nd, p.6). This Figure only describes the flow of products of the factor input subsystem, farming subsystem, processing subsystem and end on marketing outlets. It does not illustrate the role of the supporting agribusiness subsystem as proposed by Biere (1988).

operations involved in the manufacture and distribution of farm supplies; production operation on the farm, and storage, processing and distribution of farm commodities and items made from them". This definition clearly stated that farm production activity (on-farm activity) is only a part of the integrated agribusiness system, in addition to the related off-farm activities.

Furthermore, Hudson (1990) states that with the more business competition increases, the greater the demands to change the agribusiness perspective.⁶¹ According to him, agribusiness should no longer be developed with traditional approaches that only focus on production activities, but have to be switched to emerging approaches that focus on the interests of consumers (Figure 2.1).



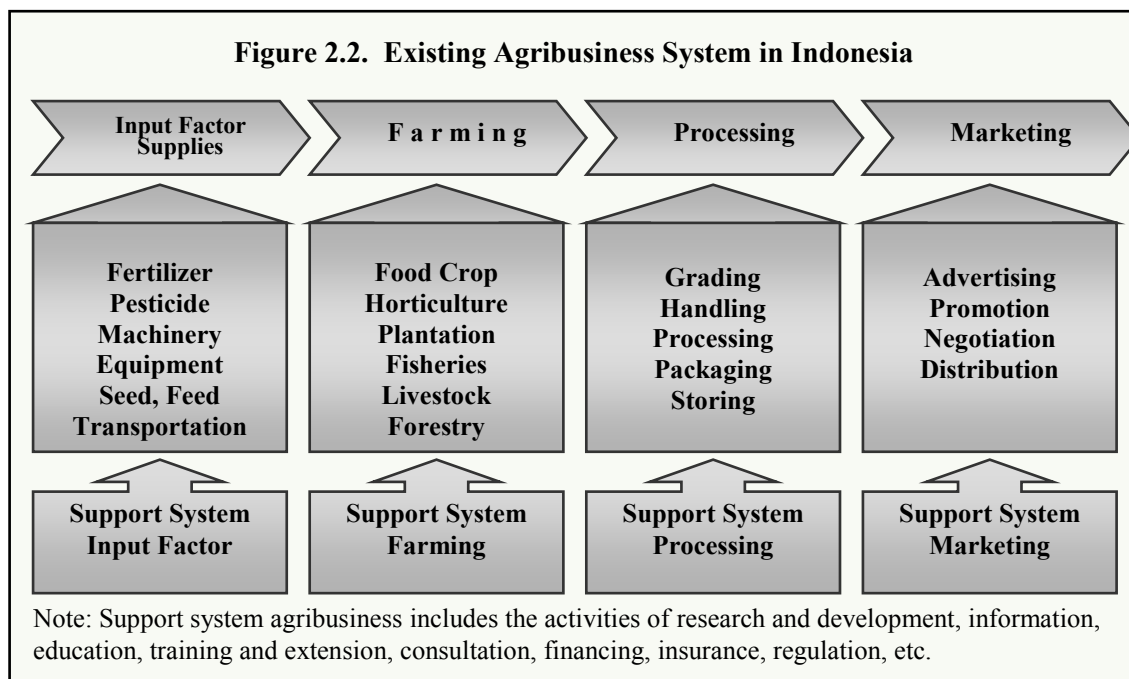
Source: Hudson, 1990

This emerging perspective can perceive many outside factors that affect both parties, namely individual producers and consumer society. In other words, the roles of the supporting elements in the agribusiness system become important. Based on some definitions above, it can be concluded that agriculture is not agribusiness, but only one part of agribusiness, namely just farm production, while agribusiness also includes: (1) the agriculture upstream industries (the manufacture and distribution of farm supplies), also called upstream agribusiness, (2) agriculture in its wider meaning (production operations on farms), also called farm agribusiness, and (3) downstream industries of agriculture or downstream agribusiness.⁶²

⁶¹ Cf. Hudson, 1990

⁶² Cf. Saragih, 2001, p. 2.

Agribusiness is a new perspective of agriculture, from sectors to inter-sectors, from subsystems to systems. If agriculture is considered to be one subsystem of agribusiness, then there are linkages between an agricultural subsystem and other subsystems, such as upstream and downstream agribusiness (vertical linkages) and with the financial subsystem services, transportation, and others (horizontal linkages). The linkages among subsystems within the agribusiness system are shown in Figure 2.2.



Source: Baga, *et.al.*, 1999

Arifin (2004) describes the system of agribusiness as having the subsystems of: production inputs or raw materials upstream (biological production processes at the business or farm level); activities of transforming various functions to increase the utility of form (by processing), time (storing and preservation), and places (warehousing and distribution) in the middle; and marketing and trading downstream,⁶³ as well as other supporting subsystems such as services, financing, banking, and so forth.⁶⁴ An agribusiness subsystem cannot be developed separately because it may cause serious problems and may possibly create a bigger problem at the next level.⁶⁵

Meanwhile, Saragih (1998) describes the agribusiness system as four interrelated subsystems, those are: (1) upstream agribusiness subsystem which is concerned with the availability of production input; (2) on-farm agribusiness; (3) the downstream agribusiness subsystem, which includes activity of processing and marketing agribusiness products; and (4) the agribusiness support service subsystem (supporting

⁶³ Soehardjo (1997) divides the downstream agribusiness subsystem into the processing subsystem and marketing subsystem. The same was also proposed by Didu (2003).

⁶⁴ Cf. Yustika, 2002, p. 139.

⁶⁵ Cf. Saragih, 2001; Arifin, 2004.

institutions).⁶⁶ Subsystem development in this agribusiness system should be conducted simultaneously and consistently. Neglecting one subsystem will cause failure in the development of agribusiness as a complete system.⁶⁷

In developed countries like the United States and countries in Europe, the role and contribution of the sectors covered under the scope of agribusiness is very great. Experience in some countries shows that agribusiness development undergoes three phases, namely: (1) Agribusiness is based on resources, where agribusiness still relies on the availability of natural resources, while not well-educated human resources are relatively abundant. Agricultural products are produced in the form of primary products. (2) Agribusiness is based on investment, in particular agribusiness development is supported by investment through the accelerated development and deepening of the processing industry, as well as improving the quality of human resources. Agribusiness products at this stage are in the form of commodities which have greater added value and a wider market segment. (3) Agribusiness is based on innovation, namely the use of innovation in advancing agribusiness with improved technology in agribusiness subsystems and by simultaneously improving the quality of human resources. The final products at this stage are in the form of products which are made with full knowledge of educated labor, have a greater added value, and a large market share.⁶⁸

The development of agriculture with the agribusiness paradigm has several objectives, namely: (1) attracting and promoting the agricultural sector, (2) creating a strong and flexible economic structure, (3) creating added value, (4) increasing foreign exchange earnings, (5) creating employment, and (6) improving income distribution.⁶⁹

Nevertheless, agribusiness development is not always easy to do. This is because agribusiness development is influenced by many factors, among others: (1) weather, (2) disease, (3) technological changes, (4) changes in government policies, (5) institutional factors, and (6) the perishable nature of its product (Beierlein *et. al*, 1986). Downey and Erickson (1987) also claimed a range of distinctive characteristics of agribusinesses, including: (1) the enormous number and variety of agribusinesses; (2) the diversity in agribusinesses size; (3) the close relationship between agribusinesses and raw product suppliers; (4) the relatively free market in which many agribusinesses compete; (5) the conservative nature and family and community orientation of agribusinesses; (6) the seasonality in many agribusiness activities; (7) the vagaries associated with nature; and (8) the direct impact of governmental policies and programmers on agribusiness.

Related to increasing competition in business, Sonka and Hudson (1989) revealed five factors affecting the food and agribusiness sectors, namely: (1) unique cultural, institutional and political aspects; (2) biological uncertainties faced by

⁶⁶ Cf. Yustika, 2002, p. 139.

⁶⁷ Cf. Saragih, 2001; Arifin, 2004.

⁶⁸ Cf. Yustika, 2002, p. 141.

⁶⁹ Cf. Tatum, 2005

production agriculture; (3) alternative goals and forms of political intervention across sub-sectors and between nations; (4) development of technology dependent on the public sector; (5) differing competitive structure within and among food and agribusiness sub-sectors.

Both Beierlein *et.al.*, (1986) and also Downey and Erickson (1987) revealed that the agribusiness problems that occur were much more concerned with the farming subsystem, while Sonka and Hudson (1989) saw more influential factors coming from outside of the subsystem of farming, especially the role of supporting subsystems (institutional and political aspects). Sonka and Hudson's opinion about this agribusiness development constraint was much evident in Indonesia.

The first constraint is there are policies that tend to distort agribusiness, which in turn makes farmers miserable.⁷⁰ One example is the policy of purchasing commodities by agribusiness downstream (processing or marketing industries) from farmers by very low prices. This is aimed to enhance the competitive advantage of the industrial products. This case was experienced by many farmers, such as sugar cane, rubber and coffee farmers.⁷¹

Another distorted policy is the role of supporting agribusiness subsystems which are still separated into various institutions. For example, the farm subsystem is controlled by the Ministry of Agriculture, the agricultural industry subsystem by the Ministry of Industry and agricultural marketing by the Ministry of Trade or BULOG (*Badan Urusan Logistik* = National Logistic Agency). The partitioning among these institutions leads to the role of supporting subsystems not running in an integrated manner.⁷² In this case, the government does not become a solution provider but it is often the cause of problems (Saragih, 1998).⁷³

⁷⁰ One example is with the establishment of *Badan Penyangga dan Pemasaran Cengkeh* (BPPC - Clove Buffer and Marketing Agency) during Suharto's regime. The agency obtained a monopoly on the clove trade nationally. The existence of the BPPC in fact precisely harmed farmers, so that many farmers became frustrated and then cut down their clove plants and replaced them with other commodities. BPPC used INKUD as well as KUDs as the channel of clove transactions with farmers. So KUDs were involved in the business that harmed their own members (See Schwarz, 1994, pp. 153-157).

⁷¹ See Arifin, 2004, p. 161

⁷² For example see also Baga *et al* (1999). The role of the supporting subsystem which is partitioned can be described with the establishment of research institutions in their respective ministries. These institutions conduct studies with a focus on the interests of each ministry. A similar system could be applied in the establishment of human resource development institutions (i.e. education, training and extension) that are owned by their respective ministries.

⁷³ *Cf.* Saragih, 1998, p.48. Saragih argues that the Directorate General of Agriculture which handles the development of agro-industry should not be under the Ministry of Industry and Commerce but under the Ministry of Agriculture. In this way, good coordination could be established between the directorates that deal with agriculture. The current situation shows that too many agricultural products do not have added value because they are not well explored in their downstream industry. Instead, there are many agro-industries which face difficulties in obtaining raw materials, because they are not supported by the availability of agricultural products.

The second constraint is the low quality of human resources in the agribusiness sector, in which they generally have low education and different experiences. This often leads to the third constraint, which is related to the development of technology. Technology is a factor which cannot be separated in the development of all sectors, including the agricultural sector. The low ability to use technology and its application in agriculture in Indonesia limits innovations that support agricultural development.⁷⁴

2.3. Co-operatives and Agribusiness

A co-operative organization becomes important because people cannot act alone to change their economic situation.⁷⁵ The concept of co-operatives is simple, “People work together in a co-operative institution if they get something out of it, and if it is beneficial for them to be a member”.⁷⁶ A co-operative society is characterized by the existence of a group of persons that have a common need. It tries to promote the members of the group by establishing a common enterprise.⁷⁷ As defined by the International Co-operative Alliance (ICA) in 1995 “A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise”.⁷⁸

There are seven co-operative principles stated by the ICA, e.g.: (1) voluntary and open membership, (2) democratic control by members, (3) member economic participation, (4) autonomy and freedom, (5) education, training and information, (6) co-operation among co-operatives, and (7) concern for community.

The co-operative principles developed by ICA are based on Rochdale co-operative principles, with some changes. Co-operative principles developed by Rochdale Pioneers,⁷⁹ among others are: (1) democratic principle, (2) open membership, (3) limited interest on share of capital, (4) return on patronage, (5) cash trading, (6) sale of quality goods, (7) member education, and (8) political and religious neutrality.⁸⁰

The underlying values of co-operatives are helping themselves and helping each other, freedom and voluntarism, fairness, honesty and openness, and monitoring of

⁷⁴ Cf. Arifin, 2004, p.222.

⁷⁵ Cf. Münkner, 1983, p.3.

⁷⁶ See Münkner, 1987, p.2.

⁷⁷ Cf. Münkner, 1985, p.24.

⁷⁸ ICA Statement on Co-operative Identity, which was declared in Manchester 1995 (Appendix 6). See, for example, International Labor Office, 2001, p 125-126. Hendar and Kusnadi, 2002, p.13. For the co-operative values see also Nilsson, 1996, pp.633-638.

⁷⁹ Rochdale co-operatives pioneer consisted of 28 employees led by Charles Howard in the Rochdale City section of northern England, which founded the business of consumer-owned shops on October 24, 1844. This event marks the birth of the modern co-operative movement.

⁸⁰ Cf. Akpoghor, 1993, p.3-4; Hendar and Kusnadi, 2002, pp.2-3.

economic activities democratically with social responsibility (Münkner, 1995).⁸¹ The three components mentioned above are: (1) definition, (2) principles and (3) values, i.e. the identity of the co-operative—a unity that cannot be separated (see Appendix 6).⁸²

In many countries, co-operatives have shown their ability and good performance. In the United States, for example, almost half of the populations are regular customers of co-operative production and consumption, and this involves about 50,000 small businesses up to large enterprises (Fortune 500). Co-operative-owned shops sell basic goods of not less than \$150 billion each year. In agriculture, agricultural co-operatives in the United States market up to 86% of the total milk produced, 40% of grains, 41% of cotton, 21% of fruits and vegetables, and 13% of all farm products.⁸³

Within the European Union, the market shares of agricultural co-operatives are substantial in many markets. For example, dairy co-operatives are present in all 15 countries and have a market share of 80% or more in nine of those countries (Appendix 7). However, co-operatives are less dominant concerning meats and cereals. Co-operatives have a market share of at least 50% in six of the countries for each of the product groups. Agricultural co-operatives will continue to play an important role not only for farmers, but also for well-functioning markets in the agricultural food sector, and thereby for national and international economies (Van Bekkum and van Dijk, 1997; Julia and Server, 2003).

Agricultural co-operatives are present in every country in the world where agriculture is the subject of the market economy. Even agricultural co-operatives have made a very large contribution to the role of the co-operative institution as a whole, both in developed and developing countries.

In terms of improving their economic and social situation, there are a number of reasons why farmers form co-operatives. The most important reason is to increase their bargaining power,⁸⁴ even to create a countervailing power.⁸⁵ Farmers can improve their efficiency through co-operatives, handle risks better, and even take actions to open a new market when the existing market does not operate to their satisfaction.⁸⁶ Moreover, farmers may consider that they have an opportunity to pursue a particular business opportunity by acting together.⁸⁷

⁸¹ Co-operative values based on ICA (1995) are self-help, self-responsibility, democracy, solidarity, justice and solidarity. In the tradition of its founders, co-operative members believe in ethical values of honesty, openness, social responsibility and caring for others (see also Soedjono, 2001).

⁸² See Soedjono, 2000a.

⁸³ See Saragih, 2001, p.59,

⁸⁴ Cf. O'Connor, 2004, p.3.

⁸⁵ Cf. van Bekkum and van Dijk, 1997, p.21. For the concept of countervailing power to capitalism, see Galbraith (1956).

⁸⁶ Cf. van Bekkum and van Dijk, *Ibid.*

⁸⁷ O'Connor, op. cit., p.4. Saragih, 2001, p.60; Hendar and Kusnadi, 2002, p.42.

In terms of establishing agribusiness as an integrated system, co-operative organizations play an important role in developing different kinds of off-farm activities, which are needed for developing on-farm activities run by farmers-members. This includes not only supplying input factors, processing or marketing, but also the supporting sub-systems.⁸⁸ This means co-operatives can provide a service directly to its members in order to improve their own business. At the same time, a co-operative can indirectly make a great effort in designing a suitable business environment for its members' businesses, for example, by encouraging suitable government policies, establishing R&D, supporting education and training, etc.

In particular for developing countries, co-operative societies were considered, over a long period of time, to be the most suitable form of organization for the development of economic and social conditions.⁸⁹ Understandably, many governments in developing countries have supported the establishment of agribusiness co-operatives by direct intervention with farmers with top-down policies and programs.⁹⁰ However, such intervention can cause a lack of participation of co-operative members in developing programs, even though they were designed especially for them.⁹¹

2.4. The Evaluation of Co-operative Performances

In the global era, it is very important for all kinds of organizations to periodically evaluate their performance. This is related to the strategic changes that are needed by organizations to anticipate the rapid changes in their environment.⁹² In particular for co-operative institutions, performance evaluation is much more important because there are many people concerned and related to this institution. In addition to this, misunderstandings about the co-operative organization, the low quality of management, and government intervention are some reasons why performance evaluation is very important for a co-operative institution.⁹³

There are at least three parties which need performance evaluations in co-operative institutions.⁹⁴ The first party is co-operative boards. The evaluation result is very important for decision-making on further co-operative development. Second is the decision-maker for co-operative development, which in this case is the government. Government interests are related to the implementation of programs and projects for

⁸⁸ Cf. Kuhn, 1990, p.37-44.

⁸⁹ Cf. Münkner, 1983, p. 15.

⁹⁰ Cf. Hanel, 1992, p.160-162. See also Madjedje, 1999, pp.171-191. In the case of African Countries, see Münkner, 1991, p.5-9. In the case of ASEAN countries see Shah, 1999, pp.26-35. In the case of Indonesia, see Soedjono, 1985, pp.27-283.

⁹¹ Cf. Münkner, 1984, p.11. Madjedje, 1999, pp.51-52.

⁹² Cf. Parnell, 1999, p.3.

⁹³ See Dülfer, 1994, p.356;

⁹⁴ See Dülfer, 1980, pp.15-16.

economic development which place co-operatives as agents of development.⁹⁵ The third party is the members, who need to know and control the development progress of their co-operatives, which are held by co-operative boards.

The main function of co-operative evaluation is to provide accurate data and information in order to know how efficient the work of the co-operative is, covering: (1) its business activity as a self-help organization and an independent business institution; (2) in supporting its members' needs; (3) in giving a contribution for the process of development.⁹⁶

The next function of evaluation is to give feedback for future co-operative development. A higher advantage could be gained if the evaluation results are followed by comparing performances among co-operatives.⁹⁷ This is because the improvement of a co-operative can be in the form of performance over time, and could also be by comparing performance with similar co-operatives (cross-section performance). Comparing performance among co-operatives could be a benchmarking process, which could accelerate co-operative development significantly. Unfortunately, most co-operatives are unwilling to compare their performance.

Even though a co-operative belongs to its members, it is realized that not all members' interests can be easily met due to the many dilemmas in determining the goals of co-operatives.⁹⁸ For example, goals to meet the needs of co-operative members are often contrary to efforts to meet market demands. So, there are more complex goals for evaluation processes in a co-operative institution, in which sometimes one goal is totally the opposite of another goal.⁹⁹

Besides this, there is a specific priority between the success of co-operative business and co-operative organization, which has too many dilemmas. Hind (1998) argued that the measurement of co-operative performance should be done for two aspects, which are: (1) measurement of the success of co-operative businesses, just like in ordinary companies and (2) measurement of the social and benefit aspects for members. The consideration is that there are many factors of economic aspects affecting social aspects of co-operatives, and vice versa.¹⁰⁰ When profitability is low, it does not always mean that this co-operative has bad performance, and vice versa.

⁹⁵ See also Hanel and Müller, 1967, pp.1-11, for the relevance of the evaluation of co-operatives to government co-operative-oriented policies in developing countries.

⁹⁶ Cf. Hanel, 1992, p.198-200. The measurement of these three performances would relate to the three parties which are concerned with co-operative development: management, members and government, which is called the Tripartite Approach. Likewise, by using a multivariate approach, Hind (1998, p.10) also proposed three types of performances which are relevant to be evaluated; (1) conventional corporate performance; (2) member benefit performance; and (3) social performance.

⁹⁷ Cf. Pratt, 1998, p.1.

⁹⁸ Hind, 1998, p.9.

⁹⁹ Cf. Blümle, 1985, p.131-133; Harper and Roy, 2000, p.29.

¹⁰⁰ Hind, *Op.Cit.*, p.10-12

Another problem of measuring co-operative performance is related to the measurement of the social aspects of co-operatives which are related to their members. The measurement of this social aspect is difficult in terms of its methodology, due to the close relationship of members' opinions, which are hard to be quantified.¹⁰¹ Many qualitative social aspects are unable to be measured nominally or in a ratio scale, but have to be measured by using ordinal and interval scales. So, it is necessary to use comprehensive evaluation tools to measure how well co-operatives perform. It also needs to be considered that in fact information sources of co-operative social aspects come not only from members, but also from all the stakeholders of co-operatives.

The need for comprehensive measurement tools for co-operative performance has already been urgent for a long time. However, as stated by Blümle (1985, pp. 140-142) until now realization for developing this measurement methodology is still at the beginning levels. Besides this, it is also necessary to have a skillful evaluator, one who is able to conduct the evaluation process very well.¹⁰² This evaluator should be a neutral person, who has no interest in the evaluation results.

The evaluation results are precious information for knowing how good current achievements are compared to previous years, or compared to the planned goals. In addition to this, evaluation results are also useful for comparing performance among co-operatives. This means there will be a better mutual learning process among co-operatives. This mutual learning process should actually be done by co-operative institutions in accordance with the sixth co-operative principle (co-operation among co-operatives). Learning from the best is strategic, and this is called the benchmarking approach. Benchmarking is: "a continuous, systematic process for evaluating the products, services, and work processes of organization, which are recognized as representing best practices for the purposes of organizational improvement".¹⁰³ For a co-operative, this approach is important in order to understand actual gap-problems, and also to be more efficient and effective in finding solutions.

The benefits of this benchmarking can be explained with the acronym IMIF: Improvement, Motivation, Innovation, and Focus.¹⁰⁴ Using this approach would motivate co-operative boards to achieve more, to understand the problems better, and to give clearer targets for improvement. In addition to this, this approach would make the boards think creatively and innovatively. The most important thing is to provide an early warning about the problems so that they can act proactively. However, the implementation of benchmarking is not as simple as it looks. This is because this approach is a simultaneous learning process to obtain important information for

¹⁰¹ Cf. Blümle, *Op.Cit.*, pp.140-142.

¹⁰² *Ibid.*

¹⁰³ See Spendolini, 1992, p.9.

¹⁰⁴ See Hanies and Al Hasan, 1998, p.24.

developing new ideas, not just finding answers by following an emulation strategy.¹⁰⁵ This is because benchmarking is not only for stimulating competitive intelligence, but also for improving the current situation. This approach could be carried out at a number of levels: internal benchmarking, competitive or industrial benchmarking, non-competitive or functional benchmarking, and generic or world-class benchmarking.¹⁰⁶

2.5. Co-operatives in Indonesia

2.5.1. The Position of Co-operatives in the Indonesian Economy

Co-operatives are the manifestation of “*ekonomi rakyat*” (people's economy) which has long been known in Indonesia.¹⁰⁷ People's economics is the idea of ways, nature and purpose of development, with the main target to improve the welfare of people who generally live in villages. Normatively, the people's economics platform in Indonesia is the Five Fundamentals of the Nation (which is called *Pancasila*) and the (1945) Constitution, which is based on familiarity, justice and democracy. Section 33 of the Constitution is the main chapter on Indonesia's economic foundation. This section mentions that the national economy is prepared based on economic democracy, which prioritizes the prosperity of the people more than that of individuals, with joint efforts of prosperity based on familiarity. The applicability of people economics is shown by a sense of justice, equality and alignment for people in low economic situations (Sumawinata, 2004).

The pioneer of the co-operative movement in Indonesia was Mohammad Hatta.¹⁰⁸ Hatta (1987) defines a co-operative as a joint effort to improve economic livelihood based on mutual help. He stated that the Indonesian economy is built in accordance with the co-operative basis, because co-operatives offer a spirit of togetherness, the principle of familial and mutual co-operation. Therefore, the ideology of co-operatives can be the backbone (pillar) of the Indonesian economy.¹⁰⁹

¹⁰⁵ Cf. Spendolini, 1992, p.33.

¹⁰⁶ *Ibid.*, pp.16-22; Hanies and Al Hasan, 1998, p.23.

¹⁰⁷ In Indonesia, co-operatives are considered as part of the *ekonomi rakyat*, (people's economy), in German “*Volkswirtschaft*” (Röpke, 2004, p.8). Krisnamurthi (2002) defines the people's economy as economic activities undertaken by people with small scale. Mubyarto (2002) states the people's economy is the term of social economics and moral economics, which was understood since the colonial era, including the lives of the colonized poor people. Ismawan (2002) characterizes the people's economy as follows: (1) informality, (2) mobility, (3) dominant labor from family members, (4) independent, and (5) closely related to the informal sector.

¹⁰⁸ Cf. Röpke, 1992, p.88; Hanel, 1992, p.10. Mohammad Hatta is the person who initiated forming the Indonesian economy based on the basis of familiarity, the idea being that the co-operative is a form of economic institution that best meets these principles (cf. Djohan, 1997, pp.19-34). His confidence in the benefits of the co-operative institution was obtained when Hatta studied in the Netherlands and saw the co-operative movement in Europe. Because of his great concern in developing co-operative in Indonesia, Mohammad Hatta is dubbed the father of Indonesian Co-operatives. See also Hatta 1946; Abdulmanap, 1987.

¹⁰⁹ Cf. Soedjono, 1997, pp.42-45.

Swasono (1983) gives reasons for co-operatives to become the backbone of the Indonesian economy, namely: (1) the co-operative is a vessel for a political message from a colonized nation with a poor economy and an economic system dominated by invaders. This is because co-operatives realize the importance of shared, mutual self-help in improving the welfare and productive capacity¹¹⁰; (2) the co-operative is a form of business that not only accommodates but also maintains and strengthens the ideals and culture of Indonesia; (3) a co-operative is the right place to build a small economic group. The small-scale economic grouping is a macro issue, not a partial problem in the economic life of Indonesia, both in terms of quality and quantity; (4) the co-operative is an economic institution which has a social character. Co-operatives can exist either in private companies, state enterprises, government agencies, or educational institutions; (5) the co-operative is the proper vehicle to realize the *Pancasila* Economics,¹¹¹ mainly because of the fulfillment of the demands of togetherness and the principle of familiarity in the co-operative. In a co-operative, all workers work together to organize a common interest.¹¹²

Co-operative development in Indonesia has a dual purpose. At the macro national level, co-operative development aims to achieve economic democracy with co-operatives as the economic pillar. At the micro level, co-operatives have to act in the interests of their members. For micro-business goals, the capacity of co-operatives should be enlarged individually through horizontal and vertical integration with the following steps (Soedjono, 1997): (1) Strengthening the basics of knowledge, particularly for the aspects of co-operatives and business, which address the whole range of co-operatives through education programs and training, (2) Improving the skills and enriching experiences in an effort to have co-operative entrepreneurship in order to develop professionalism, (3) Regular and continuous mobilizing of internal funds in the form of savings in order to build capital for the benefit of co-operatives, (4) continuing to improve the mastery of technological skills, and technical and managerial skills, especially for the executors in the fields of organization, management and technology, (5) continuing to accumulate skills and strengths in the areas of co-operative organization, capital and efforts to strengthen and improve bargaining position and their competitiveness.

According to the theory of economic development strategy, the progress of co-operative and democratic businesses must be based on two pillars: (1) the establishment

¹¹⁰ See Soedjono, 1997, p.138. The background of the birth of the co-operative was to oppose the ways of capitalism and liberalism, so that a co-operative adheres to its own philosophy, which is reflected in its social character as a fundamental and strong commitment to humanity and society.

¹¹¹ *Pancasila* is the Five Fundamentals of the Indonesian Nation. Mubyarto (2002) defines the economic system of Pancasila as an economic system based on moral principles of Pancasila. The Pancasila economic system includes five main points, namely: 1) The behavior of every citizen is moved by economic, social, and moral stimulation, (2) There is a willingness of all nations to achieve national equity, (3) economic nationalism, (4) Economic Democracy, and (5) Decentralization and Regional Autonomy.

¹¹² See Hendar and Kusnadi, 2002, p.15.

of systems and a sound market mechanism and (2) the functioning of institutional arrangements or economic equality of effective regulation. However, in practice it must be admitted that these two pillars have apparently not yet seriously been attempted to be realized. This is reflected, among other things, by poor realization of the anti-monopoly and fair business competition laws. In addition to this, the government as the regulator of the economy, in fact, pays more attention to the large private companies compared to co-operatives and small-medium enterprises.¹¹³

2.5.2. Village Unit Co-operatives (KUD)

The role of co-operatives as important pillar of the national economy led the government give more attention to develop co-operatives. The type of co-operative that is generally found to focus on the agricultural sector is KUD (*Koperasi Unit Desa* = Village Unit Co-operatives). The KUD¹¹⁴ were formed to change the role of KOPERTA (*Koperasi Pertanian* = Agricultural Co-operatives),¹¹⁵ which was considered to have failed in meeting the needs of farmers. The development of KUD was so rapid that the government had to expand the scope of KUD by issuing Presidential Decree No. 2 in 1978, which made the KUD not only an institution for supporting agricultural production, but also as a rural economic institution. Under the program to provide food, particularly rice, the KUD had a big role. The KUD functioned to distribute farm credit in the form of fertilizer, seed and other inputs to farmers, which are included in farm lending programs. However, for the development of other agribusiness commodities the KUD's role was still minimal.

Then, to strengthen the presence of the KUD, the government issued Presidential Decree No. 4 of 1984 regarding the development of the KUD.¹¹⁶ This Presidential Decree made the KUD the center of economic activity in rural areas, an integral part in national development, supervised and developed in an integrated manner through an inter-sector program. The Presidential Decree at the same time confirmed that the KUD was the only co-operative in rural areas. Except for those with permits obtained from the Minister of Co-operatives, all existing co-operatives in rural areas had to be merged into newly-established KUDs or else disband.¹¹⁷ One of the allowed agricultural co-

¹¹³ Marzuki, 1999.

¹¹⁴ The embryo of the KUD was the Village Unit Enterprises (BUUD) that was initiated by Prof. Ir. Soedarsono Hadisaputro in 1970 (see Djohan, 1997, pp.55-64).

¹¹⁵ The term of Agricultural Co-operatives was used before 1974. The release of Presidential Decree No. 4 of 1973 on Village Units caused the term to no longer be used, because both Agricultural Co-operatives (KOPERTA) in conjunction with Rural Co-operatives were merged into the Village Unit Enterprises-BUUD (see Djohan, 1997, pp.55-64).

¹¹⁶ Cf. Soedjono, 1997. Presidential Decree No. 4 of 1984 is often referred to as a policy that destroyed many co-operatives in rural areas. With this Presidential Decree many co-operatives in rural areas were dissolved or had to merge with the KUD.

¹¹⁷ Because it was not permitted to build other kinds of co-operatives besides the KUD, farmers in some areas strived to improve their businesses by using other forms of organizations, such as associations, for example the Cocoa Farmer Association, Coffee Farmer Association, etc. In 2002, there was a unification of plantation-commodity farmer association by forming the APPI (*Asosiasi Petani*

operatives was dairy co-operatives.¹¹⁸ After the issuance of this regulation, the growth of the KUD was very impressive, as seen both from number of KUDs, the number of members and business volume (Soetrisno, 2001).

Behind those many successes, there was dissatisfaction among the people and government regarding the performance of the KUD.¹¹⁹ Like in plantation commodities, it was pointed out that the development of the KUD had destroyed several co-operatives that have been fairly well established, such as rubber and copra co-operatives.¹²⁰ A pathetic situation was seen in KUD involvement in monopolistic practices that destroyed clove agribusiness in Indonesia. This caused farmers to no longer have passion to plant cloves, and many farmers even cut down their clove crops.¹²¹

Presidential Decree No. 2 of 1978, which was reinforced by Presidential Decree No. 4 of 1984, changed the KUD from being agricultural co-operatives to rural co-operatives, from a single-purpose business to be a multi-purpose business. This resulted in the diversity of membership, function, and type of commodities, so the KUD no longer had a focus in their business.

On the one hand, the expansion of the KUD's scope, which was previously only in the agricultural sector, created potential in rural areas, but this often trapped KUDs into new problems due to unprepared management. Management, which had limited capabilities, particularly in terms of low personal qualities, caused the KUD to be unable to handle its business, which consisted of various business activities. On the other hand, the possibility of the emergence of other types of co-operatives was nearly impossible, because all co-operatives had to merge with the KUD. In addition to this, the KUD, which expanded membership to various levels of people, also often caused problems. The members of KUDs were not only farmers, but included all elements of rural society, such as civil servants, traders and even brokers. In many cases the

Perkebunan Indonesia - Indonesian Plantation Farmer Association). Whereas for an agricultural co-operative institution, in 1998 the first new single purpose agricultural co-operative emerged, namely the sugar cane farmer co-operatives (See: www.inkoptri.addr.com/industri.html)

¹¹⁸ The Minister of Co-operative at that time was Bustanul Arifin, who was the pioneer of national dairy agribusiness development, so the dairy farmer co-operatives obtained permits from the minister to operate in rural areas (Djohan in Soedjono *et.al*, 1997, p.136.)

¹¹⁹ See for example: Aziz, 1987, pp.193-198; Subyakto, 1985, pp.268-271.

¹²⁰ In contrast with dairy co-operatives, plantation farmer co-operatives were not allowed to operate in rural areas after the issuance of Presidential Decree No. 4 of 1984. Consequently, the plantation co-operatives were obliged to be amalgamated with KUDs which were formed in each sub-district.

¹²¹ This case is very distressing, in which KUD played a role in the marketing of cloves, which in fact only benefited KUDs and Secondary Co-operative of KUD (INKUD), but farmers were actually harmed. It is estimated that 90% of INKUD's turnover came from clove business (Soedjono, *et al.* 1997, p.105). This happened because INKUD had become a partner of the agency in charge of the matter of cloves (the BPPC). See also the previous discussion in Sub-Chapter 2.2 (Agribusiness Development).

membership of the KUD was dominated by civil servants or traders who do not necessarily understand the interests of farmers as minorities.¹²²

The issuance of Presidential Decree No. 18 of 1999 removed the monopoly rights of KUD as the only co-operatives in rural areas. This regulation also forced the KUD to be independent, and no longer dependent on government programs, as well as be ready to compete with other rural economic actors. Many KUDs were experiencing difficulties in their new position. Even the wide opening of the domestic market and export market during the economic crisis could not be properly exploited by the KUD. In fact, the number of KUDs was declining. Between 1997 and 2000 there was a decline by 15%, from 8,427 to 7,150 and then only 3,000 units in 2007. The decrease in the number of KUD was especially found in KUD Non-Mandiri (not self-reliant KUDs), i.e. from 1,026 to 204 (-80%).¹²³ The worsening development of KUDs began to draw criticisms and negative judgments from the society.¹²⁴ Unfortunately, for most Indonesian people, the KUD is identical with the co-operative movement, so the image of the co-operative movement was also affected.

Apart from the unsatisfactory development of the KUD, there were various negative appraisals among the public towards the KUD due to a misperception of society regarding co-operative institutions. Nasution (2007) described three misperceptions about co-operatives among Indonesian people. The first misperception was that co-operatives cannot be great because the characteristic of co-operatives are non-profit, with the decision-making mechanism based on the principle of “one man, one vote”. This perception is obviously wrong. Facts about the performance of co-operatives in other countries show that co-operatives can be better than non co-operative businesses. With a principle of the decision-making mechanism of ‘one man, one vote’, a co-operative can also attract large scale capital. The success of co-operatives in other countries has also emphasized that a co-operative can be a profitable institution. A co-operative with specific services is normally a non-profit institution, but for other types such profit can become an objective of the co-operative, even if it is only temporary.

¹²² Cf. Rasyad, 1997; Soedjono, 2000a; Sularso, 2000.

¹²³ Since 1988, the Indonesian government has classified KUD into two status groups based on their performance, namely self-reliant KUD (KUD Mandiri) and non self-reliant KUD (KUD Non-Mandiri). A self-reliant KUD is a KUD which has successfully met the 13 conditions set by the government (see Appendix 5). However, this self reliance only seemed to be a formal or administrative status, since in reality there are many “self-reliant KUDs” which are not yet self-reliant as an independent business organization. In fact, in 2000 there were 217 “self-reliant KUDs” which were reported to be absolutely inactive.

¹²⁴ Cf. Röpke 1992, pp.66-67. He explains that many Indonesians believe that the mismanagement of co-operatives, particularly KUD, is due to corruption. The terminology of co-operative (Indonesian: “koperasi”) is similar to corruption (Indonesian: “korupsi”). So “koperasi” is said to be involved in “korupsi”. Also a play on words, “koperasi” also means “koper” (suitcase) and “isi” (fill in). So “koperasi” → “koper isi” (fill in the suitcase with money) → “korupsi”. The KUD has the alternate meaning of “Ketua Untung Dulu” → the chairman gets the benefit first or “Kredit Untuk Dagang” → Credit for trading.

The second misperception is that co-operatives can only be great if they are continuously assisted by the government. Government interference in co-operatives can result in inefficient co-operatives and they can never produce a quality service. However, in reality, co-operatives need government assistance,¹²⁵ but the government does not need to give much aid. Since the problems faced by co-operatives are structural problems, government assistance also has to touch the structural problems. Government support should be in the form of programs that support and create favorable conditions so that the development of co-operatives can be done by the co-operative movement itself.¹²⁶

The third misperception is that co-operatives in Indonesia are considered to have a basic nature and character which make co-operatives in Indonesia difficult to grow well. This is wrong because many co-operatives in both developing and developed countries have been able to grow well. The failure of co-operatives in Indonesia is actually due to the abandonment of the true co-operative nature (genuine co-operatives). Co-operatives were run without applying co-operative principles, so that they acted as pseudo-co-operatives. This is because they only used the term co-operative as a name, but did not have its spirit or rules. In Indonesia, a co-operative is purely considered a business entity as reflected in the Indonesian Co-operative Law (Act No. 25 of 1992). The essence of the co-operative as an association of people who have a business together as defined by ICA (in 1995) has been abandoned.¹²⁷

2.5.3. The Officialization Phases of KUD

The KUD is a co-operative development program that started from the top (top-down approach) and was developed centrally by the government.¹²⁸ Soedjono (1997) explains that in an effort to transform the KUD into a real co-operative (which is independent), the government used three phases of development: officialization, de-officialization and autonomy.¹²⁹ However, due to the long process of officialization by the government, the three phases of KUD development did not work. The issuance of Presidential Decree No. 4 of 1984 even increased the influence of the government on the KUD. In addition to this, the inability of governments to carry the KUD to the phase

¹²⁵ See Soedjono, 1997, p.46. There is a saying that familiarity and co-operation for a co-operative organization are only old values and myths which are defended emotionally, sentimentally and irrationally. A co-operative is considered to be an economic agency which is burdened with utopian ideas and fantasies. The principles of the co-operative are said to be only a dogma, making the co-operative live in a dream, not being nimble and not competitive.

¹²⁶ *Ibid.* p.70.

¹²⁷ Cf. Nasution, 2007, p.112; Soedjono, 1997, p.1; Swasono, 1997, pp.27-30; Mubyarto, 1997.

¹²⁸ This caused the KUD to be better known as the 'co-operative program', which runs business based on government programs rather than the members' interests. The Center for Development Studies of IPB (1998) revealed four problems of rural co-operatives as KUD, namely: (1) co-operatives are developed without developing the co-operative spirit, (2) there is no synergy between the KUD and its members, (3) there is no co-operative relationship among co-operatives, and (4) the development of KUD are not in line with the development of their members.

¹²⁹ See Soedjono, 2000b; Nasution, 1999, p.23.

of de-officialization was due to two problems. First, there were many co-operative officers who still wanted to maintain the officialization phase, because they wanted to retain their authority and power. Second, many co-operative leaders preferred the officialization phase because a lot of conveniences and facilities could be obtained from the government.¹³⁰

The desire of KUD's leaders to remain in the officialization phase was also caused by the low quality of their human resources. It was seen that KUD leaders were not ready to face the rapid changes occurring in their environment and subsequently were unable to mobilize co-operative organizations in responding to those changes. They were even unable to utilize various facilities provided by the government for co-operative development.¹³¹

Meanwhile, a variety of managerial skills development programs for co-operative leaders more or less had an adverse impact on the development of co-operatives. Managerial training which was actually expected to create the heroes of co-operatives backfired on co-operatives. With the low number of incentives and limited career paths within general KUDs, the managerial training programs in fact generated "parasitic" leaders who became the driving factor of the leakage of qualified human resources to outside co-operatives. The more a person had the skills (particularly managerial skills), the easier it was for them to find jobs with better salaries outside of co-operatives.

Therefore, human resource development programs of co-operatives that only emphasize the improvement of managerial skills are not enough without being accompanied by an increase in motivation to build a co-operative in accordance with co-operative values and principles.¹³² The function of entrepreneurship in KUD is low because it is mainly played by the government through various rural economic development programs.¹³³ The low entrepreneur ability of KUD leaders has caused the KUD to become a non self-reliant co-operative and always be dependent on others. KUDs have less ability to set their business priorities or to make innovative breakthroughs to get advantages from various potentials, particularly agribusiness, which abound in rural areas. In other words, the low quality of co-operative

¹³⁰ Soedjono in Rasyad, 1997, p.31. See also Hanel, 1976, regarding conditions for selected problems of de-officialization for rural co-operative in developing countries, and Shah, 1999, pp.205-210 with regard to the problem of de-officialization in ASEAN countries in particular.

¹³¹ For example, the government provided seventeen low-cost credit schemes for the development of co-operatives. However, this credit facility could not be utilized optimally by KUD.

¹³² Based on the recognition of staff at the Institute for Co-operative Education and Training both at the national level (PUSDIKLATKOP in Jakarta) and at the regional level (BADIKLATKOP in provinces), where the training materials give more emphasis on improving managerial skills, but less attention to increasing motivation and understanding of the identity of co-operatives.

¹³³ Because everything is related to government programs, entrepreneurial skills of co-operative leaders are not well trained to identify business opportunities. This is also the case for entrepreneurial abilities in estimating business risk.

entrepreneurship has resulted in neglecting a number of business opportunities in the agribusiness sector.

The low quality of entrepreneurship in agricultural co-operatives is a very difficult problem to solve.¹³⁴ Bringing in qualified entrepreneurs from outside co-operatives is not an easy thing to do. This is due to very low interest in the community, especially among highly-qualified human resources such as university graduates, to work in co-operative institutions. A strong negative image associated with co-operative institutions is one of the causing factors. Meanwhile, the agricultural sector is still regarded as a sector that does not provide prestige, has a high risk, and does not have a bright future.

In addition to that, the inflow of entrepreneurs from outside (e.g. from private companies) into co-operative institutions does not guarantee that the co-operative performance will become better. This is because co-operatives in many respects are different from corporations.¹³⁵ Ideally a co-operative entrepreneur is a co-operative person who has a good understanding and appreciates the values and principles of co-operatives. Without this good understanding, it will be difficult for an entrepreneur to develop a co-operative.¹³⁶

Efforts to improve the quality of co-operative entrepreneurs by relying on labor market mechanisms have in fact been unsuccessful. For more than three decades the Indonesian government has tried to promote co-operatives by emphasizing the development of their business aspects. This was based on the assumption that if there are many co-operatives that are successful in their business aspect, this will be a pull factor for the willingness of highly-qualified human resources to work in co-operative institutions. However, these efforts did not succeed. This was because efforts to develop the business of co-operatives without developing their organizational factors were basically incompatible with the inherent character of co-operatives institution. Therefore, reorientation needed to be done in various education and training programs, with the emphasis on the development of co-operative entrepreneurship, not just the entrepreneur in a general sense as understood by the society.

2.5.4. The Problems of Co-operative Education and Training in Indonesia

Because of the top-down approach in developing the KUD, it is understandable if the development of KUDs' human resources became the task of the government. Ideally, co-operative education and training (CET) is done by the co-operative movement. However, because the co-operative movement in Indonesia does not have an ability to play this important role,¹³⁷ the role of government became dominant.

¹³⁴ Cf Djohan, 1997, p.84

¹³⁵ Cf. Davis, 1999.

¹³⁶ Cf. Soedjono, 1997, p.177

¹³⁷ Cf. Hassan, 1987, p.141.

Several constraints faced by the co-operative movement in implementing CET program, among others, are:

1. The low quality of human resources that are currently acting in the co-operative movement. This is mainly related to how well their appreciation of the co-operative movement is, and how well they practice co-operative correctly.
2. The low ability in formulating and conducting effective and efficient CET programs as a basis for productivity improvement of such programs.¹³⁸
3. The low availability of CET infrastructure owned by the co-operative movement, especially due to very large regions of Indonesia and limited utilization of modern methods.
4. The low availability of funds required for conducting CET programs.¹³⁹
5. Very few successful co-operatives in Indonesia that could be used as examples in CET programs, while there is much news about the failure of co-operatives.

The government has played both direct and indirect roles in CET programs. The direct approach was done by establishing government CET institutions,¹⁴⁰ while the indirect approach was done by facilitating other institutions (including the co-operative movement and universities) to conduct CET programs. However, the results obtained from the two approaches are still far from satisfactory.¹⁴¹

Moreover, the expanded duties of the Ministry of Co-operatives when it was changed into the Ministry of Co-operative and Small-Medium Enterprise Development (CSMED) in 1994 were followed by the reorientation of various government programs in human resource development.¹⁴² The broader focus on CET programs by the government was also followed by other CET institutions.¹⁴³ This led to changes in the content of human resource development programs implemented by the Ministry of CSMED. Since a co-operative in Indonesia is, in general, still categorized as a small business, the CET program is often confused with human resource development of SMEs. Yet, in many ways, human resource development of co-operatives, which uses the paradigm of co-operation, is actually very different from the human resource development of SMEs, which mainly uses the paradigm of competition.

¹³⁸ *Ibid.*

¹³⁹ *Ibid.*

¹⁴⁰ *Cf. Ibid*, pp.128-140.

¹⁴¹ *Cf. Ibid*, p.128. Prakash, 1986, p.56.

¹⁴² The CET program which was previously concentrated on just 92,307 co-operatives has started to include the development of SME human resources (39.99 million small enterprises and 550,561 medium enterprises). This is a very large number compared to the number of co-operative enterprises that have previously been handled by the Ministry (Data as of December 31, 2001). Source: Scheme of Policy for Co-operative and SME Empowerment, State Ministry of Co-operatives and SMEs, Jakarta.

¹⁴³ For example, IKOPIN has also added the development of SMEs in addition to co-operatives in its mission.

In October 1999, the Ministry of CSMED was changed into the State Ministry for Co-operatives and Small-Medium Enterprises (SM-CSME).¹⁴⁴ With this new structure, the government role in co-operative development was drastically reduced, cutting it back in such a way that co-operatives can no longer rely on the availability of funds and facilities for CET from the government as it used to be.¹⁴⁵

2.6. Entrepreneurs and Co-operatives

2.6.1. Entrepreneurs and Economic Development

Entrepreneurs are catalysts who make things happen through their creativity and innovation (Kao, 1991, p.14). They are people who have an ability to see and evaluate business opportunities; to gather necessary resources and to take advantage of them; and to initiate appropriate action to ensure success (Meredith *et al.*, 1982, p.3). They are people who see opportunities for introducing a new commodity, technique, raw material, or machine, and bring together necessary capital, management, labor and materials to do it.¹⁴⁶ Almost all authors on entrepreneurship provide their own definition of those regarded as entrepreneurs. However, their definitions are generally directed to the entrepreneur as a person who always introduces something new to the people.¹⁴⁷

Economic development in a country highly depends on the quantity and quality of the entrepreneurs. Further, Kent (1982, p.239) explains that entrepreneurs play a very important role in the development of the economy in terms of developing both supply and demand. They are the people who open the way for economic activities. They are not always inventors of something new, but they are the people who introduce something new to the people, in which the new things provide better value to the people that use them.

The emergence of entrepreneurs with their new products is highly influenced by their willingness or motivation to achieve.¹⁴⁸ This confirms the results of observation by McClelland, who stipulates there is a positive correlation between high needs for achievement by a society and economic growth.¹⁴⁹

The term ‘entrepreneur’ initially came from private business circles. Entrepreneur is translated into the Indonesian language as “*wiraswasta*” (which explicitly states the word “*swasta*”, which means private). The word “*wiraswasta*” originated from the Sanskrit language. “*Wira*” means excellent, model, honest, having a

¹⁴⁴ A State Ministry differs from a Ministry in a general sense. A State Ministry has no bureaucratic structure running from the central government to the district levels.

¹⁴⁵ For example, the existence of the PUSDIKLATKOP and BADIKLATKOP are no longer relevant with the new structure of the State Minister, and so it had to be dissolved.

¹⁴⁶ Higgins, 1968, in Kent, 1982, p. 238.

¹⁴⁷ *Cf.* Gartner, 1988, p.47.

¹⁴⁸ *Cf.* Hagen, 1962.

¹⁴⁹ *Cf.* McClelland, 1969.

character, brave, patriotic and wise; “*swa*” means self; and “*sta*” means standing.¹⁵⁰ Therefore, “*wiraswasta*” means people that have excellence in running business independently.

The need for the growing concept of entrepreneurship leads to the use of a more general translation, namely “*wirusaha*” (*wira* = excellent; *usaha* = business). “*Wirusaha*” means excellent in business.¹⁵¹ This new meaning simultaneously changes the paradigm that the entrepreneurial spirit is needed by someone not only related to private business, but also related to various businesses through other organizations, such government organizations,¹⁵² self-help organizations, as well as co-operatives.

2.6.2. Characteristics of Entrepreneurs

Many experts have studied the entrepreneurial character for a long time. Mill (1984) correlated entrepreneurs with the character of risk-bearing; Schumpeter (1934) with innovation and initiative; Sutton (1954) with desire for responsibility; McClelland (1961) with risk taking and need for achievement; Hornaday and Abound (1971) with the need for achievement, autonomy, aggression, power, recognition, innovative, independent; Sexton (1980) with energetic, ambitious, positive feedbacks; Welch and Young (1982) with locus of control, openness to innovation, self-esteem and Machiavellianism.¹⁵³

Over time, more and more positive traits have come to be associated with entrepreneurs. Results of identification by Hornaday (1982) show there are at least 42 characteristics that are often associated with entrepreneurs. Among others are 19 characters that are often encountered, namely: (1) self-confidence, (2) perseverance-determination, (3) energy-diligence, (4) resourcefulness, (5) ability to take calculated risks, (6) need to achieve, (7) creativity, (8) initiative, (9) flexibility, (10) positive response to challenges, (11) independence, (12) foresight, (13) dynamism-leadership, (14) versatility, (15) ability to get along with people, (16) responsiveness to suggestions and criticisms, (17) profit orientation, (18) perceptiveness, and (19) optimism.

The characteristics attributed to entrepreneurs are in many ways similar to the characteristics of leaders who have various excellent qualities.¹⁵⁴ Some of the

¹⁵⁰ Cf. Alma, 2001, p.13; Soemanto,1999, p.42; Sumahamidjaja, 1993, p.57

¹⁵¹ Since the word of “*wira*” means excellent, not all of business persons are then categorized as entrepreneurs, but only those who have excellence. This excellence is related to the success in doing business due to the positive character of entrepreneur. Compared with Carland, *et.al*, 1984, who differentiated between entrepreneur and business owner through different behavior (see also Gartner, 1988, pp.59-60).

¹⁵² Cf. Osborne and Gaebler, 1992. They argued that reinventing government is an important process for transforming entrepreneurial spirit into public organizations.

¹⁵³ See Carland *et.al* 1984; Gartner, 1989; Chell, 1991.

¹⁵⁴ See Wahyusomidjo, 1993, pp.45-53, regarding the list of leadership characteristics that was stated by, for example, Ordway Tead, Chester I Barnard, Keith Devis, etc.

characteristics that are very often associated with the entrepreneurial character are: need for achievement, internal locus of control and moderate risk taking.¹⁵⁵ Basically the three characters are closely related to each other. People with a high need for achievement are people whose behavior is more influenced by internal drive (internal locus of control).¹⁵⁶ Similarly, a high need for achievement will influence decision-making behavior which is moderate, not too hard and not too easy.

2.6.3. Co-operative Entrepreneurs

Co-operative entrepreneurs are people who have a good understanding of and appreciation for the values and principles of co-operatives, and seek to apply them consistently in developing co-operatives.¹⁵⁷ Therefore, in order to develop co-operative entrepreneurs, human resource development programs must be accompanied by the provision of the correct understanding of the values and principles of co-operatives.

Röpke (1992) mentions the existence of four types of co-operative entrepreneurs in the process of starting a business co-operative, namely: (1) member entrepreneur, (2) manager entrepreneur, (3) bureaucracy entrepreneur and (4) catalyst entrepreneur.¹⁵⁸ Based on the analysis of several critical factors in the development of co-operatives, Röpke argued that the catalyst entrepreneur is the best type for the development of co-operatives.¹⁵⁹

Meanwhile, based on its activity, Röpke (1992) divides a co-operative entrepreneur into three types, namely; (1) routine entrepreneur, (2) arbitrage entrepreneur, and (3) innovative entrepreneur. For routine entrepreneur, co-operative entrepreneurs are responsible for controlling activities of co-operatives to be run in accordance with a predetermined mechanism, namely maintaining product, marketing, and technology development. Routine co-operative entrepreneurs maximize the factors of production which exist, making improvements when there is a mistake, correcting the

¹⁵⁵ Cf. Thome, 1998; Gartner, 1989, pp.47-48; Kuratko and Hodgetts, 1992, p.24.

¹⁵⁶ Cf. Kuratko and Hodgetts, *op. cit.*, p.73-74, and Brockhaus, 1982, p.34. As cited by Brockhaus, that Rotter believed n-Ach is related to the internal locus of control. Rotter has hypothesized that a person who has an internal locus of control strives for better achievement than someone who has an external locus of control.

¹⁵⁷ See Soedjono, 1997, p.177. Soedjono also argues that a co-operative should be developed by a co-operative man who has a good understanding of co-operative values and principles.

¹⁵⁸ See Röpke, 1992, pp.60-78. See also Röpke, 1993, in IKOPIN, Seminar Proceeding on Education for Co-operative Entrepreneurs, 1993, Jatinangor, pp.334-340. He uses terminology of co-operative entrepreneur that is translated into Indonesian as “*wirakoperasi*”.

¹⁵⁹ *Ibid*, pp.78-82. This includes: (1) to what extent an entrepreneurial incentive failure can be overcome (2) to what degree local knowledge can be mobilized, (3) to what extent entrepreneurial action is embedded into bureaucratic and regulative procedures, as a part of their normal mode of functioning, (4) how far co-operative entrepreneurship is prone to manipulation and rent seeking, (5) to what extent co-operative entrepreneurship becomes an instrument of government action or is likely to be embedded in government programs, and (6) to what extent co-operative entrepreneurship can cause inefficiency.

mistakes and distributing resources so that there is a proper balance between inputs and outputs.

The activity of an arbitrage co-operative entrepreneur is to find profitable opportunities from differences in market demand with supply or the existing inventory. One example of this is making a purchase of assets to sell in the future for a better price. Arbitrage co-operative entrepreneurs deal with uncertainty and try to minimize it.

An innovative co-operative entrepreneur does not run a routine activity, but is looking for ideas or new ideas which can be applied to co-operatives for a better life. An innovative co-operative entrepreneur is never satisfied with the current condition. However, while an arbitrage co-operative entrepreneur is looking for opportunities from the existing market, an innovative co-operative entrepreneur is creating a market out of the opportunities. Both of them face uncertainty, but the uncertainty faced by the innovative co-operative entrepreneurs is greater.

Schumpeter in Röpke (1992) says that an innovative co-operative entrepreneur and uncertainty have a dynamic relationship in the center of economic inquiry. First, innovation is associated with uncertainty. The results of innovation cannot be predicted because development costs cannot be determined and the benefits of innovation depend on the ability to fill existing market opportunities, less the costs spent on innovation. Second, the re-development of innovation creates market imbalance, and differences in the current and future prices, resulting in the emergence of an arbitrage activity. Third, an arbitrage activity that appears will erode the market opportunities that exist until there is a balance. An innovation co-operative entrepreneur is always required in a co-operative. Although the profits of innovation will be eroded by imitators, this will lead the innovator to introduce new innovations.

2.6.4. Co-operative Leaders as Entrepreneurs

Parnell (1999, p.108) explains that co-operatives need two types of leaders, namely the primary leadership and the secondary leadership. The primary leadership is needed to unite efforts of members and to endeavor to fulfill their needs, while the secondary leadership is needed to organize co-operative services as best they can. The primary leadership is needed not only during the initial stages of co-operative establishment, but for as long as the co-operative exists, because during that time the various interests of its members must continue to strive. Furthermore, Parnell reminds us to prevent the leadership from becoming inactive, which may cause control a co-operative to be taken over by those who would take advantage of a co-operative only for the interest of a certain individual or group.¹⁶⁰

The role of a primary leader is very important in maintaining the continuity of the co-operative movement, not only in controlling the co-operative to achieve the objectives that have been set, but also for developing co-operative activities which are

¹⁶⁰ Parnell, 1999, p.109.

always related to the aspirations of the members. The role of a primary leader is related to such tasks as: (1) clearly understanding the benefits needed by the members, (2) mobilizing the support and commitment of members towards the co-operative, (3) transforming the needs of members into realistic co-operative goals, (4) developing the co-operative enterprise objectives hierarchy that leads to the achievement of co-operative goals, (5) representing members to guarantee that the co-operative always moves towards the achievement of co-operative objectives and that the rights of members are always maintained, and (6) monitoring co-operative development to achieve objectives (Parnell, 1999, p. 110).

In the context of reinventing the co-operative organization, Parnell specifically highlights the important role of the primary leadership associated with the boards of directors of the co-operatives in controlling the course of co-operatives to always focus on the main objective. The function of directing an enterprise is quite distinct from managing it, which is more concerned with the actual means of arriving at the destination set by the directors (Parnell, 1999, p. 131).¹⁶¹ Related to learning process of a co-operative, a primary leader (director) is needed to be directed towards the effectiveness and development of the co-operative, while a secondary leader (professional manager) is needed to aim at efficiency.¹⁶² That is the difference between the roles of leader-chairperson and a manager.

Figure 2.3 shows that the entrepreneur is the person who pioneers business opportunities into real businesses. In the early period of business development, entrepreneurs are faced with complex problems of business uncertainty.¹⁶³ Therefore, the main focus of the learning process is to do the right things (effectiveness) and not to do the things rightly (efficiency).

In time, an entrepreneur needs the role of manager to organize business that has been developed in order to make it efficient. In the next stage, when the business trend has reached its peak and tends to decline, an entrepreneur role is needed again to innovate and develop a new business form. In co-operatives, of course, the types of new business are related to the development needs of members, in line with the increasing business and prosperity of co-operative members.¹⁶⁴ So, by these arguments, it can be

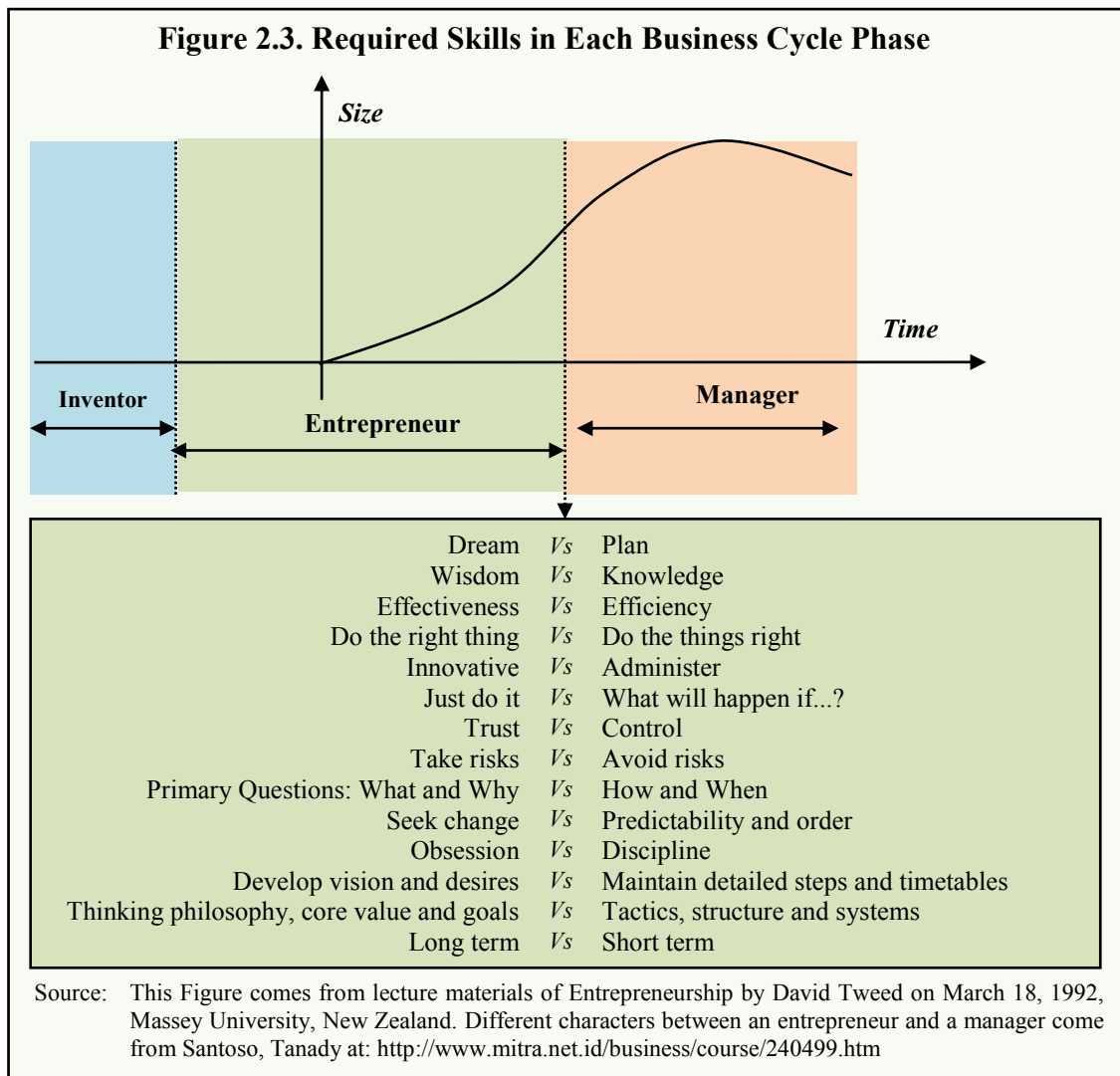
¹⁶¹ Drucker (1985) also stressed the importance of fundamental differences between effectiveness and efficiency, in which effectiveness is performing something right, while efficiency is performing something rightly. For all things, it is very important to determine first something right to be done (effectiveness), and then determine how to perform it rightly (efficiency). This is a difference between the role of a leader-chairperson and the role of a manager.

¹⁶² Cf. Röpke, *Op.Cit.* p.94 cited Korten (1983) regarding the learning process for organizational development.

¹⁶³ At the beginning of business development, business effectiveness should be emphasized more than business efficiency. A study cited by Downey and Erickson (1987, p.22) found that about 88% of small business failure is due to business ineffectiveness rather than inefficiency.

¹⁶⁴ Cf. Röpke, *Op.Cit.*, p.96, which explains the business life cycle.

said that the role of entrepreneurs is in line with the role of leaders in co-operative institutions.



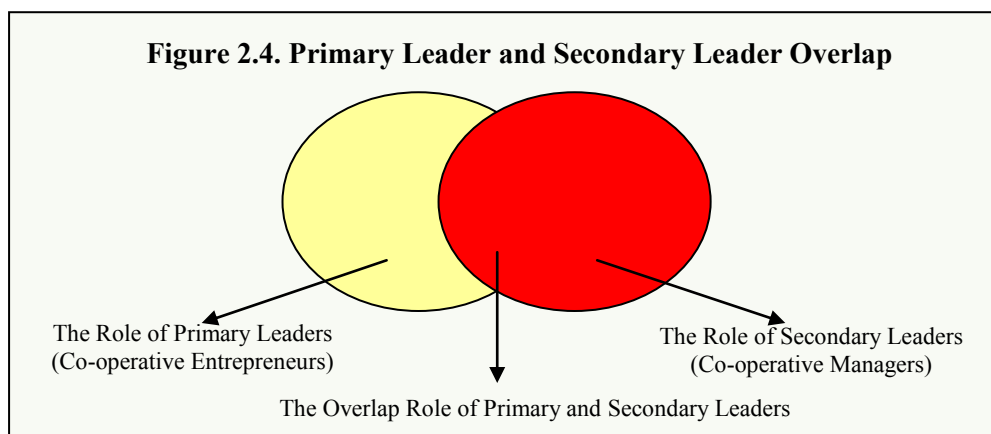
Röpke (1992) revealed that each stage of development requires a different co-operative entrepreneurial ability. For example, for the stabilization of the efficiency period, the kind of an entrepreneur required is a routine entrepreneur, then in the expansion period co-operatives business requires an innovation or arbitration entrepreneur.¹⁶⁵

Furthermore, Rebernik *et.al.*, (1996) explains the existence of an intersection between the entrepreneurial and managerial functions.¹⁶⁶ In the context of an organization lifecycle, entrepreneurial and managerial functions are complementary to each other in each stage with emphasis on one of two functions: (1) During the

¹⁶⁵ *Ibid*, p.97.

¹⁶⁶ Rebernik *et.al.* 1996. They mention the terms entrepreneurial manager and managerial entrepreneur in terms of describing the intersection of both functions within an organization.

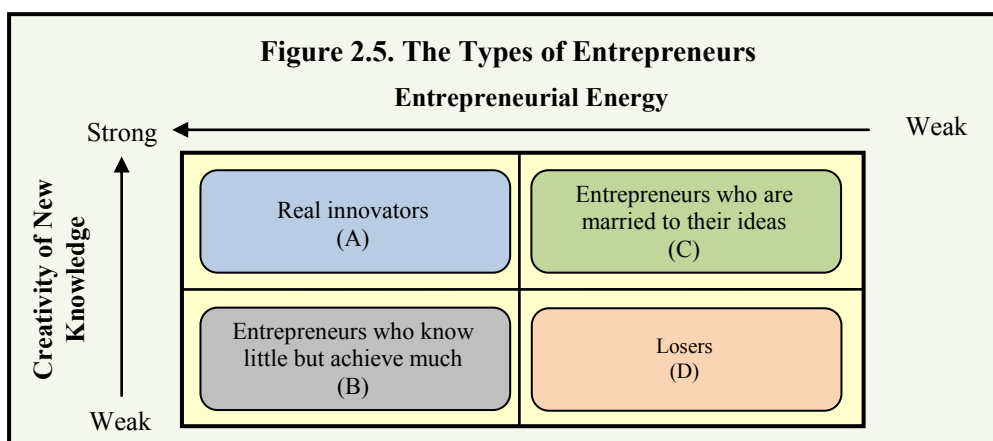
establishment of an organization more entrepreneurship is needed; (2) During organizational growth more management is needed; (3) During organizational re-development more entrepreneurship is again needed; and (4) during the subsequent consolidation period more management is needed. However, both primary and secondary leaders have a very strong relationship, although with different functions and roles. Primary and secondary leaders have special roles, but there is a role that can be shared as is shown in Figure 2.4.¹⁶⁷



Source: Adapted from Parnell, 1999

2.6.5. Co-operative Entrepreneurs and Entrepreneurial Energy

Schumpeter in Röpke (2004) divides an entrepreneur into four types, related to entrepreneurial energy and creativity of new knowledge, as is shown in Figure 2.5.



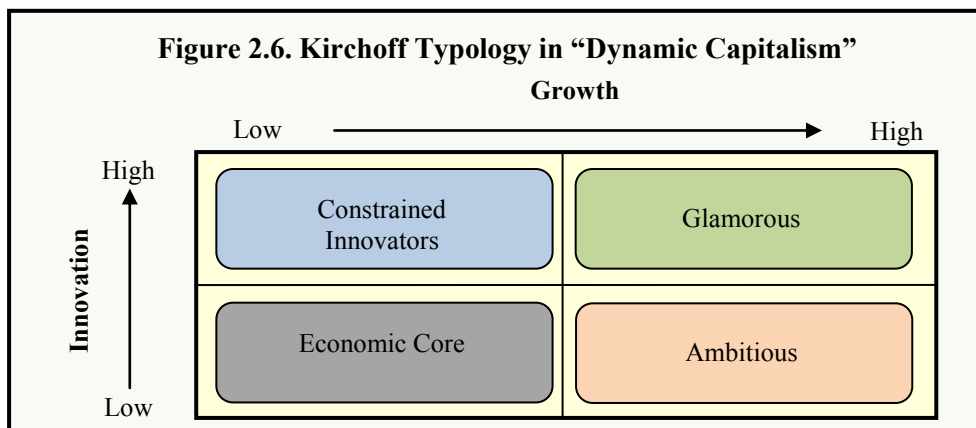
Source: Schumpeter in Röpke, 2004

Cell A is a real innovator entrepreneur type. Real innovators produce many ideas that can be realized by their high energy level. Without them, the economy will not grow and tends to stagnate. The second type of entrepreneur is imitators (Cell B). They

¹⁶⁷ See Hill, 2006, pp.9-10

have high energy but fewer generated ideas. A company controlled by this type of entrepreneurs is developing along the amount of energy they have. In the long term, this type of company will likely not last long in the absence of innovations that make it survive. In cell C is an entrepreneur who has many ideas but less entrepreneurial energy. The lack of energy of this entrepreneur makes it difficult to realize many ideas. The last type of entrepreneur is in Cell D. Entrepreneurs in this cell are the opposite of those in Cell A. This entrepreneur type will fail compared to entrepreneurs from other cells because they do not have ideas or energy. This type of entrepreneur is mostly found in companies in the traditional economy, including co-operatives.

Furthermore, Kirchoff in Röpke (2004) categorize entrepreneurs into four company positions based on ability of innovation and growth. Kirchoff's analysis is based on the development of companies in the United States. The company is growing rapidly, with low or moderate innovation (Ambitious), and high innovation (Glamorous). In Schumpeter's analysis, this company develops an entrepreneur in Cell A and Cell B. In most cases, the companies that go bankrupt in the Economic Core have low levels of growth and innovation. Some companies are changing into other forms. Companies which are in the Economic Core will go bankrupt if they do not change their type to Glamorous or Ambitious. In Constrained Innovators, an entrepreneur with a variety of problems (lack of resources, particularly capital and human resources) makes this company have slow growth. Co-operative leaders, in this case KUDs, based on the analysis of Schumpeter and Kirchoff, can be said to be in Cell D, which places co-operatives in the Economic Core. This means that co-operatives will not grow at all (Figure 2.6).



Source : Kirchoff in Röpke, 2004

Röpke (2004) states that one reason for entrepreneurs to be in Cell D is decreasing entrepreneurial energy (competence, property rights and motivation). In the case of co-operatives in Indonesia (KUD), a decrease of this entrepreneurial energy leads to:

- 1) Lack of competitive advantage. Co-operatives have great potential competitive advantage (economies of scale, competition, market inter-linkage, participation, transaction costs, and reduction of uncertainty). Less entrepreneurial energy causes these competitive advantages to be used minimally.
- 2) Insufficient competence of management. Many co-operative organizations are prone to incompleteness due to weak or ineffective management. Vertical and horizontal integration is less effective and less efficient due to the lack of emotional as well as functional bonding. Each level of the organization tends to seek its own prosperity, and they even often compete with each other.¹⁶⁸ Multipurpose KUDs with heterogeneous members have great potential for conflict. Co-operative management is not built on the basis of conflict, but on the basis of unity. So multipurpose KUDs tend to trigger conflict that could ultimately destroy the co-operative.¹⁶⁹ In addition to this, co-operative boards of directors who primarily give service for the development of co-operatives have been turned into a major institution of public administration, centralized and bureaucratic. The board of directors uses their ability mostly to solve administrative problems and at least to lead and supervise co-operatives.¹⁷⁰
- 3) Ineffective participation. For the KUD, Presidential Decree No. 4 of 1984 made it become co-operatives with even more heterogeneous members, living in different regions with different potentials as well. In such a co-operative, the social cohesion of members, feelings of group solidarity, participation interests and their willingness to accept the same status through "one man, one vote" disappears. The reduced participation of co-operative members is also due to the lack of co-operative effects that are received by the members. The lack of the co-operative effect is due to reduced services to members making them feel they are not getting any benefits, both before and after joining co-operatives.

The lack of entrepreneurial energy in co-operatives indirectly resulted in three kinds of crisis in co-operatives, namely: (1) an ideological crisis, due to the degradation of co-operative ideology; (2) a leadership crisis, due to the weak human resources of co-operatives; and (3) a trust crisis, as a result of the leadership crisis. Various kinds of problems which occurred in co-operatives in Indonesia, particularly in KUD, were caused by these three crises. Abuses committed by the leaders of co-operatives made co-operative members no longer believe in them.¹⁷¹ Therefore, the human resource development of co-operative should be able to improve the entrepreneurial energy (competence, property rights and motivation), particularly for its leaders.

¹⁶⁸ Soedjono, 1997, p.90

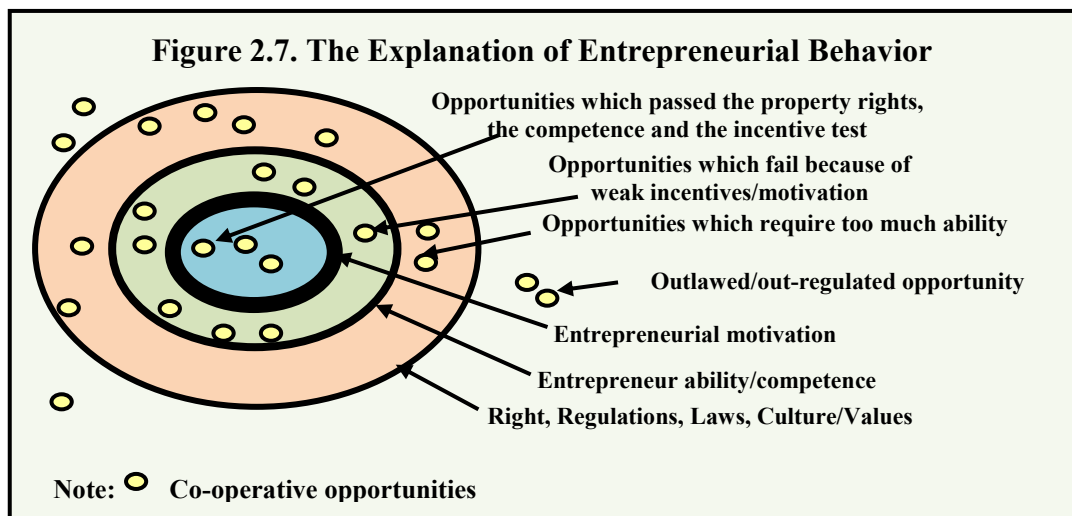
¹⁶⁹ *Ibid*, p.39.

¹⁷⁰ Munker, 1997, p 161.

¹⁷¹ Soedjono, *Op.Cit.* pp.48-50; Swasono, 1997.

2.6.6. The Importance of Motivation for Co-operative Entrepreneurs

Co-operative human resource development programs which only emphasize the improvement of managerial skills are not enough without any motivation to build a co-operative in accordance with co-operative principles and appropriate values. Implementing this motivation is very important, especially to improve the entrepreneurial energy of co-operative human resources. Related to the aspect of motivation, Röpke (1992) says that many business opportunities which can be achieved by co-operative organizations are highly dependent upon the motivation level of the co-operative entrepreneur (which is the innermost circle in Figure 2.7).



Source: Röpke, 1992, p.50

The higher the motivation levels of the co-operative entrepreneur, the larger the innermost circle. This means that more business opportunities can be exploited. Therefore, it can be concluded that the first important step to improve the entrepreneurial role in co-operative organizations is by raising the motivation of co-operative leaders. This is because there are actually quite a lot of business opportunities which can be exploited if co-operative leaders have sufficient motivation. If they do not, they will feel satisfied with the business opportunities which are easily available to them (for example, business related to the implementation of government programs). If a sufficient level of motivation is possessed, it will then necessary to increase their competence in business management related to modern business management approaches.

One of the few motivational theories associated with a country's economic development is a theory expressed by McClelland (1976). He mentions that the motivation of people is strongly influenced by one of three types of needs: need for achievement (n-Ach), need for affiliation (n-Aff), and need for power (n-Pow). Of these three motives, only the need for achievement is often attributed to the entrepreneurial

spirit. As stated by McClelland (1961),¹⁷² people who have a high need for achievement are closer to having entrepreneurial character, such as: (1) taking personal responsibility in decision making, (2) making decisions which have a moderate level of risk, neither too high nor too low, (3) always anticipating future possibilities, (4) paying attention to concrete things from different decisions made.

The n-Ach is the need to achieve success, to perform something better than other people, and to master challenging tasks.¹⁷³ They always think about ways to do something better. They think unusual or unique things, or think about the progress of their career in the future.¹⁷⁴ Individuals that have high motive for achievement want to achieve the success in the various tasks that they face.¹⁷⁵ Therefore, intrinsic factors underlie entrepreneurial behaviors more than extrinsic ones. Extrinsic factors such as money, position, work security, are not the major purpose of an entrepreneur, in which extrinsic factors are considered more as a form of appreciation towards their achievements. Individuals with high n-Ach always concentrate their thought to complete the tasks that they receive.¹⁷⁶ They try to perform things in new and creative ways.¹⁷⁷ They do not believe in luck and need concrete and quick feedback towards their achievements.¹⁷⁸

Murray (1964) stated that the motive for achievement is one of the social motives that encourage a person to: (1) overcome barriers, (2) achieve success by completing something difficult as soon as possible, and (3) to try to achieve high standards and make it superior and competitive.¹⁷⁹ Related to the learning process, individuals with a high need for achievement through a learning process provide a response faster and better than individuals who have a low need for achievement.¹⁸⁰

The need for affiliation (n-Aff) is a need to gather and interact with others, enjoy friendship and having a social nature. Therefore, they need some understanding and trust.¹⁸¹ However, a high n-Aff in several matters leads to unproductive activities. Even in some aspects they can be disadvantageous.¹⁸² As an illustration, if someone with a high n-Aff is offered a choice of a work partner who is an expert whom he is not familiar with or his close friend who is not an expert, he will tend to choose his close friend. This is what differentiates with a person who has high n-Ach, who will choose

¹⁷² Cf. Nafziger, 1986, p.62.

¹⁷³ Cf. Huffman, Vernoy and Vernoy, *op. cit.*, p.324

¹⁷⁴ Cf. Sumantri, 1995

¹⁷⁵ Cf. Johmarshall Reeve, 1992, as cited by Muljono, 2000, p.41.

¹⁷⁶ *Ibid.* p.40.

¹⁷⁷ See Sumantri, 1995, p.70.

¹⁷⁸ Robbins, 1976, pp.312-313.

¹⁷⁹ Murray, 1964, as cited by Muljono, 2000.

¹⁸⁰ *Ibid.* p.100.

¹⁸¹ *Ibid.*

¹⁸² Cf. Sumantri, 1995, p.70; Siagian and Asfahani, 1995, p.92.

the expert as his partner.¹⁸³ People with high n-Aff like to work with other people rather than alone, often relate with others, including talking on the phone, giving more concern to the personal relationship in the work rather than the completion of the work itself, are always looking for approval or agreement from other people, and being more active when working together with other people.¹⁸⁴

Meanwhile, the need for power (n-Pow) is a need to get attention, influence and control other people. Some characteristics of people who have high n-Pow are: like to teach other people, speak fluently and like to talk in the public, resolute, being stubborn and demanding. Besides this, they are also very active in determining the direction of their organization, helping other people without being asked.¹⁸⁵ However, they need to be distinguished from the people with n-Pow, who strive to achieve higher positions but are not concerned with improving their daily work performance, which becomes the concern of persons with high n-Ach.¹⁸⁶

As mentioned previously, people with high n-Ach will tend to be associated with the characteristics of internal locus of control as well as moderate risk taker. The locus of control measures the extent to which a person is affected by internal and external factors.¹⁸⁷ A person is faced with a condition whether an incident that occurred to him is due to his own factor (internal locus of control), or due to external factors (external locus of control). The theory regarding the Locus of Control was stipulated for the first time by Rotter (1966):¹⁸⁸

“When a reinforcement is perceived by the subjects as following some action of his own but not being entirely contingent upon his action, then, in our culture it is typically perceived as the results of luck, chance, fate, under the control of powerful others, or as unpredictable because of the great complexity of forces surrounding him. When the event is interpreted in this way by an individual we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control”

Individuals with an internal locus of control tend to be active in overcoming problems, self-confident and convinced that they can change their environment, and use feedback in shaping expectation for success. To the contrary, an individual with an

¹⁸³ Bone and Bowen, 1987, p.388. Such illustration is from McClelland, who warns us about the danger of corruption, collusion and nepotism (CCN), which could lead people to lose orientation towards achieving required goals.

¹⁸⁴ Cf. Sumantri, *loc. cit.*

¹⁸⁵ Cf. Siagian and Asfahani, 1995, p.93.

¹⁸⁶ Cf. Bone and Bowen, *loc. cit.*

¹⁸⁷ Cf. Schermerhorn, *et.al*, 1991, p.120; Timmons, 1989, p. 170.

¹⁸⁸ See Brockhaus, 1982, p.43.

external locus of control is passive and tends to blame the environment or other people for the incidents that occur.¹⁸⁹ Successful entrepreneurs are convinced that success and failure are due to personal factors, and not due to luck or other external factors.¹⁹⁰ A series of studies regarding this aspect showed inconsistent results; however, many experts believed that the locus of control could be an indicator of entrepreneurial activities.¹⁹¹

Regarding moderate risk taking, Atkinson (1957) stated that people with a strong n-Ach prefer intermediate risk instead of either very easy and safe risk or extremely difficult and speculative ones.¹⁹² Taking too much risk will make them frustrated easily, while taking too low a risk will not challenge them to run a business. Therefore, entrepreneurs are not gamblers. If they will conduct a business, they will calculate the risk accurately. They formulate strategies so that profits can be earned, while various unnecessary risks can be avoided.¹⁹³

McClelland (1976) emphasizes that a high n-Ach in a society will increase entrepreneurial activities and lead to increased economic growth. The results of empirical research conducted by McClelland indicated that people who have high n-Ach tend to have an entrepreneurial position if they consider that such a position is highly prestigious. Furthermore, the study results of McClelland and Winter (1969) indicate that a higher n-Ach, which is accompanied by better business activities, can be developed in entrepreneurs through training. Even though there is a doubt among a few experts,¹⁹⁴ in fact, it was found that motivation training for achievement (called Achievement Motivation Training, AMT) has been applied widely in various entrepreneur development programs in developing countries.¹⁹⁵

¹⁸⁹ *Ibid*, p.45.

¹⁹⁰ *Cf.* Kuratko and Hodgetts, *op. cit.*, pp.73-74.

¹⁹¹ *Cf.* Thome, *op. cit.*, pp.59-65; Brockhaus, *op. cit.*, pp.44-45.

¹⁹² Brockhaus, *Op.Cit.*, p.46.

¹⁹³ *Cf.* Kuratko and Hodgetts, *op. cit.*, p.74.

¹⁹⁴ *Cf.* Nafziger, 1986.

¹⁹⁵ In Indonesia, the program of Achievement Motivation Training was developed by, among others, *Pusat Teknologi Pembangunan Institut Teknologi Bandung* (The Center for Technological Development-Bandung Institute of Technology), working together with McBer Company, Boston Massachusetts in 1972 (see Sumantri, 1995, p.103).

CHAPTER - III

RESEARCH METHODOLOGY

3.1. Theoretical Framework

Potential agribusiness resources in Indonesia are enormous; however, they are still unable to be a leading sector in the Indonesian economy. Some factors that cause agribusiness sector decline are: (1) low quality of human resources, (2) limited mastery of technology, (3) low capital ownership by agribusiness actors, (4) limited access to information, (4) low quality of agribusiness products, (5) low productivity, and (6) low entrepreneurial spirit of agribusiness actors. Besides these factors, government interference in the agribusiness sector often gives constraints instead of solutions. This situation in turn makes the existence of agribusiness actors, especially small farmers, increasingly marginalized. One way government promotes the agribusiness sector is by establishing agribusiness co-operatives. The establishment of co-operatives was based on the idea that farmers will not advance if they are doing business individually. Experiences in some developed countries also show that co-operatives have been able to fight for and improve the welfare of farmers.

The term agribusiness co-operative is still rarely used in Indonesia, while the term agricultural co-operative is only found in the history of the co-operative movement in Indonesia.¹⁹⁶ The type of co-operative generally found in the agricultural sector is the *Koperasi Unit Desa* (KUD, Village Co-operative Units). KUD establishment aims to provide production facilities and credit as close as possible to farmers. The rapid development of KUD was caused by a government policy which strengthened the presence of KUD, namely by the issuing of Presidential Decree No. 4 of 1984. This Presidential Decree led to the KUD being the only type of co-operative allowed to operate in rural areas. The issuance of that Presidential Decree resulted in agricultural co-operatives of than KUDs having to be merged with a KUD, or else disband. This Presidential Decree was once again changing the type of co-operative business from a sector-based co-operatives (i.e.; agricultural sector) to a spatially-based co-operative (i.e.; rural or village).¹⁹⁷ At the same time, it altered the business type of KUD from agricultural fields (single-purpose) to rural economy (multipurpose). This change in turn tended to put farmers in a more difficult position, because as rural co-operatives the

¹⁹⁶ Cf. Djohan, 1997, pp.55-64. The term “agricultural co-operatives” was used before 1974. Since the issuance of the Presidential Decree No. 4 of 1973 about the establishment of the Village Unit, this term had no longer been used. With this regulation, the agricultural co-operative had to be merged with the Village Co-operative into a new agency called BUUD (Village Unit Enterprises). This agency was the embryo of the KUD (Village Unit Co-operatives). See also Sub-chapter 2.4.2.

¹⁹⁷ This is an exception to the permission of the Minister Co-operatives. The Minister allowed dairy co-operatives to not have to join with the KUD at that time. The Minister of Co-operatives at that time was also the pioneer of national dairy agribusiness development, so dairy co-operatives had permission to continue operating in rural areas (Djohan in Soedjono *et.al*, 1996, p.136.).

membership of KUD, as well as their specific interests, became heterogeneous, such as farmers, traders, employees and so on.¹⁹⁸ In many cases, the interests of farmers have often been neglected.

In addition to this, the KUD, which should be a tool for farmers to improve their welfare, in fact, have been a government tool for carrying out various programs in rural areas.¹⁹⁹ Government intervention, which was too great in the KUDs, in turn made it difficult to become self-reliant co-operatives. The KUDs became less able to take advantage of the business opportunities existing around them. The majority of businesses activities carried out by KUDs were merely to implement government programs and rely on fees.²⁰⁰ This situation was exacerbated by the length of the officialization programs from the government, which in turn made it increasingly difficult for KUDs to develop.²⁰¹

Also, the length of the officialization phase in KUD development also reduced the entrepreneurial ability of their leaders. The entrepreneur roles have been mainly played by the government through implementing various programs; therefore, KUD leaders only play a managerial role. The entrepreneurial role being held by the government for a long time in turn made the entrepreneurial energy of most of leaders of co-operatives to decrease or even be lost.²⁰² This is despite the fact that entrepreneurial energy is needed by the leaders of KUD to face the two types of challenges faced by KUDs now and in the future, namely the global market and the changing role of government. Entrepreneurial capabilities are required in order to benefit from existing market opportunities, in line with the national economy that is increasingly headed for market mechanisms, as well as directing the KUD to become a self-reliance co-operative, not dependent on government.²⁰³

Based on the above explanation, then, in order to develop a co-operative, the improvement of human resources, in particular co-operative entrepreneurs, becomes a necessity.²⁰⁴ The leaders of co-operatives, in this case is the KUD, based on the analysis of Schumpeter and Kirchoff (in Röpke, 2004), can be said to be in D cell, which puts co-operatives in an Economic Core position, which means that co-operatives have not grown. This happened because entrepreneurial roles were more played by government through various programs, while co-operative leaders only act as implementers (called routine entrepreneurs).²⁰⁵ Referring to Schumpeter and Kirchoff (in Röpke, 2004), the

¹⁹⁸ Cf. Rasyad, 1997, p.30

¹⁹⁹ See in Chapter-II. Sub-chapter 2.4.2.

²⁰⁰ Cf. Baharsyah, 1997; Nasution, 2007, p.96.

²⁰¹ See in Chapter-II Sub-chapter 2.4.3.

²⁰² See in Chapter-II Sub-chapter-2.5.

²⁰³ Cf. Sularso, 2000

²⁰⁴ Nasution, 1999, p.108

²⁰⁵ Cf. Nasution, 2007, p. 96

development of co-operatives should be directed to aim for the position of "Glamorous" or at least Ambitious, so that co-operatives will be able to compete with other business entities.²⁰⁶ In an effort to achieve such positions, a co-operative needs leaders who have a high entrepreneurial energy.

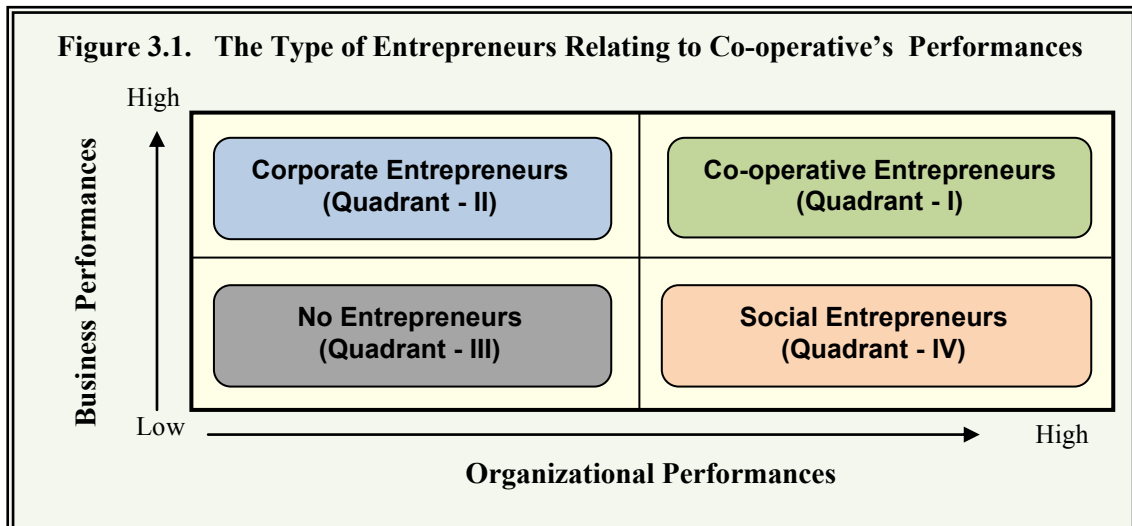
This study, in order to analyze the entrepreneurial energy of co-operatives leaders, will begin by: (1) analyzing the performance of co-operatives (in both their business and organization aspects) and (2) analyzing the performance of co-operative leaders. The first analysis (regarding the performance of co-operatives) is used to formulate success indicators of co-operatives²⁰⁷ and then to construct the typology of co-operatives, as well as to develop a co-operative development index (CDI). The importance of knowing the typology and the index are related to improving the effectiveness of the learning process among existing co-operatives. It is should be coordinated among existing co-operatives in terms of implementing the sixth co-operative principle (namely co-operation among co-operatives). Taking the learning process from the best is one of strategic steps which today is an approach that is commonly used in improving the performance of organizations, which is called a "benchmarking strategy".²⁰⁸

Along with the growth of co-operatives over time, an index of co-operative development also needs to be built periodically. This means that the position of co-operatives will not always be at a certain level, but can increase or decrease. This is because the indicators used are relative success indicators among the existing co-operatives. This method of measurement can be an alternative to the conventional measurement methods currently in wide used, which only see the development of a co-operative from year to year without considering the extent to which other co-operatives in the same industry have developed. This new method would be more relevant related to efforts to develop a strategy in an increasingly competitive business world.

²⁰⁶ See in Chapter-II Sub-Chapter-2.5.3.

²⁰⁷ Cf. Mändle, 1992, p.175-177. The success indicator may also by different among different co-operatives. Therefore, the indicator of success needs to be established based on the real conditions occurring in the same type of co-operatives. For example: Credit Union using indicators of CAMEL, namely Capital adequacy, Asset quality, Management quality, Earning and operating Performance, and Liquidity (See Pratt, 1998, pp.4-5)

²⁰⁸ Benchmarking is: "a continuous, systematic process for evaluating the products, services, and work processes of organization that are recognized as representing best practices for the purposes of organizational improvement" (Spendolini, 1992, p.9). For a co-operative, this approach is important in order to understanding the actual gap-problem, and also in finding the solution efficiently and effectively. This approach is the development concept of Total Quality Management, which is aimed to optimize consumer satisfaction in order to get different advantages from other competitors. (Watson, 1993, pp. 21-22).



Source: Author's own depiction, 2000

The second analysis (performance of co-operative leaders) is conducted to know the characteristics of co-operative leaders. If the results of the first and the second analysis are linked, the existence and role of co-operative entrepreneurs will be shown. The role of co-operative entrepreneurs will more likely be seen in co-operatives which have good performance in both business and organizational aspects (Quadrant-I) as described in Figure 3.1.

Associated with the need to study the characteristics and the role of co-operative entrepreneurs, attention needs to be focused on co-operative leaders in the typology of Quadrant-I. This is because they have shown excellence in leading their co-operatives to have better performance, compared to those in Quadrants-II, III and IV.

The lack availability of highly-qualified leaders in co-operative organization is a classic problem in Indonesia. This is because co-operative organizations are generally regarded as useful organization for only small and even marginalized people, like farmers and laborers. Therefore, very few highly educated/skilled people are willing to involve themselves in co-operative organizations. Some of the factors which have caused this include:

- 1) Continued lack of proper understanding among Indonesian people regarding the importance of the role of co-operative organizations in promoting the regional economy, related to increasing the business activities of members. In other words, it is assumed there are not any challenges for highly-qualified human resources working in co-operative organizations.
- 2) Co-operative organizations are still regarded as second-class organizations which do not offer prestige. Therefore, co-operatives become less attractive than some other job choices. Only those who do not have sufficient ability and skill will consider co-operatives as an attractive workplace. Those who have skills, but who are not at all enthused by the labor market will be forced to work in co-operative organizations.

- 3) At present, the image of co-operative organizations is already negative in the view of the Indonesian people in general.²⁰⁹ Co-operatives are often synonymous with corrupt practices. To avoid the use of the word co-operative, some forms of social-economic co-operation in Indonesia prefer to use other terms, such as association, community group, and others.²¹⁰
- 4) The nature of the work in the organization of co-operatives is generally associated with a lot of people (members) and even involves a lot of interests. This is often causing for internal friction, which normally inhibits the development of the pragmatic attitudes that are often needed to reach performance targets. This in turn can lead to the decline in motivation to work in co-operatives.
- 5) Even if co-operatives are able to develop their human resources through education and training programs, generally they are unable to bind their human resources to remain working there. This is due to limited career paths in co-operative organizations, making it an unattractive workplace for skilled persons. Meanwhile, along with a person's increasing quality, they are more easily absorbed by more attractive and prestigious workplaces.

Based on some of the above descriptions, co-operatives in Indonesia face some dilemmas in developing co-operative leaders, which are:

- 1) Co-operatives should feel satisfied with the quality of existing co-operative leaders. The process of increasing the quality co-operative leaders takes place naturally and slowly in line with increasing work experience.
- 2) Co-operatives may systematically develop the abilities of their leaders through education and training programs; however, there is the risk that co-operative organizations would only serve as a "stepping stone" for job seekers.
- 3) Hiring good quality leaders from outside co-operatives carries the risk that they may not understand the nature of co-operative organizations. This in turn may lead to mismanagement or disorientation in the co-operative movement.²¹¹

²⁰⁹ See Chapter-II, Sub-chapter 2.4.2.

²¹⁰ In Indonesian language, some other words are commonly used in the society to avoid the word co-operative, for instance: *himpunan*, *paguyuban*, *kerukunan*, *ikatan*, *asosiasi*, etc. For an instance, during the journey of this field research, the researcher met an energetic young man in one village. The young man has finished his magister education on financial management at a large university in Jakarta; however, he was willing to work in a rural area. In fact, he is a leader of farmer association of rabbits (called *Paguyuban Peternak Kelinci*) with about 500 members. The association helps its members to market their products in Jakarta as well as for the export market. He strongly argued that the organization is not a co-operative (as KUD). According to him, the term of co-operative has a strong negative meaning; therefore, members of the association do not accept if goes by the term co-operative. Nevertheless, he always answered 'yes' to the questions regarding to whether each of the seven co-operative principles have been applied by the association.

²¹¹ As stated by Soedjono (1997, p.177), co-operatives should be developed by co-operative people who understand the values and principles of co-operatives and have a strong desire to develop it properly through co-operative organization.

- 4) Waiting for the presence of qualified co-operative leaders who are “sent by God” for the development of co-operatives. This is referring back to the old paradigm that a leader is born, not made. Qualified co-operative leaders exist by chance and not by design.

These dilemmas may be only solved if the development of co-operative leaders is directed towards character building of co-operative entrepreneurs. This is not same with the general meaning of an entrepreneur, but is related to the work specification of co-operative institutions to serve their members as their customers.²¹²

Besides focusing on creating co-operative entrepreneurs from co-operative leaders, another process which is equally important is good co-operative education for people in co-operatives, as well as for people outside of co-operatives (general people). Co-operative education is very important for the people in the co-operative, because as a two-dimensional organization, the success of the co-operative requires qualified human resources, not only in management but also among the membership. Many facts show that the success of the co-operative accompanies success in the development of their human resources. The strong agricultural co-operatives in Denmark, for example, cannot be separated from the important role of Folk High School.²¹³ This is similar for the co-operative movement in Germany²¹⁴ and other Western European countries that give high attention to co-operative education in promoting the co-operative movement.²¹⁵

Meanwhile, for those people outside of the co-operative movement, co-operative education is essential to provide the right understanding of the uniqueness of co-operatives.²¹⁶ As mentioned earlier, among Indonesian people the term of co-operative is already widely familiar; however, their understanding about co-operatives is still poor. In fact, in general, Indonesian people still judge a co-operative only from its business aspects, which in turn results in low appreciation of the co-operative movement, including its social aspects.²¹⁷ So, the co-operative education process is needed for people who can be delivered by both formal and non-formal education.

²¹² The importance of a study on specification concepts of co-operative entrepreneur may be explained by comparing the intrapreneur concept within a large private company. See, for example, Pinchot III, 1985, *Intrapreneuring. Why You Don't Have to Leave the Corporation to Become an Entrepreneur*.

²¹³ Cf. Bjorn, 1992, p.7; Bisri, 1995, p.7; Sumodwirjo, 1983, pp.35-36. Many children of farmers aged between 18-25 who enrolled in the Folk High School which was founded by NFS Grundtvig. Grundtvig-style education is not only growing in the countries of Scandinavia, but also in other European countries.

²¹⁴ Cf. Swoboda, 1994, pp.313-321; Aschhoff and Henningsen, 1996, pp.157-163.

²¹⁵ Cf. Brazda and Todev, 1994, pp.309-313.

²¹⁶ Cf. Hatta, 1987, pp.168-178. Due to the two-dimensional characters of co-operatives, it may also become an important institution for people's education.

²¹⁷ Cf. Swasono, 1997. Liberal and capitalistic economic influence that transmitted by the Dutch colonialists to date is not reduced, even more powerful. The desire of Mohammad Hatta (the independence proclaimer of Indonesia as well as the first Vice President of the Republic of Indonesia)

The development of co-operative entrepreneurs is expected to improve the performance of agribusiness co-operatives in Indonesia, not only from the business aspect, but also in their organizational aspects. This is so that co-operatives can perform their role in increasing the bargaining power of farmers and become a countervailing power to the various forms of injustice. This in turn will greatly affect the development of economic activities in rural areas. In general, the development framework of co-operative entrepreneurs in Indonesia can be seen in Figure 3.2.

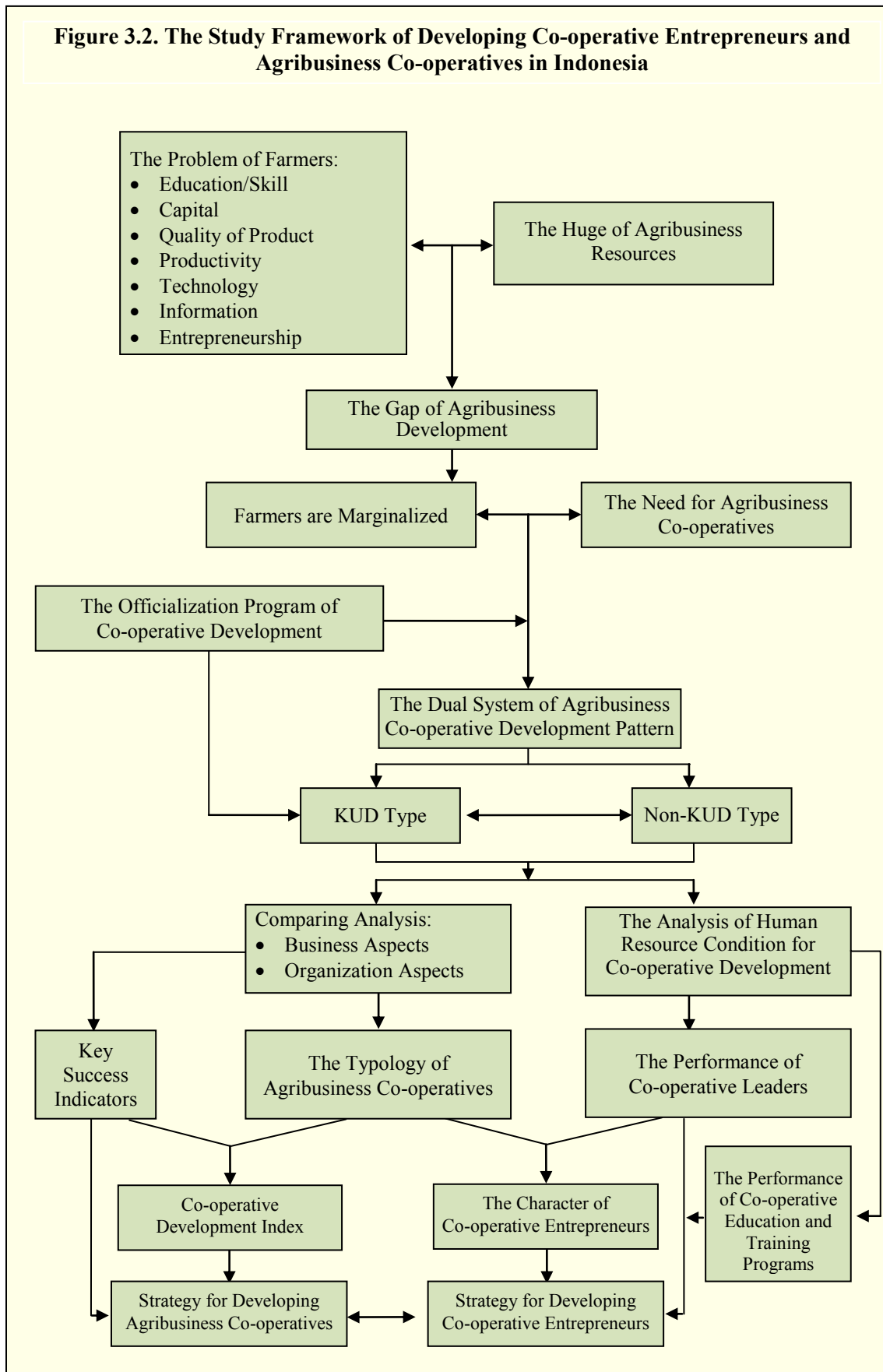
3.2. The Stages of Study

This study is designed to achieve the objective of formulating strategies for developing the co-operative entrepreneurs who are associated with the development of agribusiness co-operatives in Indonesia. To achieve that objective, the research was conducted in three stages, namely:

- 1) **The First Stage:** Fact-Finding on the Performance of Agribusiness Co-operatives. This stage is necessary in order to obtain the description of field conditions and existing problems in developing agribusiness co-operatives. Fact-finding was conducted on one type of agribusiness co-operative that had good performance. In addition to making it easier to obtain detailed information, this will be very useful for the benchmarking process for the development of agribusiness co-operatives which have relatively low performance. This stage also includes collecting data related to the behavioral aspects of co-operative leaders. The behavioral aspects not only consist of the individual aspects of leaders (such as their ability, skills, age, gender, educational background, ethnicity and social status) but also include the psychological aspects of the leaders (such as perception, motivation, etc.) and the organizational situations that are affected.
- 2) **The Second Stage:** Fact-Finding on the Performance of Co-operative Education and Training Programs. This stage is necessary in order to understand problems faced in co-operative education and training programs (CET) in Indonesia, whether they are conducted by the co-operative movement, governments, NGOs or universities.
- 3) **The Third Stage:** Formulating Strategies for Developing Co-operative Entrepreneurs and Agribusiness Co-operatives. This stage is the process of formulating a strategy for developing the co-operative entrepreneurs needed by co-operative agribusinesses in Indonesia. This stage is based on the results of the two previous stages.

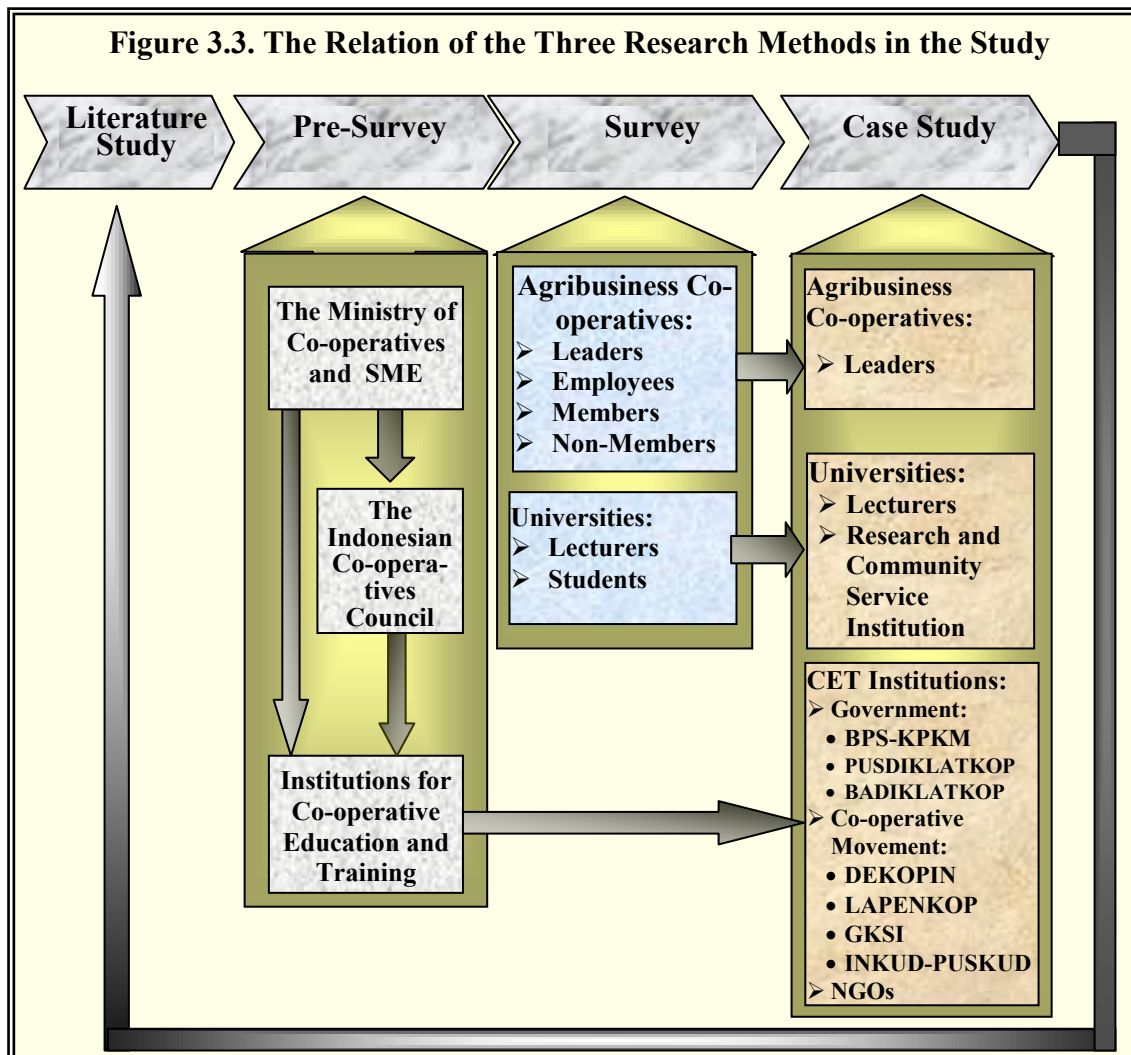
to realize co-operatives as a pillar of the national economy did not go successfully. The climax occurs with the issuance of Law No. 1/1987 about the Chamber of Commerce, that co-operative is put aligned with state-owned and private companies under one roof, which also implies that the performance of co-operatives (which is non-profit oriented) will always be compared with the performance of other business entities that are clearly profit oriented.

Figure 3.2. The Study Framework of Developing Co-operative Entrepreneurs and Agribusiness Co-operatives in Indonesia



Source: Author's own depiction, 2000

To obtain information from several different types of information sources, this study combined three methods of research: literature study, survey (including pre-survey) and case study (Figure 3.3), with the following explanations:



Source: Author's own depiction, 2000.

- 1) The literature study was carried out in an attempt to elaborate the experience of co-operative development in other countries, particularly related to the development of co-operative entrepreneurs. The literature study was also to discover the extent of the development of co-operatives in Indonesia.
- 2) The research survey was carried out on two different objects: (1) co-operative organizations and (2) universities. Before the survey was carried out, pre-survey activities needed to be done so that the general problems of research in the field could be properly identified.

Case studies were conducted on several co-operative organizations and several universities and other institutions with regard to co-operative education and training,

such as the Small-Medium Enterprises and Co-operative Resource Development Agency (BPS-KPKM, the successor agency of PUSDIKLATKOP in Jakarta) and LAPENKOP.

The explanation and objects of each the three research methods can be seen in Table 3.1.

Table 3.1 The Explanation of the Three Research Methods

Methods	Objects	Explanation
I. Pre-survey (Nov 1999)	Institutions for co-operative development	<ul style="list-style-type: none"> • The Ministry of Co-operatives and SMEs • Indonesian Co-operative Council • Institutions for co-operative education and training
II. Survey (Oct 2000 –July 2001)	Field survey on 30 dairy co-operatives in the Provinces of West Java and East Java	Directors and managers, employees, members and non-members of co-operatives
	Mail survey to 60 Faculties of either Economics or Agriculture in 38 Universities throughout Indonesia	Lecturers of co-operative lectures
	Field surveys to four universities	Students of co-operative courses at: <ul style="list-style-type: none"> • IKOPIN (Sumedang) • University of Brawidjaya (Malang) • Bogor Agricultural University (Bogor) • University of Padjadjaran (Bandung)
III. Case Studies (Aug –Sept 2001)	Institutions for co-operative education and training	<ul style="list-style-type: none"> • LAPENKOP (Sumedang) • BADIKLATKOP (Bandung and Malang) • BPS-KPKM • Secondary Co-operatives (Bandung, Surabaya, Malang)
	Universities	<ul style="list-style-type: none"> • IKOPIN (Sumedang) • University of Brawidjaya (Malang) • Bogor Agricultural University (Bogor) • University of Padjadjaran (Bandung)
	Experts on the co-operative movement	<ul style="list-style-type: none"> • Ministry of Co-operatives and SMEs (2 resource persons) • Indonesian Co-operative Council (2 resource persons) • Universities (2 resource persons) • NGOs (2 resource persons)

3.3. Data Collection

The data used in this study were primary and secondary data. Primary data was collected during the survey and case studies stage. Primary data collection was done by using questionnaires and interviews, while the secondary data was obtained from literature, books, journals and information from the internet relating to co-operatives. The time of data collection is explained in Table 3.1.

3.3.1. The Survey of Agribusiness Co-operatives

Surveys were done on agribusiness co-operatives as well as on universities that teach co-operatives as a subject. The agribusiness co-operative samples for the survey research were determined based on the consideration that such co-operatives had been

running for a long time (over five years) and also had activities which are quantifiable both in terms of their implementation and management. After considering the availability of data and information needed, the selected sample of agribusiness co-operatives were co-operatives which were engaged in dairy businesses. Determination of dairy co-operatives as the study sample was due to several considerations, namely:

- 1) The activity of the dairy co-operatives runs on a continuous daily basis, so that research on the performance of co-operatives can be supported by an adequate amount of available data.
- 2) In regard to daily business activities, the dairy co-operatives had to have a relatively higher business turnover than other agribusiness co-operatives.
- 3) Based on points 1 and 2, there were many dairy co-operatives that already had relatively good human resources running their businesses.
- 4) The business of dairy co-operatives had to be very close to their members' business, so that there could be more information to be studied regarding their business and organizational aspects.
- 5) The products of the dairy co-operatives had to have a very good market in Indonesia.
- 6) Dairy co-operatives have a big challenge in developing their business, which needs creativity and innovation from their leaders.
- 7) In Indonesia, there are dairy co-operatives which were built by government initiative (top-down approach), in this case Village Unit Co-operatives (KUD), which have a business line of milk production, as well as dairy co-operatives, which were built based on the needs of its members (bottom-up approach). The latter type of dairy co-operative was built naturally, without being officially directed by the government. Hereafter, this type is called a Non-KUD.

Besides that, dairy co-operatives are co-operatives that are relatively common in many developed countries (Germany, Netherlands, Denmark, United Kingdom, USA and Canada) and also in developing countries (such as India and Brazil), so research findings as well as information about dairy co-operatives are relatively available and easy to be found for comparison purposes in this study.

Thirty dairy co-operatives were surveyed. This number was chosen so that it would be easy to see various performances of dairy co-operatives, and also make it easier to conduct statistical analysis. To ease the collection of data and information about dairy co-operatives, some considerations were used to determine the co-operative sample, which were:

- 1) Surveyed dairy co-operatives should be actively operating co-operatives and have operated for at least 10 years. This is because it is hard to obtain sufficient data from newly established co-operatives.

- 2) Priority in the dairy co-operatives sampled was given to the Non-KUD type in the surveyed area. This is because there are a very limited number of Non-KUD dairy co-operatives, in contrast to the number of KUDs that operate dairy businesses.²¹⁸
- 3) The sampled dairy co-operatives which were prioritized were also large dairy co-operatives in the surveyed area. This is because the number of large dairy co-operatives is much less than the small ones.

The dairy co-operatives sampled in this study were those located in the West Java and East Java Provinces (Figure 3.4). The aim of this was to obtain more information about dairy co-operatives in quite different areas.²¹⁹ Some reasons for choosing these areas were:

- 1) Most of the dairy co-operatives in Indonesia exist in these provinces, especially in the Districts of Malang and Pasuruan (East Java) and the Districts of Bandung and Garut (West Java).
- 2) Both provinces are located relatively far away from one to another, compared to if the only province sampled was Central Java.
- 3) There are differences in socio-culture between the two provinces, with the Sundanese ethnic group in West Java and the Javanese ethnic group in East Java.
- 4) The difference in the agro-climate between the two provinces, which affects the development pattern of agricultural businesses. The climate in East Java is much drier than in West Java.
- 5) The Province of West Java is located close to the center of economic growth in Indonesia (namely the capital city of Indonesia: Jakarta). Due to this situation, dairy businesses in West Java will obtain more benefits than those in East Java.
- 6) There is a difference of availability in the number of milk processing industries (MPIs), as the most important market for fresh milk, with six MPIs in West Java, while in East Java there is only one.

Table 3.2 describes the number of surveyed dairy co-operatives in each province by districts and municipalities. The survey areas in the West Java Province covered seven districts/ municipalities, while in East Java only three areas were covered. This was because the locations of the dairy co-operatives in East Java are more concentrated than in West Java.

²¹⁸ The limited number of Non-KUD dairy co-operatives occurred due to the government policy which limited the co-operative movement to other than KUD in rural areas. See again Chapter-I, Sub-Chapter-1.2.3

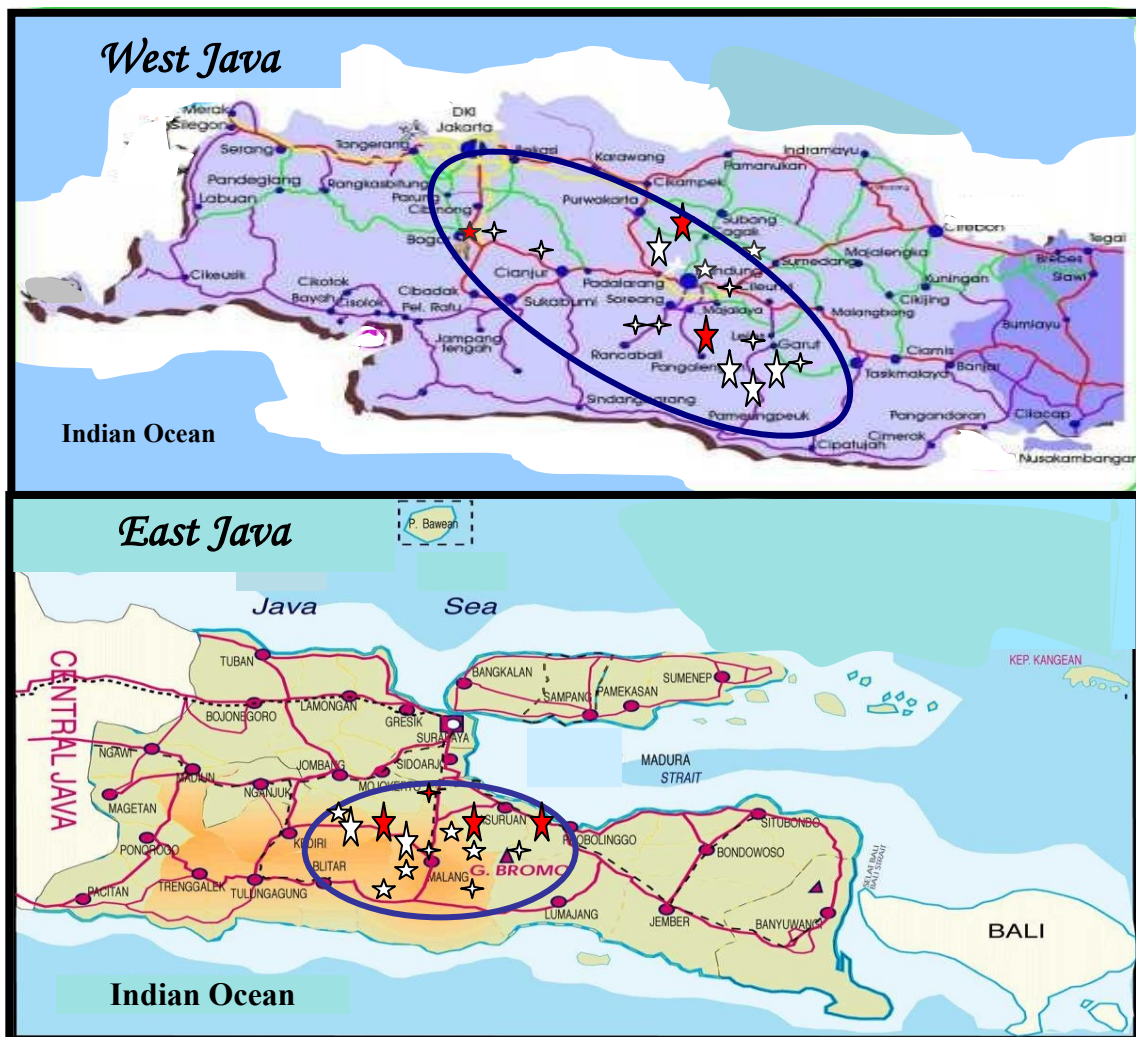
²¹⁹ There are three milk producing centers on Java Island. In addition to the provinces of West Java and East Java, there is Central Java, which is located in between those two provinces, particularly in the region of Boyolali and Salatiga, which are close to Semarang (the capital city of Central Java province).

Table 3.2. The Distribution of Co-operative Samples based on Districts/Municipalities

Districts/Municipalities		Total sample
Province of West Java		16
1	Bandung	6
2	Bandung City	1
3	Garut Districts	5
4	Sumedang Districts	1
5	Cianjur Districts	1
6	Bogor Districts	1
7	Bogor City	1
Province of East Java		14
8	Malang Districts	9
9	Pasuruan Districts	4
10	Batu City	1

Table 3.3 shows the distribution of 30 co-operative samples, based on their size and type. As seen at Table 3.3, these 30 sampled co-operatives cover 34% of the dairy co-operatives that exist in both provinces. Most of big dairy co-operatives have been chosen as research samples, namely Size A (100%) and Size B (85%). Therefore, the 30 co-operatives sampled represent the small and large co-operatives. Similarly, all of the Non-KUD dairy co-operatives have been chosen as research samples due to the number of this Non-KUD being very limited, only seven co-operatives.

Figure 3.4. The Distribution of 30 Surveyed Dairy Co-operatives in the Provinces of West Java and East Java



Note: The white color star is KUD dairy co-operatives, while red color is Non-KUD dairy co-operatives. ☆ is size A-B, ☆ is size C, while ☆ is size D-E.

Table 3.3 The Number of Co-operative Samples Based on Some Classifications

Location (Province)		Number of co-operatives	Size of Co-operative *					Type **	
			A	B	C	D	E	Non-KUD	KUD
West Java	Sample	16	2	4	3	1	6	3	13
	Total	29	2	5	4	1	17		
	Percentage of Sample	55	100	80	75	100	35		
East Java	Sample	14	3	2	5	2	2	4	10
	Total	59	3	2	7	12	35		
	Percentage of Sample	24	100	100	71	17	6		
Total Sample in Two Provinces		30	5	6	8	3	8	7	23
Total Number of Dairy Co-operatives in Two Provinces		88	5	7	11	13	52		
Percentage of Sample (%)		34	100	86	73	23	15		

Note : * The classification used by the GKSI is based on milk production per day, that is: size A produces more than 40,000 kg; size B between 20,000–40,000 kg, size C between 10,000–20,000 kg; size D between 5,000–10,000 kg; and size E less than 5,000 kg per day.

** The term of KUD in this research is a KUD which has a milk business unit in addition to other business lines. As multi-purpose co-operatives, the members of KUD consist of dairy farmers, non-dairy farmers and even non-farmers, while a Non-KUD is co-operative that only has dairy farmers as members. Non-KUD is a single-purpose dairy co-operative (SPDC).

Data was collected by using questionnaires as mentioned in Table 3.4. There were some kinds of respondents who became sources of information at each co-operative. Those respondents were: co-operative leaders (directors and managers), co-operative employees, co-operative members, and non-co-operative members.

Table 3.4 The Type of Used Questionnaires in the Survey of Dairy Co-operatives

Respondent target		Type and term of question	Code	Questionnaires Returned
1	Co-operative Leaders (Directors and Managers)	<ul style="list-style-type: none"> Problems and potential of dairy co-operatives Performance of dairy co-operatives for the past 5 years 	C-1 C-2	30 dairy co-operatives
2	The Personality of Co-operative Leaders	<ul style="list-style-type: none"> Identity, Work experience and Education Personality (motivation, locus of control, risk taking, character of entrepreneur) 	E A-1, A-2, A-3, A-4	132 persons
3	Co-operative Employees	<ul style="list-style-type: none"> Identity, work experience, and education, point of view on their co-operative performance and also the personality of co-operative boards Point of view about the organizational process of co-operatives 	E B	115 persons
4	Co-operative Members	<ul style="list-style-type: none"> Identity, point of view about co-operative organization and business, as well as co-operative boards 	M	113 persons
5	Non-Members	<ul style="list-style-type: none"> Identity, point of view on co-operatives and their existence 	N	60 persons
Total respondents				420 persons

3.3.2. The Survey of Universities

Surveying at universities was conducted through a mail survey to Indonesian universities nationwide, as well as surveying four sample universities.

- 1) The mail survey to universities was done by sending questionnaires to 60 faculties at 38 universities in all provinces in Indonesia. Faculty respondents consisted of the Faculty of Economics (FE) and the Faculty of Agriculture (FA), where co-operative courses are given in both of those faculties.²²⁰ Appendix 8 explains the faculties and universities that participated in this research. Two questioners were sent to the Deans of 36 FE and 25 FA, to be filled out by two lecturers in each faculty. The targeted universities were mostly state-owned universities (79%), while only 21% were private institutions. The collected information was on the implementation of the three pillar activities of the academic staff (i.e.; teaching, research and community services) that were related to co-operative issues. Besides this, the collected information was related to the response of the universities towards co-operative issues, as well as problems that have been faced in developing co-operative education at universities. The samples of this mail survey were lecturers who teach co-operative courses. After sending one reminding letter, 58 questionnaires were returned out of a total of 120 questionnaires sent (return rate of 48%). Although only 48% were returned, these came from 32 out of the 38 targeted universities of the study (84%), or specifically 35 from the FE (97%) and 23 from the FA (92%). So it is expected that the information obtained can describe the problems to be studied.²²¹
- 2) The second surveying of universities was carried out at four universities, namely; University of Brawidjaja (UNIBRA), Bogor Agricultural University (IPB), University of Padjadjaran (UNPAD) and the Indonesian Institute for Co-operative Management (IKOPIN). With the exception of IKOPIN, which focuses its education on co-operative majors, the other three universities were intentionally selected for having one or both FE and FA, in which co-operative education is offered. There are two levels of programs at the university which become sources of information; i.e.; the Graduate Program (called *Program Sarjana / Strata-1*, which normally requires eight semesters to graduate) and the Undergraduate Program (called *Program Diploma / Strata-0*, which normally requires 4-6 semesters to finish). The Undergraduate Program was specifically established to serve more students who are concerned with the development of co-operatives, such as: the Study Program on Co-operatives and Entrepreneurship at UNIBRA, and the Study Program on Business Management and Co-operatives at IPB. Information was gathered from the students, related to the implementation of co-operative education in their faculties. The student

²²⁰ Cf. Mubyarto, 1989, p.33. Information was also obtained from the Directory of Universities that is issued by the Directorate General of Higher Education, the Ministry of National Education. The co-operative course is also provided in the Faculty of Agriculture, in this case the Department of Agricultural Socio and Economics.

²²¹ This was because two questionnaires were sent to each faculty.

samples were intentionally taken from within the four universities (Table 3.5). The sample consists of the students who are already in at least the sixth semester of their studies, with the consideration that, until this semester, students have received co-operative courses and have also started to think about possible jobs or workplaces when they have completed their studies.

Table 3.5. The Number of Student Samples at the Four Surveyed Universities

No	University	Graduate Program (Strata-1)	Undergraduate Program (Strata-0)
1	Indonesian Institute for Co-operative Management (IKOPIN) in Sumedang, West Java	<ul style="list-style-type: none"> • Faculty of Production and Marketing Management (14 Students) • Faculty of Financial Management (20 Students) • Faculty of Human Resources Management (12 Students) 	-
2	University of Brawidjaya (UNIBRA) in Malang, East Java	<ul style="list-style-type: none"> • Faculty of Economics (17 Students) • Faculty of Agriculture (26 Students) 	Study Program in Co-operatives and Entrepreneurship (22 Students)
3	University of Padjadjaran (UNPAD), in Bandung, West Java	<ul style="list-style-type: none"> • Faculty of Economics (19 Students) • Faculty of Agriculture (19 Students) 	-
4	Bogor Agricultural University (IPB), in Bogor, West Java	Faculty of Agriculture (24 Students)	Study Program in Business Management and Co-operatives (33 Students)
	Total Samples	151 Students	55 Students

3.3.3. Case Studies

The first case study was done to study the leaders of dairy co-operatives. This case study aimed to find out the individual background of the leaders and their personal views towards various aspects of dairy co-operatives. In addition to this, this case study was also aimed at determining the effect of individual, psychological and organizational variables on the performance of co-operative leaders. Information about psychological variables were related to aspects of motivation and self-control, propensity to risk, and some entrepreneurial characteristics as presented by Hornaday (1982). This information comes contained in the form of questions used by psychologists in an effort to map the ways of thinking that may affect people's day-to-day behavior.

The second case study was carried out on the lecturers of co-operatives at four universities. This case study was conducted to acquire deeper information regarding the mail survey which had been previously conducted.

The third case study was done at institutions of government as well as the co-operative movement. At government institutions, the information was obtained from PUSDIKLATKOP and BADIKLATKOP. During the research carried out, there were structural changes at the Ministry of CSMED (Ministry of Co-operative and Small-Medium Enterprise Development), which became the State Ministry of CSME. With

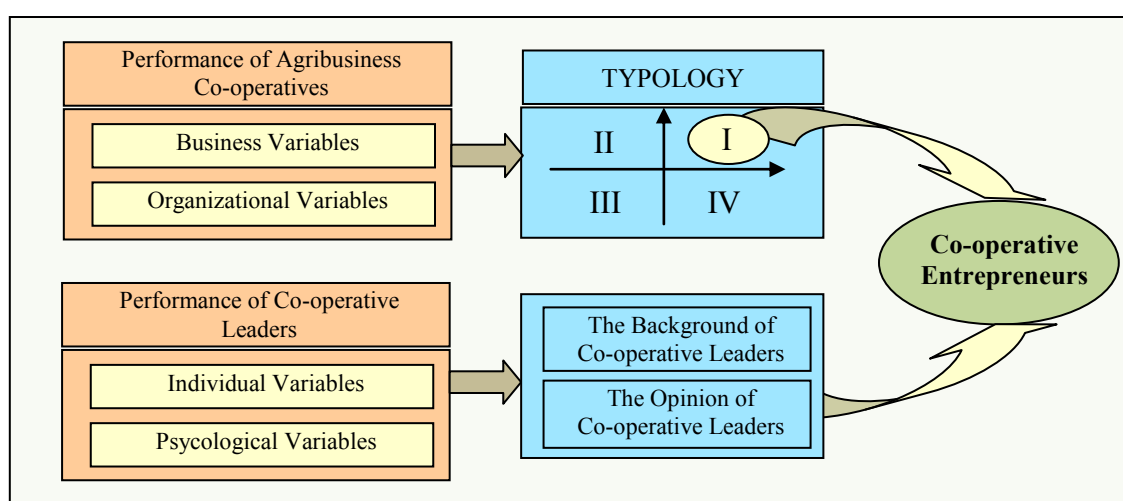
this new structure, the institution of PUSDIKLATKOP was eliminated, and another institution was formed, namely the BPS-KPKM, which does not specially concentrate on the human resource development of co-operatives. Meanwhile, the BADIKLATKOPs at the provincial level still exist, but are no longer related to the bureaucracy of the State Ministry of CSME. They came to be directly related to the Governors at the provincial level. Therefore, not very much information was obtained from PUSDIKLATKOP and BPS-KPKM (which has just been established). Besides this, information was also obtained from the KANWILKOP (co-operative provincial offices) in both West Java and East Java Provinces and several KANDEPKOP (co-operative district offices) in the Districts of Malang and Bogor.

From co-operative movement institutions, data and information were obtained from: LAPENKOP; GKSI, namely the central office of GKSI in Jakarta, and the branch offices of GKSI in West Java (Bandung) and East Java (Malang); and PUSKUD, which is the Central Office of KUDs (East Java). Additionally, some information was also obtained from the central office of DEKOPIN (in Jakarta) and DEKOPINDA (in Malang).

3.4. Data Processing and Analysis

Data processing and analysis was carried out related to co-operative performance in both organizational and business aspects, as well as on the performance of co-operative leaders. The results of both these analyses were necessary to be able to ascertain the character of a co-operative entrepreneur. In general, processing and data analysis can be seen in Figure 3.5. In addition to this, data processing and analysis was also done related to the education and training programs for co-operatives which were carried out at universities.

Figure 3.5. The Analysis Steps of Co-operative Entrepreneurs



Source: Author's own depiction, 2000

3.4.1. The Analysis of Co-operative Performances

Data processing on the performance of co-operatives was carried out in stages both for business and organizational variables. The initial stage was to insert data into an Excel worksheet, followed by observing the completeness of the data from different sources, both from the questionnaires and from the co-operative's annual reports, as well as data from various other agencies. At this stage, the incomplete data were separated. The next stage, complete data was processed for form new variables, such as by combining several variables into one variable, to determined ratios, growth rates, and dummy variables. Then, the data was processed to obtain the average values for groups of co-operatives, which was followed by statistical testing to look for any significant differences among groups of co-operatives.

1) The Business Performance of Co-operatives

The analyses on co-operative businesses were aimed at three aspects, namely: (1) the development of milk production, (2) turnover development in business units, and (3) the development of financial performance. The analysis of business performance was not only related to the milk business unit, but also to all kinds of business units that contribute to the total business volume of co-operatives. However, due to there being different kinds of business units within the thirty co-operatives, these business units needed to be grouped into several groups of business units, which are:

- a. The Business Unit of Milk, which purchases milk from farmers and sells it to the MPI. In addition to this, this unit also sells either fresh or pasteurized milk directly to consumers.
- b. Business Unit of Feed, which provides raw materials for feeding cows and also processing and transporting feed to dairy farmers.
- c. Business Unit of Credit, which handles cash loans and savings for members. However, this did not included government program credit schemes, such as cow credit or agricultural credit (*Kredit Usahatani* = KUT).
- d. Business Unit of Trade, which markets goods to members and also to non-members, such as the unit of Kios (*Waserda* – one-stop shopping), distribution of rice, sugar and other consumer goods.
- e. Business Unit of Other Livestock, which is engaged in business related to the development of cattle ranching. This includes the procurement of cows, breeding, rearing, providing non-feed products for cows (medicines, frozen semen, milk-cans, etc.), technical services for dairy farms, and slaughterhouses.
- f. Business Unit of Other Agriculture, which runs general agricultural activities other than dairy farming, such as; distributing fertilizer, distributing farming credit, horticultural farming (fruits and vegetables) and also plantations (clove, sugar cane, tea)

g. Business Unit of Services and Others. This unit is a unification of the remaining units, which are mainly engaged in the service sector, such as for the payment of electric and telephone bills, cleaning service, insurance, and tourism. Besides this, there are also several other business units such as beekeeping, poultry, cigarette factory, etc.

Comparative analysis was conducted on the performance of co-operatives in terms of their business and organization in 2000. As mentioned above, business performance consists of three aspects, namely: milk production, business turnover, and the financial performance of co-operatives. Milk production is related to milk production as well as the growth of milk production. Business turnover covers the share of each business unit to the total turnover, as well as the growth level of business turnover of co-operatives. Meanwhile, some important items to be analyzed for financial performance were: (1) current assets, (2) fixed assets, (3) total assets, accounts receivable, (4) current liabilities, (5) term liabilities, (6) equity, (7) working capital, (8) total sales, (9) cost of goods sales, (10) gross margin, (11) total cost and, (12) business surplus. Additionally, there is the financial ratio analysis, which uses specific ratio analysis for co-operative business as stated by Rasmussen (1975), plus some ratios that were used by Srinarni (1997) in her research, as well as some financial ratios used by companies in general (Wetson and Capeland, 1986). These financial ratios include Liquidity Ratio, Solvency Ratio, Profitability Ratio, Efficiency Ratio, Capital Ratio and Productivity Ratio (for the used formula, see Appendix 9). Meanwhile, an analysis of organizational aspects included the implementation of co-operative principles as well as organizational processes.

The sources of data that were used to analyze the first aspect came from the Regional as well as the Central Offices of GKSI, while the second and the third aspects came from the Annual Reports of the thirty co-operative samples within five years; i.e. from 1996 to 2000. Analysis was held to the performance of co-operatives in 2000 and its growth for five years (between 1996 and 2000). Besides this, analysis was also done by comparing performance among dairy co-operatives and among groups of co-operative samples. Grouping dairy co-operatives was aimed to see whether performance levels of one group differed compared to other groups, so as to deeply examine potential and real problems faced by co-operative in each group. Grouping of dairy co-operatives was based on whether there were KUD (23 samples) or Non-KUD (7 samples) types of dairy co-operatives. The comparison analysis was done two ways, that is:

- a. Tabulation analysis (non-statistics) with a nominal scale to compare the performance of each group of co-operatives.
- b. Statistical analysis to see the extent of the significance of differences existing between the two groups. Statistical analysis used a Test T (T-Test).

2) The Organizational Performance of Co-operatives

Data processing related to the performance of co-operative organization was based on information from the personal views of co-operative members, as well as employees, towards the organizational aspects of the co-operative. This includes their views towards co-operative management. Specifically, the analysis of co-operative performance was related to the implementation of co-operative principles and how good the organizational process was in co-operatives.

Unlike for data of co-operative business, which is relatively clear and open, the information of co-operative organization is relatively abstract and closed. This caused some difficulties in getting the needed information. The information on co-operative organization was obtained by interviewing boards of directors, managers, employees, members of co-operatives, as well as non-members. Some information can be viewed in quantity variables, but some of them could only be presented as binomial variables. This had to be done, because the availability of organizational data from the annual reports of co-operatives was too little and too varied among the 30 co-operative samples.

Information about the ability of co-operatives to implement co-operative principles was obtained from two parties, namely employees and members of co-operatives.²²² The theory used to analyze the organizational process in co-operatives was the Theory of System-4 by Likert (1967).²²³ According to Likert, System-4 is an ideal process for an organization to reach high achievement.²²⁴ So, leaders need to develop their organizations towards the characteristics of System-4.

Likert (1967) describes eight conditions of organizational processes, namely: (1) leadership process, (2) motivation process, (3) communication process, (4) the effect of interaction, (5) decision-making process, (6) setting goals process, (7) process control, and (8) organizational achievement. The questionnaire used was a modification of the 51 questions items developed by Likert (1967, pp.196-229). This questionnaire could be used to diagnose the extent of organizational approaches towards the System-4 structure. By filling out the questionnaire, respondents revealed their perceptions about the extent to which their organization meets the organizational characteristics of System-4. Then, the average values of these responses were plotted into a graph based on types of grouping variables.

²²² Co-operatives principle means the co-operative principles declared by International Co-operative Alliance (ICA) in Manchester in 1995. See again Chapter-II Sub-chapter 2.3.

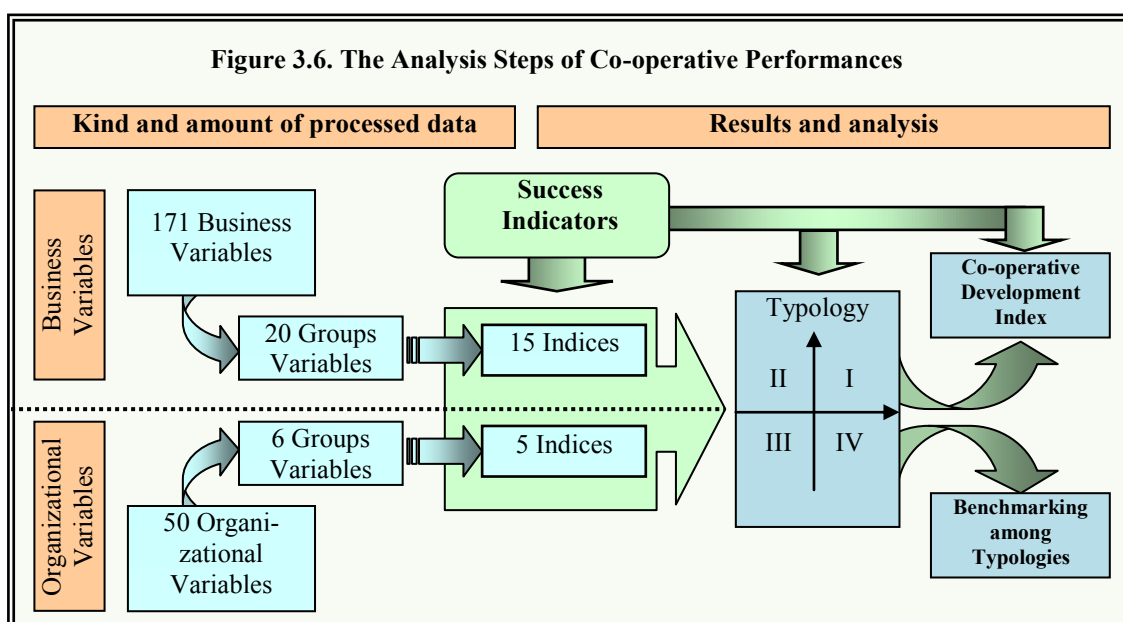
²²³ Cf. Likert Rensis, *The Human Organization*, 1967.

²²⁴ According to Likert, System-4 organization is closer to the character of an organic organization than a mechanistic organization (see the comparison of the two organizations in Appendix 10). An organic organization emphasizes the importance of the ability to adapt and achieve high growth, with less reliance on rules and procedures, decentralized authority and low specialization. Meanwhile, a mechanistic organization emphasizes the importance of achieving high production and efficiency, applying the rules and procedures extensively, centralized authority and high specialization (see Gibson, *et.al.* 1996, pp.67-73)

3) The Typology of Co-operatives

The next step of data processing was to determine the key success indicators of dairy co-operatives. Based on the key success indicators, then the typology of the 30 co-operative samples could be created. This study used an objective approach in determining the key success indicators instead of a subjective approach. If the measuring of success indicators with a subjective approach is done by an inductive method, to the contrary, the objective approach is carried out by using a deductive method. By using the objective approach, the real facts that have been collected will sufficiently indicate what factors should be used as key success indicators.

However, the availability of large data in terms of number and dimension may cause difficulties in the process of data analysis. As seen at Figure 3.6, there were very large numbers of data to be processed. Therefore, processing data used a multivariate analysis approach. Multivariate analysis is a form that is widely used for statistical analysis of data consisting of many variables with different dimensions of measurements made on a number of objects (Anderson 1960, Morrison, 1990). Such measuring is commonly performed in social sciences, economics, psychology, as well as health. Multivariate analysis will help to understand diversity of data better and make further analysis become easier.



Source: Author's own depiction, 2002

One of the simple multivariate analysis approaches is Principle Component Analysis – PCA.²²⁵ PCA is usually used to identify whether a number of major components have included most of variation in original data. The higher the correlation among the original data, the better the PCA will be done, because this will show that the

²²⁵ Cf. Manly, 1986, p.59.

available data indicate the same points. Then through PCA would be established non-correlation indexes with each other, which show that each of indexes indicates different dimensions in data.²²⁶ Apart from that, this PCA indexes are so orderly so that the PCA will show the number of the biggest data variation, and the second PCA will show the number of the second biggest variation, and so on. Thus, it is possible to expect that some major components will be very significant in understanding data in better way, and it will be useful in further analysis which requires a small number of variables.

With PCA the variables that most affect co-operative performance can be known. Stages in the analysis are as follows:

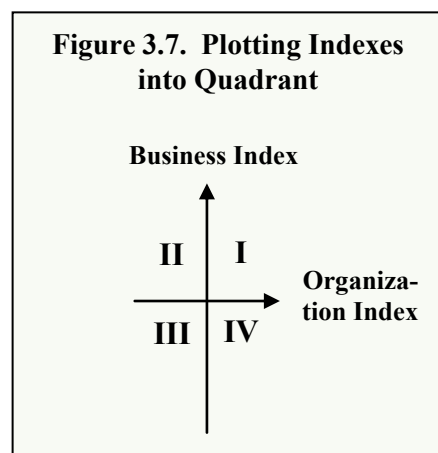
- a. Dividing all business and organizational variables into separate variable groups. The result of this stage was 20 groups of business variables and 6 groups of organizational variables.
- b. Then indices are formed for each of these variable groups. In forming the index, the variables with negative or small contributions (eigenvalue) are separated.
- c. Then these indices are combined to form two main indices, namely the index of business and the index of organization. The two main indices were then plotted in the quadrant system (Figure 3.7), yielding four quadrants that can indicate the relative position of each of the 30 sample co-operatives.

4) Dairy Co-operative Development Index

This study also calculated a Development Index for dairy co-operatives. This index aims to determine the ranking of the 30 co-operatives samples, from the relatively best performance down to the worst. The rating is reflected on the index, which is a combination of the business index and organization index. This new index is called the Dairy Co-operative Development Index.

3.4.2. The Analysis of Co-operative Leaders

Gibson *et al.*, (1996, p.52) argue that a person's behavior and achievements are influenced by three variables, namely: individual, psychological and organizational variables. By linking individual background variables and psychological variables of co-operative leaders with the achievements of a co-operative (i.e., the typology of co-operatives), it is expected to obtain information about the characteristics of a co-operative entrepreneurs. This is in accordance with the previous explanation, that co-operatives in Quadrant-I tend to have leaders who have a spirit of

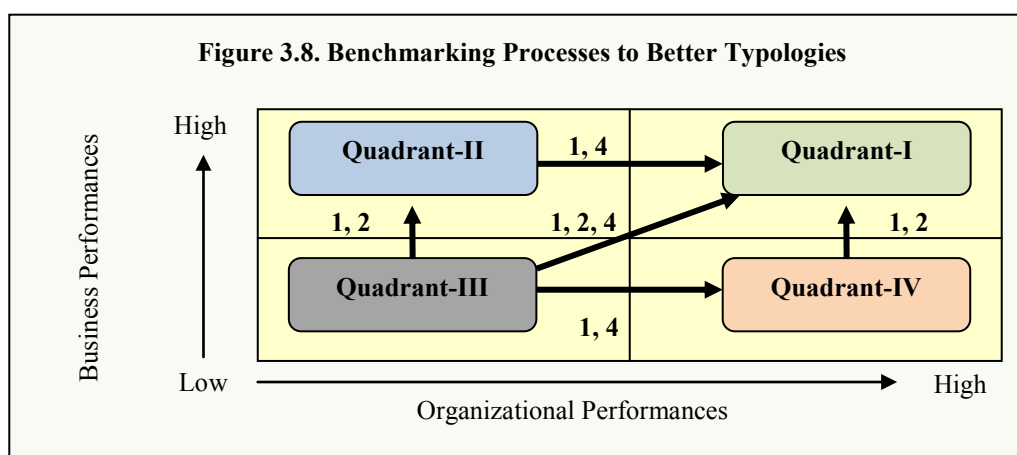


Source: Author's own depiction, 2000

²²⁶ Cf. Everitt and Dunn, 1998

co-operative entrepreneurship. In fact, they have succeeded in simultaneously promoting both business and organizational aspects of co-operatives.

In terms of creating more co-operative entrepreneurs from co-operatives in Quadrant-II, III and IV, a benchmarking process may be done to co-operatives in Quadrant-I (Figure 3.8). This is, therefore, development program of co-operative leaders can be better formulated.



Source: Author's own depiction, 2000

1) The Individual Background of Co-operative Leaders

Information regarding the individual background of co-operative leaders covers personal information such as: age, ethnic group, family background and education level. Besides these, other information included types and intensity of training that they have participated in, both related to co-operative training and otherwise. It also includes information regarding work experiences, both in the co-operatives that they are working in now, as well as in other co-operatives. Also included were their work experiences in non-co-operative organizations, as well as activities in other business and social institutions.

2) The Psychological Variables of Co-operative Leaders

Psychological variables of co-operative leaders were measured to determine the extent of their social motives, locus of control and risk-taking orientation. Besides those, some other characters of entrepreneurs were also measured.

a. Locus of Control and Social Motives

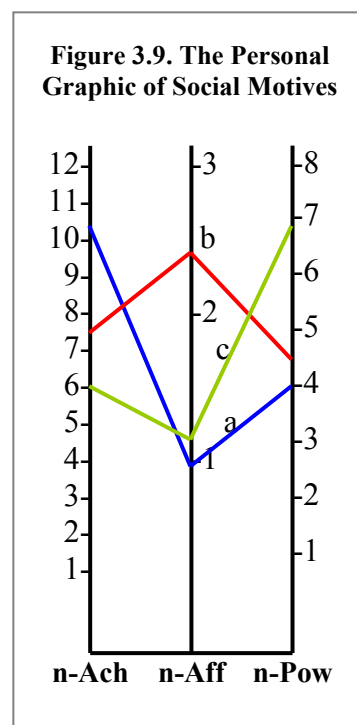
The Scale of Locus of Control (I-E Control) was developed by Julian Rotter (1966), consisting of 23 pairs of statement that have internal and external definitions, and 6 pairs of statement which are meant to conceal the purpose of this tool. Therefore, there are only 23 statements used in determining the locus of control scale. This scale has been translated into the Indonesian language, corrected and tested in many

researches.²²⁷ This scale is used in various trainings for human resource development in Indonesia,²²⁸ including for co-operative managers.²²⁹

This scale is used not only to measure a person's locus of control, but it can also identify a person's social motivation.²³⁰ Out of the 23 statements, there are 12 statements related to the need for achievement (n-Ach), 3 statements related to the need for affiliation (n-Aff) and 8 statements related to the need for power (n-Pow). If the three social motives are drawn into a graph, the ideal graph is “ \surd ” which consists of high n-Ach scale, low n-Aff and moderate n-Pow (as in graph “a” at Figure 3.9).²³¹ The high n-Aff that is followed by low n-Ach results in people who only like to get together and make friends, but who are not productive, because there is no achievement which is desired (the graph “b”). A high n-Pow with a low n-Ach might cause a person to become authoritarian, which does not consider whether the performance achieved is from their own efforts or due to other people (the graph “c”).

b. Moderate Risk Taking

Entrepreneurs are not gamblers. If they will conduct a business, they will accurately calculate the risk beforehand. They prepare business strategies as good as possible so that profits can be earned, while various unnecessary risks can be



Source: Figured by author, 2000

²²⁷ Hen, 1990. Gibson, *et.al.*, 1996, pp.74-75. This I-E Control scale has been widely used by many studies in the Faculty of Psychology, University of Indonesia. The scale has been examined many times in terms of its reliability and validity.

²²⁸ The Author had experience in using the I-E Control Scale when participating the training of “Integrated Personal Quality Improvement (IPQY)” which was held by *Lembaga Pengembangan Sumberdaya Manusia* (the Institution of Human Resource Development) *Bumi Arasy*, in January 6th - 11th, 1996 on Bidadari Island, North Jakarta. The scale can also be used to measure the social motives of a person who has: need for achievement, need for affiliation and need for power.

²²⁹ The questionnaire was received when attending the training for co-operative managers at *Pusat Latihan Pasca Panen* (Training Center for Post Harvest = PLPP) Cibitung. Since 1991, PLPP Cibitung has had co-operation with *Yayasan Prasetya Mulya*, one popular Management School in Jakarta, in conducting Achievement Motivation Training for managers of co-operatives (see Ellyas, 1993, pp. 229-232).

²³⁰ In measuring achievement motives, McClelland used the Thematic Appreciation Test (TAT). However, due to several limitations, the social motives of co-operative leaders are measured by applying the Rotter I-E Control scale.

²³¹ Cf. Siagian and Asfahani, 1995, p.105. The Author obtained this information when attending the IPQY training explained above (Nr.228). Also compare with Brockhaus, 1982, p.42, which cited a study result by Weiner and Rubin (1969) that indicated a high n-Ach with moderate n-Pow is correlated with higher business performance.

avoided.²³² McClelland stipulated that people with stronger n-Ach prefer moderate risk instead of either very easy and safe business, or extremely difficult and speculative ones.²³³ The risk that is too difficult will make them easily frustrated, while risk that is too low will provide them with any business challenges.²³⁴

Attitude towards risk was measured with a questionnaire used by Budiharjo (1988). The questionnaire was prepared to identify a person's orientation in taking risk, whether it is low, medium or high. In each of ten questions there are three choices of statements that reflect each attitude towards risk taking.²³⁵ For low risk responses, the value is 1, for moderate risk it is 3 and for high risk the value is 5. In performing statistical analysis, the respondents were classified into those who are moderate risk takers in one group, and those who are high risk takers (≥ 4 scale) and low risk takers (≤ 2 scale) in the other group.

c. Other Characteristics of Entrepreneurs

Twelve of nineteen entrepreneurial characters stipulated by Hornaday (1982) were studied by using the questionnaire of entrepreneurial character identification by Gray,²³⁶ namely: (1) self-confidence, (2) perseverance-determination, (3) energy-diligent, (4) creativity, (5) initiative, (6) flexibility, (7) positive response to challenge, (8) foresight, (9) versatility, (10) ability to get along with people, (11) responsiveness to suggestion and criticisms, and (12) perceptiveness. For each characteristic there are five statements in which co-operative leaders stipulate their agreement or disagreement towards such statements.²³⁷

The questionnaire is not filled out at the moment of the interview, because in addition to a lot of questions needing to be answered, separate time and quiet time to complete the questionnaire is required. This is done so that the answers are given in accordance with their personal views. It was expected that the questionnaires would be returned to the researcher by mail within two weeks.²³⁸ For missing or incomplete answers, the questionnaires were to be sent back to respondents to be completed.

²³² Cf. Kuratko and Hodgetts, 1992, p. 74.

²³³ See McClelland, 1976.

²³⁴ Compare with Artkinson's risk-taking model, as quoted by Brockhaus, 1982, p.44.

²³⁵ A test of reliability of the questions in this questionnaire has been done by Budihardjo (1988), in which the questions which were not reliable have been excluded.

²³⁶ Gray, 1996, pp.20-43.

²³⁷ The questionnaire has been used in the training of *Tenaga Kerja Pemuda Mandiri Profesional* (TKPMP, Independent Youth and Professional Workers), which has been conducted many times by *Lembaga Pengabdian Masyarakat* (the Institute for Community Services) of IPB, in Bogor (1996, 1997). The training objectives were to give motivation and to create more entrepreneurs among the youth.

²³⁸ The questionnaires were returned through postal services by using the prepared envelope (in which the destination address had been correctly given).

Data from co-operative leaders was processed based on the distribution of co-operatives in four quadrants. By linking individual variables as well as psychological variables of co-operative leaders into the typology of co-operatives (which included the condition of organizational variables), information could be obtained about what matters affect the achievements of co-operative leaders in Quadrant-I.

For some data which had a character of frequency, it was necessary to first transform them into a binomial variable form with respect to the distribution of existing data. A performance comparison among quadrants was done by using analysis of variance, T-test and Chi-square. To expand the scope of analysis, the comparison was not solely between the performances of co-operative leaders in Quadrant-I and Non-Quadrant-I, but also between:

- 1) Quadrant-I+II and Quadrant-III+IV, which reflects a comparison between co-operatives that are successful in business aspects compared to less successful ones.
- 2) Quadrant-I+IV and Quadrant-II+III, which reflects the comparison between successful co-operatives in organizational aspects compared to less successful ones.
- 3) Quadrant-III and Quadrant-I+II+IV, which reflects co-operatives that are less successful in all aspects compared with those which are relatively successful in at least one aspect of business or organization.

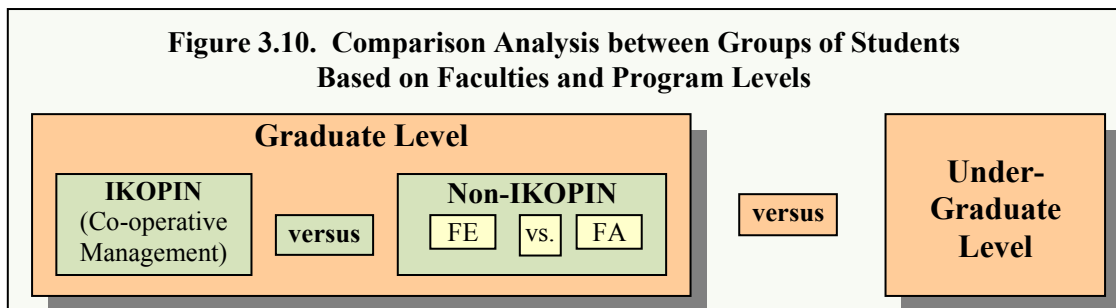
3.4.3. The Evaluation of Co-operative Education at Universities

This evaluation was aimed at determining the effectiveness of co-operative education at universities which is related to the need for qualified co-operative leaders. The evaluation was carried out with two sources of information, namely lecturers and students of universities in which co-operative courses are offered. There were 58 lecturers who returned the mailed questionnaires and 206 students from four universities who filled out the questionnaires. Data was processed by using Excel software to facilitate the grouping of respondents into several groups. Further statistical tests were conducted to see whether there were significant differences among the groups of respondents regarding to the conditions or problems faced in the implementation of co-operative education at universities.

A comparison analysis was done between types of faculty; the Faculty of Economics (FE) and the Faculty of Agriculture (FA). This was aimed to know the extent to which co-operative education in the FA lagged compared in the FE, where so far there has been an assumption that more intensive co-operative education is given at the FE.²³⁹ Yet, in an effort to develop co-operative agribusinesses, it would be easier to

²³⁹ In the Faculty of Economics at least two co-operative subjects are taught, namely the subject of Co-operative Economics and Co-operative Management, while in the Faculty of Agriculture there is only the subject of Agricultural Co-operatives. See for example the Guidance Book of the Faculty of Economics, University of Brawidjaja 2000/2001-2001/2002 (in *Fakultas Ekonomi Universitas Brawidjaja*, 2000).

rely on graduates from the FA rather than those from the FE.²⁴⁰ In addition to this, a comparison between the students of FE and FA was analyzed to complete information obtained from the lecturers. This activity was aimed at determining to extent of co-operative educational backwardness at the FA compared to the FE (Figure 3.10).



Source: Author's own depiction, 2000

A comparison analysis was also done between the students of IKOPIN and Non-IKOPIN. This was aimed at examining the extent of implementation gaps for co-operative education at the graduate level between the only University of Co-operative Management in Indonesia (IKOPIN) and general universities. Additional analysis was conducted on differences between the conditions and views of students at the graduate level and students at the undergraduate level. This analysis was aimed at detecting the extent of the impact of co-operative education that they received on their readiness to get involved in co-operative institutions after the completion of their studies.

3.4.4. Strategy for Developing Co-operative Leaders

In this research, the strategy for human resource development for co-operatives in Indonesia was formulated by using an Analytical Hierarchy Process (AHP). AHP was used because it is simple and flexible, yet highly effective in supporting a decision process with multi-criteria, multi-purposes, and is replete with complex situations.²⁴¹ This method was also often used to determine the best choice among various difficult alternatives.²⁴² With the AHP approach, a complex system can be easily understood, in which the system is broken down into various elements and then is arranged into a hierarchy. Furthermore, giving consideration to the relative importance of each of the elements at each level of the hierarchy will facilitate setting overall priorities.²⁴³

²⁴⁰ This is because in the FA, students are provided with knowledge regarding the application of agricultural technology. Besides this, the mentality of FA students are more close to rural nuance, because they interact a lot with rural people. Even many students in the FA come from agricultural communities (which gave them an interest to study in the FA).

²⁴¹ Cf. Priatmono, 2000, p.3.

²⁴² *Ibid*

²⁴³ Saaty, 1991, p.30

Another aspect of the AHP is that this process provides a framework for group participation in decision-making or problem solving.²⁴⁴

The AHP work process was started by identifying the system that is followed by constructing a hierarchy. Based on this hierarchy, an individual opinion matrix is established in paired comparison matrix form. The process of paired comparisons is performed by co-operative experts while giving consideration to what extent an element is a more important focus on an issue than other elements. In order to facilitate the comparison, a scale was used, as described in Table 3.6.

Table 3.6. The Fundamental Scale of Analytical Hierarchy Process

Scale	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
3	Moderate importance of one over another	Experience and judgment moderately favor one activity over another
5	Essential or strong importance	Experience and judgment strongly favor one activity over another
7	Very strong importance	An activity is strongly favored and its dominance demonstrated in practices
9	Extreme importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate value between two adjacent judgment	When compromise is needed
If activity i has one of the above numbers assigned to n when compared to activity j, then j has the reciprocal value when compared with i.		

Source: Adapted from Saaty, 1987, p.163.

The process of paired comparisons was carried out by the experts of co-operative by giving consideration as to whether an element is more important to the focus of a problem than any other elements. The individual opinion matrix was then incorporated into the matrix of the combined opinion. The matrix combined opinion was the geometric average of the individual opinions from the interviews, in which a consistency ratio is no greater than 10% and no conflict between individual opinions was found. Processing was then conducted to prioritize the influence of each element at each level of the decision hierarchy towards the focus of the problem. Priority can be seen from the scale of weights that was obtained for each element at every level of the decision hierarchy.

²⁴⁴ Saaty, 1987. p.24.

CHAPTER - IV

MILK AGRIBUSINESS IN INDONESIA

4.1. Milk Agribusiness

Milk is an important commodity for health because it contains protein and has a high level of amino acids, minerals and other important substances for human development. Milk can be consumed in the form of fresh milk or processed milk, such as skimmed milk, fortified milk, milk powder or concentrated milk. Besides these, there are many products from milk, such as: margarine, cheese, yogurt, caramel, etc.

In Indonesia, most milk is produced by dairy farmers through small-scale farming. Farmers mostly sell milk in the form of fresh milk to the Milk Processing Industries (MPI), and the rest is sold directly to consumers. MPI processes it into skimmed milk powder or sweet condensed milk. Until now, it is still very rare for a dairy farmer or dairy co-operative to process byproducts of milk, such as margarine and cheese.²⁴⁵

The total production level of milk in Indonesia is still low. This is highly influenced by the low number of the dairy cow population. In 2000 there were only

Table 4.1. The Number of Cows and Milk Production in Some Countries

No	Countries	Number of Cows (in ,000 heads)		Milk Production (in ,000 M Tons)	
		1996	2000	1996	2000
1	USA	9.446	9.168	70.440	75.950
2	Canada	1.244	1.240	7.920	8.200
3	Denmark	703	660	4.673	4.630
4	England	2.268	1.992	14.700	14.500
5	Germany	5.273	4.644	28.621	28.400
6	Netherland	1.709	1.550	11.294	10.500
7	France	4.754	4.424	25.413	24.900
8	Australia	1.786	2.179	8.433	11.103
9	New Zealand	2.994	3.300	9.684	12.835
10	Japan	1.034	1.000	8.382	8.420
11	Russia	18.400	12.900	39.300	31.000
12	Mexico	6.440	6.800	7.399	9.200
13	Argentina	2.350	2.470	8.500	10.200
14	Brazil	17.500	16.700	18.375	22.500
15	India	33.000	35.800	32.500	36.500
16	China	2.252	2.280	5.764	7.150
17	Indonesia	330	341	441	453

Source : GKSI, 2000

about 341,000 heads, with a production rate of approximately 453,000 M Tons. This amount is insignificant compared to other milk producing countries in developed countries in Europe and North America, as well as in some developing countries like India, Brazil, Ukraine, Mexico and Argentina. Table 4.1 describes the total cow population and milk products in several producer countries.

In 2000, the cow population was concentrated in developing

²⁴⁵ In KPBS Pangalengan, the researcher found some methods of milk processing which are still traditional in making milk chips, milk candies, or milk tofu.

countries, such as in India and Brazil. Particularly, in India, the implementation program of milk development is called Operation Flood, that resulted in India becoming the world's largest milk producer.²⁴⁶ Yet, based on the quantity of milk production, the USA is the largest milk producer, followed by India, Russia, and Germany. Table 4.1 indicates that the productivity of developed countries such as the USA and Germany is much higher than in developing countries such as India and Brazil.

Compared to 1996, in 2000 the cow population in many milk-producing countries declined, as in USA, UK, Germany, France, Brazil, and most notably in Russia. However, except in Russia, the declining number of this cow population did not significantly affect the production of milk, even in America, Canada, Japan and Brazil, where it increased. This means that in these countries there was an increase of the productivity of dairy cows. Thus the level of milk production is influenced not only by the level of the dairy cow population, but also by the level of productivity of the dairy itself. Figure 4.1 shows other factors that influence the level of milk production.²⁴⁷

In addition to the quantity aspect of milk production, it is important to also pay attention to the quality aspect. If milk quality is low and even damaged, it has to be thrown away. The problem of milk quality in smallholder farming units is not an easy one. This is because traditional methods of farm management are tied to the low skill and knowledge of farmers, as well as a lack of capital. It takes a long time to build up an understanding among farmers regarding the importance of high milk quality, as set by the Indonesian National Standard (SNI) issued by the Ministry of Industry in 1982 (see Appendix 11). This standard is used to protect both consumers and MPI in the country, as well as to demonstrate ability to compete with foreign milk in the global marketplace.

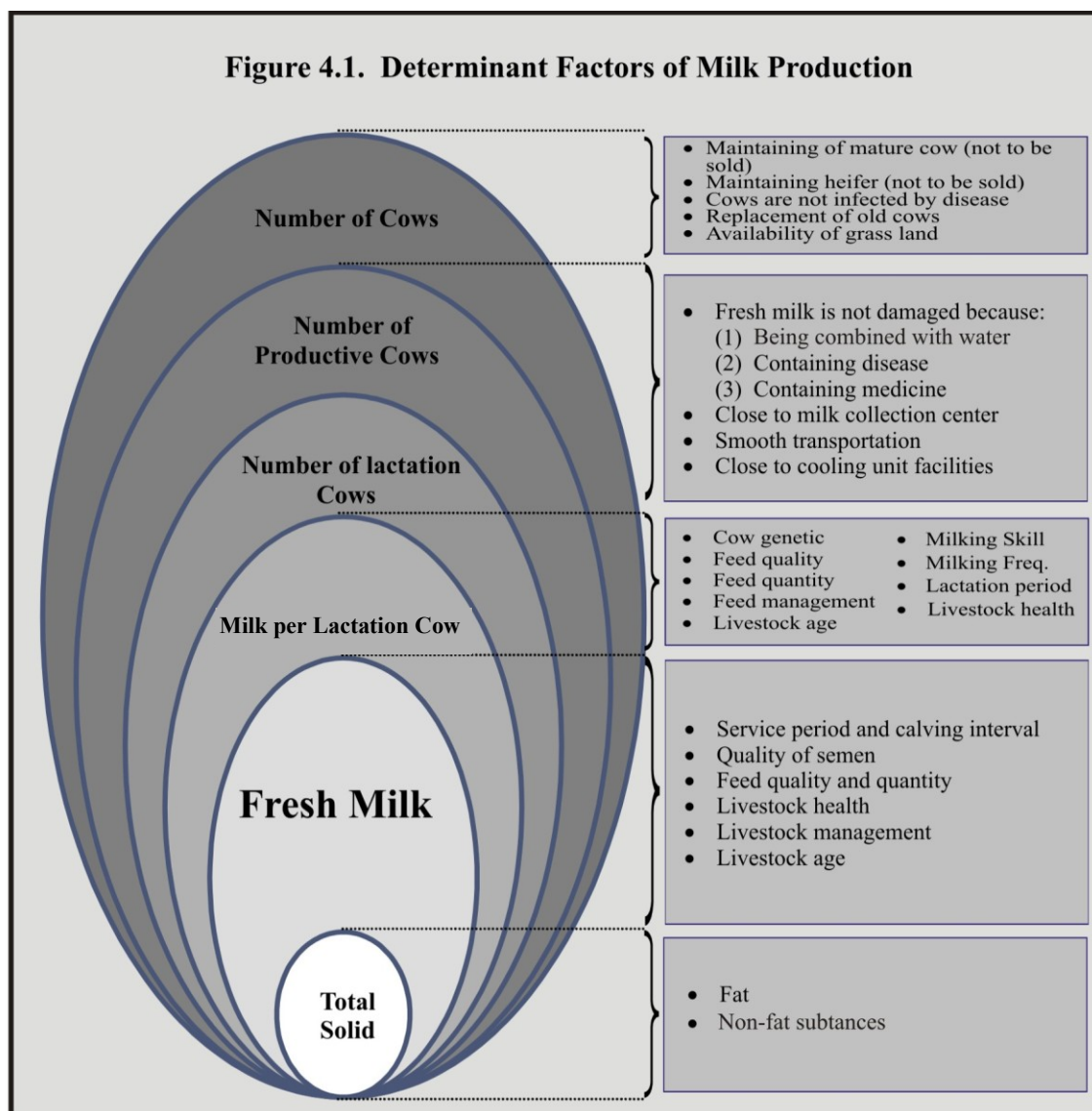
The two most common types of standards used as indicators of quality of dairy farmers in Indonesia, are the high content of total solid (TS), and the low content of bacteria in milk, frequently called TPC (Total Plate Count) number. Total Solid (TS) is a combination of content-Fat and Non-Fat dry ingredients. The amount of TS content is influenced by genetic factors of dairy cows, feed quality and good farm business management. TPC is affected by a low level of hygiene during milking and post-milking, until the milk can be processed (by cooling). The length of time between the milking and cooling process will significantly affect the high number of bacteria in the milk. Figure 4.2 shows the factors that affect these two indicators.

4.2. Milk Commodity

The habit of drinking milk among Indonesians was introduced by the Dutch, while drinking goat's milk was introduced by Arabs and Indians. In Indonesia this evolved

²⁴⁶ Cf. Prakash, 1998, p.12; Raju, 2004, p. 33. About the project, see further Seetharaman and Mohanan, 1985, pp.210-215; Mascarenhas, 1988, pp.123-176.

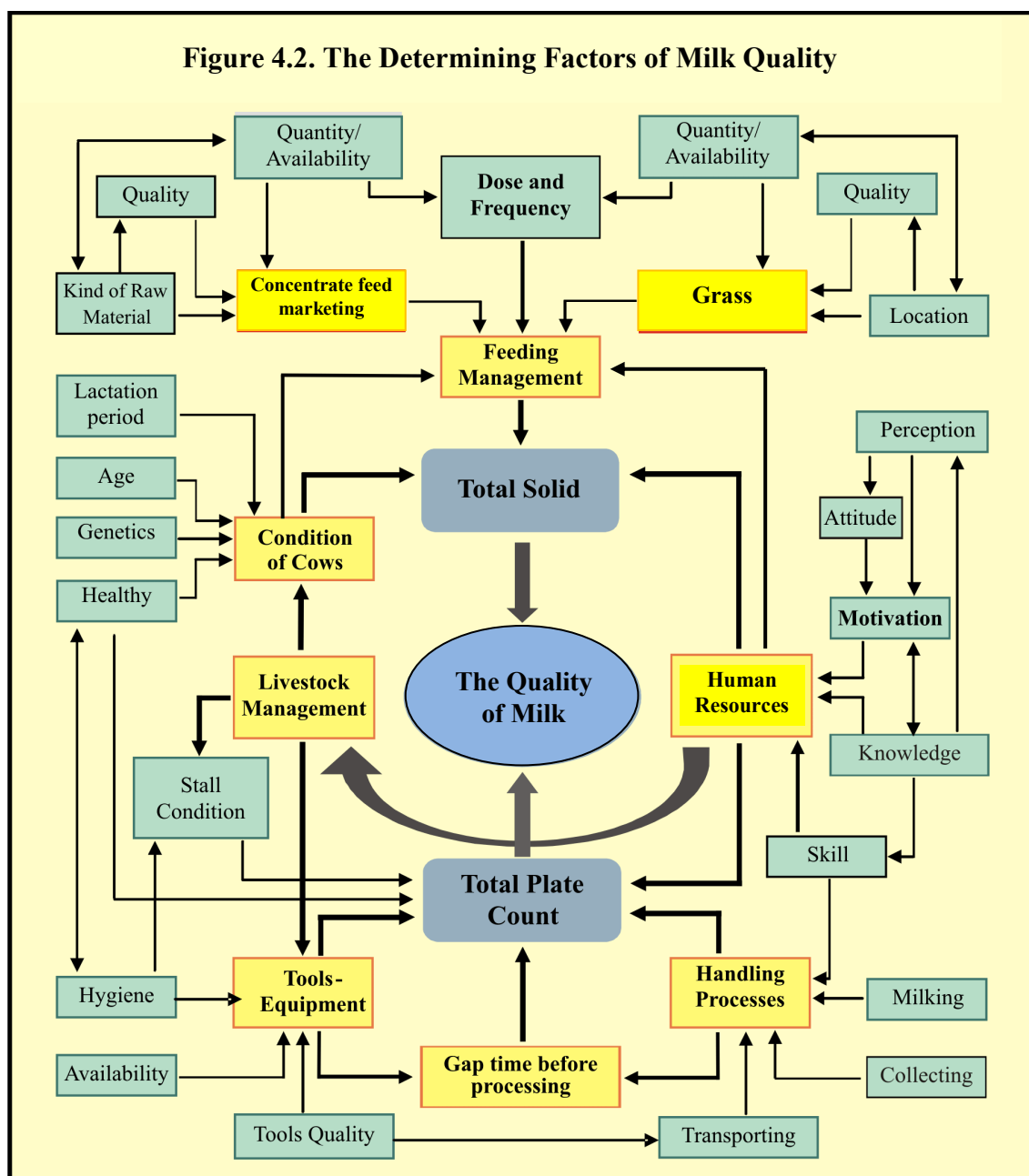
²⁴⁷ Figure is made by the author based on literature studies and empirical experiences during field visits.



Source: Author's own depiction, 2003. This figure made by the author based on notes during a discussion on Milk Quality Management that was held in Bandung, February 24, 2001.

into the consumption of cow's milk. During the era of Dutch colonization, since the 17th century, the importing of dairy cows to Indonesia began to meet the needs of Dutch society.²⁴⁸ Then, in the 19th century, the demand for dairy products increased, and more dairy cows had to be imported, not only from Europe, but also from Australia.

²⁴⁸ Cf. Aksi Agraris Kanisius, 1980, pp.9-21. Some types of cows that have been developed in Indonesia are Holstein Frisian from the Netherlands, Jersey cows from England, Guernsey from Scotland, and Ayrshire from Switzerland. In addition to this, there were also cows from tropical countries such as Sahiwal and Red Shindi from India. One type of crossbreeding of European and local cows (Java, Madura) is well known as the *Peranakan Fries Holland* (PFH = Fries Holland Crossbreeding) cow, also called Grati cows.



Source: Author's own depiction, 2003. This figure made by the author based on notes during a discussion on Milk Quality Management that was held in Bandung, February 24, 2001.

The milk business in Indonesia began to grow, particularly in upland regions where the temperature is low (which is favorable for cows), but also close to major cities (which are consumer centers).²⁴⁹ Several of these regions are: Malang and

²⁴⁹ Until 1993, milk production in Indonesia was developed in eight provinces. In addition to the five provinces in Java (West, Middle and East Java, Yogyakarta and Jakarta), there were three provinces in Sumatra: North Sumatra, West Sumatra and Bengkulu provinces (Syarif, 1997, p.90). Due to marketing problems and different local habits, it was hard to develop the milk business outside of Java. Yet, the development of milk production outside Java is still underway (Latco Vol. II. No. 7, 2001). Until 2002, there were also attempts to develop it in South Sumatra, South Sulawesi and West Nusa Tenggara (Lacto Vol.II, No.9, 2002).

Pasuruan, which is closed to the city of Surabaya; then the regions of Bandung, Cianjur, Sukabumi and Bogor, which is adjacent to Jakarta; as well as Ungaran and Boyolali, which is close to the city of Semarang. Then other area of milk production which continues to grow is the island of Java.

The development of milk production in Indonesia is running slowly. This is influenced by many factors, namely:²⁵⁰ (1) tropical climate, which is less suitable for the development of dairy cows; (2) the low business scale of farmers, which on average is only 2-4 heads; (3) the health conditions and genetic quality of livestock are low; (4) farm business management is still low due to the low quality of farmer skill levels; (5) difficulty in obtaining quality animal feed, while the green grass land resources in Java are dwindling; (6) a continued lack of experts who can assist farmers; (7) the low quality of milk produced; (8) inadequate transport infrastructure conditions, which also results in high transportation costs; and (9) problems in the marketing of the milk produced, where the level of consumption of milk in Indonesian society is still low and in high competition with imported milk.

In the 1970's, the government campaigned for the public to drink milk every day.²⁵¹ With this milk drinking campaign, the level of demand for milk by the people of Indonesia is increasing from year to year. The increasing demand for milk led the government to open investment opportunities in the establishment of the milk industry in Indonesia, after which the milk processing industry began to operate on the island of Java. In 1979, it was recorded that seven large milk factories were operating in Indonesia. Five of these are factories in West Java, one in Yogyakarta and one in Surabaya. However, this dairy industry relied more on imported milk rather than on domestic dairy farmers. In addition to imported milk being cheaper, it always provided the needed quantity.

The level of milk consumption per capita of Indonesia is still very low. In 1998 it only amounted to 4.16 kg per capita per year, which is still lower than the National Nutrient Standard, amounting to 7.2 kg per capita per year. This amount is much lower than in Asian countries like Cambodia and Bangladesh, which consume 12.97 and 31.33 kg per capita per year respectively, while in developed countries it has reached 200 liters per capita per year.²⁵²

²⁵⁰ Cf. Aksi Agraris Kanisius, *Op. Cit.*, pp.12-14

²⁵¹ At that time there was a quite popular slogan which was disseminated to the public, namely the healthy pattern of daily consumption: "*Empat Sehat - Lima Sempurna* (Four for Health - Five to Make It Perfect). Four healthy matters consisted of the consumption of carbohydrate foods, animal protein, vegetables and fruits. These four types of meals would be perfect if complemented by drinking milk every day.

²⁵² See Mubardjo, 2006, pp.3-5. The national milk consumption standard was issued by the Food and Nutrient Workshop in 1998 (see Latco Vol. I, No.5, p.9). The average milk consumption per capita differs across regions from 0.02 to 20 kilograms/capita/year. The lowest milk consumption was found in regions outside of the Java and Sumatra islands (Latco, Vol.II, No.9, 2002).

4.3. The History of Dairy Co-operatives in Indonesia

The dairy farm business in Indonesia was initially just a household business. In 1949 in the region of Bandung stood the Pangalengan Union of Dairy Farmers (*Gabungan Petani Peternak Sapi Perah Pangalengan* = GAPPSIP), which was also the first dairy farmers co-operative in Indonesia. The establishment of dairy farmer co-operatives was not separate from the guidance of veterinarians, namely *drh* Soejono and *drh* Y Hutabarat. The role of veterinarians in the establishment of dairy co-operatives was also encountered in region of Malang which in 1962 established a dairy co-operative named SAE Pujon, under the guidance of *drh* Memet Adinata.²⁵³

In 1963 GAPPSP was forced to close due to poor socio-economic and political conditions. The closure of GAPPSP resulted in the milk trade system in Bandung being dominated by middlemen and powerful farmers.²⁵⁴ Then, in 1969, in the same place, a new dairy co-operative was formed, namely the Farmers Co-operative of South Bandung (KPBS). Interestingly, the initiator of KPBS was also a veterinarian, namely *drh* Daman Danuwijaya.²⁵⁵ Up to 1978 in East Java Province, several dairy co-operatives were established in addition to SAE Pujon, namely KUD Batu, the Dairy Co-operative of Setia Kawan in Nongkojajar, and the Dairy Co-operative of Suka Makmur in Grati. Whereas, in other provinces, several dairy co-operatives also emerged, but were not conducting meaningful activities, such as KPS Bogor, Koperda of Jakarta and the Co-operative of SPP Ungaran.²⁵⁶

The history of dairy co-operatives in Indonesia has risen and fallen, beset by various problems over the years. In addition to the low skill level in co-operative management, the main problem faced by the dairy co-operative is in the marketing of milk to MPI, as the dairy co-operatives have a very weak bargaining power to deal with the MPI, in determining the price, the amount of milk and even the time of selling.²⁵⁷

²⁵³ See Djohan, 1996, p.132. The role of veterinarians (*drh* = *dokter hewan*) in developing dairy co-operatives is quite high. Their role is not only to maintain the health of livestock, but also part of the effort to increase cow productivity, for example through successful artificial insemination programs.

²⁵⁴ Cf. Syarief, 1997, p.25.

²⁵⁵ In general, the graduates of universities in Indonesia would seek employment in urban areas. This led the researcher to wonder why veterinarians would want to work in rural areas to help farmers. After conducting some direct discussions with lecturers from the faculty of veterinary medicine at IPB, the researcher arrived at an answer. Actually, there are several specialties in veterinary education, including ruminant animals (such as cows, buffaloes, goats) and pet animals (such as cats, dogs). Veterinarians with specialization in ruminant animals have a lot of job opportunities available in rural areas. To the contrary, specialization in pet animals has relatively large job opportunities in urban areas. At that time, *drh* Daman Danuwijaya served as Head of the Veterinary Service of Bandung Regency.

²⁵⁶ Cf. Djohan, 1996, p.134.

²⁵⁷ In fact, domestic milk had competitive advantages compared to imported milk. So, there was only a low willingness to buy domestic milk by MPIs. Moreover, MPIs were not eager to buy milk from dairy co-operatives during weekends and holidays. This was because cows produce milk every day, as a consequence, there were a lot of milk should be thrown away during the holiday. Between 1969-1979, in KPBS Pengalengan, there were about 250,000 liters fresh milk per year which had to be

This problem arises because the MPI prefer using imported milk as a raw material over absorbing domestic milk.

The turning point in the development of dairy co-operatives in Indonesia began in 1978, when the Minister of Co-operatives gave much attention to the development of the dairy agribusiness.²⁵⁸ Since then, communication between the dairy co-operative movement and the government have run better, allowing supporting sub-systems for dairy agribusiness in Indonesia to play a better role. Government support has had great significance for the development of milk agribusiness through the dairy co-operative movement.

In July 1978, the first Dairy Co-operative Workshop was carried out in Jakarta. The workshop was attended by 11 dairy co-operatives. One important result of the workshop was the establishment of the Co-ordination Agency for Indonesian Dairy Co-operatives (*Badan Koordinasi Koperasi Susu Indonesia* = BKKSI). The workshop also recommended that the government take an active role in supporting the development of dairy co-operatives in Indonesia.²⁵⁹

Some problems faced by dairy co-operatives were gradually overcome with the issuance of some government policies, such as: milk import quotas by the MPI, government control of milk prices, the imported feed supply, as well as high quality cows.²⁶⁰ Later, in the Second Co-operative Workshop in 1979, the BKKSI was received into the Union of Indonesian Dairy Co-operatives (GKSI), as a secondary level of dairy co-operative organizations which operate at the national level.

In 1982, an Joint Decree of Three Ministries²⁶¹ (*Surat Keputusan Bersama* = SKB) was issued, which was a starting point for the development of milk marketing in Indonesia, and also a starting point for improving dairy co-operative in Indonesia. This SKB obligated all MPI to buy only domestic milk. Furthermore, this Joint Decree was strengthened by the issuance of Presidential Decree No. 2 of 1995, which was aimed at seven Ministries to co-operate in teamwork dubbed the Coordination Team for National

thrown away (Syarief, 1997, p.59). Facing this problem, Daman initiated an attempt to a protest through film media. The film had the title "*Revolusi Putih dari Bandung Selatan*" (White Revolution from South Bandung). Due to the film, the government forced MPIs to buy all domestic milk, including during holidays (Syarief, *Op. Cit.*, p.242); See also Mubardjo, 2006, pp.11-24.

²⁵⁸ Cf. Djohan, *Op. Cit.*, p.136. The Ministry of Co-operative had been established in 1978. Previously, the development of co-operatives in Indonesia was only handled at the General Directorate level. At that time, there was no clear point as to what the Ministry should do. Coincidentally, the Minister had an idea to increase milk production through the co-operative movement. Then he sent a team to Anand, India, to make a comparative study of dairy production.

²⁵⁹ The recommendations were: (1) Forcing the government to control milk importation, (2) Forcing MPIs to use domestic milk in an unlimited quantity, (3) Price setting for national milk, (4) Tax holiday for co-operatives, (5) and to continue developing national milk agribusiness through dairy co-operatives (See Syarief 1997, pp.81-84 and Djohan, 1996, pp.139-140).

²⁶⁰ Cf. Djohan, *Op. Cit.*, pp.136-138.

²⁶¹ They are: the Ministry of Agriculture, the Ministry of Industry and the Ministry of Co-operatives.

Milk Development (*Tim Koordinasi Persusuan Nasional* = TKPN). The TKPN's duty was to control the growth of milk production as well as milk consumption in Indonesia. As a result, it could be said that the period between 1983 and 1988 was the golden period of the milk agribusiness in Indonesia.²⁶² Table 4.2 shows the development of milk agribusiness in Indonesia between 1984 and 2000.

Table 4.2. The Development of Milk Production per Five Years (1984-2000)

No	Items	1979	1984	1989	1994	1999	2000
1	Farmer	1,497	32,999	58,797	80,066	79,560	81,840
2	Cow Population (heads):						
	• National (1)	94,000	203,000	287,665	334,000	332,000	341,000
	• Dairy Co-op and KUD	5,987	131,997	235,188	320,262	318,241	327,360
	• Local	4,908	75,674	151,403	233,098	318,241	327,360
	• Imported (cumulative)	1,079	56,323	83,785	87,164	0	0
3	Milk Production (millions of kg)						
	• National *	72.20	179.00	338.20	426.70	436.00	452.70
	• Dairy Co-op and KUD	12.61	165.84	279.15	361.69	402.47	416.48
	• Share of Dairy Co-operatives and KUD (%)	17.5	92.6	82.5	84.8	92.3	95.3
	• Sold to the Milk Processing Industry **	10.51	138.20	232.62	301.41	335.39	345.68
	• Sold to Others	2.10	27.64	46.52	60.28	67.08	69.14
	• Milk Ratio: Domestic and Imported	1:20	1 : 3.5	1 : 0.7	1 : 2	-	-

Source : GKSI, 2003

Note : * Data from the Directorate General of Livestock

** Data from the Annual Report of GKSI

4.3.1. The Development of Milk Production

Table 4.2 shows that the number of dairy farmers and the dairy cow population increased significantly by nearly 40-fold between 1979 and 1989. The increasing number of dairy farmers and dairy cows indicated that the average ownership of dairy cows per farmer has not increased significantly. In terms of developing the dairy cow population, the government imported and distributed dairy cows in the form of credit to farmers. The dairy cows were distributed evenly, one head per farmers, in the hope that more farmers would become involved in dairy agribusiness. However, the equalization of cow distribution had a serious impact on the success rate of loan repayment by farmers.²⁶³ This was because cow ownership was very minimal, which caused the dairy business to run inefficiently, resulting in most farmers being less serious in developing their dairy businesses, which ultimately led to a standstill in credit repayment.

Table 4.4 also shows that the share of milk production of dairy co-operatives to national milk production increased from approximately 17.5% in 1979 to 92.6% in

²⁶² See Syarief, *Op. Cit.*, 1997, p.89

²⁶³ Djohan, *Op. Cit.*, p.245.

1984. This could happen due to a BUSEP (*Bukti Serap* – proof of purchase) policy that forced the MPI to buy milk from dairy co-operatives.²⁶⁴ The BUSEP policy was aimed to protect local farmers because most of produced milk was sold to MPIs, while at same time imported milk was much cheaper.²⁶⁵

4.3.2. The Development of Milk Prices

Due to farmer's low bargaining position, farmers receive a very low price for their milk. In 1978 the government approached the MPI to increase the price of milk at the farm level. The price of milk which, was originally only between Rp 60-105 per liter was successfully raised to Rp 165-185 per liter, which was adjusted to the needs of farmers' cost of living at the time.²⁶⁶ However, the prices received by farmers did not continue to improve. Table 4.3 shows that the ratio of the farm gate price to the consumer price decreased over the years. The ratio in 2000 was less than half the ratio in 1979.

Table 4.3. The Development of Milk Prices in Indonesia (1979-2000)

No	Items	1979	1984	1989	1994	1999	2000
1	Milk Processing Industry Price (Rp)	196.50	314.00	440.00	615.00	1,246.00	1,582.42
2	Milk Farm Gate price (Rp)	147.50	262.50	385.00	516.50	1,090.25	1,392.53
3	Consumer Price (Rp)*	265.00	750.00	1,261.00	1,823.00	4,800.00	5,424.00
4	Ratio Farm Gate to Consumer Price	0.56	0.35	0.31	0.28	0.23	0.23
5	Milk sold value (mill. of USD)	2.04	43.39	102.35	185.37	417.89	659.05
6	Imported Milk Substitution (mill. of USD)	3.24	42.13	57.76	85.40	59.70	73.23
7	Dollar exchange rate	6,300.78	1,030.08	1,772.14	2,170.61	7,000.00	9,000.00

Source: GKSI, 2001

Note : * Equal with fresh milk

4.4. Dairy Co-operative Institution

The golden age of the dairy agribusiness was in the 1980's. The number of dairy co-operatives, which numbered on 27 units in 1979, had grown seven-fold to 198 units in 1989 (Table 4.4). Similarly, there was a significant increase in the number of workers absorbed by dairy agribusiness, both as farmers and as workers.

²⁶⁴ The BUSEP policy forced the MPI to buy all fresh milk from farmers. If the domestic milk supply was insufficient, MPIs were eligible to import the remainder. In 1998 this BUSEP policy was removed due to the national economic recovery program, as required by the IMF. Nevertheless, there was no serious problem in marketing milk to MPIs, as the depreciation of the Rupiah (Rp) resulted in the price of imported milk no longer being competitive with the local product.

²⁶⁵ Dumping prices policy by milk exporting countries resulted in low prices of imported milk. In fact, in 2001, the milk price at farm-gate in foreign countries was between US\$.23-.26/liter (Latco Vol. II, No. 8, 2001). In Indonesia, the milk price at the farm-gate was much cheaper, only US\$.15-.16/liter (Latco Vol. I, No.3, 2001).

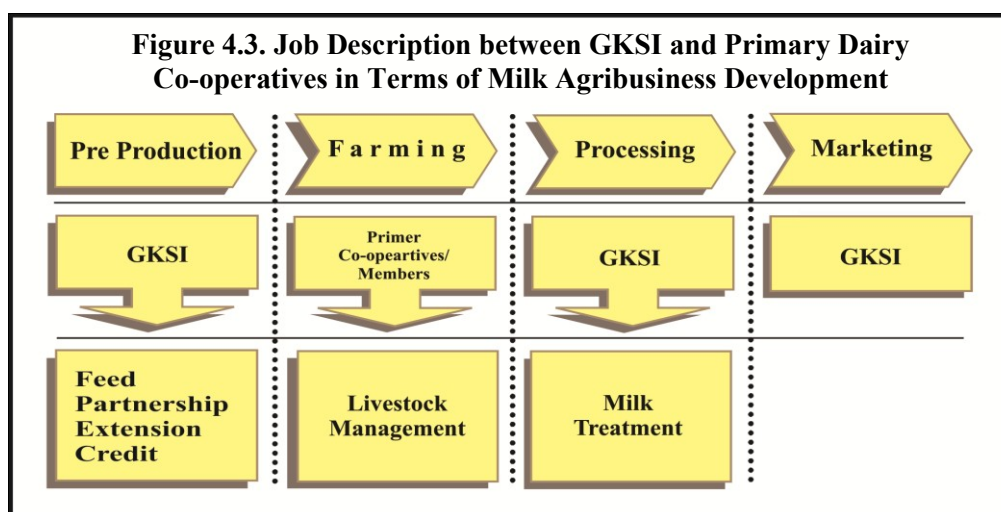
²⁶⁶ See Syarief, *Op. Cit.*, p.71.

Table 4.4. The Development of Dairy Co-operatives per Five Years (1979-2000)

No	Items	1979	1984	1989	1994	1999	2000
1	Number of Dairy Co-operatives (including KUDs with milk business units)	27	180	198	206	221	221
	• Members of GKSI	27	180	198	204	221	221
	• Non-Members of GKSI	-	-	-	2	-	-
2	Labor Absorption (people)	4,800	97,979	173,569	235,276	236,383	243,306
	• Farmers	1,497	32,999	58,797	80,066	79,560	81,840
	• Labors	2,495	54,999	97,995	133,443	132,600	136,400
	• Number of Co-op Staff	578	6,910	11,615	15,070	16,769	17,354
	• Number of Labors outside of Co-op /KUD	231	3,071	5,162	6,698	7,453	7,713

Source: GKSI, 2001

The increasing number of dairy co-operatives was not separate from the ongoing government programs to develop the KUD in rural areas.²⁶⁷ However, the establishment of GKSI in 1979 was instrumental in conditioning KUDs to develop the dairy business unit, named the Milk KUD.



Source: Adapted from Syarief, 1997, p.85

Full support of GKSI was seen in the development of upstream and downstream subsystems of the dairy agribusiness. Both of these subsystems were needed by the subsystems on farms that were run by farmers, but could not be properly provided by primary dairy co-operatives.

The difference between Milk KUDs and single-purpose dairy co-operatives (SPDC) has to do with the membership and type of business being developed. A Milk

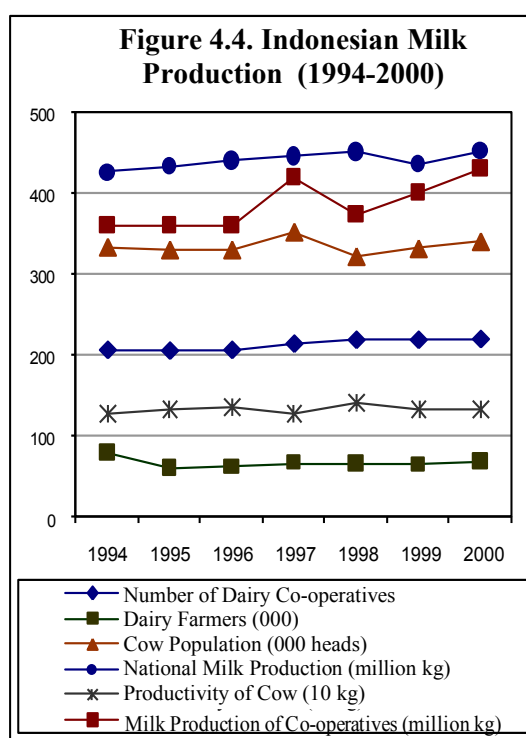
²⁶⁷ This is since the issuance of Presidential Decree No. 2 of 1978 regarding the KUD.

KUD is a rural co-operative which has multi-purpose businesses, including a dairy business unit. This means that the membership of Milk KUDs consist of dairy farmers and other rural residents who are not dairy farmers. This differs from SPDC, in which all of their members are dairy farmers.

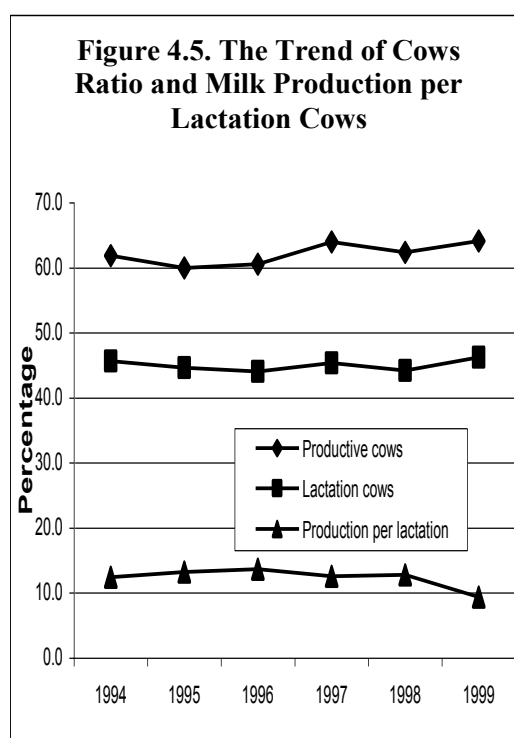
The issuance of Presidential Instruction No. 4 of 1984, which recognized the KUD as an SPDC-type of co-operatives in rural areas, basically required that all dairy co-operatives must be reformed into KUD form. However, with special permission from the Minister of Co-operatives, the dairy farmer co-operatives were allowed to continue to run with the same institutional format.²⁶⁸ As directed from the outset, that developing a dairy agribusiness in Indonesia is emphasized to be done through co-operatives, then basically all dairy co-operatives, for both dairy co-operatives and Milk KUD in Indonesia, are members of GKSI.

4.5. Dairy Co-operatives During the Economic Crisis

In general, the economic crisis had a positive influence on farmers' dairy business. In the beginning of the crisis, there was a sharp fluctuation in the cow population as well as in milk production (Figure 4.4). However, in 1999 the dairy business increased like it did during the situation in 1997. Increasing population and production which occurred in 1997 was followed by a decline in 1998. This had to do



Data Source: GKSI, 2001



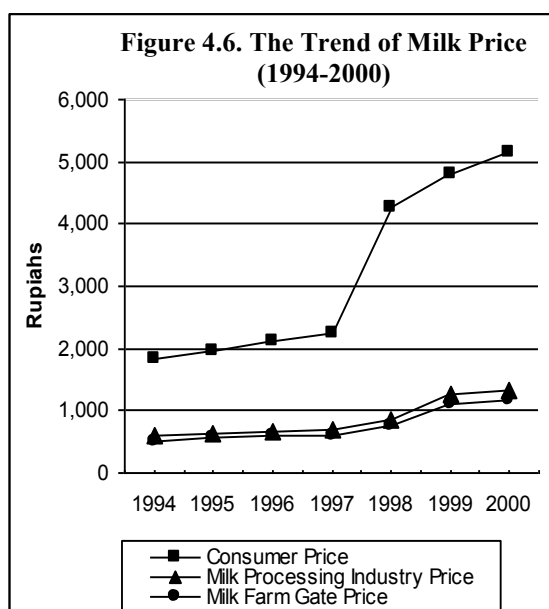
Data Source: GKSI, 2001

²⁶⁸ Some dairy co-operatives which gained the permission of the Ministry of Co-operative included: Koperasi SAE Pujon, KPBS Pangalengan, KPSBU Lembang, KUTT Suka Makmur-Grati, KPLP Setia Kawan-Nongkojajar and KPS Bogor.

with the nature of livestock commodities being very easy to sell. When farmers need money, they can easily sell their livestock.²⁶⁹ This was especially true during the economic crisis, as the price of beef was very high. Since 1999, the dairy business has increased again, close to the amount of its increase in 1997, during which time almost all the national milk production came from dairy co-operatives. Inverted conditions were encountered with the number of farmers. In 1998 the number of farmers increased. This shows that the livestock sub-sector played an important role in employment during the crisis. But because the dairy cow population was declining, this implies that the ownership of cow by farmers in 1998 was low.

Figure 4.5 shows the ratio of productive cows was about 60-65%, whereas, the ratio of lactation (lactating) cows was about 45%. Both indicate the same fluctuation. In 1999, both of these ratios had increased. However, there was a decrease in productivity per lactation cow. This might have occurred because the farmers spent less money for providing good quality feed. Another reason was that the cows were getting older, whereas, due to limited capital during the crisis, farmers found it difficult to replace their aging cows.

Figure 4.6 shows the rate of increase in milk prices. Between 1994 and 1997 there was a slight increase over the years in the prices paid by the industry to co-operatives and subsequently received by the farmers. Only starting in 1998 was there an even better increase. But compared with prices at the consumer level or the price



Data Source: GKSI, 2001

received by MPI, the prices received by co-operatives and farmers in fact was very low. Apart from the increased cost of milk production of the MPIs, the fairness of such a large price disparity needs to be looked into. Although the amount of business risk in terms of both quantity and quality were borne by the farmers, the margin which they obtained was very low.

For the procurement of feed concentrate there was a government subsidy to farmers. But in fact the margin received by farmers was still very low. This means that MPI was a party that

²⁶⁹ Indonesia had to import meat in order to meet the domestic demand. Due to the depreciation of the Rupiah against the US Dollar, especially at the beginning of the crisis, the price of meat increased significantly.

utilized these government subsidies.²⁷⁰ Furthermore, with the reform of the national economy during the crisis, the policy that obliged the purchase of fresh milk by MPIs was abolished in 1998.²⁷¹ However, during the crisis, the farmers did not face the negative impact of the policy abolition. This was because the Rupiah depreciated against the US dollar, so the price of imported milk became much more expensive than the price of local milk. Since then, the relationship between dairy co-operatives and MPIs become an ordinary trade relation. Milk prices were determined based on market mechanisms, and there was no further government intervention. For example, the average price of milk in the province of East Java is lower than in the provinces of West Java and Central Java, since there is only one MPI in East Java (i.e. PT. Nestle Indonesia), while in West Java there are six MPIs.²⁷²

The factor of milk quality became the basis for determining the milk price, at least as the determinant for paying bonuses and penalties. This bonus and penalty system, on the one hand, is a good framework to educate farmers to pay attention to the quality of milk produced.²⁷³ On the other hand, this system also reflects the high bargaining position of MPIs over dairy co-operatives.

Faced with the domination of MPIs in milk marketing, some dairy co-operatives have started to produce and sell pasteurized milk directly to consumers. In West Java, KPBS Pangalengan has begun this, which was followed by KPS Bogor and GKSI for the Region of West Java, while in East Java pasteurized milk has been produced by KUD Batu, KUD Dau and Koperasi SAE Pujon. GKSI as national secondary dairy co-operative still has no ability to establish its own milk processing plant. GKSI is only able to build milk processing units that produce semi-finished products, such as those existing in Bandung.²⁷⁴

Faced with various problems in the field, GKSI has worked to improve services to members of primary co-operatives. In 1999 GKSI develop their organization by forming regional GKSI at the provincial level, namely in the Provinces of West Java, Central Java and East Java. It is expected that matters of a technical nature can be implemented directly by the Regional GKSI, while GKSI Central Body can concentrate on strategic matters, for example to establish various co-operations with the

²⁷⁰ Muslimin Nasution confirmed that the subsidy given by the government to feed raw material was in fact enjoyed more by the MPIs. This was because the government effort to lower feed costs was followed by a low purchase price from the MPIs for the milk of farmers (see Syarief, 1997, p.246).

²⁷¹ This was based on Presidential Instruction No 4 of 1998, which was issued on February 2, 1998.

²⁷² As reported by Lacto Vol. II, No.9, December 2001, based on input from GKSI East Java, the Minister for Co-operatives and SMEs could only urge the Nestle Indonesia Corporation to raise the purchase price of farmers in the East Java Province.

²⁷³ MPI argued that increasing milk quality in Indonesia should be accelerated so that Indonesian milk will be more readily to face the global market.

²⁷⁴ However, as recognized by Noerwyndho, the Chairman of GKSI (1996-2001 term), primary co-operatives did not dare to take risks if they leave PT. Nestle, while PT. Nestle has many ways of dividing primary co-operatives in the field. (See Latco, Vol. II, No.9, 2002, p.17).

international co-operative movement, which is aimed at improving the performance of primary dairy co-operatives in Indonesia.²⁷⁵ Other strategic efforts conducted by GKSI include revitalizing the role of TKPN that was not active for several years.²⁷⁶

Although dairy co-operatives grew quite well compared to other agribusiness co-operatives, the domestic milk production was still insufficient to cover domestic consumption needs. Milk consumption in Indonesia was 6 liters per capita in 2000. This is equivalent to 1.2 million tons of milk per year. Whereas, national milk production is only about 400,000 tons, and the remaining two-thirds needs to be imported. In 2020 the projected population of Indonesia is 300 million people. Milk consumption of 16 liters per capita would require 4.8 million tons of milk per year (Table 4.5)

Table 4.5. National Milk Production and Consumption Projections, 2000-2020

Year	Population (millions)	Cow population (000 heads)	Milk Consumption per capita (liters/year)	National milk consumption (000 tons)	Domestic milk production (000 tons)	Imported milk (000 tons)
2000	210	270	6.00	1,200	400	800
2005	230	440	8.50	1,950	770	1,180
2010	250	650	11.00	2,750	1,320	1,430
2015	275	970	13.50	3,700	2,200	1,500
2020	300	1,400	16.00	4,800	3,040	1,760

Data Source: GKSI in Latco Vol. II, No.7, Oct-Nov 2001, p.23.

The development of milk production is highly dependent on the cow population. Based on projections made by GKSI, in 2020 the population is expected to increase to 1.4 million heads, or growth of 8-10% per year. In order to achieve this growth rate, some things that need to be pursued are: (1) to develop professional farmers in units of groups of farmers with an average ownership of 10 cows; (2) the availability of fodder in the form of complete feed to reduce dependence on forage feed, which is increasingly difficult to obtain in Java; and (3) the development of dairy cows outside of Java.²⁷⁷ Furthermore, (4) cow productivity should be increased through better feed management (e.g. in dosing and frequency) and a shorter calving interval. Another challenge that has to be anticipated is the milk marketing issue, which nowadays still relies greatly on just

²⁷⁵ For instance, the co-operation with the Canadian Co-operative Association (CCA) in the field of livestock improvement; with Tsukishima, Japan in forming a breeding and rearing center, training, research and development; with Australia Dairy Co-operative in training on milk and hygiene (see Latco, Vol. I, No.1, 2000, pp.11-12).

²⁷⁶ The strategic position of TKPN was not well developed as at the first time it was established in 1982. Whereas, the problems faced during the economic crisis were more various and serious. In July 2001, the revitalization of TKPN's role had been issued by establishing an independent organization called the Indonesian Dairy Board (see Latco, Vol. I, No.5, 2001, p.8).

²⁷⁷ See Latco, Vol. II, No. 7, Oct-Nov 2001, p.23.

a few MPIs. Therefore, the establishing of a downstream milk industry by the co-operative movement has to be realized as soon as possible.²⁷⁸

4.6. Lessons Learned

Related to the characteristics of its products, milk is a commodity that is actually not easy to be developed. This is especially the case in Indonesia, which is a tropical country and where the people do not accustomed to drinking milk, making it hard to meet the aspects of both milk quantity and quality. However, in fact, milk agribusiness can also be developed in Indonesia through the dairy co-operatives. In any case, the performance of dairy co-operatives in Indonesia has fared well compared to other agribusiness co-operatives. There are several important lessons from the development of the milk agribusiness through the dairy co-operatives.

The first lesson is that the successful development of dairy co-operatives in Indonesia cannot be separated from the results of the learning process being carried out both by the government and the dairy co-operative movement in Indonesia. This learning is being done by successful foreign dairy co-operative movements or is received through assistance programs from the foreign dairy co-operative movement. A benchmarking process is carried out, especially for dairy co-operatives that have been successful in India, which is also a developing country. As a result, the dairy co-operative movement in Indonesia has been able to develop properly.

The second lesson is that the entire subsystem of the dairy agribusiness in Indonesia has been moving in the direction of progress since 1979, namely:

- 1) The input factor sub-system, which evolved through the development of the dairy co-operative movement with the support of the government. Through this movement, different kinds of input factors could be better provided, such as high quality of cows, frozen semen, the provision of subsidized animal feed, and livestock medicine, etc.
- 2) The (on-farm) production subsystem grew well, as seen from the increasing cow population, the number of farmers and the number of co-operatives. The development of this subsystem is not only in terms of quantity of milk produced, but also in terms of improvement of milk quality. This subsystem is growing with the involvement of veterinarians supporting animal health.²⁷⁹

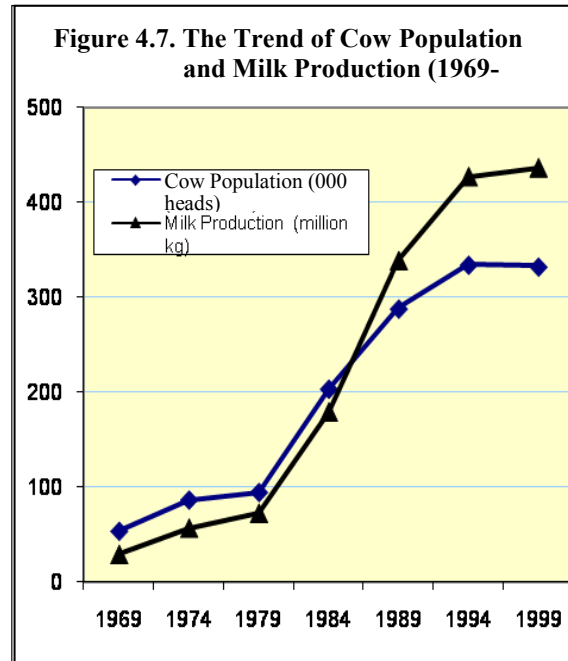
²⁷⁸ As stated by A. Wahab Asyari, the Director of GKSI, GKSI needs to develop the downstream milk industry, because right now all dairy co-operatives fully rely on the milk marketing done by the MPI (see Latco, Vol. I, No.1, 2000, p.12).

²⁷⁹ The existence of university graduates, who work in rural areas, is still uncommon in Indonesia. However, there are some veterinarians who work in rural areas, including at dairy co-operatives. This might be the case in Indonesia due to job market demands for this profession still being low in urban areas.

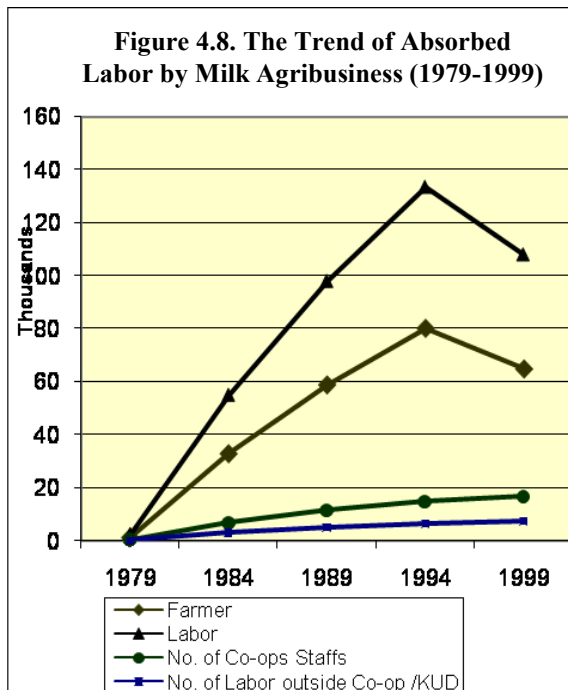
- 3) The processing and marketing subsystems also developed as indicated by increasing milk absorption by MPIs, the increase of domestic milk consumption, and also the diversification of milk products done by several dairy co-operatives.
- 4) The supporting service sub-system, which developed mainly from 1979-1988, in which the various policies issued by governments were essential in supporting the national dairy development through the co-operative movement. Understand-ably, the period between 1979-1988 is called the “golden period” of milk agribusiness in Indonesia.²⁸⁰ As seen in Figure 4.7, there was very significant improvement in milk production during this period. Moreover, the productivity of cows increased, which was indicated by a higher growth in milk production than in the growth of the cow population. This increase took place due to the increasing number of farmer/ producers, as well as manpower who became involved in the milk agribusiness (Figure 4.8).

Based on the explanation in this chapter, it can be concluded that the milk agribusiness in Indonesia had experienced very good development, where all sub-subsystems of the milk agribusiness have evolving in an integrated manner. However, due to various problems, there was a downturn in the performance of dairy agribusiness in Indonesia in the early 1990s.

The third lesson is that it is important to have a network between co-operatives, in the form of secondary co-operatives at the national level, as a part of the effort to improve their bargaining position with other parties, such as with



Data Source: GKSI, 2001



Data Source: GKSI, 2001

²⁸⁰ Cf. Syarief, 1997, p.89.

the government and MPIs. A stronger bargaining position is needed to solve various problems faced by dairy co-operatives, as well as to develop their potentials. The existence of secondary co-operatives is essential, considering that many problems faced by the primary dairy co-operatives are beyond their working area, which is generally limited to rural areas.

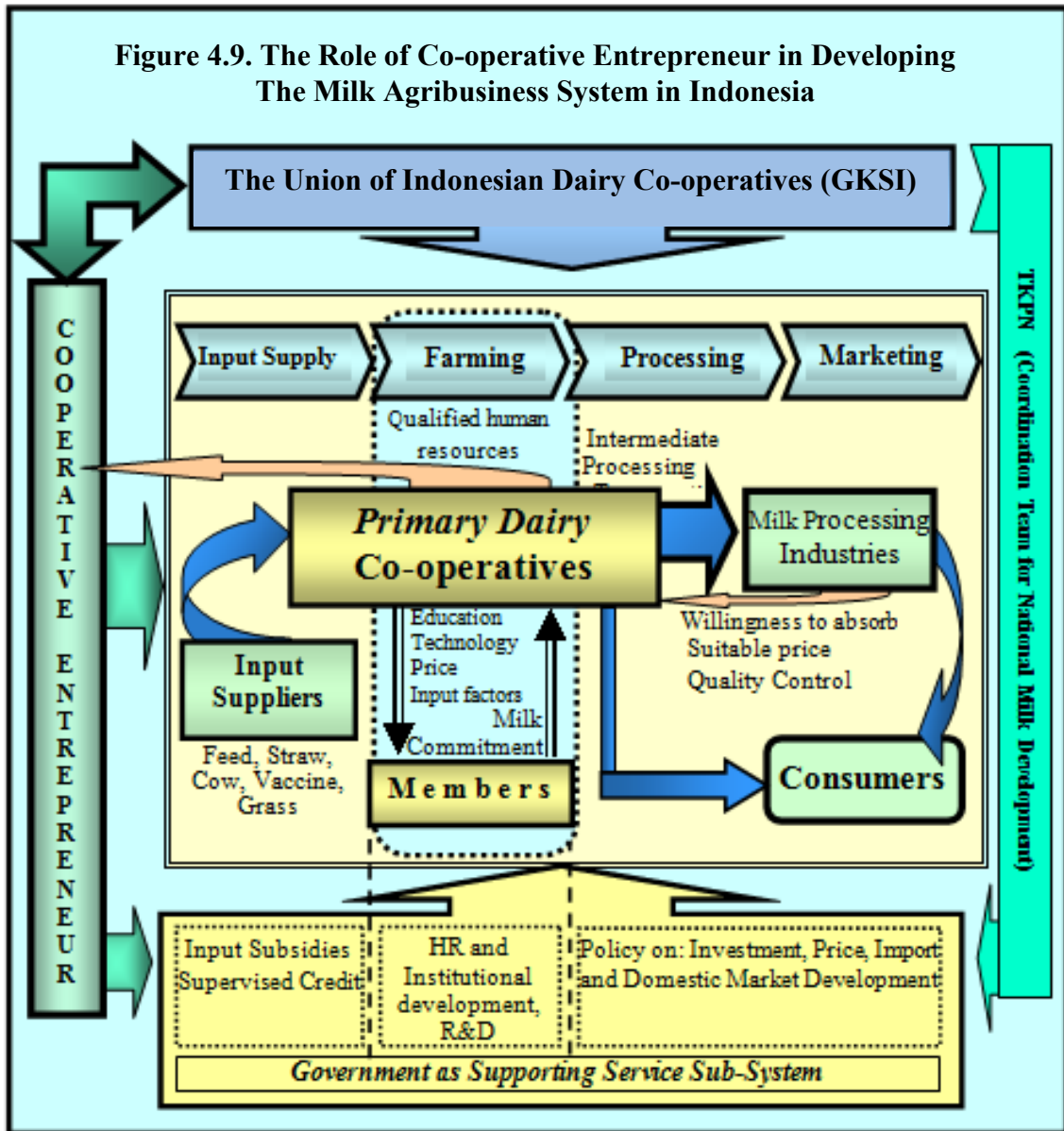
The fourth lesson is the involvement of educated people in the development of dairy co-operatives, who in this case are veterinarians.²⁸¹ Besides the ability to understand the importance of implementing technology in the development of livestock, the presences of educated human resources in rural areas gives an important nuance. They will have an easier time conducting member education on livestock business activity, and have even created entrepreneurs in developing co-operative organization.

The fifth lesson is that the development of the dairy agribusiness system in Indonesia in fact cannot be separated from the important role of entrepreneurs who have adequate education levels as veterinarians. A person who is an educated entrepreneur who has great vision to establish the national dairy agribusiness in Indonesia, and who moves with the mission is very important to strengthen that togetherness in the co-operative institution, is called a co-operative entrepreneur. Schematically, the role of co-operative entrepreneurs in the development of dairy co-operatives in Indonesia can be illustrated in Figure 4.9.

Figure 4.9 shows a co-operative entrepreneur who came from their own co-operative movement. This acted to expand the (on-farm) production subsystem, which are the primary co-operatives in rural areas. In addition to this, the co-operative entrepreneur also acted in the secondary co-operatives to develop important off-farm activities, both in downstream and upstream subsystems.

²⁸¹ For examples: *drh* Soedjono, *drh* Hutabarat, *drh* Daman Danuwijaya, and *drh* Memet Adinata. They played the important role of catalytic entrepreneur (*cf.* Röpke, 1992, pp.60-78).

Figure 4.9. The Role of Co-operative Entrepreneur in Developing The Milk Agribusiness System in Indonesia



Source: Author's own depiction, 2003

CHAPTER - V

THE PERFORMANCE OF DAIRY CO-OPERATIVES

5.1. General Characteristics of Co-operative Samples

Generally, Indonesian people mentioned the name of co-operatives related to the name of their region (sub-district or village) where the co-operatives existed; for example, KUD Bayongbong in the Sub-district of Bayongbong, KUD Cilawu in the Sub-district of Cilawu, etc. However, actually many co-operatives have a special name, such as KUD Karya Utama Sejahtera in the Sub-district of Cikajang or KUD Sembada in the Sub-district of Puspo; however, they are often just called KUD Cikajang or KUD Puspo. Only a few co-operative samples are called by their name, like KUD Sarwa Mukti in Cisarua-Bandung and KUD Giri Tani in Cibeureum Bogor. In spite of this, to facilitate an idea about the identity of the co-operative, this research named the co-operative samples according to their region (see Table 5.1).

- 1) **The Age of Co-operatives.** The oldest sampled dairy co-operative in this study was SAE Pujon, which was founded in 1962. Then came KPLP Nongkojajar in 1967 and KPBS Pangalengan in 1969. As the implementation of Presidential Decree No. 2 of 1978 regarding the foundation of the KUD, since 1979 there have been many new dairy co-operatives in KUD form. Some of them used to be BUUD, which were founded a few years before 1979, such as KUD Cikajang, and KUD Cisarua, which was founded in 1974. Seeing this fact, it is understandable that the age average of Non-KUDs is older (30 years) than KUD (21 years).
- 2) **Members.** The number of dairy farmer members in the 30 dairy co-operatives ranges from 87 (KSS Prigen - East Java) to 6,227 members (KPBS Pangalengan - West Java). The average number of dairy farmers for the Non-KUD group is much higher than for KUD groups, which are 3,599 and 913 farmers, respectively. However, this does not mean that the number of members of KUD groups is less than for Non-KUD. The counted total here is the number of members who are dairy farmers. In fact, the membership of KUD groups is much more than that due to the characteristic of its multi-purpose businesses. Unfortunately, most of the KUDs do not have exact data on how many members they really have. KUDs only have better administrative records for the dairy farmer members, because the KUDs need to record the daily milk supply of their dairy farmer members. For example, KUD Batu has 1,084 dairy farmer members, but actually its total membership is 16,658 members.
- 3) **Board of Directors.** There are commonly 3-5 persons on the board of directors in a KUD group. To improve the efficiency of a KUD, there is a government policy that limits the number of people on the board of directors to about three persons. The average number of board members in KUD and Non-KUD groups is 3.7 and

5.9, respectively. The highest number of board members is found in KUTT Grati, which consists of 11 persons.

Table 5.1. The Description of 30 Surveyed Dairy Co-operatives

Code	Name	Type	Age	Business Unit	Members	Directors	Employees	General Manager
1	KUD Cikajang	KUD	27	7	1,670	3	58	1
2	KUD Bayongbong	KUD	20	9	1,709	3	98	1
3	KUD Cisarupan	KUD	26	7	1,443	3	54	1
4	KUD Samarang	KUD	26	6	184	3	21	0
5	KUD Cilawu	KUD	26	5	273	4	27	1
6	KUD Cisarua	KUD	27	7	1,639	5	163	1
7	KPS Bogor	Non-KUD	22	3	347	3	79	0
8	KUD Cibereum	KUD	28	8	149	3	24	0
9	KPSBU Lembang	Non-KUD	30	7	3,169	6	207	0
10	KUD Ciparay	KUD	20	6	509	3	32	0
11	KPBS Pangalengan	Non-KUD	32	9	6,627	7	255	0
13	KUD Ujung Berung	KUD	24	10	497	4	199	0
14	KUD Pasir Jambu	KUD	25	9	1,295	3	107	0
15	KUD Ciwidey	KUD	24	6	855	3	39	1
16	KUD Cipanas	KUD	28	8	102	5	33	0
16	KUD Tanjung Sari	KUD	21	5	987	4	66	1
17	KUD Batu	KUD	23	13	1,048	5	271	1
18	KUD Ngantang	KUD	23	8	1,848	5	161	1
19	Koperasi SAE Pujon	Non-KUD	39	7	6,444	6	287	1
20	KUD Kasembon	KUD	21	6	834	3	39	1
21	KAN Jabung	KUD	21	11	929	3	63	1
22	KUD Karangploso	KUD	20	7	590	5	40	1
23	KPLP Nongkojajar	Non-KUD	34	7	6,416	5	214	1
24	KUD Purwodadi	KUD	21	7	1,557	5	54	1
25	KSS Prigen	Non-KUD	21	4	87	3	9	0
26	KUTT Grati	Non-KUD	33	6	2,100	11	109	1
27	KUD Puspo	KUD	22	7	1,625	3	42	1
28	KUD Gondang Legi	KUD	23	11	441	5	56	1
29	KUD Wajak	KUD	21	4	159	3	18	0
30	KUD Dau	KUD	22	9	651	3	93	1
Total Average			25	7.3	1.54	4.2	97	0.63
Average Non-KUD			30	6.1	3,599	5.9	166	0.43
Average KUD			21	7.7	913	3.7	76	0.70

- 4) **Employees.** The number of co-operative employees ranges from nine (in KSS Prigen) to 287 persons (in SAE Pujon). The average number of employees for the Non-KUD group is about twice as high than it is for KUD group, which comes to 166 and 76 persons, respectively. This is because most KUD in this survey are small co-operatives. Nevertheless, in some cases there is no direct relationship between the total number of employees and farmer members. This was especially true in the KUD group, in which most of its members are not dairy farmers. For instance, KUD Batu has 1,048 dairy farmer members but only 271 employees, and KUD Ujung Berung has 497 total members but 199 employees.

- 5) **General Manager.** For developing co-operative businesses, 11 co-operatives do not have general managers (GM). This means that co-operative boards control both the organization and business aspects of those co-operatives. Some indicated reasons were: (1) financial limitations for hiring a general manager (7 cases), and (2) the board wants to get directly involved in running the co-operative businesses (4 cases). Whereas, of the 19 dairy co-operatives with general managers, there are 11 cases of general managers who work under the strong influence of the boards. This means that in many day-to-day operational activities, the boards still dominate as the controller and decision-maker. In contrast, there are three dairy co-operatives in which their general managers fully control co-operative activities and have more power than the co-operatives' boards.
- 6) **Business Units.** A business unit is a grouping of business activities in one unit in the structure of a co-operatives organization. The total number of running business units differs from only three units (at KPS Bogor) to 13 units (at KUD Batu). Due to the character of a multi-purpose co-operative, the average number of business units in the KUD group is more than for its counterpart, which number 7.7 and 6.1 units, respectively. In Non-KUD group, the development of business units was firstly focused on milk and feed business, and later on there was business diversification, such as milk pasteurizing-processing, animal insurance, credit, and trading. This contrasts with KUD group, which simultaneously developed several businesses beside the milk and feed business, such as trading, credit, and other farms business and services. However, the milk business unit is better developed and is a core business of KUDs.

5.2. The Performance of Dairy Co-operatives

The performance of dairy co-operatives consisted of the performance of co-operatives business and co-operative organization. Aspects of the performance of co-operative business consist of: (1) milk production, (2) business turnover, and (3) finance. The aspect of co-operation organization consists of the implementation of co-operative principles and organizational process.

5.2.1. The Business Performance of Dairy Co-operatives

These aspects will be explained by focusing on the achievements and problems of dairy co-operatives, and by comparing the performance of co-operative groups based on co-operative type. The difference of the average performance among these groups did not guarantee that the difference was statistically significant. However, statistical difference was needed in order to select variables, which should be further concerned. The T-test was visualized by giving star symbols according to the level of significance; significant at 10% (*), at 5% (**), and at 2.5% (***)

1) The Performance of Milk Production

a. Milk Production per Day (kg) and Share of the Milk Industry (%)

Tabel 5.2 shows the performance of milk production, which is explained more detail at Appendix 13.1. Based on daily total milk production, Appendix 13.1 indicates that KPBS Pangalengan has the highest share of milk production, which is 7.74%, with the level of milk production being more than 88,000 kg per day. The next highest share is KPSBU Lembang (7.17%) and Koperasi SAE Pujon (6.88%). The lowest milk production is in KUD Samarang, which is only 578 kg per day, or its production share is only 0.05%. On the average, the Non-KUD group is able to produce 51,663 kg of milk per day, which is almost four times the milk production of the KUD group.

b. The Number of Cow Population (Heads)

The average cow population of the 30 dairy co-operatives is 5,044 cows. Koperasi SAE Pujon has the largest cow population (20,001 cows), followed by KUTT Grati (18,078 cows), KPLP Nongkojajar (14,302 cows), KPBS Pangalengan (13,672 cows) and KPSBU Lembang (11,077 cows). Interestingly those five co-operatives are Non-KUDs (see Appendix 13.1). However, the dairy co-operative that has the least cow population is also in the Non-KUD group, which is KSS Prigen (only 374 cows). Nevertheless, in comparison to the KUD group, the average cow population in the Non-KUD group is four times that of the KUD group (11,577 and 3,062 cows, respectively).

Table 5.2. Selected Variables of Milk Production and Its Growth

Variable Component	Range		Total Average	Type of Dairy Co-operative		
	The lowest	The highest		Non-KUD	KUD	T-test
Selected Variables of Milk Production						
Milk production per day (kgs)	578	8,278	22,248	51,663	13,296	***
Share of industrial milk production (%)	0.05	7.74	1.95	4.53	1.17	***
Number of cow population (heads)	156	20,001	5.04	11.56	3.06	***
Ratio of lactation cows (%)	19.86	61.23	44.68	47.05	43.96	
Milk production per lactation (kg/day)	4.65	14.75	9.90	9.60	9.99	
Number of cows per member (heads)	1.40	9.79	3.86	4.80	3.58	
Milk production per member (kg/day)	3.14	37.53	16.17	19.70	15.10	
Quality of milk, Total Solid (%)	10.22	12.84	11.48	11.53	11.46	
Growth of Milk Production 1996-2000 (%)						
Milk production per day	-40	154.17	30.64	2.07	39.34	
Number of cow population	-27.11	125.81	29.32	4.41	36.90	**
Ratio of lactation cows	-46	84.42	4.81	-1.96	6.87	
Milk production per lactation	-55.96	43.96	-2.24	1.59	-3.40	
Number of cows per member	-53.40	118.76	7.46	-6.51	11.71	
Milk production per member	-60.59	87.58	5.03	-9.54	9.46	

c. Ratio of Lactation Cows (%)

This ratio indicates the total number of cows which produce milk, compared to the total number of cows possessed. In general, the average ratio of lactation cows is only 44.68%. This means that more than half of cow population is not producing milk at the moment. The co-operative with the highest lactation ratio is KPBS Pangalengan (61.2%, see Appendix 13.1). In this co-operative there is a system of progressive rewards for medical workers, who support the success of insemination program. The medical team is actually outside of the structure of the co-operative organization; however, they work professionally to serve all co-operative members. This reward system gives a high motivation to the medical team to serve members as good as they can. This team consists of veterinarians, who work separately in different work areas. Each veterinarian is helped by medical workers. This team has responsibility to give medical service to members anytime and anywhere they need it. Being supported with computerized data on the condition of members' cows makes the insemination process much more successful.

d. Milk Production per Lactation (kg/day)

On average, the milk productivity of lactation cows is still low, only 9.90 kg per cow per day. The highest productivity is found in KPSBU Lembang (14.75 kg per cow per day), which is followed by KUD Cilawu (14.69 kg). Interestingly, both these co-operatives have close co-operation with one MPI, which absorbs all milk produced by them. This is different with most of the sampled dairy co-operatives in West Java, which sell their milk to several MPIs. The benefit for KPSBU Lembang and KUD Cilawu with this co-operation is that the MPI creates a specific training program to increase the productivity of lactation cows.²⁸²

In terms of milk productivity, the Non-KUD group has a lower productivity level than the KUD group (9.60 and 9.99 kg/cow/day, respectively). This is presumably related to feed problems. Non-KUDs mainly have more members as well as a higher cow population, so there is a higher competition among members to get feed (grass) in their region. For example in KPSBU Lembang, this situation forces dairy farmers to go far away to other regions in order to find grass.

e. The Number of Cows per Member (Heads)

The number of cows owned by members will influence members' welfare through the income of their milk production. On average, every co-operative member in

²⁸² As the author visited these both co-operatives, the author met and had a direct conversation with someone from an MPI Company, who was on duty to run training program for both these co-operatives.

all the co-operative samples has 3.86 cows. This is much less than the ideal number of cows owned which is appropriate for maintaining farmer welfare.²⁸³

Despite having the highest numbers of cow population, KOP-SAE Pujon, KPLP Nongkojajar, KPSBU Lembang and KPBS Pangalengan showed that they have less cows owned per member on average. The Appendix 13.1 indicates that the highest number of cows owned per member is KPS Bogor (9.79 cows), followed by KUTT Grati (8.61 cows), KUD Gondang Legi (7.50 cows) and KUD Cipanas (7.48 cows). The highest number is found in KPS Bogor, which is strongly related to the implementation of the KUNAK program that was fully supported by the [President Suharto] New Order government.²⁸⁴ The KUNAK program made it possible for dairy farmers to have credit on cows at a profitable economy of scale.

f. Milk Production per Member (kg/day)

The total amount of milk production per member indicates members' income from their cow business. The number of cows per member together with their productivity influences the total milk gained per day. Every member, on average, gets 16.17 kg milk/day. Co-operative members in the Non-KUD group produce more milk than members of the KUD group (19.70 and 15.10 kg/day, respectively). This phenomenon indicates that the income of dairy farmers is still very low. If the farm gate price is Rp1,300 per liter, this means that the average income of farmers is only Rp20,000 per day.

The highest milk production per member is in KPS Bogor (37.53 kg/day). This is related to the KUNAK program, as mentioned before, which influenced dairy farmers to easily obtain cow credit (see Appendix 13.1).

g. The Quality of Milk (Total Solid, %)

On average, the Total Solid (TS) of all sampled co-operatives is 11.48%. This level was already above the quality standard which was issued by MPI for the year 2000 (which is 11%). The highest TS was found in KUD Tanjung Sari (12.84%), followed by KSS Prigen (12.40%). The lowest TS was found in KUD Pasir Jambu (10.22%) (See Appendix 13.1).

²⁸³ As programmed by the GKSI in the future that the ideal number of cows owned per member in Indonesia is ten cows (See Chapter-II sub Chapter 2.7).

²⁸⁴ KUNAK (*Kelompok Usaha Peternakan* - Group of Livestock Business) Program was held in the Sub-district of Leuwiliang Bogor by building a special new village for livestock. The program was supported by the needed infrastructure, such as cow stalls and also houses for farmers. Initially, this program was directed to the farmer members of KPS Bogor who live in the city center of Bogor. However, the high price of the space caused poor farmers to not be able to take the credit. Therefore, many people (mostly from Jakarta) took over the credit. The location was actually comfortable enough for relaxing on the weekends. So the objective of the program to help dairy farmers was not reached successfully.

Based on Table 5.2, in general, the Non-KUD group has better performance in milk production compared to the KUD group. On average, national milk production is 22,248 kg per day. Dairy co-operatives in Non-KUD group are capable to produce on average 51,663 kg per day or nearly four times the average production of the KUD group (11,557 kg per day). The higher volume of milk production by the Non-KUD group is strongly related to the average cow population owned by their members, which is four times more than the cows owned by members of the KUD group. The higher total milk production of the Non-KUD group results in its share of the national production being nearly four times larger than the share of the KUD group, which are 4.53% and 1.17%, respectively. The better performance of the Non-KUD group over the KUD group in overall milk production is due to the more focused business of the Non-KUD group, as well as its longer period of experience. The result of the statistical test in Table 5.2 also shows significant differences on the variable amount for milk production per day, the share of national milk production, and number of the cow population.

The growth of milk production is presented by comparing production performance between 2000 and 1996 (before the economic crisis). This growth is in percentages (%). Thus, the observation of this growth is only for detecting how far dairy co-operatives have been able to survive and even to increase their performance in milk production during the crisis period.

On average, milk production per day has increased 30.6% for four years. The Non-KUD group showed less average growth compared to the KUD group. This is understandable, because most dairy co-operatives of Non-KUD are large and old ones, so milk businesses has already been running steadily for a long time, while the KUD group has just begun focusing on developing their milk business units. For example, KUD Ciparay has the highest growth (154.2%, see Appendix 13.2). This is because, as of 2000, it made its milk business unit an independent business unit (independent administratively and financially from other business units).

However, KPSBU Lembang is a Non-KUD dairy co-operative which whose milk production growth is still high (43.8%). This is due to productivity improvement by increasing the lactation cow ratio (10.2%), not by increasing the cow population (which is only 4.5%). As explained in previous sub-chapters, KPSBU Lembang only sells its milk to one MPI due to a close co-operation between them in terms of developing co-operative businesses. This co-operation has affected the increase of its milk productivity. A same thing also happened at KUD Cilawu, which has training programs from the same MPI company. In KUD Cilawu, the growth of milk production (47.5%) was more influenced by improving the lactation cow ratio (49%) than the growth of the cow population, which even had negative growth (-6.5%).

With regard to member's milk business, there was only little growth in the number of cows owned per member and milk production per member (each being 7.5% and 5%). The smallness of the scale of the cow business may cause farmers to easily

sell their cows at times when they urgently need money, and then divert the source of their income from other sectors (see Appendix 13).

The result of a statistical test on the growth level of milk production variables between 1996 and 2000 only shows a significant difference in the cow population variable. However, the existence of significant growth for the cow population and lactation cow population are meaningless due to the decrease in milk productivity (Table 5.2).

2) The Performance of Co-operative Business

As explained in the methodology, the various business units from the 30 sampled co-operatives were grouped into seven units (Table 5.3). It could be said that all of the sampled co-operatives have milk business units as well as feed business units.²⁸⁵ There are only two dairy co-operatives which do not have marketing business units (Appendix 14). Large dairy co-operatives do not run other agriculture business units, which in some cases are the implementations of government programs in rural areas; for example, the distribution of fertilizer and agricultural credit for food production.

a. Business Turnover

As seen in Table 5.3, the total co-operative business turnover differs greatly, from Rp970 million (KUD Ciparay) to Rp97.3 billion (KPBS Pangalengan). The five biggest business turnovers are categorized in the Non-KUD group, in which their total business turnover is strongly related to the turnover of the milk and feed business units. Understandably, the average total business turnover of the Non-KUD group is much higher than the KUD group (Rp40.7 billion and Rp10.7 billion, respectively).

Exploring each of the seven business units, it seems that the Non-KUD group has better performance than the KUD group in all business units, with the exception of the Other Agriculture business unit. This is due to the characteristic of the Non-KUD of paying attention to improving the cow business. However, this fact also means that concentration to develop the cow business influenced the development of other business units. For example, the trading business unit in the Non-KUD group had business turnover 8 times greater than those of the KUD group (Rp3.67 billion compared to Rp0.45 billion)

Table 5.3 shows that there are five variables of business turnover that show significant differences between the two groups of dairy co-operatives, those are: total turnover (***), milk (***), feed (***), trade (***) and other agriculture (***) business units. For the first four variables, the Non-KUD group has a higher average turnover

²⁸⁵ Only KPLP Nongkojajar has no single unit feed business; it is still united with the milk business unit. In terms of ease of comparison analysis, the feed turnover is separated from the milk business unit, as if it were a single business unit.

than in the KUD group, but for the last variable it is the opposite. For the growth of cooperative business volume,²⁸⁶ all business turnovers of the sampled co-operatives grew by an average of Rp2.3 billion per year, in which most of the sampled co-operatives had positive growth. Only three dairy co-operatives had negative growth as the crisis struck (those were KUD Tanjung Sari, KUD Ujung Berung, and KUTT Grati). This negative growth was influenced by the decrease in business turnover in other agricultural business units. It was just like the reduction of government programs in this sector. The facts show that there are at least fourteen dairy co-operatives which had negative growth in the other agricultural business units (see Appendix 14.2).

Table 5.3. Business Turnover and Its Average Growth per Year

Variable Component	Range		Total Average	Type of Dairy Co-operative		
	Least	Largest		Non-KUD	KUD	T-test
Business Turnover In 2000 (in millions of Rp)						
Total	969.88	97,309.77	17,687.18	40,702.27	10,682.59	***
Milk	223.52	61,443.50	12,191.35	29,112.95	7,041.30	***
Feed	10.40	14,958.09	2,889.88	6,792.54	1,702.11	***
Credit	0	380.35	106.93	166.43	88.83	
Trade	0	18,829.84	1,203.18	3,666.71	453.41	**
Other Livestock	0	1,157.36	137.93	198.70	119.44	
Other Agriculture	0	5,695.55	567.99	0.00	740.85	***
Services and others	0	7,756.50	589.92	764.94	536.65	
Average Growth of Business Turnover per Year						
Total	-304	10,709	2,322.21	5,344.86	1,402.27	***
Milk	-40	7,509	1,764.87	3,985.78	1,088.94	***
Feed	-25	1,594	429.95	943.01	273.80	***
Credit	-8	89	16.82	34.13	11.55	***
Trade	-320	1,738	133.70	439.95	40.49	**
Other Livestock	-33	120	10.63	9.04	11.11	
Other Agriculture	-1,317	1,176	-60.11	-48.04	-63.78	
Services and others	-320	89	26.36	-19.00	40.16	

The Non-KUD group had better growth in almost all business units compared to the KUD group, except for the other livestock business unit and the service and others business units. The statistical test for growth of business turnover as shown in Table 5.3 shows that the growth was very significant (***) for the variables of: total, milk, feed and credit, and also significant turnover growth (**) for the trade variable. That is connected with the previous analysis result, which showed that the growth of milk production was not significant when the crisis struck, so the phenomenon of increasing milk turnover was presumably more influenced by the increasing selling price (see Appendix 14.2).

²⁸⁶ The growth is usually presented as a percentage. However, for seeing the growth which occurred when the crises struck, the data is presented in nominal form.

b. The Share of Business-Unit Turnover

On average, the turnover of the milk-business unit had a share of about 67.5%, and did not show a significant difference in the share of all business units, except for the share of the other agriculture business unit, which differed significantly (**) between the two groups of dairy co-operatives. Yet, as seen from each co-operative, there was a big difference for the share of the milk business unit, which ranged commonly from 40% to 80%, and even there is an outlier dairy co-operative with a very low share of milk business unit, that is KUD Samarang, with only 8.7%. This was due to the milk production being low and the same time there was a relatively high turnover from the other agricultural business unit (in this case, distribution of fertilizer, which is a government program) (see Appendix 14.3).

The share of the milk business unit, on average, had an increase of 2.97%. Interestingly, there was no growth for the share of the milk business unit in the Non-KUD group, while in the KUD group the share grew 3.88% per year. This was presumably influenced by the reorientation of business development towards the milk-business unit in some KUDs, such as KUD Cilawu (19.7% per year) and KUD Wajak (11.7% per year). This business reorientation was made after the crisis, because the business units related to government programs had more difficulty improving (see Appendix 14).

Table 5.4 The Share of Selected Business Turnover and Its Growth

Variable Component	Range		Total Average	Type of Dairy Co-operative		
	Least	Largest		Non-KUD	KUD	T-Test
Share of Selected Business Turnover						
Milk	8.74	88.74	67.50	73.50	65.68	
Feed	0.62	27.73	15.43	18.46	14.51	
Credit	0	3.56	0.82	0.39	0.96	
Trade	0	31.70	5.12	5.05	5.14	
Other Livestock	0	4.78	0.75	0.64	0.78	
Other Agriculture	0	87.99	6.90	0	9	**
Service and Others	0	24.93	3.48	1.96	3.94	
Growth the Share of Selected Business Turnover (%)						
Milk	-4.04	19.68	2.97	0	3.88	***
Feed	-1.57	2.89	0.54	0.42	0.57	**
Credit	-0.69	0.61	-0.01	-0.07	0.01	
Trade	-12.48	7.58	-0.33	0.16	-0.47	
Other Livestock	-0.72	0.49	-0.05	-0.08	-0.03	
Other Agriculture	-21.76	15.74	-1.93	-0.20	-2.46	*
Service and Others	-16.08	5.79	-1.19	-0.22	-1.49	*

The statistical test results as shown on Table 5.4 show that there was a very significant share growth (***) in the milk business units, and a significant share growth

(**) for feed business units. However, the share of other agricultural business units decreased quite significantly (*).

3) Financial Performance

As seen in Table 5.5, assets owned by the 30 sampled co-operatives shows that the Non-KUD group has more assets (Rp13.46 billion) compared to those of the KUD group (Rp7.53 billion). On average, the Non-KUD group has a total equity which is four times higher than the KUD group (Rp6.9 billion and Rp1.7 billion, respectively). However, comparing the average of total liabilities, there is not so much a difference between the Non-KUD group and the KUD group. This means that the dependency of dairy co-operatives on external capital is higher in the KUD group. This matter has an implication on the working capital of the KUD group, which is only Rp1.16 billion, that is much lower compared to the Non-KUD group (Rp4.23 billion). Due to the national economic crisis, dairy co-operatives had difficulty in getting loans for their working capital. Besides this, the government's fund for co-operative development became very limited.

Table 5.5 Selected Financial Performance (in Millions of Rp)

Variable Component	Range		Total Average	Type of Dairy Co-operative		
	Least	Largest		Non-KUD	KUD	T-test
Selected Financial Performance (in million of Rp)						
Total Assets	222	23,055	8,915	13,467	7,529	**
Total Equity	-86	13,712	2,983	6,968	1,770	***
Total Liabilities	208	17,158	5,932	6,499	5,759	
Account Receivable	119	13,512	4,905	5,729	4,654	
Working Capital	-959	10,069	1,883	4,239	1,166	***
Net Savings	-66	710	192	449	113	***
Growth of Selected Financial Performance (in millions of Rp per year)						
Total Assets	-150	4,287	1,091	1,229	1,049	***
Total Equity	-235	2,289	328	791	187	***
Total Liabilities	-710	3,742	762	437	861	
Account Receivable	-330	3,038	732	566	782	
Working Capital	-337	2,401	164	553	45	***
Net margin	-23	186	29	86	12	***
Selected Ratios of Financial Performance (%)						
Current Ratio (%)	0.91	8.12	1.97	2.41	1.84	
Debt Ratio (%)	22.71	100.72	70.26	52.74	75.59	**
Equity to Debt (%)	-0.70	340.20	61.06	130.85	39.82	***
Assets Turnover (%)	0.09	5.66	1.91	2.73	1.67	
Return on Investment (%)	-5.9	8.9	3.4	5.1	2.9	**
Net Profit Margin (%)	-6.8	2.8	0.9	1.3	0.7	
Sales per Employee (in millions of Rp)	19	382	159	215	142	

The problem of low working capital is also due to the large amount of bad debts faced by the KUD. Most cases of non-performing loans were loans for cow procurement

by the government that took place during the 1980s.²⁸⁷ Until now, this problem is still difficult to solve because members also had financial problems, especially during the crisis time. Besides this, there was another problem of distributing agricultural credit (KUT) by the government through the KUD. For example, KUD Ngantang had credit of Rp11.8 billion, and this seriously affected its working capital, which was only Rp1 billion. Something similar was also found in KUD Cipanas, KUD Ciwidey, KUD Cisarua and KPS Bogor. Even KPS Bogor was the only Non-KUD dairy co-operative with a very high amount of accounts receivable (Rp9.6 billion), which caused the availability of working capital to be negative. Problems faced by KPS Bogor are inseparable from the failure of KUNAK repayment from members (see Appendix 15.1).

Financial growth is calculated not in percentage but in the form of nominal growth per year between 1996 and 2000. Table 5.5 shows that the total assets of the 30 sampled co-operatives grew on average by Rp1.09 billion per year. However, this growth was more influenced by the growth of liabilities (Rp0.76 billion) than by the growth of equity (Rp0.33 billion). Compared to the type of co-operative, the Non-KUD group had much higher growth (more than 4 times) in total equity, working capital, members' saving and business surplus than those in the KUD group (Appendix 15.1).

The average growth of liabilities was Rp762 million per year, while at the same time the growth of account receivables was almost the same (Rp732 million per year). This occurred because the function of co-operatives as to supply credit from outside (including government) to members.

The working capital of the sampled dairy co-operatives increases on average Rp164 million per year. Based on the improvement of financial performance between 1996-2000, almost all variables have grown very significantly (***, see Appendix 15.2), with the exception of the total liabilities and account receivable variables, which have been a latent problem for years. Even if there were improvements in those two variables, it would not be sufficient to make a significant change.

Significant growth of co-operatives can also be seen from the financial ratios of thirty co-operative samples. Dairy co-operatives of the Non-KUD group had a better average current ratio (2.41) than their counterparts (1.84). This indicates that the Non-KUD group has a better ability to meet its short-term obligations. For debt ratio, the KUD group had a much higher debt ratio than the Non-KUD (which were 75.59 and 52.74, respectively). In other words almost 76% of its assets were financed by loan capital.

²⁸⁷ As discussed above in Chapter IV, the co-operative movement received full support from the Ministry of Co-operatives, so that distribution of credit for cows was very intense in the 1980s. But dairy cows did not figure in the risk of default of repayment by the members, especially KUD, whose member recruitment system lacks clear procedures. Only with a residential address located in one area of KUD a person is entitled to become a member of co-operatives in the region.

The independence ratio of capital also showed that the degree of capital independence of the KUD group was only 39.82, which is much smaller when compared with the Non-KUD group (130.85). KUD dependence on foreign capital is still very high from both government and banks. The dependence on capital from government is because the KUD group has more business activities related to government programs, which causes a high amount of debt to become higher. By looking at the ratio of debt and capital independence levels, the KUD group must immediately reduce its dependence on outside capital, because the high debt ratio will make the KUD increasingly difficult to obtain capital loans in the future.

In terms of the ability of co-operatives in the use of assets, the group of Non-KUD had a far better ratio than the KUD (2.73 versus 1.67), which means that the Non-KUD group uses its assets more efficiently. This may be due to the more specific nature of the business of the Non-KUD group, which made it so much easier in conducting business activities.

Although the objective of co-operatives is not merely to make a profit, the ability of co-operatives in generating profits is important to analyze, because it implies the ability of co-operatives to survive. The ability of co-operatives to generate income from investments can be known from the Return on Investment Ratio (ROI). This ratio is important, especially for co-operatives that rely a lot on outside capital. At least the expected ratio of ROI is greater than market interest rates. On average, the 30 co-operative samples had a very small ROI, i.e. 3.4%. The more diverse the co-operative businesses, the lower the ROI obtained (2.90% at KUD group versus 5.08% for the Non-KUD group).

The low level of ROI may be due to low operating surplus, or too much capitalization. Capitalization itself is a summation of long-term liabilities with equity. The debt of the dairy co-operatives is generally dominated by long-term liabilities, and not infrequently associated with government programs.²⁸⁸ A substantial portion of this debt became underpaid liabilities, which in the calculation of ROI must still be figured in.

The average net profit margin ratio showed a very small number of only 0.9%. This was made possible by low milk prices paid by the IPS to co-operatives. This was the case, even though co-operatives strive to provide good prices for their members. The low number for this ratio, on the one hand, shows the low selling prices, or, on the other hand, shows the high cost of goods sold, or it could be due to both of these factors

²⁸⁸ The program credit distribution of imported cows is less precise because a lot of credit in these programs was poorly repaid. Until now, the co-operative have had to bear the brunt of these non-performing loans. Several interviews with management of co-operative samples revealed the complaint that failed implementation of this program should not be imposed upon the dairy co-operatives. In other words, it was expected that bad credit could be wiped out. If not, this problem will continue to be a burden on the financial performance of dairy co-operatives, which over time could be an obstacle to the acceleration of the development of national dairy co-operatives.

simultaneously. Whereas, the high cost of goods sold could be due to high prices for milk of members or because of the operational inefficiencies of co-operatives. For the net profit margin ratio, the Non-KUDs had ratios slightly better than the KUDs (more information can be seen in Appendix 15.3).

The last ratio is the sales per employee ratio. This ratio measures the productivity of a co-operative employee. The higher the ratio, the higher the productivity of the employee. On the contrary, if this ratio is low, it means that either there is low business turnover or too many employees, or even both of them influence at the same time.

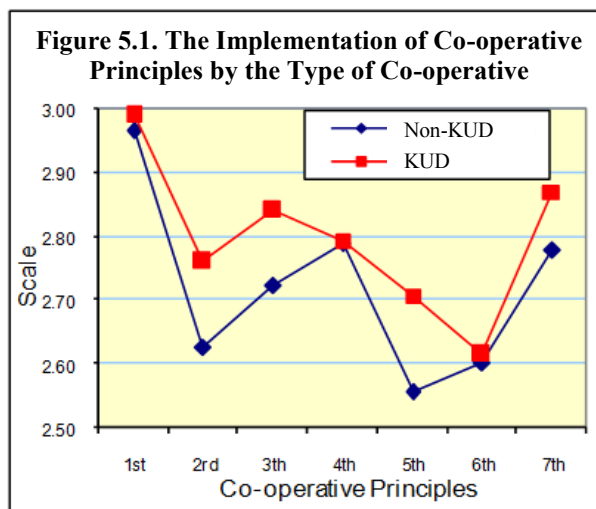
On average, the sales per employee ratio was Rp159 million per employee. There was a big difference for this ratio among the sampled co-operatives, from Rp19 Million (KUD Samarang) until Rp382 million (KPBS Pangalengan, see Appendix 15.3). This productivity difference could happen due to different quality of human resources, or because there are different internal problems of co-operatives which make employee productivity low.

5.2.2. Organizational Performance of Dairy Co-operatives

1) The Implementation of Co-operatives Principles

The result of interviews with employees and members of dairy co-operatives provided information on the extent to which the seven co-operative principles issued by ICA have been implemented in the daily activities of co-operatives. Respondents provided answers by giving a subjective scale rating for three categories, namely 1 means not good, 2 is enough and 3 means good. The result of data processing showed that the respondents' answers ranged from enough to good categories, meaning that employees and members find that co-operative principles have been implemented well enough. This might have been influenced by the general opinion that the dairy co-operatives in which they are involved have a better performance than other types of co-operatives (see Appendix 16).

Figure 5.1 shows that dairy co-operatives have applied the first principle very well (scale 3), where membership is based on a voluntary basis and there is no discriminatory treatment towards the membership based on gender, ethnicity, religion or social class. The first principle was also the highest value compared to the implementation of other principles,



Source: Author's own depiction as a part finding of the study, 2003

while implementation of the sixth principle (co-operation among co-operatives) obtained the lowest rating. The reality shows that it is not easy to establish co-operation among co-operatives. In some cases, it was found that one dairy co-operative competed with other co-operatives, and they are not open to work together. This applied particularly to some co-operatives which are located close together. As one example of a problem was associated with the milk supply, where several "mischievous" members supplied their milk to a neighboring co-operative due to them paying a better price, or to avoid the strict admission standards set by their own co-operative. Such behavior led to debt of members in their co-operatives (mostly for the procurement of cattle feed) not being able to be repaid, because the payment mechanism is generally done through deductions from the value of supplied milk of members. Of course, this case will in turn have a negative impact on the relationship between those two adjacent co-operatives.

In a comparison between the two groups of co-operatives, it was seen that the KUD group showed better average performance on almost all the principles of co-operatives compared to the performance of the Non-KUD group. Thus, it reality is precisely the opposite of the notion that the Non-KUD group should be more capable in applying co-operative principles. This may be possible due to the existence of differences in assessment standards used by members and employees between the two groups. Members' expectations for the Non-KUD group, which was built by a bottom-up approach, are understandably higher than the expectation of co-operative members of the KUD group, which were mainly built by governments (top-down approach).²⁸⁹ Another possible reason is that there are members who are disappointed with co-operative performance, so members provided relatively low ratings on these issues. However, apart from the above possibilities, this information is very important to note, because they reflect the views of members of the co-operative itself.

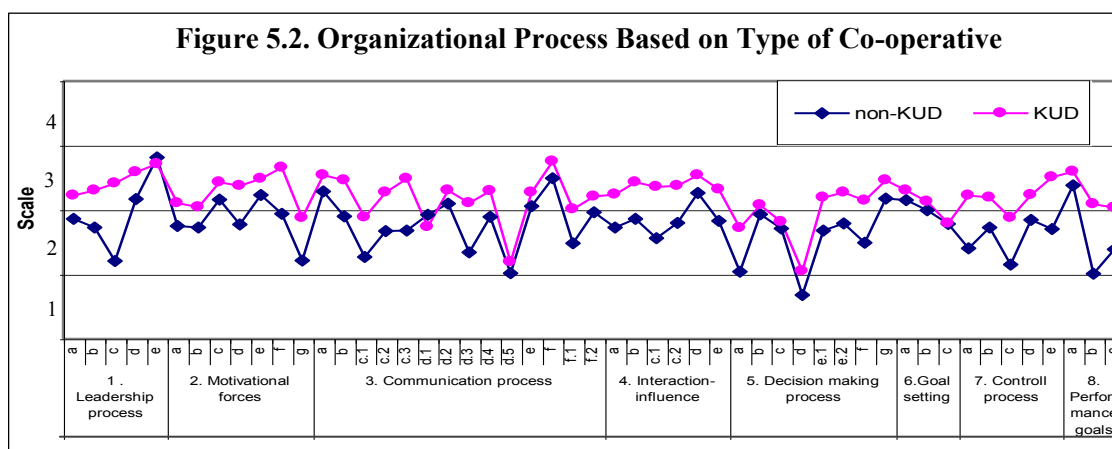
T-test statistical analysis shows that only two variables differ significantly between the two groups (see Appendix 17.1), namely the second principle - democratic member control (*) and the fifth principle - education, training and information (**).

2) Process of Organization

As stated by Likert (1967), System-4 is an ideal type for an organization to achieve high performance. Opinions of co-operative employees were presented as averages based on co-operative groups, then set into graph form. If a graph moves higher it means that it moved to the System-4 structure. But, if a graph moves lower it means that it moved farther from the area of System-4. The results showed that in

²⁸⁹ Or it could be because the Non-KUDs are generally large and relatively more long-standing co-operatives (average of 30 years compared to 21 years for the KUD group), causing Non-KUD members' standard assessment of the implementation of co-operative principles to be relatively higher than members of KUDs.

concert with the implementation of the co-operative principles above, the Non-KUD group is not better than the KUD group (Figure 5.2).²⁹⁰



Source: Author's own depiction as a part finding of the study, 2003

In general, the graph fluctuation between these two groups is almost the same. T-test statistical analysis shows that only two variables differ significantly between the two groups (Appendix 17.2), namely the variable of communication process (*) and the variable of interaction and influence (**). Another interesting thing to discuss is the existence of bad performance that was simultaneously discovered in both types of these co-operatives, namely in points 3-D5 (the need for additional communication system from bottom to top) and 5-d (use of professional services in decision making). Point 3-D5 shows vertical communication barriers experienced by both groups of co-operatives. The contrasting graphics between the two groups of co-operatives can especially be seen at point 1-c (supervisor behaviors that support) and 8-b (ease of obtaining training). On this last point, employees in the KUD group more easily obtain required trainings than employees in the Non-KUD group. This could be due to the fact that the average number of employees in the Non-KUD group are twice as much compared with the number of employees in the KUD group (166 and 76 people, respectively, see again Table 5.1), so training opportunities are relatively more limited in Non-KUDs.

5.3. The Typology of Dairy Co-operatives in Indonesia

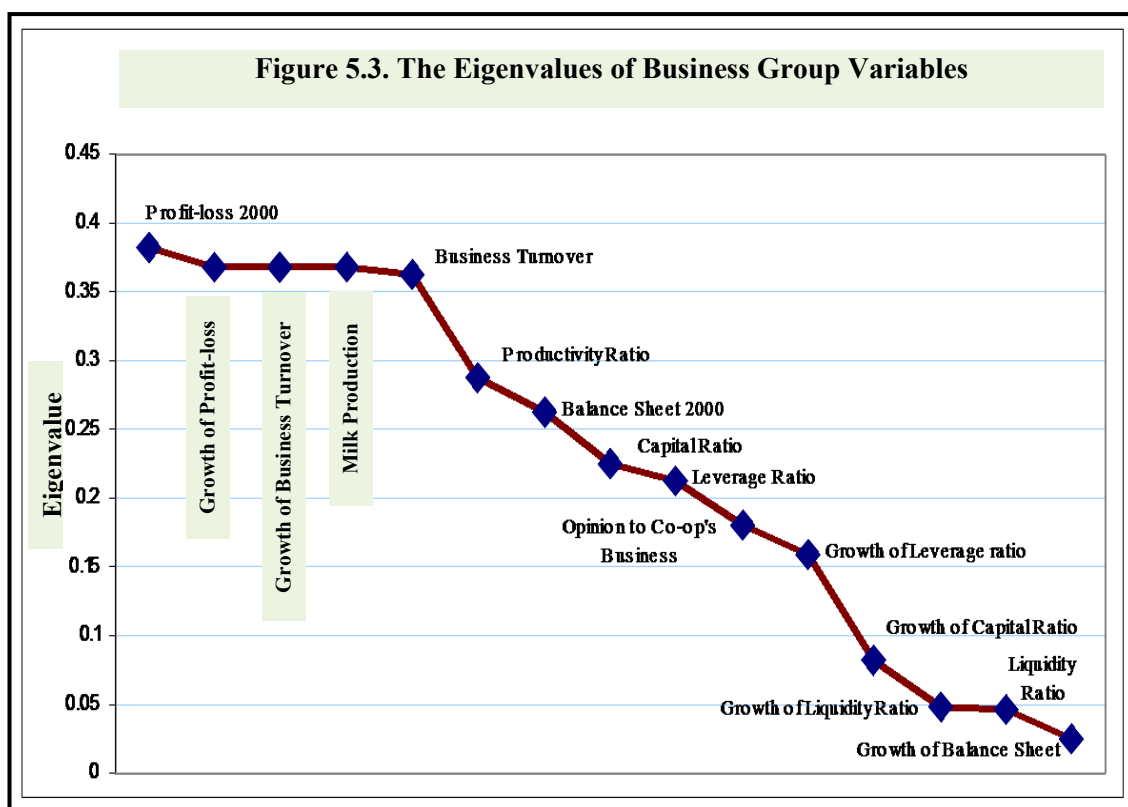
There were actually about 23,000 data on business variables and 72,000 data on organizational variables which were collected in this study; however, all of this data does not cover all of the 30 sampled dairy co-operatives. Therefore, data processing only took the variables that exist for the 30 co-operatives. The remaining processed data consisted of 5,130 business variables and 1,500 organizational variables. Furthermore,

²⁹⁰ The questions of organizational process are adapted from Likert (1967, pp.196-229) can be seen in Appendix 19.2.

business data were grouped into 171 groups of variables and organizational data were grouped into 50 groups of variables.

5.3.1. Business Index

Based on the results of PCA processing, Figure 5.3 shows that the group variable "operating statement" was the variable with the largest eigenvalue. This was followed by the group variables "growth of the operating statement", "growth of business turnover", "milk production levels" and "business turnover". These four variable groups have eigenvalues with nearly similar values. This means that these five variables can become distinctive variables on the development of dairy co-operatives. The better the performance of dairy co-operatives in the five variable groups, the better the level of development of these co-operatives. The group variable of "balance sheet" ranked in just the seventh position. Even the group variable of "growth of balance sheet" was located in the final position (see more in Appendix 18).



Source: Author's own depiction as a part finding of the study, 2003

Looking further at the group variable "operating statement" and its growth (Table 5.6), it was seen that the magnitude of "total sales" and "total cost" has the largest eigenvalue, while "net savings" had the smallest eigenvalue. By coincidence the data processing sequence variables shows similarities in both groups for this variable. This means that the amount of "total sales" and "growth of total sales" is the biggest influencing variables that will determine the development of dairy co-operatives.

Table 5.6. The Group Variable of Operating Statement and Its Growth

No	Variables	Eigenvalue	
		Year 2000	Growth
1	Total Sales	0.443	0.469
2	Total Costs	0.442	0.468
3	Cost of Good Sales	0.430	0.453
4	Gross Margin	0.394	0.403
5	Total Fixed Costs	0.384	0.396
6	Net Savings	0.347	0.190

business unit of "trade" and "credit", the eigenvalue for the turnover of other business units was not so high.

Table 5.7. The Group Variable of Business Turnover and Its Growth

No	Variables	Eigen value	
		Growth	Year 2000
1	Total business turnover	0.482	0.476
2	Feed	0.470	0.477
3	Milk	0.468	0.464
4	Credit	0.393	0.276
5	Trade	0.343	0.375
6	Other Livestock	0.145	0.182
7	Share of other agriculture	0.122	-
8	Other agriculture	0.091	-
9	Share of credit	0.080	-
10	Service and other	0.060	0.228
11	Share Service and other	0.045	0.041
12	Share of feed	0.009	0.099
13	Share of milk	-	0.021
14	Share of trade	-	0.114
15	Share of Other Livestock	-	0.062

Note: Variables are sorted based on eigenvalue in the group variable Turnover Growth Business

“-“ : Data were not further processed

Table 5.8. The Group Variable of Milk Production

No	Variables	EV
1	Number of matured cow	0.420
2	Number of lactation cow	0.414
3	Number of cow population	0.413
4	Average milk production per day	0.408
5	Milk production share	0.408
6	Number of productive cow	0.336
7	Number of cow owned per member	0.183
8	Milk Quality (Total Solid)	0.039
9	Milk productivity per member	0.020
10	Milk productivity per lactation cow	0.017

For the group variable "growth of business turnover" together with the group variable "business turnover", it was found that the variable of "total turnover" had the highest eigenvalue, followed by the business unit turnover variable of "feed" and "milk" (Table 5.7). Except for the business unit of "trade" and "credit", the eigenvalue for the turnover of other business units was not so high.

This phenomenon will indicate that, for dairy co-operatives, the level of success is much influenced by the level of sales of milk produced. The more milk sold by a co-operative, the higher the success will be achieved. This indicates that by focusing on the milk business and cattle feed business unit the development of dairy co-operatives will be boosted.

Furthermore, in terms of increasing sales of milk, the information obtained from the "milk production" group of variables shows that the variable "number of matured cows" and "number of lactation cows" are the two variables with the highest eigenvalues (Table 5.8). It was also found that the variable for "milk quality", and "milk productivity per member" as well as "productivity per lactation cows" had very low eigenvalues. This means that

the development of dairy co-operatives needs to emphasize in an effort to increase the population of lactation cows. In other words, increasing milk quality as well as the productivity of the lactations cows which are being promoted in Indonesia should not neglect the importance of increasing the population of lactation cows.

Among the financial ratios being analyzed, the "productivity ratio" was the ratio with the highest eigenvalue (Figure 5.3). It was indicated that improving this ratio will have a positive impact on co-operative development, rather than by improving other financial ratios.

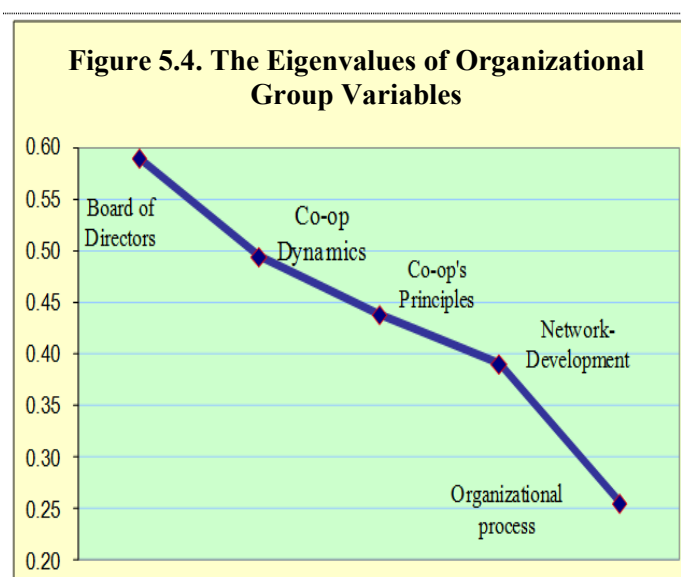
As shown in Table 5.9, the variable "sales per employee ratio" had the highest eigenvalue, while the variable "net savings per employee" had the lowest ones. This indicates that co-operatives have to pay attention to their employees' productivity, especially in increasing sales volume, rather than just focusing on the amount of profit gained by co-operatives. Other business group variables were not discussed: the discussion will be more focused on these group variables, which have relatively large eigenvalue. Complete information, however, can be seen in Appendix 18.

Table 5.9 The Group Variable of Productivity Ratio

Variables		EV
1	Sales per employee	0.541
2	Total cost per employee	0.540
3	Cost of goods sold per employee	0.528
4	Fixed cost per employee	0.370
5	Net savings per employee	0.030

5.3.2. Organization Index

Different from the business indicators, which are indicated by 15 variable groups, the organizational indicators are pointed out only by five groups of variables. Figure 5.4 describes the level of eigenvalues of the group of variables. It was revealed



Source: Author's own depiction as a part finding of the study, 2003

that the group of variables "board of directors (BOD)" constitutes the group with the highest eigenvalue, followed by the group variable of "co-operative principles", while the group variable of "organizational process" had the lowest eigenvalue. After observing this group variable attentively, it was indicated that the variable "member acceptance of BOD" constitutes the one with the highest eigenvalue (Table 5.10).

Other information indicated that “the activeness of the board chairman” is much more important as a determining factor of co-operative development than “the overall activeness of the BOD”. Similarly, “the members’ acceptance of the board chairman” is much more important than “the acceptance by employees of the board chairman”. Whereas the variable “board chairman is not a long-life chairman” actually has a very small eigenvalue. These phenomenon indicate that the figure of “an active board chairman” and “their acceptance by members” are more important for the development of co-operatives, and it does not really matter if the chairmen of co-operative boards are long-life chairman who have been elected many times.

In connection with the co-operative principles, Table 5.11 shows that the implementation of the seventh co-operative principle of “concern for community” has the highest eigenvalue, while the implementation of the fourth principle; “autonomy and independence” had the lowest eigenvalue. This suggests that the success of dairy co-operatives is associated with the extent to which co-operatives can interact well with people and members. If the public and members do not feel close to co-operatives, this may result in a setback to the co-operative itself.

In the context of co-operative dynamics, Table 5.12 shows that “Interaction of members with co-operative

Table 5.10. The Group Variable of Board of Directors

Variables		EV
1	Members' acceptance of BOD	0.460
2	Activeness of the Chairman	0.444
3	Members' assessment of the chairman	0.432
4	Solidity of BOD	0.421
5	The overall activeness of the BOD	0.360
6	Employees' assessment of BOD	0.292
7	Non long-life chairman	0.111

Table 5.11. The Group Variable of Co-operative Principles

Variables		EV
1	7 th Principle: Concern for community	0.399
2	2 nd Principle: Democratic member control	0.393
3	5 th Principle: Education, training and Information	0.351
4	3 rd Principle: Member economic participation	0.297
5	6 th Principle: Co-operation among co-operatives	0.238
6	1 st Principle: Voluntary and open membership	0.174
7	4 th Principle: Autonomy and independence	0.040

Table 5.12. The Group Variable of Co-operative Dynamic

Variables		EV
1	Interaction of members with co-operative businesses	0.370
2	The number of employees	0.368
3	The meeting intensity of member group	0.360
4	The number of dairy farmers	0.354
5	The activeness of members in group	0.336
6	The control role of group representatives	0.313
7	Multi or single purpose	0.286
8	The age of the co-operative	0.267
9	Member's obligatory saving per liter of milk	0.228
10	The existence of a General Manager	0.196
11	The number of supervisors	0.106
12	The number of autonomous business units	0.081
13	Voluntary savings	0.031

businesses" has the highest eigenvalue, while "the existence of a general manager", "the number of supervisors" and "the number of business units" shows a relatively small eigenvalue. This information explains that the dynamics of a co-operative will be achieved if more members interact with co-operatives, especially the interaction with co-operative employees associated with co-operative businesses. But this does not depend on the number of business units, meaning that the success of co-operatives can be obtained with intensive interaction though only with a few business units. In the context of co-operative organization, the success of co-operatives is more characterized by the mechanism of direct control by members of the group members than through the supervisors of co-operatives.

Within the group variable of Networking and Development, it was shown that "the frequency of external visits" had the highest eigenvalue (Table 5.13). Meanwhile, the "good relations with GKSI" variable had the smallest eigenvalue. This is probably because all primary dairy co-operatives in Indonesia are members of GKSI, so the level of this relationship is no longer as a distinctive variable of the development of dairy co-operatives.

Table 5.13. The Group Variable of Network and Development

No	Variables	EV
1	Frequency of external visits	0.528
2	Existence of networking with other companies	0.453
3	Internal training	0.441
4	Intensity of extension	0.430
5	Good relationship with GKSI	0.370

In the group variable of organizational process there was an interesting phenomenon, in which eight variables had eigenvalue magnitudes which were not much different from each other (Table 5.14). The information regarding this organizational process was entirely derived from the co-operative's employees. This indicates that it is important to direct the organizational process into System-4 for all of its variables in a balanced way in terms of getting a better achievement of organization performance.

Table 5.14. The Group Variable of Organizational Process

No	Variables	EV
1	Controlling Process	0.380
2	Interaction and Influence	0.380
3	Decision Making Process	0.364
4	Communication Process	0.358
5	Goal Setting	0.350
6	Performance, Goals and training	0.340
7	Motivation development	0.340
8	Leadership Process	0.312

All the 15 indices of business variables were combined into one business index and the five organization variable indices were combined into one organizational index. The two indices were then plotted into a quadrant system, which can describe the relative position scatter of the 30 dairy co-operatives being surveyed. Figure 5.5 shows the distribution of 30 co-operatives into four quadrants, which would be a typology of

co-operative grouping. Axis intersection points of these two indices are the average value of each indicator.

As seen in Figure 5.5, the distribution of co-operatives in the four quadrants are not evenly distributed, where in Quadrant-I, II, III and IV are located respectively 10, 4, 10 and 6 dairy co-operatives. With this classification it can be said that the 10 co-operatives located in Quadrant-I are co-operatives which have a better performance compared to co-operatives in other quadrants. Furthermore, the further the location of co-operatives in Quadrant-I from the axis point of intersection (zero point), the better the success obtained. So, co-operatives number 9, 19 and 23 can be expressed as the best three of the thirty dairy co-operatives.

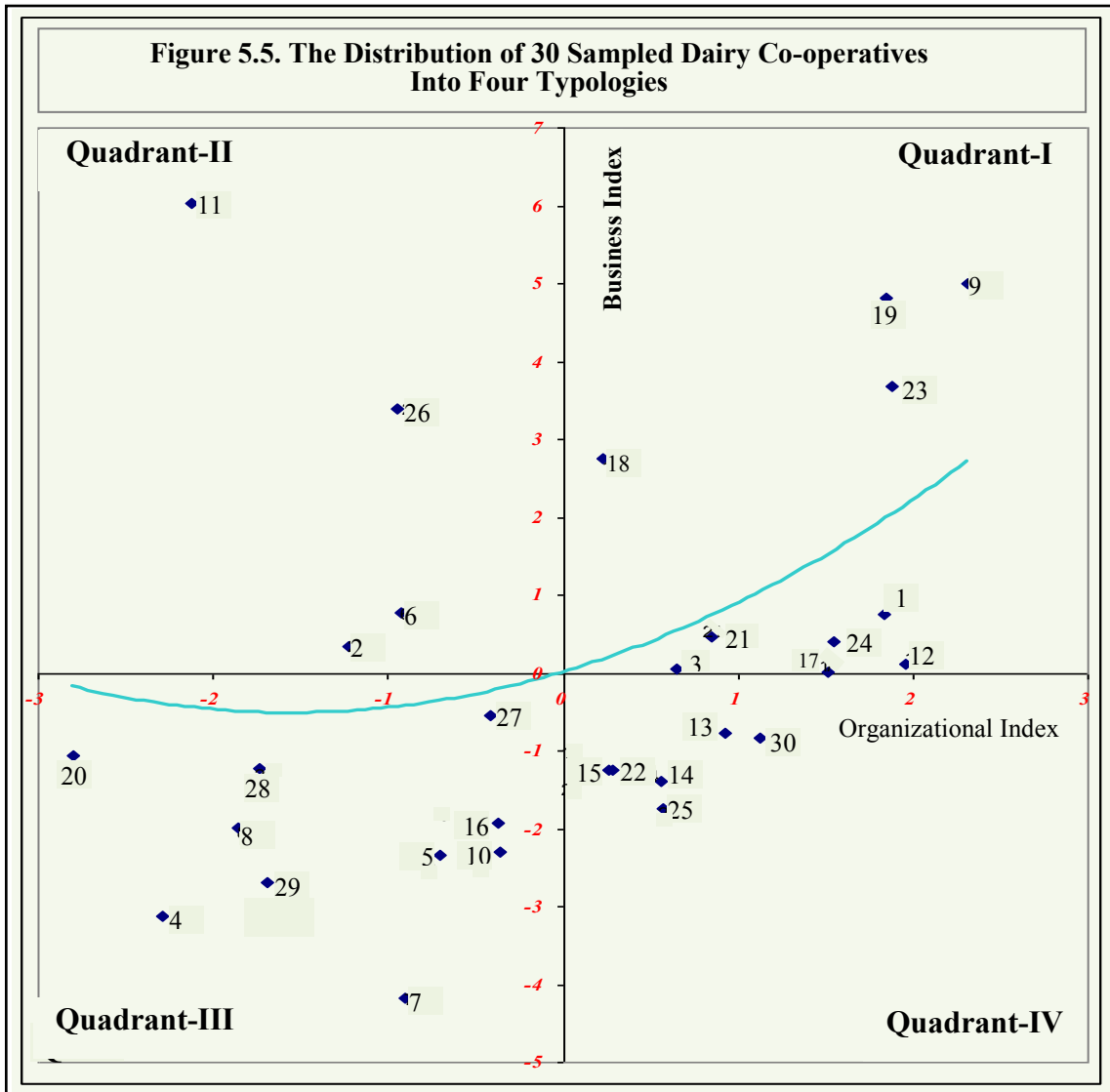
Most of the co-operatives in Quadrant-I are close to the horizontal line and even some of them seem to stick to the boundary line. This means most of the co-operatives in Quadrant-I still do not substantially differ from co-operatives in Quadrant-IV. Conversely, co-operative number 18 in the performance of co-operative organization is not too far from the vertical line. So, as a whole, it can be stated that only a small sample of the 30 co-operatives really showed good performance on business as well as organizational aspects.

Quadrant-IV shows that six dairy co-operatives are located close to the abscissa (co-operatives number 15 and 22 are very close together). This seems to indicate that there are no dairy co-operatives that are good at extreme aspect of organization only. Furthermore, the location of the co-operatives, which are clustered from lower left to upper right, suggests that the better the organization of a co-operative will be followed by improvement in the business aspects.

In Quadrant-II it was found that co-operative number 11 is located in a very extreme position. This co-operative had the highest business achievement among all co-operative samples, but also had the lowest organization index among the 14 co-operatives that had a positive business index. This phenomenon is quite interesting to be exploring further, to discover what conditions allow a co-operative to achieve such extreme results. A review of the relevant history of the co-operative is required to get information that can explain the cause.

Meanwhile, the other 10 dairy co-operatives in Quadrant-III are spread more evenly. There are 3 dairy co-operatives close to the demarcation line with Quadrant-IV. But there are also several co-operatives that are facing extreme problems in aspects of business and organization simultaneously, namely co-operatives numbers 4, 29 and 8.

From the spread of the thirty samples of these co-operatives, a trend line as shown in blue lines can be described. The increasing dairy co-operative performance is not a linear shape, but exponential. Improvement of co-operative businesses and organization are preceded by declining business performance of co-operatives. This is followed by a sharp increase in business growth. This is understandable with regard to the condition of co-operatives in Indonesia, where the initial consolidation period is



Source: Author's own depiction as a part finding of the study, 2003

Note:

- | | | |
|-------------------|------------------------|----------------------|
| 1. KUD Cikajang | 11. KPBS Pangalengan | 21. KAN Jabung |
| 2. KUD Bayongbong | 12. KUD Tanjung Sari | 22. KUD Karangploso |
| 3. KUD Cisurupan | 13. KUD Ujung Berung | 23. KPLP Nongkojajar |
| 4. KUD Samarang | 14. KUD Pasir Jambu | 24. KUD Purwodadi |
| 5. KUD Cilawu | 15. KUD Ciwidey | 25. KSS Prigen |
| 6. KUD Cisarua | 16. KUD Cipanas | 26. KUUT Grati |
| 7. KPS Bogor | 17. KUD Batu | 27. KUD Puspo |
| 8. KUD Cibereum | 18. KUD Ngantang | 28. KUD Gondang Legi |
| 9. KPSBU Lembang | 19. Koperasi SAE Pujon | 29. KUD Wajak |
| 10. KUD Ciparay | 20. KUD Kasembon | 30. KUD Dau |

fairly difficult period, which often must suffer low business performance. However, if it has gone through a sufficient period of consolidation, the business growth of a co-operative can be improved.

5.4. Benchmarking of Performance among Typologies

Benchmarking was done on the performance of the business and organization aspects that were shown by co-operatives in Quadrant-I (Q-I). The average performance was compared for just the average co-operatives in Q-I and Non-Q-I (namely Quadrants-II, III and IV). Then the comparison was followed with statistical tests in terms of identifying whether the comparison was significant. More complete information can be seen in Appendix 19. The analyzed variables focus on several group variables which have large eigenvalues, as has been discussed in Sub-chapter 5.3. The benchmarking result will be presented only for those that indicated significant differences between Q-I and Non Q-I.

5.4.1. Benchmarking of Business Performances

1) Operating Statement

Out of ten variables of operating statement and their growth, there are seven variables that differ significantly between co-operative performances of Q-I and Non-Q-I. The performances of Q-I co-operatives are much higher than those of Non-Q-I (Table 5.15). The variables of “gross margin” and “total fixed costs” are two variables which indicated very significant differences (***) . Both of its growth are also differs quite significantly (*). It may means that the Q-I co-operatives operate much larger business that in line with its total sales, which more twice larger than Non-Q-I.

Table 5.15. Significant Differences in Operating Statement and Its Growth

	Variables	Average		T-Test
		Q-I	Non-Q-I	
1	Total Sales	27,159	12,837	*
2	Total Costs	26,836	12,704	*
3	Gross Margin	3,585	1,179	***
4	Total Fixed Costs	3,136	1,025	***
5	Net Savings	324	126	**
6	Growth of Gross Margin	329	113	*
7	Growth of Total Fixed Costs	293	88	*

2) Business Turnover

There are only 5 out of 15 variables of “business turnover” as well as 4 out of 15 variables of “growth of business turnover” that had significant differences between Q-I and Non-Q-I co-operatives (Table 5.16). Feed and Milk business were two variables that

Table 5.16. Significant Differences in Business Turnover and Its Growth

	Variables	Average		T-Test
		Q-I	Non-Q-I	
1	Feed	4,387	2,141	*
2	Total business turnover	27,159	12,951	*
3	Milk	19,003	8,786	*
4	Other livestock	321	47	**
5	Service and others	1,258	256	*
6	Growth of total	4,046	1,461	**
7	Growth of feed	719	285	**
8	Growth of milk	2,962	1,166	**
9	Growth of other livestock	-0	0	*

influenced the superiority of Q-I co-operatives over Non-Q-I. The differences of these two variables are quite significant statistically (*). Moreover, both of their growth differs significantly (**). This means that a focus on the Milk and Feed business will cause dairy co-operatives to have better turnover growth. This is particularly true for dairy co-operatives in which most of the members are dairy farmers who totally rely on collective actions with co-operatives for their dairy business.

3) Milk Production

There are 6 out of 10 variables that differed significantly (*) between Q-I and Non Q-I co-operatives (Table 5.17). Interestingly, for the variable of milk quality, even though on average the difference was only in decimal calculation, the level of significant difference was stronger than for the other five variables (**). This is reasonable if we consider the facts in the field, that to improve milk quality efforts are needed which are not easy and involve many factors.²⁹¹

Table 5.17. Significant Differences in Milk Production

Variables		Average		T-Test
		Q-I	Non-Q-I	
1	Cow population	7,780	3,675	*
2	Number of lactation cows	3,655	1,575	*
3	Milk production per days	35,329	15,708	*
4	Share on total milk production	3.09	1.38	*
5	Productive cows	4,638	2,236	*
6	Quality of milk (Total Solid)	11.89	11.27	**

4) Financial Ratio

Table 5.18 indicates that in the group variable of productivity ratio, the performance of Q-I co-operatives differed very significantly (***) with non-Q-I co-operatives for 4 out of 5 variables. So only the variable of net savings per employee did not differ statistically. Even though the cost per employee is relatively high in

Table 5.18. Significant Differences in Productivity Ratio

Variables		Average		T-Test
		Q-I	Non-Q-I	
1	Sales per employee	216.8	130.1	***
2	Cost of goods sold per employee	186.7	113.2	***
3	Fixed cost per employee	26.7	15.0	***
4	Total cost per employee	214.6	128.5	***

Q-I co-operatives, it turned out to be able to increase sales volume, as the sales per employee is also high. As described in the previous sub-chapter, total sales had the highest eigenvalue, while Table 5.18 indicates that the productivity ratio influenced the performance of Q-I co-operatives. Therefore, it is strongly needed to boost sales of the co-operative, regardless of the costs that follow these efforts, such as direct costs (raw materials) and indirect costs (employee). In these efforts, sometimes the attention on

²⁹¹ See again Figure 2.4 related to factors that determine the milk quality.

efforts to improve business efficiency needs to be ignored, given that the raw materials of the dairy co-operatives (i.e. fresh milk) are derived from their members. Similarly, employees of co-operatives, in general, are those who are close to members of the co-operative.

5.4.2. Benchmarking of Organizational Performances

1) Board of Directors

In the BOD group variable, it turned out that only 2 of 7 variables differed significantly between the performance of Q-I and Non-Q-I co-operatives (Table 5.19). The activeness of the chairman indicated a very significant difference (***). This means that besides having a high eigenvalue (see again Table 5.10), the activeness of the chairman is also very excellently shown by Q-I co-operatives. In addition to this, the employees' good respect towards the chairman is also better for Q-I co-operatives compared to Non Q-I co-operatives (*). This means that the role played by the chairman is very important, even more important than the role of the board of directors as a whole. Therefore, the improvement of the quality of the chairman of a co-operative becomes very essential in order to develop agribusiness co-operatives.

Table 5.19. Significant Differences in Opinion on Directors

Variables		Average		Significance
		Q-I	Non-Q-I	
1	The activeness of the Chairman	0.90	0.30	***
2	Employees' assessment of the chairman	4.05	3.86	*

Note: The frequency data was tested with Chi-Square test, while the nominal data was tested with a t-test

2) Co-operative Dynamics

The members' interaction in the group and the control role of group representatives indicates very significant differences (Table 5.20). This means that the participation of members in the co-operative control mechanism is very excellent, which is shown by Q-I co-operatives compared to its counterpart. Besides this, it is interesting to note that 90% of Q-I co-operatives have employed general managers to handle the activities of co-operative business, while only 40% Non-Q-I co-operatives did so.

As stated in Sub-chapter 5.1, not all of the co-operatives which do not employ managers are those which are not capable in financing, but this is due to many other factors. Nevertheless, due to the smallest eigenvalue in this group variables (see again Table 5.12), the existence of the general manager would have little influence in determining co-operative development.

If this finding is associated with Table 5.19 earlier, it can be concluded that the role of the chairman as the primary co-operative leaders (PCL) is a highly influential variable in the progress of Q-I co-operatives. The PCL in Q-I co-operatives are mostly accompanied by a general manager who acts as a secondary co-operative leader (SCL). The role of the SCL is to support the implementation of programs and activities as directed by the PCL. However, without a good PCL, then the existence of an SCL becomes meaningless.

Table 5.20. Significant Differences in Co-operative Dynamics

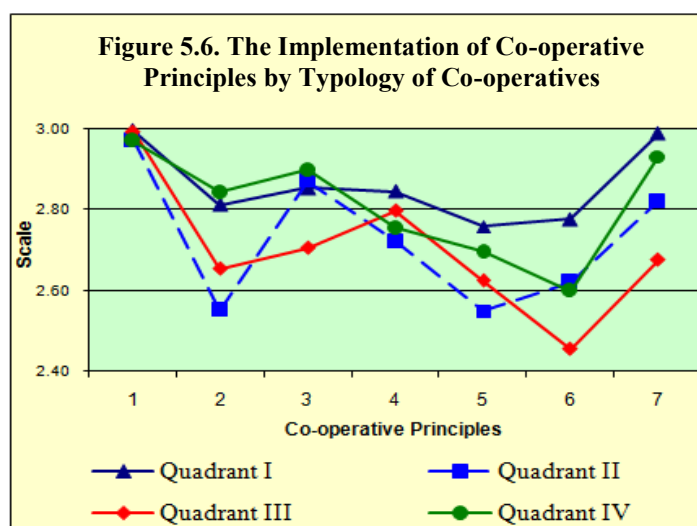
	Variables	Average		Significance
		Q-I	Non-Q-I	
1	The interaction of members with co-operative businesses	1.00	0.50	***
2	The number of employees	144	74	**
3	The activeness of members in groups	1.00	0.55	**
4	The number of members	2,551	1,034	*
5	The intensity of member group meeting	1.00	0.60	**
6	The control role of group representative	0.80	0.25	***
7	The existence of a General Manager	0.90	0.40	**

Note: For the frequency data are tested with Chi-Square test, while the nominal data are tested with t-test.

3) Co-operative Principles

Figure 5.6 indicates that the difference regarding the extent to which co-operative principles have been implemented by the sampled dairy co-operatives. It can be seen that Q-I co-operatives show a higher scale in implementation of the co-operatives principles numbers 4, 5, 6 and 7 than Non-Q-I co-operatives. However, statistical tests indicated that only the 7th, 5th and 6th principles differ significantly (Table 5.21). In particular, the implementation of the 7th principle differs very significantly (***).

Given that the seventh principle is also the variable with the highest eigenvalue in this group of variables (see



Source: Author's own depiction as a part finding of the study, 2003

Table 5.21. Significant Differences in the Implementation of Co-operative Principles

	Variables	Average		X ² test
		Q-I	Non-Q-I	
1	The 7 th Principle: Concern for community	2.99	2.78	***
2	The 5 th Principle: Education, training and Information	2.76	2.63	**
3	The 6 th Principle: Co-operation among co-operatives	2.78	2.53	**

again Table 5.11), it can be concluded that one factor in the success of Q-I co-operatives is the extent to which co-operatives have been able to give attention to the interests of its community, while not being separated from the interests of its members.

4) Networking and Development

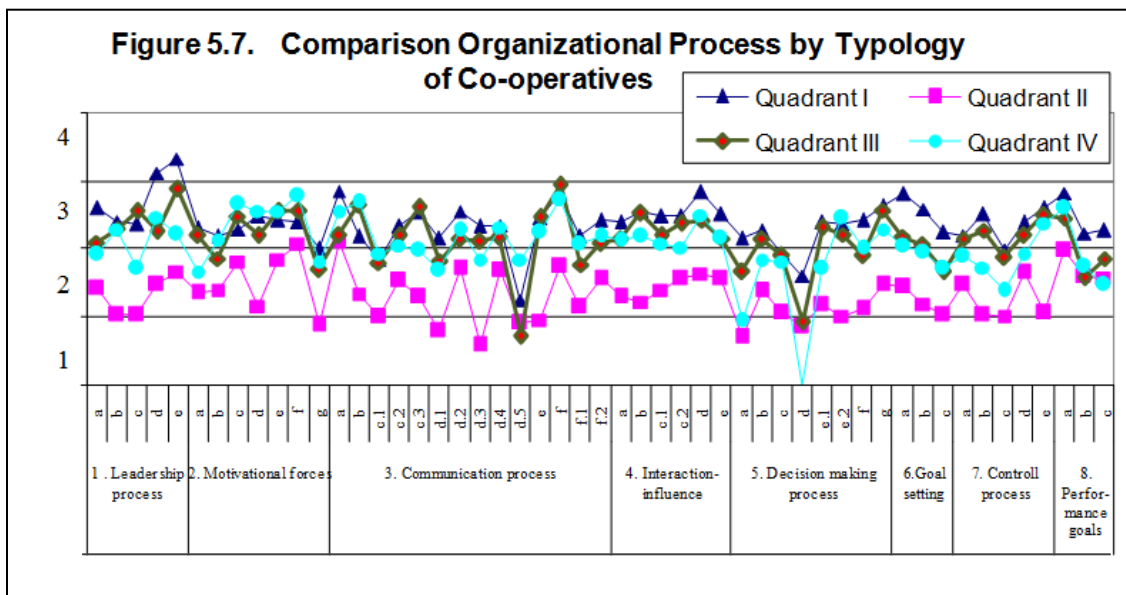
In the group variable of “Networking and Development”, it could be noted that the frequency of external visits was significantly different between Q-I co-operatives and their counterparts (Table 5.22). This is also in line with the highest eigenvalue scored by this variable (see again Table 5.13). The high frequency of external visits indicates the openness of co-operatives towards information and inputs from outside of co-operatives. From the source of data variable, it was found that the largest number of visitors were high school students as well as university students that visited co-operatives for the purpose of internship or research.

Table 5.22. Significant Difference in Networking and Development

	Variables	Average		X ² test
		Q-I	Non-Q-I	
1	Frequency of external visits	0.80	0.40	**
2	Existence of networking with other companies	0.90	0.55	*

5) Organizational Processes

Figure 5.7 indicates the graph of System-4 organizational process in dairy co-operatives for each quadrant. The graph of Q-I tends to move in the area of System-4, especially for the aspects of leadership, goal setting, control process, and performance goals. In contrast, Q-II co-operatives tended to move away from this System-4 area.



Source: Author’s own depiction as a part finding of the study, 2003

However, the results of the statistical test indicated that there was a significant difference between Q-I and Non Q-I co-operatives present in three variables (Table 5.23), namely: leadership process, goal setting and the decision making process. This is very closely related to the role of co-operative leaders. This finding suggests that the role of the PCL in Q-I co-operatives greatly affects the good process of the co-operative organizations they lead.

Table 5.23. Significant Differences in Organizational Processes

Variables		Average		X ² test
		Q-I	Non-Q-I	
1	Leadership Process	8.15	7.17	**
2	Goal setting	7.82	6.70	**
3	Decision making process	7.34	6.53	*

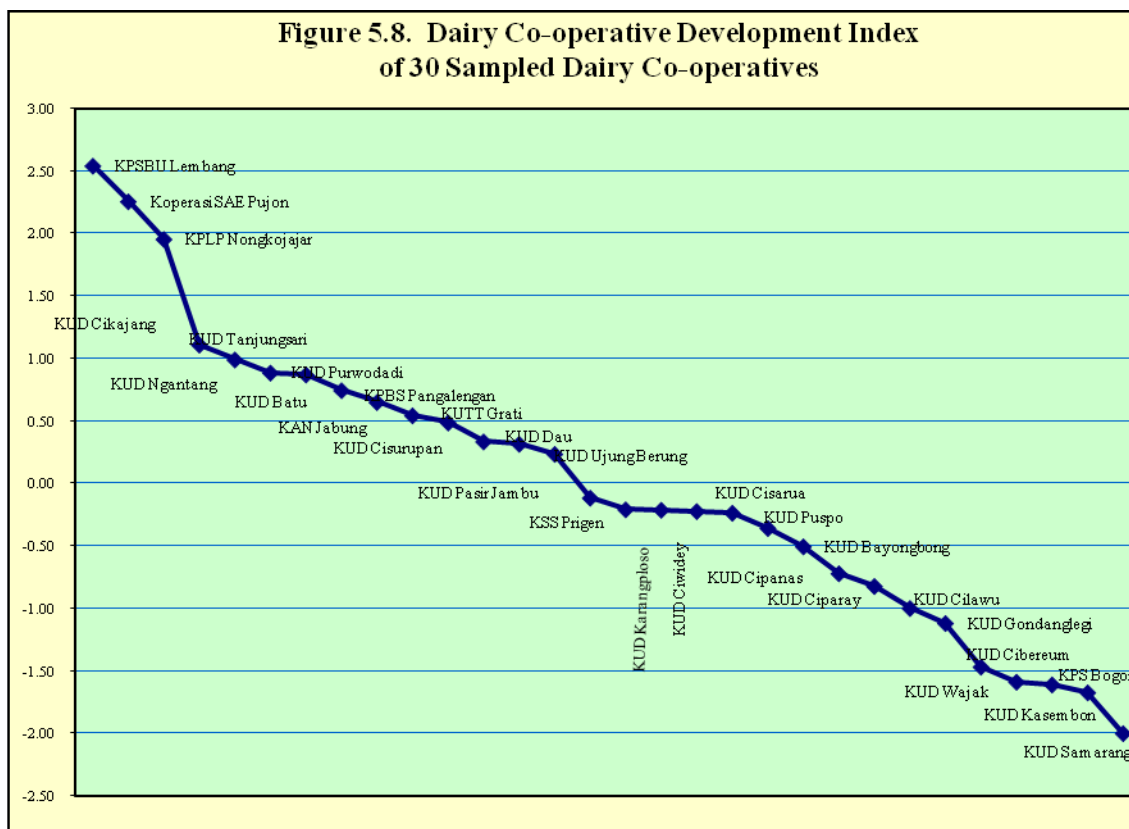
5.5. Dairy Co-operative Development Index

Co-operative Development Index is a new term for the co-operative movement in Indonesia. This term needs to be introduced, especially in co-operative societies. This is because the CDI is an index that not only describes the development of co-operatives in business aspects, but also the aspects of co-operative organization. So it can prevent a co-operative assessment process that is only biased towards their business aspects. Bias is caused by the commercialization process that directs the transformation of co-operatives into a form of private company. With the CDI it is expected that numerous misconceptions that exist in society towards co-operative institutions can be corrected. That a co-operative is a unique organization with dual dimensions will be increasingly understood, either by co-operative management itself, or among members and the general public, including government officers of co-operative development in Indonesia.

Based on the results of re-indexing both the performance indexes of business and organization of co-operatives (see Appendix 20), the Dairy Co-operative Development Index or DCDI (Figure 5.8) was acquired.

Figure 5.8 shows KPSBU Lembang is the best dairy co-operative due to having the highest DCDI. This is followed by KPLP Nongkojajar and KOP-SAE Pujon. These three dairy co-operatives are in the Non-KUD group. Meanwhile, the best DCDI among the KUD group is KUD Cikajang, in the fourth position, which is followed by KUD Tanjung Sari and KUD Ngantang. The Non-KUD with the lowest DCDI was found to be KPS Bogor, in the 28th position, and the two ranked last are from the KUD group, namely KUD Kasembon and KUD Samarang.

Based on the rankings of the DCDI, dairy co-operative leaders are able to know the relative success position of their co-operatives towards the other co-operatives in the same industry. If the index is recalculated periodically, then leaders of co-operatives can also conduct periodic evaluations of the success of the co-operatives that they lead.



Source: Author's own depiction as a part finding of the study, 2003

5.6. Lessons Learned

There are many things that can become lessons from the results of the fact-finding and analysis of the performance of 30 dairy co-operatives in this study.

The first lesson is related to the ability of the agribusiness sector in the face of the economic crisis. Agribusiness is one of the shock-resistant sectors of the economic crisis, including dairy agribusiness. It is one sector that could absorb labor in a time of economic crisis. This phenomenon can be seen from the statistically significant growth in the total population of cows, while the growth of the average number of cows per member was not significant. However, the increase in the number of the cow population was countered by a decline in productivity caused by the reduction of production inputs as a result of rising input prices. So, the growth in total turnover during the economic crisis was due more to rising prices, not due to increased production. If the input subsidy is no longer possible in the free market era, higher output price needs to be fought for by eliminating the market structure, which is not conducive for farmers. Therefore, the role of agribusiness co-operatives in marketing needs to be strengthened.

The second lesson is the importance of organizational aspects in the development of co-operatives. The distribution of the co-operatives into the four Quadrants shows that most of the co-operatives in Quadrant-I are close to the abscissa line adjacent to Quadrant-IV. In addition to this, the trend line shows an exponential

shape, which indicates that the development of co-operatives needs to consolidate its organization before carrying out any business expansion. The solid organization of a co-operative will in turn further accelerate the development of co-operative business. The form of trend line also shows the character of a co-operative organization, that togetherness, cohesiveness, a high sense of belonging, trust in leadership, and active interaction will facilitate co-operative efforts to increase their business.

In short, the stability of co-operative organizations would be a major factor towards the advancement of co-operatives businesses. For example, in co-operatives numbers 1 and 12, both have a high organizational performance. The researcher found in both of these co-operatives that the cohesiveness of co-operatives leaders was excellent. Cohesiveness and openness like this is not found in dairy co-operatives with a low organizational index. Co-operatives with high organizational index still need time to develop their business. The co-operative number 1 has just bounced back after a turndown in business and organization performances by the previous boards of the co-operative. Meanwhile, the co-operative number 12 indicated a very good level of togetherness between boards and members, so do not be surprised if the boards of co-operative are able to promote their members to produce milk with the best quality.

Additionally, the numbers of co-operative which are only successful in their business aspects but not successful in organization are relatively small. Meanwhile, the existence of a co-operative that had an extreme position such as co-operative number 11,²⁹² can be explained by studying the history of this co-operative. This co-operative was previously one of the best dairy co-operatives in Indonesia. However, after the previous chairman died, there was a drastic decrease in organizational performance. So this is a matter of the regeneration of PCL in a co-operative organization. Therefore, it is not impossible that lower organization performance will have the effect of decreasing business performance. This has been detected by decreased milk production in 2000, at which time only two-thirds of the 1996 production level remained.

The third lesson is that the members' acceptance of the board of chairman, in particular, determines the success of co-operative development. The success of co-operatives is often determined by members' attitudes towards their leader, as well as to the organization of the co-operatives. There is a co-operative in Quadrant-II (namely number 11), which has extremely high business performance, but with a very low organizational performance. One possible cause is a failure in leadership succession. In the organizational aspects it was found that the variable group of "Board of Directors" was the variable with the highest effect on the organizational success index compared to any other variable groups. Further note that members' acceptance of the board was the most determining factor of this BOD index. Although, the quality of co-operative members was still not so good, the acceptance of members of the board, especially the

²⁹² See again Figure 5.5 that describes the very extreme position of co-operative number 11. It has the highest level of business performance among all sampled co-operatives, but in terms of organizational performance it is one of those which have the lowest organizational performance.

chairman of the board, is very important. In this connection, the board chairman and members encountered some interesting phenomena in the field:

The first phenomenon had to do with the replacement of the board chairman at co-operative number 19 because the co-operative members disliked him. Interestingly, this chairman had led and developed this co-operative for about 28 years, and had made this co-operative a model national co-operative. But in 1998 there was unrest among the members who rejected his leadership, so he stepped down from his position as chairman. His successor was not a new person in this large co-operative management structure, namely a former Executive Secretary who had been involved since 1989. This phenomenon also showed that the dislike of members of the board chairman is not always associated with a dislike for the whole team of co-operative boards.

The second phenomenon was found in co-operative number 11, which had also become a model national co-operative. Researchers discovered the attitude of members and employees who do not like the current chairman of the board. Having observed a variety of variables measured in co-operative organization, a low rating for the figure of the board was seen, even in many aspects of co-operative organization, which led to a mechanistic structure (organization System-1). This led to poor communication between the board members and the employees of co-operatives. Besides this, it was possible that the dislike towards the chairman was because the members always compared him to the previous chairman, who had already passed away. The previous chairman figure was very acceptable to the members, even though he had been a chairman for about 25 years.

The third phenomenon was seen in co-operative number 6. While visiting the co-operative, the researcher witnessed the co-operative members protest against the chairman of the board. In general, researchers did not see any problem with the figure of the chairman, but it was clear that there was disharmony among the members of the board team. This was because the BOD consisted of persons from different groups. Finally, the board chairman was forcibly replaced by his vice chairman, who was supported by groups opposed to the previous chairman. This case showed that the disharmony of management will affect the poor assessment of all members of the co-operative to the chairman of the board.

The fourth phenomenon is very different from the three previous phenomena which were encountered at co-operative number 12. When the researcher visited the co-operative, there had been a change of the co-operative BOD. The former general chairman became the vice chairman, and the previous vice chairman became the general chairman, while the number and persons sitting on the board team were not changed. This meant that the board chairman position just shifted among the existing board team. However, no resistance was encountered from the members. In

terms of the organization aspect, this co-operative showed very good performance, where the BOD of the co-operative was close to the members.

Some of the phenomena that occurred above can be a lesson that a harmonious relationship among the chairman, board members and members of co-operatives will determine the direction and development of co-operatives in the future. The chairman figure must be accepted by all parties. This should not be forgotten at the time of leadership succession.

The fourth lesson is that it turned out that the co-operative dynamics is highly affected by intensive interaction of members with co-operative businesses, but does not depend on the number of business units run by co-operatives. So instead of running many kinds of business lines, there is a need to intensify co-operative business that focuses on the business which is strongly related to the business of its members. The more intensive and focused the co-operative business, the higher the interaction of members with their co-operatives. With the decreasing level of support from the government, it is quite important for multi-purpose co-operatives such as the KUD to concentrate their business on the business units which will increase the interaction of members with their co-operative. According to Table 5.7, the Milk and Feed businesses are the two business lines that have higher eigenvalues compared to other business lines. The growth of these two business lines are also among the highest eigenvalues. This is, for examples, why co-operative leaders should pay more attention to focus the business of their co-operatives. In fact, in Table 5.16 the performance of Q-I co-operatives in these two business units have brought their performance to be superior than the Non-Q-I co-operatives.

The fifth lesson is that the eight variables of the organizational process have an almost similar effect towards the organization index. This was inherent in the eight characteristics of the organizational process, which simultaneously directed the organization to one of the two extremes of the organizational process, namely mechanistic (away from the System-4) or organic (approaching the System-4). As an organization which is collectively owned by many people, the organizational process in co-operatives should be directed to the organic organization design rather than mechanistic one. Under the organic structure, participation of many people is more possible in the decision-making, goal setting and controlling activities. Similarly, the leadership process, motivation and communication are not solely centralized around the chairman. The higher the collective interaction in promoting the co-operatives, the closer the organizational process approaches System-4. This study indicated that the organizational process of Quadrant-II co-operatives are moving away from the System-4 compared to other quadrants. This means that in Quadrant-II co-operatives the organization approach tends to be more mechanistic. Understandably, the facts show that 2 out of 4 co-operatives in Quadrant-II are led by either former soldiers or former policemen as chairman. In organizational theory it is known that military organization tends to be mechanistic.

The sixth lesson is related to the Co-operative Development Index as an effective tool to measure the performance of co-operatives. The need for CDI will be necessary to replace the various methods of subjective measure of co-operative performances. CDI is an approach that can be used to objectively measure the success of co-operatives. In addition to this, CDI not only describes the development of the business aspects of co-operatives, but the aspects of co-operative organization as well. Therefore, the CDI concept should be developed for the type of other agribusiness co-operative. The presence of co-operatives ranked in the CDI will facilitate the learning process among co-operatives in order to develop better. In addition to that, the concept of CDI is expected to reduce the existing confusion among Indonesians regarding co-operative institutions. That a co-operative is a unique organization with multiple dimensions will be better understood, by co-operative management itself, among members and the general public, including government officials who handle the development of co-operatives in Indonesia.

The seventh lesson is related to the large potential of co-operatives in the development of agribusiness in rural areas. As a co-operative formed by the government, the volume of business of co-operatives is highly dependent on government programs. Reducing government intervention after the economic crisis is specifically to direct the development of co-operatives in accordance with existing opportunities in rural areas. Some co-operatives have shown a good performance. Of the eight co-operatives that had the highest CDI, five are KUDs. Meanwhile, not all Non-KUDs have a high CDI. This phenomenon has raised optimism that the KUD can also progress well, despite being established by a top-down approach. The KUDs would be able to compensate for Non-KUDs that were established through a bottom-up approach. The results of this measurement should improve Indonesian society's understanding of the KUD. It is expected that various potentials of agribusiness in Indonesia can be better developed through institutional co-operatives throughout Indonesia.

The eighth lesson is that instead of the subjective evaluation approach that was used in measuring co-operative performance, as currently has been much applied, it is recommended to use the objective evaluation approach. This study's methodology has demonstrated the way to apply the objective approach. This approach is more effective in performing the selection and weighing of the variables of co-operative achievement, which previously were many and diverse, into those which are more focused. At least with this objective evaluation approach, the evaluation process is no longer confused with various goal conflicts that usually appear in co-operative organizations. In other words, the efforts to combine the conflicting goals are made easier through the objective evaluation approach. Besides this, the measurement results revealed in this chapter could be more focused, which will give important information regarding the dairy co-operatives in Indonesia in order to formulate better strategy and development programs for dairy co-operatives. Furthermore, a relatively standard measurement method can be developed by revising the method used in this research.

CHAPTER - VI

THE PERFORMANCE OF CO-OPERATIVE LEADERS

6.1. The Background of Co-operative Leaders

The backgrounds of co-operative leaders were analyzed for individual variables, work experience, and training programs followed. The individual variables consisted of age, ethnicity, education and working hours in co-operatives. Work experience in organizations was divided into experience in the same co-operative, in other co-operatives, and in non co-operative organizations such as private companies or other social institutions. Training programs included co-operative training as well as non co-operative training previously participated in by co-operative leaders.

6.1.1. Individual Variables

Fact-finding results for individual variables of co-operative leaders are presented in Table 6.1.

Table 6.1. The Individual Variables of Co-operative Leaders

No	Individual Variable	All	Quadrant ¹⁾				Statistical test ²⁾				Note
			I	II	III	IV	A	B	C	D	
1	Age	50.8	53.3	57.6	41.2	48.8		*			> 52 years (average of the age)
2	Ethnicity	9.8	0.0	37.5	6.3	14.3					1: Foreign ethnic 0: Otherwise
3	Full time work in co-operatives	57.4	47.8	62.5	68.8	57.1					1: Full time 0: Otherwise
4	Education	24.6	34.8	25.0	25.0	7.1					1: high education 0: Otherwise

¹⁾ In percentage of the number of co-operative leader in each Quadrant

²⁾ A: comparison between Quadrant-I and the others B: comparison between Quadrant-I + II and the others
 C: comparison between Quadrant-I + IV and the others D: comparison between Quadrant-III and the others
 The age variable was tested by a T-test, while the other variables used a Chi-square test.
 * Significant at 0.1 level

The average age of the co-operative leaders is 52.2 years. The co-operative leaders in Quadrant-II are much older (57.6 years) than those in Quadrant-III (41.2 years). The statistical test on the average age of the leaders of Quadrant-I and II (which succeeded in co-operative business) was significantly different from Quadrant-III and IV. This means the performance level of co-operative business could be affected by the level of maturity of co-operative leaders. Age can be related to experience in running the dairy business and dairy farms. Or else, co-operative leaders in Quadrant-I and II are more experienced to lead a business that is run by a co-operative, so their business performance is better than their counterparts.

In general, the leaders of co-operatives are those who originated from the same ethnic group, or even from the same village. It is seen that the percentage of co-

operative leaders from other ethnic groups are small enough in number (9.8%). They are most often found in co-operative Quadrant-II (37.5%). Even in co-operative Quadrant-I, there is not a single co-operative leader from another ethnic group. However, statistical tests show that none of the comparisons among quadrants differ significantly.

Not all co-operative leaders are working full time in the co-operative that they lead, because they have other jobs as a source of income. In general, only 57% of them work full-time. In addition to being the leader of a co-operative, there are a few who run businesses in other fields, such as agriculture, civil service and the private sector. Co-operative leaders in Quadrant-I showed the lowest level of full employment (47.8%), while the highest was found in Quadrant-III (68.8%). However, for this variable there are no significant differences among quadrants.

With regard to education level, it can be seen that only 24.6% of co-operative leaders have a high level of education (university level). The highest percentage is found in the co-operative leaders of Quadrant-I (34.8%), while the lowest was in Quadrant-IV (7.1%). However, statistic testing shows no significant differences among quadrants. Unfortunately, among the leaders who are university graduates, very few graduated in co-operative studies.

6.1.2. Work Experiences

Work experiences in a co-operative institution have an alleged influence on the ability of co-operative leaders to develop their co-operatives. The co-operative leaders were grouped into two groups, based on long-term work experiences versus relatively recent work in their co-operatives. A simple indicator was used to determine these two groups, which was five years as an employee or two years on the board of directors or as a general manager. Table 6.2 revealed that most of the co-operative leaders in Quadrant-I represent the people who have worked long-term in the same co-operative (82.6%), followed by Quadrant-IV (78.6%), while this was only the case for 50% of co-operative leaders in Quadrant-III. This phenomenon indicates that co-operatives are relatively successful in the aspects of organization if they are led by persons who have long been working in the same co-operative. The statistical test also showed that Quadrant-I and IV are significantly different from the co-operatives in Quadrant-II and III. Similarly, the comparison between the leaders' work experience in Quadrant-III and other Quadrants was also significantly different.

Among the existing co-operative leaders who have never been involved in other co-operatives, there are those who were ever active on the board of directors other co-operatives. Table 6.2 shows that co-operative leaders in Quadrant-II were the most active leaders who worked in other co-operatives (62.5%), followed by Quadrant-IV (42.9%). This was the least true of co-operative leaders in Quadrant-III (12.5%). Statistical analysis showed that there are significant differences between the liveliness of co-operative leaders in Quadrant-III and the three other quadrants. This indicates that little work experience in other co-operatives has an effect on the low level of co-

operative development, for both business and organizational aspects. Or conversely, the success of dairy co-operatives provides an opportunity for the leaders to be active in other co-operatives, such as in this case for secondary co-operatives (i.e. GKSI or PUSKUD). This can be seen in quite a lot of co-operative leaders in Quadrant-II, who are involved actively on the boards of directors in regional GKSI (Union of Indonesian Dairy Co-operatives).

Table 6.2. The Work Experiences of Co-operative Leaders

No	Variable	All	Quadrant ¹⁾				Chi-square test ²⁾				Note
			I	II	III	IV	A	B	C	D	
1	Work experience at the same co-operative	70.5	82.6	62.5	50.0	78.6			**	**	1: > 5 years experience as employee, or 2 years as board member/general manager 0: otherwise
2	Work experience at other co-operatives	32.8	30.4	62.5	12.5	42.9				**	1: as board member, manager, employee 0: otherwise
3	Work experience at other organizations	45.9	52.2	50.0	43.8	35.7					1: if had any experience 0: none
4	Involvement in social organizations	63.9	82.6	25.0	62.5	57.1	**		*		1: > 5 years experience 0: otherwise

¹⁾ In percentage of the number of co-operative leaders in each quadrant

²⁾ A: comparison between Quadrant-I and the others

B: comparison between Quadrant-I + II and the others

C: comparison between Quadrant-I + IV and the others

D: comparison between Quadrant-III and the others

* Significant at 0,1 level; ** at 0,05 level

Among the leaders of dairy co-operatives, some has work experiences in non-co-operative organizations or private companies. Study results showed that 46% of the co-operative leaders had ever worked in other professions, such as teachers, agricultural or health extension workers, employees of private companies, and others. It appears that co-operative leaders in Quadrant-I have more experience (52.2%) compared to those in Quadrant-IV (35.7%). However, statistical test results did not indicate any differences among the quadrants.

The co-operative leaders who are either still active or have been active in social organizations at the rural level (such as the Village Defense Institution or LKMD, or board member of a local mosque), sub-district level (such as youth clubs), district and national levels (such as HKTI, KTNA).²⁹³ Table 6.2 shows that the majority of co-operative leaders in Quadrant-I (82.6%) represent people who are active in social organizations. The smallest percentage for this variable was found among the co-

²⁹³ HKTI is *Himpunan Kerukunan Tani Indonesia* (the Indonesian Farmer Association), and KTNA is *Kelompok Tani Nelayan Andalan* (Mainstay Group of Farmers and Fishermen). Both are pressure groups for advocating for farmers as well as fishermen in Indonesia.

operative leaders in Quadrant-II. This suggests that activity in social organizations could be causing the leaders to have the expertise to develop organizational aspects of their co-operatives. Statistically, the social activities of co-operative leaders in Quadrant-I is significantly different from the three other quadrants. Similarly, the combined co-operatives in Quadrant-I and IV are also significantly different from their counterparts.

6.1.3. Training Experiences

In general, almost all the co-operative leaders have attended co-operative trainings, whether organized by the government (e.g. PUSDIKLATKOP, BADIKLATKOP) or by the co-operative movement (e.g. DEKOPIN, GKSI, PUSKUD), universities and other institutions. On average, co-operative leaders have attended training 2.2 times. Information provided by the dairy co-operative leaders indicates that most of co-operative trainings are organized by government (53.8%), followed by the co-operative movement (16.8%), while for universities it is only 11.9% (Table 6.3). The participants' impression of trainings is quite good (4.1 scale) and the benefits perceived by the participants approached very useful on the scale of assessment (4.6).

Table 6.3. Training Organizer and Evaluation of the Training Programs

No	Information	Co-operative Training	Other Training
1	Training organizer:		
	• Government	53.8 %	36.9 %
	• Indonesian Co-operative Movement	16.8 %	15.5 %
	• Universities	11.9 %	17.5 %
	• Others	17.5 %	30.1 %
2	Average participation	2.20	1.51
3	Participants image towards the training organization ¹⁾	4.1	4.6
4	Benefits felt by the participants ¹⁾	4.2	4.6

¹⁾ Measurement scale: 1: Not at all, 2: Less, 3: Moderate, 4: Good, 5: Very good

The experience of co-operative leaders in attending training was categorized as often if they had attended trainings at least three times (above the average of 2.2 times), while the rest were categorized not often. Furthermore, Table 6.4 shows the percentage of co-operative leaders who often attended training, according to the four typologies. Here it can be seen that the co-operative leaders in Quadrant-II and III attended more training on co-operatives (75% and 68.8%, respectively), while for Quadrant-I and IV it is only 56.5% and 57.1%. However, the results of the statistical test showed no significant difference between the frequency of participating in co-operative training and the level of co-operative success, associated with either the success of the business or its organizational aspects. This indicates that the training programs participated in by co-operative leaders only benefited themselves, but do not provide benefits to the co-operative institutions they lead.

Table 6.4. Training Experiences of Co-operative Leaders

No	Variable	All	Quadrant ¹⁾				X ² - test ²⁾				Note
			I	II	III	IV	A	B	C	D	
1	Co-operative Training	63.9	56.5	75.0	68.8	57.1					1: ≥ 3 training 0: otherwise
2	Other Training	37.7	52.7	87.5	25.0	50.0		*		**	1: ≥ 2 training 0: otherwise

¹⁾ In percentage of the number of co-operative leaders in each Quadrant

²⁾ A: comparison between Quadrant-I and the others, B: comparison between Quadrant-I + II and the others
C: comparison between Quadrant-I + IV and the others, D: comparison between Quadrant-III and the others
* significant at 0.1 level; ** at 0.05 level

Unlike for co-operative trainings, not all of the co-operative leaders had attended other training. Other training includes training to improve skills and knowledge of management and technology in animal husbandry, dairy and agriculture. Besides these, there are trainings on computers, English, taxation and others. On average, co-operative leaders have attended other training 1.5 times (Table 6.3). Most other training is organized by the government (36.9%), for example, training associated with animal health problems organized by local governments. Trainings organized by the co-operative movement are especially conducted by secondary co-operatives, about 15.5%. Only 17.5% are conducted by universities, while 30% are conducted by other parties.

The percentage of other training organized by universities is higher than the percentage of co-operative training. This is related to the availability of trainers in aspects of technology being more available at universities than trainers on co-operative aspects. Or conversely, co-operative trainers are sufficiently available at government agencies (in this case at the Ministry of Co-operatives), so trainers from universities are no longer needed. This also indicates that co-operative trainers are still less available at universities.

For the co-operative training above, the impression of the participants regarding the other training is good on the scale (4.2), and according to them the training provides benefits which approached very useful on the scale (4.6). The other training experiences can be used as an indicator that differentiates the leaders of dairy co-operatives. Table 6.4 indicates that the co-operative leaders in Quadrant-II have a high percentage of experience in other training (87.5%), followed by Quadrant-I (52.7%), while Quadrant-III had the smallest percentage (25%). Statistical analysis showed a significant difference between the participation in this training and the success level of co-operatives in business aspects, while the co-operatives in Quadrant-I and II differed quite significantly compared to Quadrant-III and IV. This indicates that the participation of co-operative leaders in other training has a positive impact on the success of co-operative business. It also indicates that the comparison between co-operatives in Quadrant-III and other quadrants resulted in a significant difference. This indicates that

the backwardness of Quadrant-III co-operatives is probably due the leaders not having sufficient skill in aspects which are generally associated with technological aspects.

6.2. The Entrepreneurial Characters of Co-operative Leaders

As described in the literature review, there are three characteristics that are generally used to measure the level of entrepreneurial ability, namely the level of social motives, locus of control, and moderate risk taking.²⁹⁴

6.2.1. Social Motives (Need for Achievement, Need for Affiliation, Need for Power)

Table 6.5 shows that the highest n-Ach scale possessed by co-operative leaders was in Quadrant-IV (9.6), followed by Quadrant-I (9.4), while Quadrant-III once again ranked lowest (8.6). This is consistent with McClelland, where the low n-Ach scale affects a person of low achievement. But interestingly, the n-Ach scale obtained by the leaders in Quadrant-IV was the highest. This may indicate that many co-operatives in Quadrant-IV are growing co-operatives, but they still need time to achieve good performance on business aspects. As discussed in Chapter V, the stability of the co-operative organization became the basis of the success of co-operative business. The facts show that most co-operatives in Quadrant-I are located adjacent to the line of abscissa, which shows that their organizational condition is better than their business condition.

Table 6.5. Social Motives, Locus of Control and Moderate Risk Taking Variables of Dairy Co-operative Leaders

No	Variables	Quadrant ¹⁾				T-test ²⁾				
		I	II	III	IV	A	B	C	D	All
1	Need for Achievement	9.4	8.8	8.6	9.6			**	*	
2	Need for Affiliation	1.8	1.9	1.7	1.7					
3	Need for Power	5.2	4.1	3.9	4.5	**	*	**	**	*
4	Internal Locus of Control	16.4	14.8	14.1	15.8	**		**	**	*
5	Moderate Risk Taking	25.8	27.8	24.3	28.6			**	***	*

¹⁾ The average of response scale from co-operative leaders in each Quadrant

²⁾ A: comparison between Quadrant-I and the others B: comparison between Quadrant-I + II and the others
 C: comparison between Quadrant-I + IV and the others D: comparison between Quadrant-III and the others
 * Significant at 0.1 level; ** at 0.05 level; *** at 0.01 level

While most people associate entrepreneurs with business success, in the case of co-operative entrepreneurs the main focus is the stability of the organization, which then became the basis for the development and success of co-operative business. This is

²⁹⁴ See Thome, 1998; Gartner, 1989, pp.47-48; Kuratko and Hodgetts, 1992, p. 24.

related to the difference between entrepreneurs who run a business individually, and co-operative entrepreneurs who run businesses collectively. The statistical test showed that the comparison of the n-Ach scale for co-operative leaders in Quadrant-I and IV is significantly different from the other quadrants. Similarly, the comparison of the n-Ach scale between Quadrant-III and other quadrants also differs quite significantly.

On the scale of need for affiliation (n-Aff) for co-operative leaders, there was no big difference among Quadrants. The statistical test did not show any significant differences in comparisons among these Quadrants. This suggests that the need for affiliation level of co-operative leaders is not much different. However, this study did not make further analysis as to whether the scale between 1.7 and 1.9 indicates a

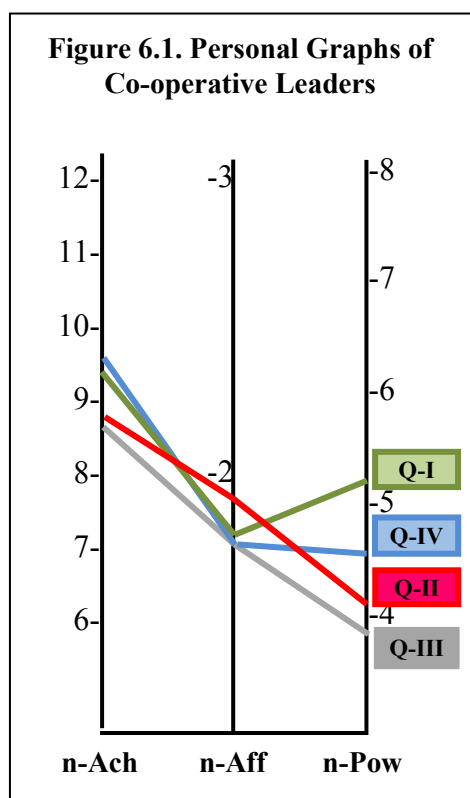
positive or negative value for the co-operative leaders. In other words, is such a scale in a productive or counter-productive category? This is because a co-operative is an institution that has two dimensions: business and social, in which the need for affiliation at a certain level is needed.

The scale of need for power (n-Pow) showed a different phenomenon compared to the social motives of n-Aff earlier. The co-operative leaders in the four quadrants had varying scales of n-Pow. Co-operative leaders in Quadrant-I had the highest scale (5.2), followed by Quadrant-II (4.5), while Quadrant-III had the smallest scale (3.9). Due to the low scale possessed in Quadrant-III, all statistical tests among the quadrants showed significant differences.

The relatively high n-Pow scale for co-operative leaders in Quadrant-I did not always have negative consequences, and could even be a necessity in mobilizing people. Theoretically, the high n-Pow is not necessarily negative, if the high

of need for power is driven for the benefit of many people, not just for the pride of oneself.²⁹⁵

When combining these three social motives into graphs (Figure 6.1), it is found that the position of n-Ach for the four graphs is higher than n-Aff and n-Pow. This is a good phenomenon, in which the leaders of co-operative social motives are dominated by n-Ach rather than the two other social motives. However, judging from the form of the graphs, only the graph of co-operative leaders in Quadrant-I leads to the ideal form



Source: Author's own depiction as a part finding of the study, 2003

²⁹⁵ McClelland, 1969, p.31. When a person with high a n-Ach has a position, they tend to be more expansive and are accomplishing their tasks in better ways.

(the form of " $\sqrt{\quad}$ "). This is where a high n-Ach is accompanied by a moderate n-Pow, where the n-Pow is still higher than the n-Aff. This graph also shows that the profile of the co-operative leaders in Quadrant-I is relatively better than the co-operative leaders in other quadrants. This includes a comparison with the graph of Quadrant-IV, which despite having an n-Ach which is slightly higher, the n-Pow is lower than the n-Aff. The shape of the graphs in Quadrant-II and Quadrant-III are relatively similar, where the scales of n-Pow are lower than the scales of n-Aff. But the graph in Quadrant-III is still lower than the graph for Quadrant-II.

6.2.2. Internal Locus of Control

For the 23 statements used by Rotter (1966) in measuring the internal locus of control, it was found that co-operative leaders in Quadrant-I had the highest scale (16.4) and Quadrant-III had the lowest (14.1). This is consistent with the theory that a high internal locus of control scale of a person would lead him on achieving better performance. Some interesting information was obtained, namely that the internal locus of control scale possessed by co-operative leaders in Quadrant-IV was higher than those in Quadrant-II. This indicates that the success of organizational aspects requires people who have higher levels of internal locus of control.

The statistical test showed that the overall differences in the scale of internal locus of control in the four quadrants differ quite significantly. With the highest scale in Quadrant-I, the statistical test also indicated that the internal locus of control of the co-operative leaders in Quadrant-I is significantly different compared to other quadrants. Similar significant levels are found if Quadrant-I is merged with Quadrant-IV, as well as if it is merged with Quadrant-II and IV. The internal control scale of Quadrant-I leaders does not differ significantly compared to their counterparts only when it is merged with Quadrant-II. This may indicate that business success is not always characterized by the high internal locus of control of co-operative leaders.

6.2.3. Moderat Risk Taking

Unlike the measurement of the other psychological variables above, the variable of moderate risk taking is not based on the highest scale. This is because too high a degree of risk would include those which are avoided by entrepreneur as well as cases of low risk level. The results of this study show that the people with the highest risk are the co-operative leaders in Quadrant-IV, while the lowest is those in Quadrant-III. The co-operative leaders in Quadrant-I and II are around the middle, between these two extremes. This phenomenon indicates that the leaders Quadrant-I and Quadrant-II are relatively more moderate in terms of risk taking than the leaders of other co-operatives. This is consistent with the moderate character of the entrepreneur in taking risk. Meanwhile, co-operative leaders in Quadrant-IV have relatively high courage to bear the risk, which may precisely be an impediment towards success in developing their co-operative business.

The Chi-square test showed that the condition of co-operative leaders with moderate risk-taking is quite significantly different (*) among the quadrants. Combined Quadrant-I and IV showed significant differences (**) compared to their counterparts. The comparison is ever very significant (***) between Quadrant-III and its counterpart.

6.2.4. Other Entrepreneurial Characteristics

Table 6.6 describes the various responses of the co-operative leaders to the 12 entrepreneurial characteristics which have been disclosed in Chapter III (Methodology). The co-operative leaders in Quadrant-IV have responses with the highest scale (45.9), which are slightly higher than for Quadrant-I (45.7). Co-operative leaders in Quadrant-III showed the lowest responses on the scale (40.9).

Table 6.6. The Psychological Variables of Dairy Co-operative Leaders

No	Variables	All	Quadrant ¹⁾				T-test ²⁾				
			I	II	III	IV	A	B	C	D	All
1	Determination	3.8	4.0	4.0	3.1	4.0			*	**	*
2	Positive Response to Challenge	4.1	4.1	4.3	4.0	4.2					
3	Initiative	3.3	3.5	2.5	3.3	3.5			*		**
4	Energetic-diligent	2.3	2.2	1.9	2.7	2.3					
5	Responsiveness to suggestions and criticism	4.4	4.5	4.5	4.1	4.5					
6	Self-confidence	3.9	4.2	4.1	3.3	4.1		*	**	***	**
7	Versatility	3.5	3.6	3.0	3.4	4.0					
8	Flexibility	4.1	4.1	4.4	3.9	4.1					
9	Creativity	3.9	3.9	4.0	3.4	4.2			*	**	
10	Foresight	3.5	3.9	3.8	2.6	3.6	**	***	***	***	***
11	Ability to get along with people	3.9	4.1	3.6	3.8	4.0					
12	Perceptiveness	3.6	3.8	3.8	3.3	3.4	**	***		*	*
	Total	44.2	45.7	43.8	40.9	45.9			**	**	**

¹⁾ The average of the response scale from co-operative leaders in each Quadrant

²⁾ A : comparison between Quadrant-I and the others B : comparison between Quadrant-I + II and the others

C : comparison between Quadrant-I + IV and the others

D : comparison between Quadrant-III and the others

* Significant at 0.1 level; ** at 0.05 level; *** at 0.01 level

Of the twelve entrepreneurial characteristics it was found that the variable of energetic-diligent had the lowest scale (2.3), followed by the variable of initiative (3.3), and versatility and foresight (respectively 3.5). The low average of these scales may be

due to a very low scale of a quadrant (e.g. variable of foresight), but some are due to the low scale of all four quadrants (e.g. variable energetic-diligent). Meanwhile, the highest scale was found with the variable of responsive to suggestions and criticism (4.4), and positive response to challenge as well as flexibility (each scoring 4.1).

From each of the 12 variables it can be seen that the co-operative leaders in Quadrant-I show responses with the highest scale in three variables over any other quadrant, namely: self-confidence, foresight and perceptiveness. Co-operative leaders in Quadrant-II had the highest scale on two variables: a positive response to challenge and flexibility, while Quadrant-IV showed responses with the highest scale in two variables: versatility and creativity.

It is interesting to note that for the variable with the lowest scale, namely being energetic, it was co-operative leaders in Quadrant-III who indicated the highest response (2.7) of any of the quadrants. This is the only variable in which Quadrant-III had the highest scale. In contrast, for 8 out of 12 variables, the co-operative leaders in Quadrant-III indicated responses with the lowest scale. The lowest scale for the remaining variables was indicated by the co-operative leaders of Quadrant-II, i.e. on the variables: initiative, versatility, and the ability to get along with people. This is an interesting phenomenon, in which co-operative leaders in Quadrant-I and Quadrant-IV did not show the lowest response, even for a single variable. This means that the overall quality of co-operative leaders in Quadrant-I and IV are relatively better than the others.

The difference among the four quadrants is statistically quite significant (*) with regard to the variables of determination as well as perceptiveness, statistically significant (**) for the variables of initiative and self-confidence, and statistically very significant (***) for the variable of foresight. Statistically significant differences between Quadrant-I and the other quadrants were found for the variables of foresight as well as perceptiveness. Furthermore, it was identified that there are 5 variables that are significantly different between Quadrant-I+IV and their counterparts, namely the variables of: determination, initiative and creativity (*), self-confidence (**) and foresight (***). The differences between the entrepreneurial characteristics of co-operative leaders in Quadrant-III and their counterpart indicates 5 variables differ significantly, namely in the variables of perceptiveness (*), determination and creativity (**) and self-confidence, as well as foresight (***).

The identification results show that the leadership skills associated with the development vision and plans (such as foresight and perceptiveness) are better possessed by co-operative leaders who are relatively successful in business aspects (e.g. Quadrant-I and II). Whereas, the leadership skills associated with organization (such as determination, initiative and self-confidence) are better possessed by the co-operative leaders who are relatively successful in organizational aspects (e.g. Quadrant-I and IV).

6.3. Lessons Learned

Based on the results of the discussion presented in the previous sub-chapters, there are some lessons which can be learned:

The first lesson is related to the influence of leader's experience in social organization on the performance of the co-operative organization. The good co-operatives are generally led by those who have experience in social organizations rather than having experience in other organizations. Experiences in social organization would have a positive impact on the personal maturity needed by co-operative leaders to develop their co-operatives. Predominant experience in social organizations indicates that a person has a high altruistic spirit. This altruistic spirit is very important for co-operative entrepreneurs. The presence of leaders with high social spirit is greatly needed by co-operatives in Indonesia. With a predominance of social experience, it is expected that co-operatives will be able to carry their social mission and not merely get caught up in routine economic activities.

The second lesson is, in fact, that the education level of co-operative leaders is generally low, and there is no significant effect of the co-operative training that they had ever received. So, it can be concluded that co-operative leaders in Quadrant-I are those who have developed their leadership skills naturally, and are not the result of education and training. This phenomenon indicates that good quality leaders will make good quality co-operatives, but not vice-versa. Good quality leaders are associated with the power of their fighting spirit in developing co-operatives, especially during difficult times of economic crisis. Although some co-operatives have a professional manager, the presence of managers is related to efforts to meet the needs of secondary co-operative leaders, and may also be part of the regeneration process of the primary co-operative leaders.

The third lesson is the importance of emphasizing the three entrepreneurial characteristics; internal locus of control, need for achievement, and moderate risk taking in co-operative education and training. This emphasis is expected to bring about more co-operative leaders who have the pioneering spirit and who are able to play the role of co-operative entrepreneurs for the development of agribusiness co-operatives in Indonesia.²⁹⁶ In the context of business environment uncertainty and the vagueness of government support, the development of agribusiness co-operatives in Indonesia will be highly dependent on co-operative leaders who have a high internal locus of control. The result of this study is in line with the results of previous studies which support the

²⁹⁶ Cf. Baga (1999) who showed an experience in conducting a training which was nearly identical to the AMT. The participants were from KUD in West Java, who intended to develop business networking among several KUDs in a neighboring region. The benefits of training can clearly be seen in the development of KUD business, especially for those co-operatives that sent their primary leaders as participants in that training. They were more motivated to develop business networking with other KUDs. To the contrary, there was no significant effect on the KUDs that only sent one of their employees (not from the board of management).

hypothesis that a high internal locus of control is consistent with the character of the entrepreneur. Specifically for co-operative leaders, a high scale of internal locus of control is closely related to a better co-operative achievement for both organizational and business aspects.

The fourth lesson is that a high n-Ach without having the authority to act will result in difficulty in achieving outstanding performance.²⁹⁷ This can be seen from the significant differences between the co-operative leaders of Quadrant-I and the other quadrants. Differences in n-Pow are seen in the graph among the quadrants. While in Quadrant-I it was seen that the n-Pow scale is higher than the n-Aff, for the three other quadrants the graphs for n-Pow were lower than the n-Aff. However, it is still necessary to distinguish between n-Pow with negative impact and n-Pow with positive impact. This study concludes that the relatively high n-Pow on co-operative leaders in Quadrant-I is more related to the positive n-Pow. This is because, if the n-Pow is conspicuously negative, then the level of member acceptance of the leader will be low, which in turn can be ascertained will result in low co-operative organizational performance. This means that the n-Pow needs to be improved among the leaders of co-operatives, as long as it is accompanied by altruistic attitudes on the part of the leaders to improve the welfare of co-operative members.

The fifth lesson has to do with the quality of co-operative training programs. This study indicates that there is no influence of co-operative training in which co-operative leaders participated in on the performance of the co-operatives they lead. Therefore, a fundamental evaluation of the training programs needs to be made. Of course, co-operative leaders need training, both before and during their professions.²⁹⁸ The training materials should encourage them to increase their understanding and to have a high level of confidence regarding co-operatives.²⁹⁹ They also need some skills related to their position as leaders and roles to be played. Besides this, it is very important to impart understanding regarding concept of self, personal motivation and personal drive for achievement.³⁰⁰ Related to the latter, the Achievement Motivation Training (AMT) developed by McClelland (1969) is a type of training which is quite popular during this era of entrepreneurship development. It may therefore be advisable to develop training materials with the theme of Co-operative Achievement Motivation Training (CAMT).

The sixth lesson is that the results of this study indicate that most of the co-operative leaders in Quadrant-I have other occupations in addition to the co-operatives.

²⁹⁷ See McClelland, 1969, p.123-125 and 250-251.

²⁹⁸ Parnell, *Op. Cit.*, pp.115-116

²⁹⁹ Some training materials are needed, such as: the understanding of co-operatives values and principles, and the history and philosophy of co-operatives (Soedjono, *Op. Cit.*, p.180).

³⁰⁰ These training materials are closely related to the effort to improve views regarding the three entrepreneur characteristics of internal locus of control, need for achievement and moderate risk taking.

Additionally, it is shown that the full-time level of co-operative leaders does not have a significant relationship with the level of co-operative successes. This finding implies that agribusiness co-operatives may be led by co-operative entrepreneurs who do not work full-time in the co-operatives. Success is not a matter of long working hours in co-operatives, but the quality of leading and governing co-operatives. Due the high need to produce co-operative entrepreneurs for the agribusiness sector in the villages, one alternative which needs to be considered is to involve Outsider Non-Executive Directors (ONED).³⁰¹ Certainly, this is in line with the assumption that the highest control is still in the hands of the members. This is necessary due to the limited education and skill level of the existing co-operative leaders. The ONED may act as entrepreneur catalysts, which play a role not only for internal co-operatives development, but equally important also for the development agribusiness systems at the local, regional and national levels.³⁰²

³⁰¹ For this argument, see for example: Sargent and Nicholls, 1995, pp.107-114.

³⁰² As shown in Chapter IV, the golden period of milk agribusiness in Indonesia occurred due to the establishment of GKSI, which was pioneered by Daman Danuwidjaja in 1979. Daman at that time was the chairman of KPBS, and had also worked as a government employee. He was ever appointed Director General of Animal Husbandry at the Ministry of Agriculture.

CHAPTER - VII

THE PERFORMANCE OF CO-OPERATIVE EDUCATION AND TRAINING IN INDONESIA

As a two-dimensional organization, the success of a co-operative cannot be separated from education.³⁰³ This is because a co-operative needs good human resources, not only among its leaders, but also among its members. In fact, the fifth of the seven co-operative principles states the importance of education and information.³⁰⁴ By implementing this principle, a co-operative may play an important role in terms of community development, particularly to its members and their families.³⁰⁵

There are many facts that indicate the success of a co-operative is accompanied by the success of developing its human resources. The important role of the agricultural sector in Denmark, for example, cannot be separated from the role of Folk High School.³⁰⁶ Similarly, the co-operative movement in Germany³⁰⁷ and other Western European countries has paid a great deal of attention towards co-operative education to promote the co-operative movement.³⁰⁸

Co-operative Education and Training (CET) programs in Indonesia have been carried out by the co-operative movement, government and non-governmental organizations (NGOs). The implementation of human resource development programs for co-operatives is done either in the form of formal education through the schools or universities, or through various forms of training programs. Figure 7.1 describes the relationship of various forms of human resource development programs of co-operatives that were obtained from this research.

7.1. The Role of the Government

The roles of government in human resource development were reviewed in the implementation of the co-operative education and training programs. Especially in the training field, the Ministry of Co-operatives has had a special agency that handles these

³⁰³ Cf. Soedjono, 1997b, p. 73. MacPherson, 2002, p. 28; Aschhoff and Henningsen, 1996, p. 162 which quoted Friedrich Fürstenberg: "There is, I am sure, no other modern form of economic activity whose development was accompanied by such strong educational impulses as the co-operatives".

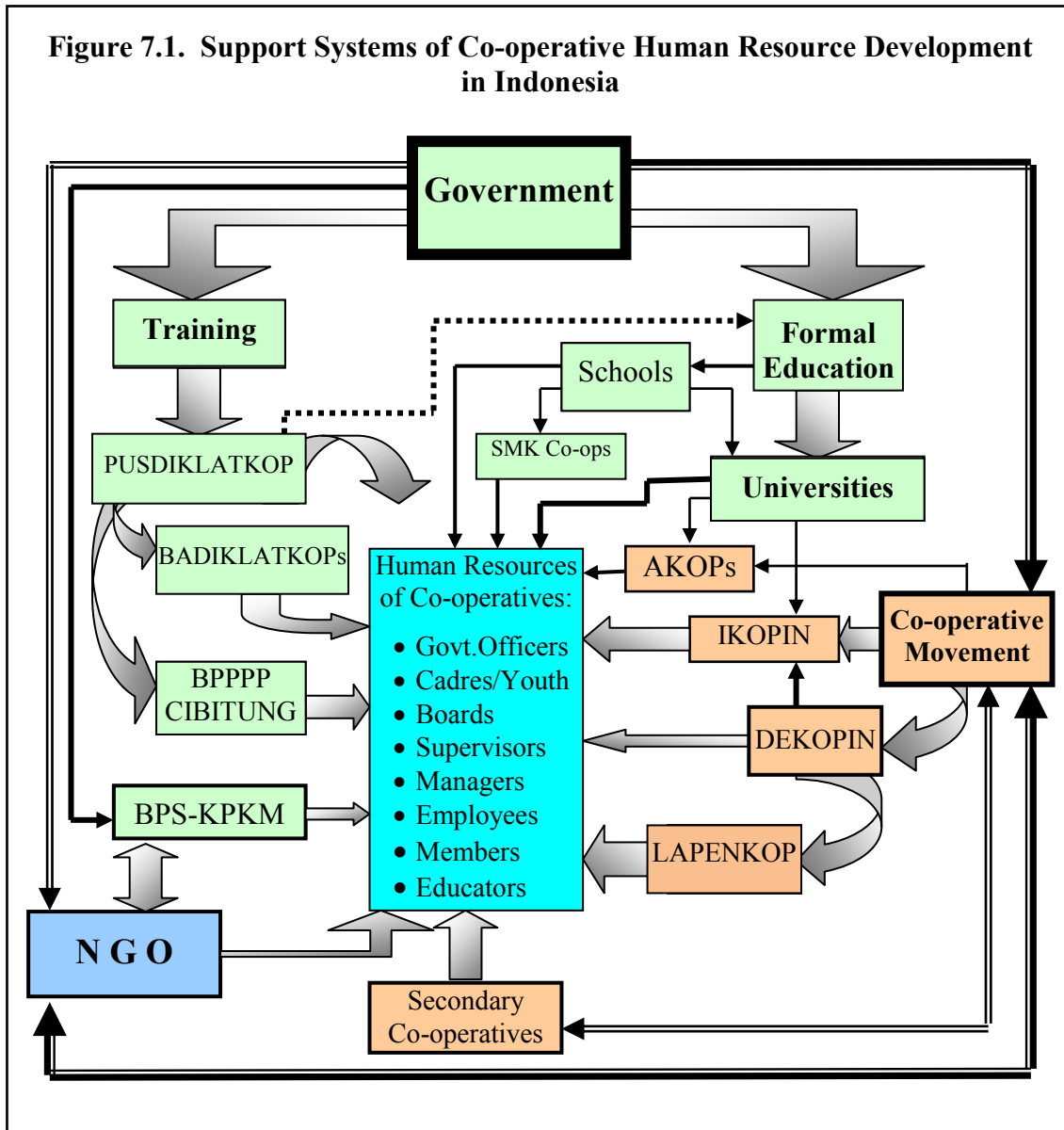
³⁰⁴ Cf. ICA, 2001. pp. 44-46.

³⁰⁵ Cf. Hatta, 1987, pp. 168-178.

³⁰⁶ Cf. Bjorn, 1992, p. 7; Bisri, 1995, p. 7. Sumodiwirjo, 1983, pp. 35-36. There are many farming young people between the ages of 18-25 years who attended the education at Folk High School, which was established by NFS Grundtvig. The education according the Grundtvig method is not only scattered in Scandinavian countries, but also in other European countries.

³⁰⁷ Cf. Swoboda, 1994, pp. 313-321

³⁰⁸ Cf. Brazda and Todev, 1994, pp. 309-313. In the case of Indonesia, the Credit Co-operative could be a good example (see Djohan, 1996, p. 127; Soedjono, 1985, p. 287)



Source: Author's own depiction, 2003

activities intensively. Meanwhile, the education programs are handled by co-operation between the Ministry of Co-operatives and the Ministry of National Education through secondary school education and higher education.³⁰⁹

³⁰⁹ For example, the Joint Decree of the Minister of Co-operatives and Small-Medium Enterprises and the Minister of National Education No. 02/SKB/Meneg/VI/2000 and No.4/U/SKB/2000 on the Education of Co-operatives and Entrepreneurship. These have been issued with regard to the implementation of Presidential Decree No.4 of 1995 regarding the National Movement for Entrepreneurship Socialization.

7.1.1. Co-operative Education by the Government

The Government has conducted co-operative education at universities and secondary schools since 1952.³¹⁰ Co-operative Vocational High Schools (CVHS, *Sekolah Menengah Kejuruan Koperasi*) were established in order to supply a young workforce that is ready to work at co-operative institutions.³¹¹ There are three instructional packages which provide expertise at these schools, namely: (1) co-operative administration, (2) capital and credit for co-operatives, and (3) bookkeeping for co-operatives.³¹² Nowadays there are 115 CVHS across Indonesia.³¹³ However, the existence of this school is less popular and less desirable by Indonesian students and young people, who generally prefer general public schools.³¹⁴

At the General High Schools, the subject of Co-operative Economics is taught, especially for the Social Sciences program. The teachers of co-operative economics are supplied by IKIP (*Institut Keguruan dan Ilmu Pendidikan* or Teachers College) all over Indonesia. For example, IKIP of Jakarta, which began co-operative education since its inception, was established in 1964.³¹⁵

At the university level, the government has encouraged the establishment of IKOPIN and AKOP, which are operated by the Indonesian co-operative movement. IKOPIN (Indonesian Institute for Co-operative Management) was established in 1982 under the management of the Co-operative Education Foundation (*Yayasan Pendidikan Koperasi* = YPK). However, this institution is still supported by the government, in which the government is represented on the foundation board.³¹⁶ AKOP (the Co-operative College) has an undergraduate diploma program in co-operative fields. Initially, AKOPs were established in every province in Indonesia; however, the number of AKOPs declined over time. Today, there are only a few AKOPs in Indonesia.

³¹⁰ Sumodiwirjo, 1983, p. 33.

³¹¹ Cf. Hatta, 1987. Hatta emphasized the need for co-operative high schools to conduct a separate program, separate from the existing High School of Economics (SMEA). Even in 1958, Hatta had formulated a detailed curriculum required by this Co-operative High School.

³¹² *Ibid.*

³¹³ See Directory of Vocational High Schools, which was issued by The Ministry of Education and Culture (in *Departemen Pendidikan dan Kebudayaan*. 1996. *Identitas SMK, Sekolah Menengah Kejuruan Negeri 1996/1997*, Jakarta).

³¹⁴ In contrast to education in Germany, where as early as elementary school each child has to decide what kind of schooling will be taken, whether Realschule or Hauptschule, or others. Indonesian teenagers still seem to be not ready to determine their future. However, they know that public school is the path to continue to university, and that university education is very expensive. The facts show that less than 12% of school-age children can continue their education at universities (research results by Research Agency of The Ministry of Education, which was quoted by *Republika* newspaper; September 24, 2001, p. 13).

³¹⁵ Chourmaen, 1989, p. 139.

³¹⁶ Cf. Prakash, 1986, p.51. Shah, 2000, p. 61.

At some large universities, a Non-graduate Program of Co-operatives is offered. Such programs aim to provide workers with competence in the management aspects of co-operatives, who are ready to be developed into a professional manager at a co-operative institution.³¹⁷

Furthermore, in the graduate program of both state and private universities throughout Indonesia, the subject of co-operatives is also taught. Most of the Faculties of Economics and Faculties of Agriculture offer the subject. The subject is offered either as an obligatory or an optional subject.³¹⁸ Meanwhile, a postgraduate program (master and PhD degrees) on co-operatives is still rarely offered by Indonesian universities.³¹⁹

Until now, co-operative education through formal education still faces many problems. This is due to the low quality of teaching staff and the lack availability of co-operative information at universities. Furthermore, the curriculum of the co-operative course does still not describe the strategic value of co-operatives and their advantages for the development of the national economy. This makes co-operative courses an unattractive subject which students are not motivated to learn.³²⁰ As a result, very few university graduates work in co-operative institutions.

7.1.2. Co-operative Trainings by the Government

Co-operative training programs were started by PUSDIKOP (Center for Co-operative Education), which was established in 1969 in Indonesia. This institution has branches all over the provinces in Indonesia. Training activities organized are primarily intended for government staff, co-operative leaders and co-operative extension workers.³²¹ In 1980 the name of this institution was changed to PUSLATPENKOP (Center for Co-operative Training and Upgrading) and later became PUSDIKLATKOP (Center for Co-operative Education and Training, national level).³²² The training which conducted by PUSDIKLATKOP were mainly related to advanced-level training and a variety of specific trainings aimed at co-operative leaders, personnel from the

³¹⁷ For example, the Undergraduate Program of Business Management and Co-operative at IPB-Bogor, as well as the Undergraduate Program of Co-operatives and Entrepreneurship at the University of Brawidjaja-Malang, and also at the University of Hasanuddin-Makasar, the University of Palangkaraya and the University of Mataram (See Directory of Universities, Directorate General of Universities, Ministry of National Education).

³¹⁸ National Curriculum based on Decree of the Minister of Education and Culture No.0313/U/1994.

³¹⁹ One of them is the University of Padjadjaran, Bandung, that has co-operation with the Philipps University Marburg since 1984.

³²⁰ Cf. Swasono, 1989, pp. 25-26; Mubyarto, 1989, p. 35.

³²¹ Hassan, 1987, p. 129

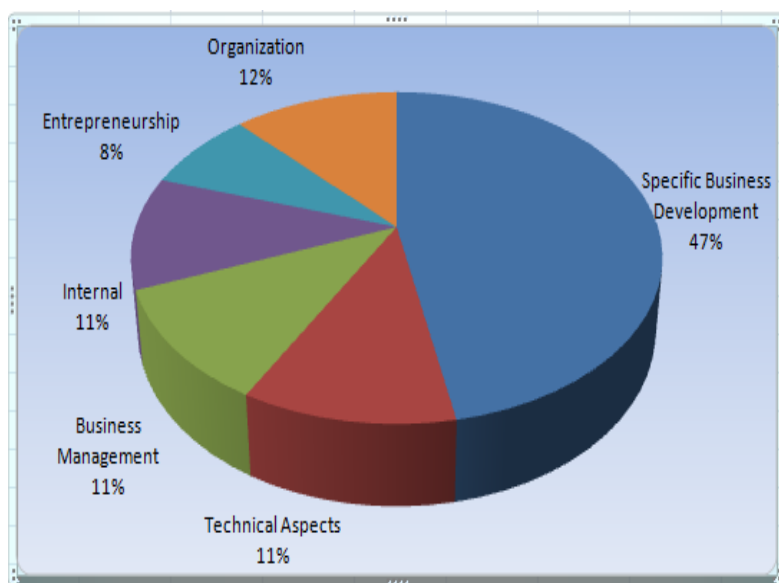
³²² The change in name follows the change of the ministries in charge of this training center. Since the establishment of the Ministry of Co-operatives in 1983, PUSDIKLATKOP was a technical unit at the directorate level of the government bureaucracy. With this position, PUSDIKLATKOP could obtain excellent training facilities.

secondary-level of co-operatives, government officials of co-operative development and co-operative extension workers.

PUSDIKLATKOP developed curriculum and syllabus which are used as guidelines by BADIKLATKOP (Co-operative Education and Training Agency, provincial level) throughout Indonesia.³²³ Likewise, it also developed co-operative education curriculum and syllabus that are organized by schools and universities.³²⁴ The training courses provided by PUSDIKLATKOP are more focused on business development than organizational aspects. This was especially true after the role of the Ministry of Co-operatives was extended to cover the development of SMEs. Since 1994, more training courses have been carried out that are related to specific business development.

Moreover, with the institutional reform of the Ministry of Co-operatives and SMEs, which became the State Ministry of Co-operatives and SMEs in 1999, the existence of the PUSDIKLATKOP was abolished. Furthermore, CET institutions in Indonesia gradually switched the orientation of their curriculum towards the development of SMEs, no longer emphasizing co-operative issues. This can be seen from the increasing number of participants who are trained for specific business development compared to other training courses.

Figure 7.2. The Percentage of Trainees by Courses which were Conducted by PUSDIKLATKOP (97/98-99/00)



Data Source: PUSDIKLATKOP, 2001

Figure 7.2 indicates that 47% of the training participants in the PUSDIKLATKOP attended training for specific business development, such as: development of credit business, rice business, horticulture business, retail business, etc. Whereas, training courses on business management (e.g. finance, marketing, etc.) only had a small number of participants (11%). This is similar to the training courses on co-

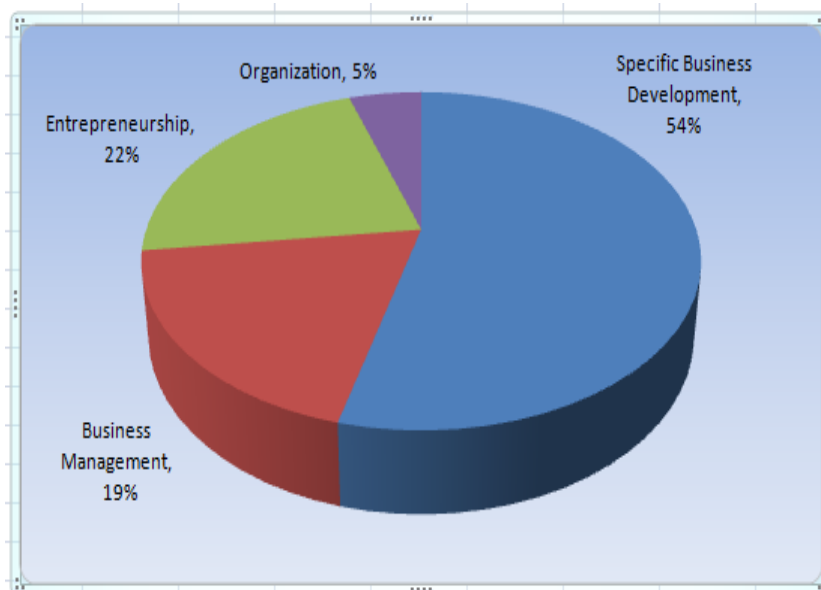
³²³ The BADIKLATKOP is the branch of the PUSDIKLATKOP at the provincial level. Whereas in-service co-operative trainings at the district level are organized by the District Co-operative Office (KANDEPKOP), which in many aspects is in co-operation with DEKOPINDA. (see Hasan, 1987, p. 134).

³²⁴ *Ibid*, pp. 131-132

operative organization (12%) and entrepreneurship (9%).

Furthermore, Figure 7.3 indicates the distribution of the number of training participants based on the training course provided by the BADIKLATKOP all over Indonesia. The percentage of trainee distribution is quite similar with those that conducted at PUSDIKLATKOP,

Figure 7.3. The Percentage of Trainees by Courses which were Conducted by BADIKLATKOP (97/98-99/00)



Data Source: PUSDIKLATKOP, 2001

in which the specific business development course has the largest portion (54%), followed by the entrepreneurship course (22%) and general business management (19%), while the organizational development course has a very small portion (5%). The specific business development course concentrates on the savings and loan business development, retail business development and the distribution trade.³²⁵

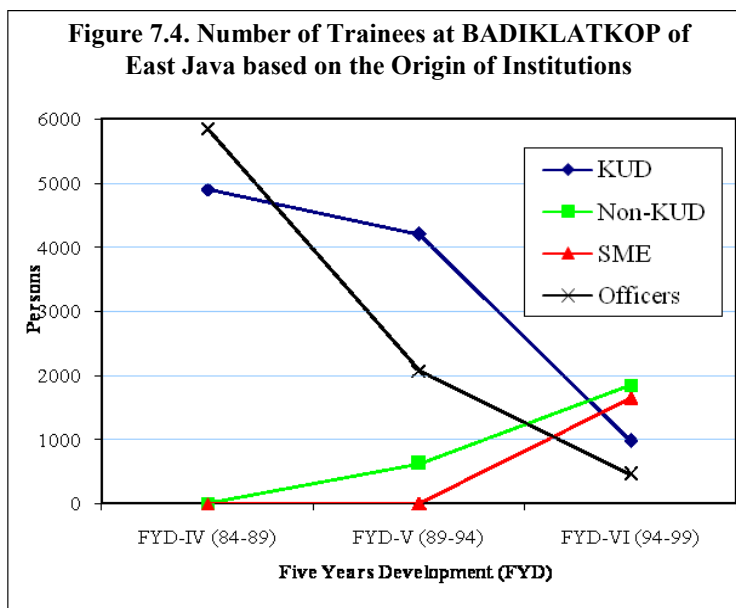
Except for the sufficient availability of physical facilities, these CET institutions have problems with funding, the availability of software (training aids, library, system and methods), and personnel.³²⁶ The funding problem caused the declining in the level of training intensity. Compared to the early years since the establishment of this institution, the number of training participants has decreased drastically. In 1986, for example, the number of training participants was 2,000 people at the PUSDIKLATKOP level, and about 900-1,200 participants at each BADIKLATKOP.³²⁷ In 1999-2000 the number of training participants decreased to just 500 persons at the PUSDIKLATKOP, while at the BADIKLATKOP, on average it did not reach 250 participants.³²⁸

³²⁵ This is not separate from the problems faced by Indonesian people during the economic crisis. The three business aspects became very important to be developed by co-operatives.

³²⁶ Hassan, *Op.Cit.*, pp. 139-140. Prakash, 1986, p. 60, reported a long time ago that PUSLATPENKOP had serious problems with its declining number of trainers.

³²⁷ Hassan, *Op.Cit.*, p. 128.

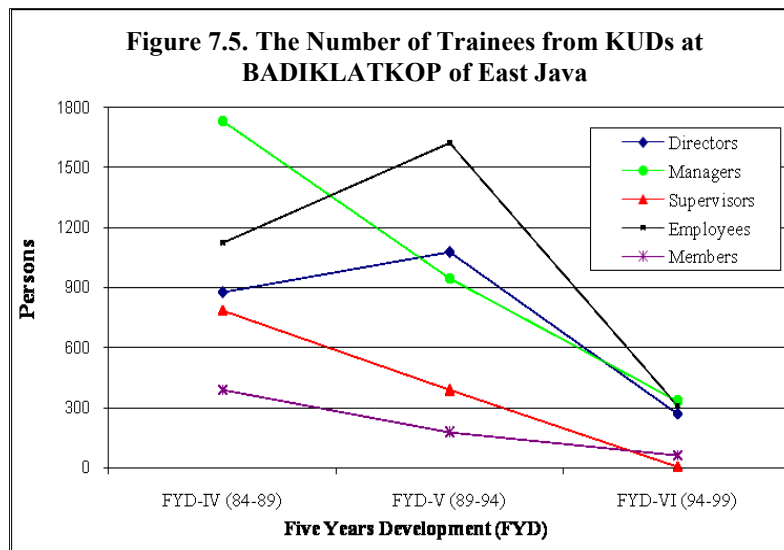
³²⁸ This is not separate from the rumor that this institution will be liquidated in line with the change of the status of the MCSMED from a general ministry into a state ministry.



Data Source: BADIKLATKOP of East Java Province, 2001

(FYD-V). Up to the end of FYD-VI (1999), the number of personnel from KUD was only 1,000, which means about 200 personnel only could be trained every year. This is a very small number compared to the number of personnel that exist in KUDs.³²⁹

Regarding to the types of training participants, governments tried to train all existing segments, i.e.: directors, managers, employees, supervisors and members. Figure 7.5 indicates an increasing number of employees and directors who were trained in FYD-V compared to FYD-IV; however, in FYD-VI there was a very sharp decreased in all segments. The decreasing number of training participants is due to limited government resources.



Data Source: BADIKLATKOP of East Java Province, 2001

³²⁹ If at the end of 1999 there were 8,000 KUD, and each KUD had three board members and one manager, this means that there were 32,000 people who need to be trained. This does not included the employees and members of the co-operatives. If the government continues to develop the SMEs, which are more than 39 million in number, we can especially see how limited the government's ability is in developing these human resources.

Over time, the training orientation on KUD (Village Unit Co-operatives) personnel as well as co-operative officers has decreased sharply. To the contrary, the training for Non-KUDs as well as SMEs increased. The BADIKLATKOP of East Java can serve as an example (Figure 7.4). Training for Non-KUDs was started in 1989 (FYD-IV), while training for SMEs was started in 1994

7.2. The Role of the Co-operative Movement

In Indonesia, the formal organization that monitors the consistency and accuracy of the application of the co-operative identity is the Indonesian Co-operative Council (*Dewan Koperasi Indonesia* = DEKOPIN).³³⁰ DEKOPIN gives direction that could be a reference for strengthening the institutional development of co-operatives. This development activity includes the development of leaders and administrators who have a strategic position in co-operatives.³³¹

There are several channels of human resource development in co-operatives organized by the co-operative movement, namely: (1) formal education at the university level, which is organized by AKOP and IKOPIN, and (2) Non-formal education co-operatives that are organized by the Institute for Co-operative Education (*Lembaga Pendidikan Koperasi* = LAPENKOP), a training division in the DEKOPIN structure.

7.2.1. Co-operative Education by the Co-operative Movement

IKOPIN is the only university in Indonesia to provide graduate education programs in the field of co-operative management. In line with the additional tasks of the Ministry of Co-operative, that since 1994 has included the development of small and medium enterprises, IKOPIN expanded its orientation towards the development of SMEs in addition to co-operatives. This can be seen from the courses offered by IKOPIN on the general business management of small and medium enterprises,³³² which in some instances have different approaches with co-operative education. This case is similar for research and community service activities organized by IKOPIN. Problems faced by IKOPIN are related to the effectiveness of this institution in providing professional co-operative managers, as the number of alumni working in co-operative institutions is still low.³³³

7.2.2. Co-operative Trainings by the Co-operative Movement

LAPENKOP is one of the institutions that support DEKOPIN to facilitate the co-operative movement to improve the quality of human resources through co-operative education and training. LAPENKOP was founded on co-operation between DEKOPIN, IKOPIN and the CCD (Centre of Co-operatives Denmark) in 1993. This co-operation

³³⁰ DEKOPIN is the top organization of the co-operative movement in Indonesia. DEKOPIN was determined by the 10th National Conference of Co-operatives in 1977. The institute is named in the early establishment of the Central Organization of Indonesian People (*Sentral Organisasi Rakyat Indonesia* = SOKRI). (see Djohan, 1997 pp. 111-126)

³³¹ See Nasution, 1999, p. 40

³³² See the Company Profile of LPMM IKOPIN for 2001.

³³³ This is as revealed by several Academic Staff members of IKOPIN. The Rector of IKOPIN roughly estimated that about 40% of IKOPIN alumni are working in co-operative institutions. However, when a survey of 30 dairy co-operatives in West Java and East Java was done, the authors found only three IKOPIN alumni who work in dairy co-operatives, which are large-scale agribusiness co-operatives in Indonesia.

started with the implementation of the CMEC (Co-operative Member Education and Communication) project, which in 1995 was upgraded to permanent institution status in the structure of DEKOPIN.³³⁴ LAPENKOP has a network system from the central level to the provincial level (LAPENKOPWIL) and the district or municipal level (LAPENKOPDA). With these networks, LAPENKOP can reach primary co-operatives and their members in various regions in Indonesia.

Training provided by LAPENKOP aims to: empower members and increase participation of members in the co-operative movement; improve the understanding of the boards, managers and supervisors on the dynamics of the co-operation and participation of members; and distribute co-operative education and training down to the lowest levels. In addition to this, it aims to raise public awareness about co-operatives, especially for women.³³⁵ The services provided by this institution are: (1) education of members, (2) education for board members and supervisors, (3) training guides, (4) training of trainers, and (5) workshops.³³⁶

The training methods used are: the andragogy (adult education) method, group discussion, brainstorming, simulations, role-playing and case studies, which enable the active involvement of all participants during training activities. The training curriculum is open, which means that it can be adjusted with the needs and demands as perceived by participants. The training is done informally, so it can be held at any place, which in many aspects can reduce costs without reducing convenience.

One of the strategies applied by LAPENKOP is by training and producing training guides. As of 2001 it has produced 584 active trainers/guides. The active trainers/guides have a task to train co-operative members by using standardized teaching materials.³³⁷ The number of co-operative members that have been trained as of December 2001 was more than 115,000 participants (Table 7.1). During that time, LAPENKOP has established partnerships with 1,221 primary co-operatives, namely 279 KUDs and 942 Non-KUDs scattered throughout 85 regions of DEKOPINDA in nine provinces of Indonesia. Looking at their achievements in 1996, 1998 and 2001, LAPENKOP has shown very good development.

There are at least three major problems faced by LAPENKOP, namely: (1) funding issues, especially after the collaboration with the CCD was completed in 2000, (2) maintaining optimal networking with partners, and (3) maintaining the motivation of the guides to remain active. These three problems cannot be separated from the low appreciation of people regarding the importance of education for the enhancement of the performance of co-operatives.

³³⁴ Djohan, 1997a, pp. 135-136.

³³⁵ *Ibid*, 1997a, p. 136. Also see the Prospectus of LAPENKOP for details.

³³⁶ *Ibid*, pp. 138-139.

³³⁷ See The Five Year Strategic Plan of LAPENKOP, 2002, p. 1

Table 7.1. The Achievements of LAPENKOP in 1996, 1998 and 2001

Explanation		Year		
		1996	1998	2001
1	Provinces	2	5	9
2	Districts/Cities	*	27	85
3	Primary co-operatives within the network	71	502	1,221
4	Co-operative members trained	3,158	43,704	115,126
5	Certified trainers/guides	102	371	584
6	Co-operative directors trained	106	553	*

Source: LAPENKOP, 2002. (* = Data is not available)

In addition to the education and training organized by LAPENKOP, DEKOPIN, together with its organizational structures at the province and districts levels, (DEKOPINWIL and DEKOPINDA) perform some types of co-operative education, training and extension, especially on the themes that are not provided by LAPENKOP. In addition to this, DEKOPINWIL and DEKOPINDA have the task of empowering the LAPENKOPDA as soon as it has been established in their working area. The extension activities are done through the interaction of DEKOPIN boards with the primary and secondary co-operatives, as well as through the print media published by DEKOPIN.³³⁸

7.3. NGO Institutions

Besides government institutions and the co-operative movement, there are NGO institutions (LSM or LPSM), which directly or indirectly organize co-operative education in the society.³³⁹ For example, FORMASI (*Forum Kerjasama Pengembangan Koperasi*, Co-operation Forum for Co-operative Development), is a union of several NGOs that perform the development of co-operative/pre-co-operatives under its supervision.³⁴⁰ In addition to direct supervision in the field, NGOs are also active in conducting co-operative research, seminars and workshops, and publishing co-operative books. Limited funding is a problem faced by NGOs in the development of co-operatives. In addition to obtaining funds from abroad, NGOs rely on funding from the government and the private sector.³⁴¹

³³⁸ Namely the magazine of *Suluh Koperasi* (Co-operative Extension) and the magazine of *Pusat Informasi Perkoperasian* (Co-operative Information Center = PIP), which have been published since the 1980s. Besides those, since 2000 LAPENKOP's magazine: "Intra Magazine" has also been published as a media of communication among LAPENKOP's networks. However, as indicated by Djabaruddin Djohan, (Head Editor of PIP magazine), the condition of the co-operative press still has many problems that have made it difficult to grow (see Djohan, 1997b, pp. 502-512)

³³⁹ Cf. Ismawan, 1997a, pp. 347-360; Ismawan, 1997b, pp. 71-80; Rahardjo, 1997, pp. 53-70. *Lembaga Pengembangan Swadaya Masyarakat* (LPSM) or *Lembaga Swadaya Masyarakat* (LSM) in Indonesia is the terminology that is used for Non-Governmental Organizations.

³⁴⁰ Cf. Djohan, 1997a, pp. 72-74.

³⁴¹ Cf. Rahardjo, 1997, pp. 67-68.

7.4. Analytical Hierarchy Process for Developing Co-operative Leaders in Indonesia

An Analytical Hierarchy Process (AHP) was conducted to map problems and seek solutions to the problem of low quality co-operative leaders in Indonesia. The hierarchy structure was built based on the pre-survey, survey and review of literature which was done previously. Furthermore, these structures were used as the basis for interviews with co-operative experts. Figure 7.6 shows the structure along with the weight of the experts' opinions.

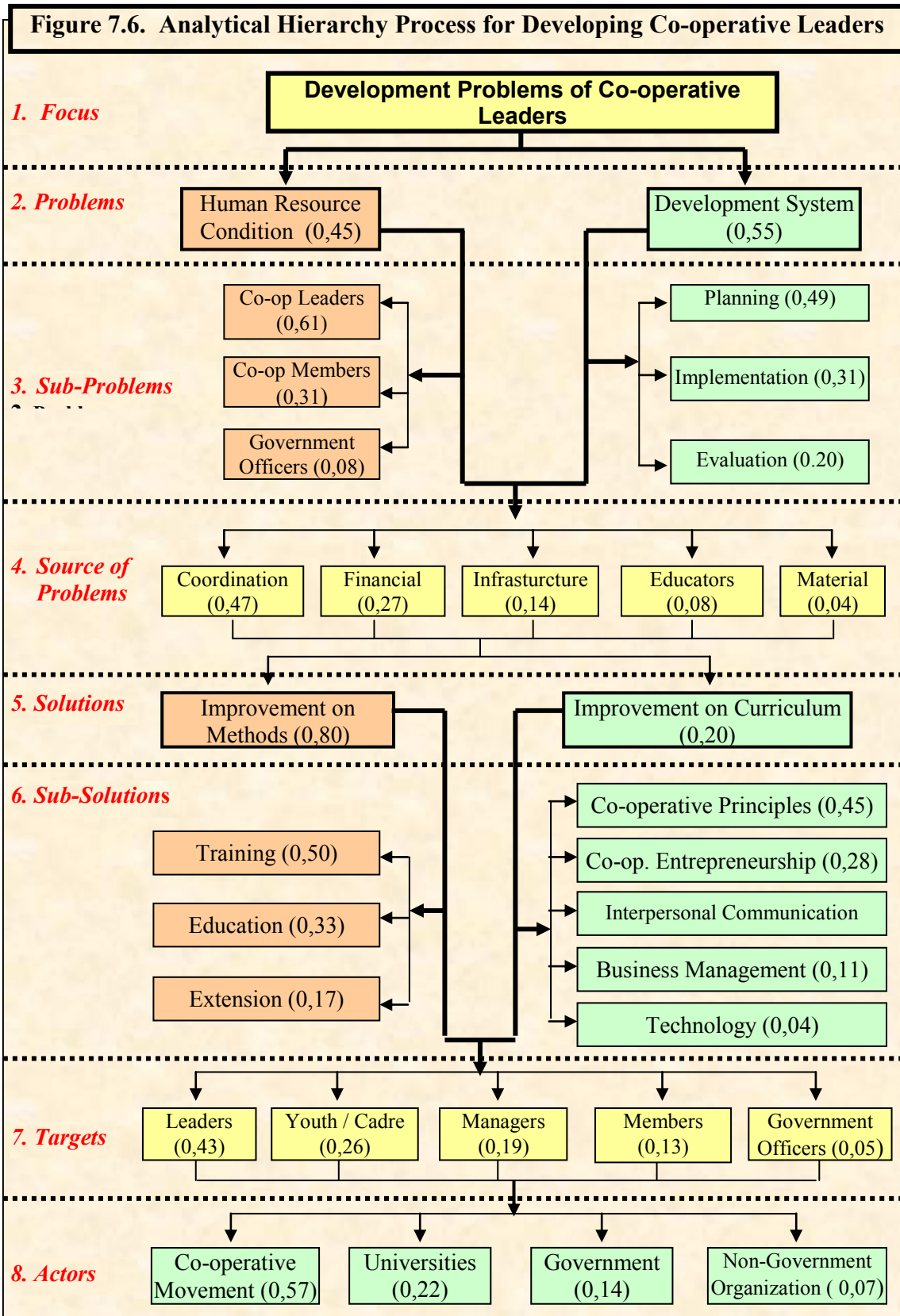
1) Problems and Sub-problems

With a focus on the development problem of co-operative leaders in Indonesia, co-operative experts indicated that the problems in the existing development systems outweigh the problem of existing human resource conditions (respectively 0.55 and 0.45). This also shows the importance of educational institutions to evaluate the development system, which until now has been done, rather than always looking to scapegoat the weak quality of participants. This information indicates a belief among the experts that the problem of the human resource development of co-operatives will be more easily solved if the existing development system can be improved.

Further review of this development system problem found that shortcomings in the planning system in determining the direction of the development program were the sub-problem which had the greatest weight (0.49), followed by the weak implementation of development programs (0.31), and the least weighty was the weakness in the development program evaluation system (0.20). It is undeniable that the human resource development planning system is still dominated by the government. So, it more widely adopts a top-down approach through the mechanism of annual projects. This point suggests that the co-operative leadership development planning system in Indonesia is still weak. This could be due to the lack of clarity about the vision and mission of human resource development in Indonesian co-operatives, the lack of reliable planners, or a lack of input information needed in formulating the plan.

For the sub-problem of low human resource conditions at co-operatives, it was found that the low quality of leaders is the sub-problem with the greatest weight (0.61), followed by the low quality of members (0.31) and the weakness of co-operative officers having the least weight (0.08).

The AHP results above indicate the belief of the experts that the co-operative leader is the most important factor. The level of difficulty in human resource development at co-operatives is dependent on the extent to which co-operatives have a qualified leader. Members will be good followers of a well-qualified leader. If the leader is good, then the members and co-operative organization as a whole will also be good, and vice versa. Delivering a qualified leader represents something that is very



Source: Author's own depiction as a part finding of the study, 2003

difficult, but once they can be made available, this will be helpful for the process of human resource development at co-operatives as a whole.

2) Sources of Problems

The lack of coordination between institutions is believed to be the main cause of the problem of co-operative human resource development in Indonesia, where this factor had the highest weight (0.47). The other associated factors were the availability of funds (0.27) and infrastructure (0.14). The educator/trainer as well as the education material were not considered to be significant factors (respectively 0.08 and 0.04).

As discussed in the previous sub-chapters, there are several promoting agencies that concentrate on CET. However, the various CET programs are conducted without good coordination among the institutions. So there are development programs that overlap and even have conflicting goals. Besides this, the lack of coordination led to the worst utilization of various potentials possessed by these promoting institutions.

3) Alternative Solutions

The experts gave an overview of human resource development solutions, as to whether they should stress the improvement of CET methods or CET materials. They agreed that improvement in methods requires a higher level of attention, with a weight of 0.80, while improvement of the materials only weighed 0.20. This indicates that the existing development methods need to be fundamentally corrected, especially in light of the above problems. Furthermore, improvement in training methods needs greater attention, in which regard the experts gave a higher weight for this activity (0.50), followed by improvements in the methods of education (0.33) and extension methods (0.17). High attention to this training method is based on the fact that the effectiveness of various training programs conducted was still low and has not shown a significant impact on the development of co-operatives.³⁴²

The improvement of methods is also needed for co-operative education. It was the experts' point of view that formal education on co-operatives has still not shown satisfactory results, as very few well-educated workers want to work in co-operatives. The lack of concern regarding the improvement extension methods does not seem to be related to underestimating the extension activities *per se*, but this has more to do with co-operative extension activities as a sub-optimal alternative to human resource development in co-operatives. However, this phenomenon was related to the concern of the experts regarding the problems inherent for co-operative leaders, which are greater than those of the members, and so they weighted improving the training methods higher than extension.

³⁴² This is in line with the results of this study presented in Chapter VI, that the training attended provided benefits to the participants themselves, but did not have a significant effect on the development of their co-operatives.

The improvement of education and training methods has actually become a concern for experts in this field. This is due to the need to increase the effectiveness as well as the productivity of education and training programs. The development of methods is closely related to increasing understanding towards the learning process, expanding and deepening the needed materials, and more varied objectives, as well as student motivation in the learning process. Some of the education and training methods that have developed over the past several decades are: the method of andragogy,³⁴³ co-participation (workplace pedagogic practices),³⁴⁴ competency-based training,³⁴⁵ structured on-the-job training,³⁴⁶ co-operative learning,³⁴⁷ accelerated learning,³⁴⁸ learning action theory,³⁴⁹ quantum learning and quantum teaching,³⁵⁰ learning organization,³⁵¹ and on-the-job learning.

In the context of the improvement of curriculum materials, it was found that the organizational aspects of co-operatives (the identity of co-operative) were the aspect with the highest weight (0.45). This is consistent with the spirit of back-to-basics in the development of co-operatives in Indonesia, along with the socialization of values and co-operative principles issued by the ICA (International Co-operative Alliance). The other aspects that need improvement are aspects of: co-operative entrepreneurship (0.28), communication (0.12), and business management (0.11), while technological aspects obtained a low weight (0.04).

4) Priority of Developing Targets

Related to whom the priority development targets should be directed towards, the experts has a high concern for co-operative boards (weight 0.43) and then to the youth as co-operative cadres (0.29). Concern for managers had a weight of 0.19, while it was 0.13 for members, and only 0.05 for co-operative officials. The priority for co-operative leader development is in line with the results of this research, in which it was discovered that the success level of the dairy co-operatives was related to the excellences of their co-operative leaders. Prioritizing the improvement of co-operative leaders will guarantee the attainment of co-operative effectiveness. This is consistent with the next development priority being given to the youth or co-operative cadres, which is more important than the development of co-operative managers. A consistent view of the experts could be seen in their concern to increase the effectiveness of co-

³⁴³ Cf. Taimni, 1996, pp. 3-12. Asmin, 2001.

³⁴⁴ Cf. Billet Steephen, 2002.

³⁴⁵ Cf. Mulcahy and James, 2000, p.160-175.

³⁴⁶ De Jong and Versloot. 1999.

³⁴⁷ See further Lie, 2002.

³⁴⁸ See further Meier, 1999.

³⁴⁹ Van der Krogt and Vermulst. 2000.

³⁵⁰ See further. DePorter, Reardon and Singer-Nourie, 2000,

³⁵¹ See further Garvin, 1993, pp. 78-91; Senge, 1996.

operative development through leadership regeneration, and also regarding the process for the emergence of co-operative pioneers in the future.

5) Actors

In the context of actors who should play an active role in developing co-operative leaders, the experts felt that the co-operative movement should do it (0.57), followed by the role of universities (0.22). The role of the government was only 0.14, while for NGOs it was just 0.07.

There was no question that the co-operative movement should play the most important role, but it was interesting that universities are expected to contribute more than the role of government. This is strongly associated with the low intensity of the government's role in co-operative development. Therefore, there is a need to synchronize the role of each institution related to the different potentials as well as constraints faced by each institution.

7.5. Lessons Learned

There are several important points that can serve as lessons in the development of agribusiness co-operatives in Indonesia.

The first lesson is that, on the one hand, the term “co-operative entrepreneur” is still new for the community, including for education and training institutions whose activities are closely related to human resource development of co-operatives in Indonesia. Today, Indonesia as a country is still amazed by the importance of entrepreneurship in the context of individual business development, but has not appreciated the importance of co-operative entrepreneurship in the context of collective business development. While, the concept of the co-operative entrepreneur itself is still not very clear to the educators/trainers. So far, entrepreneurship training materials are provided together with the materials of co-operatives, rather than in one package of material for the co-operative entrepreneur. This makes difficult for participants to understand the very important role of the co-operative entrepreneur in the development of co-operatives.³⁵²

The second lesson is that an integrated system for the development of co-operative leaders covering planning, implementation to evaluation phase is absolutely necessary.³⁵³ This should really be understood, considering that the results of the AHP concluded that the source of the problems in developing co-operative leaders has more

³⁵² For example, as stipulated by Baharuddin (Director of AKOP-West Sumatra) that since its establishment in 1981, AKOP has conducted co-operative entrepreneurship education. However, in reality what is taught is general entrepreneurship. This can be concluded from the syllabi and also the references used (see Baharuddin, 1993, pp. 256-262).

³⁵³ The necessity of an appropriate evaluation process with regard to improving the effectiveness of co-operative education and training has been further discussed by some authors, for example: Maghimbi (1989), and Brown and Baker (1989).

to do with the ineffectiveness of the three stages above than the weakness of existing human resources. The high weight of planning as the source of the problem implies that this function is still not optimally implemented. This may be influenced by: (1) the lack of clear vision and missions of co-operative human resource development among the promoting agencies; (2) the lack of planners who are able to develop and also able to endeavor, which can be used as the basis in implementation and evaluation; and (3) the lack of valid informational input related to the actual conditions of co-operative human resources and the types of needed educational materials³⁵⁴. If the planning and coordination of implementation can run well, then the evaluation of training will be relatively easy to do. A Training Needs Assessment (TNA) is a necessity of a system of co-operative human resource development, so that the activities of planning, implementation and evaluation can be done in an integrated manner.

The third lesson is related to education and training programs, in which the methods of education and training better determine the effectiveness of human resource development. Most of the training methods use off-the-job training, which is conducted at training institutions for a certain period. Obviously this method requires a lot of transport and accommodation cost. Additionally, this method is considered to be one cause of not reaching training goals, because training participants, who should be co-operative leaders, are often only represented by co-operative employees. This is because some co-operative leaders have time difficulties and cannot leave the job to attend the training.

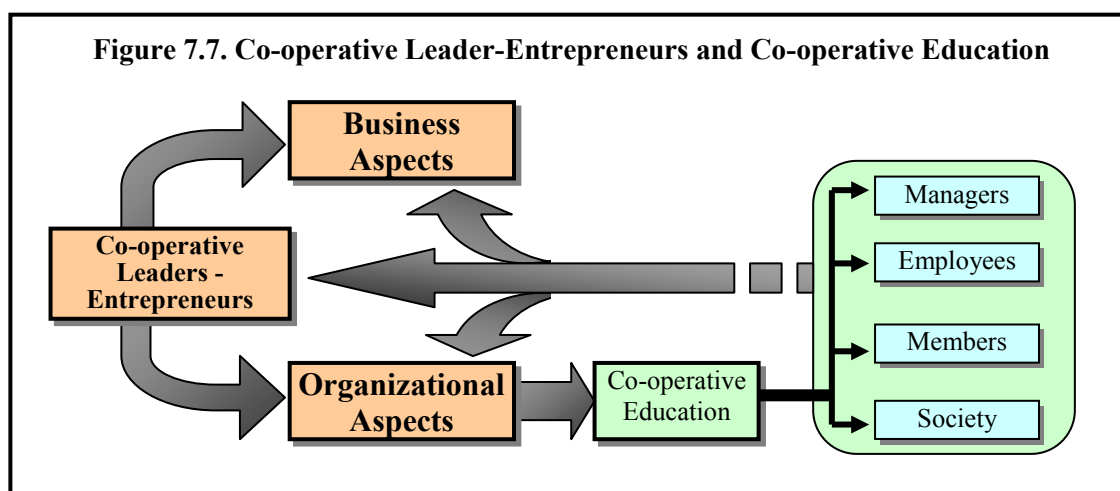
In addition to this, the methods being used are more macro-oriented, so they often do not match the problems faced in the field, which are generally micro in scale. Therefore, there is a need for a paradigm shift in co-operative education and training methods, from a centralized method (off-the-job training) and macro-oriented training to a decentralized method (on-the-job training) that is micro-oriented. Co-operative education and training should be held informally, scattered among the locations of the participants to be more flexible in both time and place. The existence of this paradigm shift is expected to increase the effectiveness of co-operative education and training, because the training materials presented will be connected to the problems being faced in the field.

The fourth lesson is the priority of human resource development in co-operatives, which indicates that co-operative leaders and youth have a relatively high priority as a target. This can be interpreted as giving priority to the existing primary co-operative leaders and to future co-operative leaders. It was revealed in Chapter VI that the primary co-operative leader is another manifestation of the co-operative pioneer, who could also be categorized as a co-operative entrepreneur. Therefore, all efforts to produce the primary co-operative leader or co-operative pioneer or co-operative

³⁵⁴ The shifting of the paradigm is also being demanded by various other human resource development institutions, for instance the Training Center of Ministry of Agriculture, as was mentioned in KAPUSDIKLAT, 2003.

entrepreneur are regeneration efforts to foster co-operative generation, namely people who are convinced of the importance of the co-operative movement and who have a high level of spirit for developing co-operatives.

The fifth lesson has to do with the benefits of co-operative entrepreneurs compared to other types of entrepreneurs. Co-operative entrepreneurs not only concentrate on the development of co-operative business, but also on co-operative organizations. Thus, co-operative entrepreneurs may also serve as the agents of co-operative education for co-operative managers, employees, members and even for the communities located around the co-operatives (Figure 7.7).



Source: Author's own depiction, 2003

The sixth lesson is that the co-operative movement should actively take over this role of the human resource development of co-operatives, noting the reduction of the government's role in this area. Despite the fact that the uppermost organization for the Indonesian co-operative movement (e.g. DEKOPIN) is still not in good condition, this role still needs to be taken over. Otherwise, there will be a vacuum in co-operative development that will be very dangerous for the survival of the co-operative movement in Indonesia.

As the co-operative movement in Indonesia still has many weaknesses, strategic alliances with other parties is a necessity. As this alliance is no longer with the government, the co-operative movement needs to build alliances with universities. Results of interviews with an AHP approach shows that the experts felt urgency for the co-operative movement to build synergic activities with universities. They agreed that the university is a priority as an actor in the effort to solve the problem of human resource development in co-operatives, second only to the co-operative movement.³⁵⁵

³⁵⁵ Cf. Susanto, 2002, p. 71. He stipulated that: "the universities are the last bastion of the co-operative movement". This is related to the very poor condition of co-operative development in Indonesia, in which regard universities should be given higher concern.

CHAPTER - VIII

THE PERFORMANCE OF CO-OPERATIVE EDUCATION AT UNIVERSITIES

Universities, as the highest level of formal education, have a strategic position and important role as the organizer of pre-service training³⁵⁶ related to the provision of qualified and productive members of the labor force for various field of work, including to co-operative institutions.³⁵⁷ This strategic role is not separate from the various resources and access possessed by universities compared to other CET (co-operative education and training) institutions. In addition to this, one of the most important things is that universities in Indonesia mostly educate the youth. The youth normally have big dreams, idealism, motivation, and high energy, which are characteristics needed by co-operative leader-entrepreneurs.³⁵⁸ If they can be convinced of the importance of the role of co-operatives in Indonesia's economy, and then they are motivated to contribute and involve themselves in the development of co-operative institutions, it will make the university's position very important for economic development.³⁵⁹

As shown in the Analytical Hierarchy Process (AHP) for the development of co-operative leaders (Sub-chapter 7.4), the university is an institution that is needed to play an important role in the development of co-operatives, along with the co-operative movement. Therefore, this study conducted further research related to the performance of co-operative education at universities.

As has been described in the research methodology (Chapter III), information on human resource development for co-operatives by universities was obtained from faculty members (lecturers) and students. Information was collected regarding the condition of lecturers and students related to the issues of co-operative education, as well as the availability of supporting infrastructure (co-operative learning activities, curriculum and syllabus) and the problems faced by universities in the development of co-operative education.

³⁵⁶ Cf. Hasan, 1987, p. 118.

³⁵⁷ Bustanil Arifin, Minister of Co-operatives, Written Speech on the Opening of a Day Seminar on Co-operative Education and Teaching at Universities, June 1989 (in DEKOPIN, 1989, pp. 8-14).

³⁵⁸ Davis, 2001, pp. 3-4.

³⁵⁹ In the literature study, it was found that some co-operative leaders-entrepreneurs in Indonesia are alumni of the Bogor Agricultural University (IPB) who said that they were strongly motivated to develop co-operative institutions due to co-operative lectures delivered by Prof. Teko Sumodiwirdjo at IPB. See for example: Syarief, 1997, p. 25, regarding to the Biography of *drh.* Daman Danuwidjaya; and Rasyad, 1997, pp. 5-6, with regard to the biography of Ir. Ibnoe Soedjono.

8.1. The Faculty Members and Activities of Co-operative Development

8.1.1. Individual Backgrounds of Faculty Members

The average age of co-operative lecturers is 46. About 60% of them have the position of Level-IV in their career path³⁶⁰ (Table 8.1). This fact indicates that the co-operative lecturers are not young or junior lecturers. This is cause for concern, because there is a presumption that co-operative studies are inferior and less attractive for students because they are taught by young lecturers who do not have teaching experience. In terms of their age and work experience, there is no significant difference among academic staff at FE (Faculty of Economics) and FA (Faculty of Agriculture).

Table 8.1. The Background of Co-operative Lecturers

No	Individual Background	All	Faculties		
			FE	FA	Test
1	Age (in years)	46.2	46.5	45.7	
2	Working experience as a faculty member (percentage of Level-IV)	60	54	70	
3	Gender (percentage of women)	22.4	13.8	8.6	
4	PhD Education level (percentage)	9	9	9	
5	Master Degree Education level (percentage)	74	69	83	
6	Master education strongly related to co-operative issues (percentage)	24	29	17	
7	Master education slightly related to co-operative issues (percentage)	34	26	48	*
8	Training on co-operative issue (times) ¹⁾	2.0	2.5	1.2	**
9	Research experiences on co-operative issues ¹⁾	1.5	1.8	1.1	*
10	Experiences in community service on co-operative issues ¹⁾	1.8	1.9	1.6	

¹⁾ Within the last 5 years

Meanwhile, in terms of gender, it is indicated that most co-operative lecturers are men, as only 22% are women. The small number of female lecturers is indicated for all faculties, in which there is no significant difference among FE and FA. The quality of the teaching process cannot be separated from the background education level of lecturers. About 74% of the co-operative lecturers have a master education level (Stratum-2), and only 9% of them have completed PhD programs (Stratum-3). The remaining 17% of co-operative lecturers have not taken post-graduate education. With regards to field of study, all of those PhD lecturers finished their PhD degrees in fields which are closely related to co-operative issues. This is understandable, as they have been assigned to be co-operative lecturers, and not many lecturers would like to study co-operatives to earn doctoral degrees. The number of PhD lecturers is the same among FE and FA.

³⁶⁰ The career path of faculty member lecturers at universities in Indonesia, particularly in the state universities, in general started at Level III, consisting of IIIa, IIIb, IIIc and IIId. Each level can be achieved every two years at the fastest. After that the career path of a faculty member increases to Level IV, which consists of IVa, IVb, IVc, IVd and IVe. Professor degrees can usually be obtained at least at Level IVc.

Among the respondents that have the title of master (74%), about 24% obtained their degrees in fields of study which are strongly related to co-operative issues, and 34% had degrees which were slightly related. The remaining 16% had degrees which are not at all related with co-operative issues. This information indicates that co-operative subjects in Indonesian universities are mainly taught by lecturers who do not have enough educational background in co-operative subjects.

There are more lecturers of FA than those of FE who finished their master education in fields of study which are slightly related to co-operative issues. This is because discussions on agricultural development problems in Indonesia include the role of co-operatives in rural areas. This difference is statistically significant (*). However, there are more lecturers of FE than FA who attended co-operative trainings over the past five years. The lecturers of FE attended co-operative training about 2.5 times, while those in FA only did so 1.6 times. This difference is statistically significant (**). It means that the opportunity to attend co-operative training is much lower for lecturers of the FA.

In general, the experience of respondents in conducting research on co-operative issues is very low. On average they only conducted research 1.5 times over the past five years. The research activity conducted by lecturers of the FE differs significantly (*) compared to those of FA lecturers (1.8 and 1.1 times, respectively).

Likewise, for the experience of respondents in conducting community service on co-operative issues, the average is also very low, namely only 1.8 times over the past five years. The community service activities may be in the form of conducting training, counseling or other activities for developing co-operatives.

8.1.2. The Implementation of Education, Research and Community Service on Co-operative Issues

The daily activity of faculty members at universities is mainly related to the “three mandates of the university” (in Indonesian called the University *Tridharma*), namely education, research, and community service. Table 8.2 shows the respondents points of view related to the implementation of the three mandates on co-operative issues.

The implementation of co-operative lectures in general has been considered as fairly good by the respondents (rating 5.4). However, this fact can be somewhat of a cause for concern, if it indicates the respondent satisfaction level towards the implementation of co-operative education. Such satisfaction might obstruct efforts for developing co-operative education. This matter is indicated, for example, by the problem of reference availability, which was rated very low (3.6). This was also the case for the relationship between the results of research and community service towards co-operative teaching (which was 4.3).

Table 8.2. The Implementation of Education, Research and Community Services on Co-operative Issues at the Sampled Universities

No	Point of Views	All	Faculties		
			FE	FA	Test
Education					
1	In general, co-operative lectures have been well conducted	5.4	5.4	5.4	
2	Fund availability for co-operative education is not a serious problem	4.1	4.3	3.7	
3	The time implementation of co-operative lectures is not a serious problem	5.4	5.3	5.6	
4	The syllabi of co-operative lectures are quite good and complete	5	4.9	5.1	
5	The teaching method used is good	4.8	4.6	5	
6	The supporting references of lectures have been sufficiently available	3.6	3.6	3.5	
7	The research results on co-operative issues support the co-operative education process	4.3	4.1	4.5	
8	The results of community service on co-operative issues support the co-operative education process	4.3	4.1	4.5	
Research					
1	Research on co-operative issues has been adequately conducted.	4.2	4.3	4	
2	Fund availability for co-operative research is not a serious problem	3.3	3.6	2.8	*
3	The availability of co-operative experts for research is not a serious problem (including their time availability)	3.9	3.9	3.9	
4	The mastery of the co-operative research method is not a serious problem	4.2	4.1	4.2	
5	The location of co-operative research is not a serious problem	4.8	4.9	4.5	
6	The timing of co-operative research is not a serious problem	4.8	4.9	4.6	
Community Services					
1	Community service on co-operative issues have been adequately conducted	4.6	5	4	*
2	Fund availability for community service on co-operatives is not a serious problem	3.5	3.7	3.2	
3	The availability of co-operative experts for community service activities is not a serious problem (including their time availability)	4.3	4.2	4.4	
4	The methods of the community service activities on co-operatives are not a serious problem	4.4	4.4	4.5	
5	The location of the community service activities on co-operatives is not a serious problem	4.8	4.7	4.8	
6	The time of the community service activities on co-operative implementation is not a serious problem	4.8	4.7	4.9	

Scale used: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neutral; 5 = somewhat agree; 6 = agree; 7 = strongly agree.

The research on co-operative issues is mainly obstructed due to the problem of fund availability as well as expertise. For these two points, the rating given by the respondents is very low, i.e. 3.3, and 3.9, respectively. The rating of the fund availability problem is even lower in the FA (only 2.8) compared to those in the FE (3.6). The difference is quite significant statistically (*). In general, the comparison between the FE and the FA indicates that the problem of conducting research on co-operatives is higher in the FA.

It seems that the implementation of community service related to co-operative issues is more easily performed by respondents in the FA than those in the FE. This is

indicated by the respondents of FA, who scored a better rating in 4 out of 6 problems faced. However, the availability of funds for community service activities has a low rating in the FA. This accounts for the lower intensity of the community service activities by respondents of the FA. In terms of the intensity of activities, there is a quite significant difference (*) between the rating of the FE and the FA.

Generally, it can be concluded that the three mandates of university which have been carried out by the respondents are categorized quite low. This indicate that most faculty members have low attention to co-operative issues. This information is also strengthened by the information in Table 8.3. The respondents gave low ratings on the number of faculty members having an interest in co-operative issues (3.9). In addition to this, respondents give the same rating on the potential number of faculty members who are able to carry out educational, research and community service activities on co-operative issues (which scored 4.6).

It is interesting to note that the potency of the FE's faculty members is in general better than those of the FA.³⁶¹ The low role of faculty members may be due to the weakness of co-operation among universities in carrying out the three university mandates on co-operative issues. The respondents gave low ratings for the co-operation among universities in conducting education, research and community services related to co-operative issues (respectively 3.6, 3.4, and 3.3). This was also the case with regard to co-operation among universities for information exchange (3.3). The absence of a significant difference among faculties indicates there is a similarity of views among the respondents regarding that issue.

These low rating also indicates the respondents' concern towards the low level of co-operation among universities. This can be seen in the statement regarding the need to increase co-operation among universities, where respondents gave high approval (rating 5.5 until 5.9). In fact, until now no formal association has been established among co-operative lecturers or researchers of the universities, something which could accommodate the need for co-operation among universities in terms of the development of co-operatives in Indonesia.

³⁶¹ This may be influenced by more co-operative subjects being taught in the FE than in the FA. There are at least two lectures on co-operatives in the curriculum of the FE, namely: Co-operative Economics and Co-operative Management, while in the curriculum of the FA this is only one lecture, namely: Agricultural Co-operatives. Even in the FA, co-operative lectures are only given to the students of Agricultural Socio-Economic Studies.

Table 8.3. The Potency of Universities to Implement Education, Research and Community Service on Co-operative Issues

No	Points of View	All	Faculties		
			FE	FA	Test
The potency of faculty members in conducting education, research and community service on co-operative issues					
1	Co-operative issues are often discussed among faculty members, both in formal and informal discussion.	4.4	4.4	4.3	
2	There is an adequate number of faculty members who have concern towards co-operative issues	3.9	3.9	4.0	
3	There is an adequate number of faculty members who are able to become lecturers on co-operative subjects	4.6	4.7	4.4	
4	There is an adequate number of faculty members who are able to become expert team members on co-operative research	4.6	4.7	4.4	
5	There is an adequate number of faculty members who are able to become trainers in co-operative training activities.	4.6	4.7	4.4	
6	There is an adequate number of faculty members who are able to become consultant in co-operative development activities	4.8	5.0	4.5	
Opinion regarding co-operation among universities in conducting education, research and community service on co-operative issues					
1	The co-operation among universities in developing co-operatives has been well organized	3.6	3.6	3.6	
2	The co-operation among universities in conducting joint research on co-operative issues has been well organized	3.4	3.3	3.6	
3	The co-operation among universities in developing joint activities of community service on co-operative issues has been well organized	3.3	3.3	3.4	
4	The co-operation among universities in the exchange of information related to co-operative issues has been well organized	3.3	3.4	3.3	
5	In general, there is a need for co-operation among universities in co-operative development.	5.5	5.8	5.1	**
6	There is a need for increasing co-operation among universities in developing of co-operative education.	5.8	5.9	5.7	
7	There is a need for increasing co-operation among universities in co-operative research	5.9	5.9	5.8	
8	There is a need for increasing co-operation among universities in co-operative community service activities.	5.8	5.7	5.9	

Scale used: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neutral; 5 = somewhat agree; 6 = agree; 7 = strongly agree.

8.1.3. Correlation Analysis

The correlation analysis is intended to observe the extent to which the respondents' educational backgrounds are correlated with the implementation of the three mandates on co-operative issues. Table 8.4 indicates that a respondents' master education level that is strongly related to co-operative issues is positively correlated with all activities of education, research and community service. All of these correlations are statistically significant.

Table 8.4. Correlation Analysis between the Education Backgrounds of Co-operative Lecturers and the Implementation of Education, Research and Community Service on Co-operative Issues

No	Activities Related to Co-operative Issues	Education Background of Co-operative Lecturers ¹⁾			
		PhD	Master-SR	Master-WR	Training
1	Education	-0.094	0.265**	-0.440**	0.132
2	Research	0.140	0.555***	-0.119	0.231*
3	Community Service	-0.040	0.362***	-0.241*	0.247*

¹⁾ Master-SR or WR means strongly-related or weakly-related to co-operative issues

Meanwhile, master degree educations that are slightly related to co-operatives are negatively correlated with the implementation of the three mandates. Even for the implementation of education as well as community service, the negative correlations are significant statistically. As has been discussed in the previous sub-chapters, there are more faculty members of the FA who have master degree educations which are slightly related to co-operative issues. However, co-operative issues are seemingly only a minor aspect among the many other agricultural development issues that post-graduate students must be concerned with. As a result, the higher their education level, the lower their attention to co-operative issues.

Likewise, for the respondents who hold PhD degrees, there is not any significant correlation among education backgrounds with the implementation of the three mandates. There are negative figures even for education and community service. This phenomenon may justify the postulation that a person with a PhD degree would study a broad area of topics outside of their field, making it very possible they would neglect the field of co-operatives.

8.1.4. The Curriculum of Co-operative Education

Table 8.5 indicates that co-operative lectures are held differently between the FE and the FA.

Table 8.5. The Percentage of Respondents based on the Method of Co-operative Lectures

No	Method of Lecture	All	Faculties		
			FE	FA	Test
1	SCS 3-0	66	89	30	***
2	SCS 2-3	24	6	52	***
3	SCS 2-0	10	6	17	
4	Inviting guest lecturer	10	11	9	
5	Practicum activities	53	43	70	**
6	Other scientific assignment	78	77	78	

In the FE, co-operative lectures are generally taught with 3 credits, meaning 3 hours of lectures in a week (Semester Credit System, SCS 3-0), while in the FA it is

mostly taught with SCS 2-3, meaning two hours of lectures and 1-3 hours of practicum activities.³⁶² Besides this, there are also several faculties which teach using SCS 2-0, which means that there are only two hours of lectures per week, without practicum activities. The type of lecture is done during the semester, in sixteen sessions.³⁶³

Generally, co-operative lectures are given directly by the faculty members. Only 10% of the respondents invited guest lecturers, from either among co-operative experts or practitioners, as a part of the process of co-operative education. The SCS 3-0 lecture system is relatively easier in its implementation compared to the SCS 2-3. This is because practicum activities need some additional resources and expertise. In addition to this, about 78% of the respondents also asked their student to submit a scientific assignment, which is generally in the form of scientific paper or field report.

Regarding the syllabus of co-operative lectures, the respondents described the extent of topics related to co-operative issues which are covered by the lectures (Table 8.6). The topics are sorted based on the intensity of the topic in the co-operative lectures carried out by the respondents.

Co-operative identity is the topic which is most frequent explained in co-operative lectures (3.6). In general, it was found that more topics are frequently explained in the FE compared to those in the FA. This is because there is more than one subject in the FE, while in the FA there is generally only one. However, the FA pays more attention to some topics, for instance: Co-operatives and the development of the agricultural sector; History and development of national co-operatives; Types of co-operatives; and Forms and levels of co-operatives.

8.1.5. The Availability of References for Co-operative Lectures

Co-operative education highly needs literature. Literature can be in the form of textbooks as the main teaching material, as well as reference books, journals, research reports and magazines that are related to co-operatives. Table 8.7 describes that only 40% of the respondents use textbooks for teaching material. Meanwhile, 62% of the respondents inform that they use at least three books as references. This means that 60% of respondents do not have their own textbooks as teaching materials, and 38% of them use less than three supporting reference books. Furthermore, only 5% and 17% of them subscribe to journals and magazines of co-operatives, respectively. This fact indicates

³⁶² See for example: The Guidance Book of the Faculty of Economics, University of Brawidjaja, 2000, pp. 10-11. For lectures, the value of the semester credit system (SCS) is determined based on the weight of the activities, which includes total activities per week, as follows: (a) 50 minutes of scheduled face-to-face contact with the lecturer (lectures); (b) 60 minutes of structured academic activities, namely unstructured study activities planned by the lecturer; and (c) 60 minutes of self-supporting academic activities which are intend to further study the lecture material. Whereas, the value of the semester credit system for practice is equal with the completion of activities for 2-5 hours per week for one semester.

³⁶³ *Ibid*, p. 8. One semester is equivalent to 16-19 weeks in terms of effective lectures, including final exams.

that the information received by co-operative lecturers related to co-operative issues is quite little.

Table 8.6. The Syllabi of Co-operative Lectures ³⁶⁴

The Syllabi of Co-operative Lectures		All	Faculties		
			FE	FA	Test
1	Co-operative identity (values and principles)	3.6	3.7	3.5	
2	The role of co-operatives in economic development	3.3	3.4	3.1	
3	Management of co-operative organization	3.3	3.4	3.1	
4	Co-operative finance	3.2	3.3	3.1	
5	The history of national co-operative development	3.1	2.9	3.5	***
6	Universal structure of co-operative organization	3.1	3.2	2.9	
7	Types of co-operatives (consumer, producer, credit)	3.1	3.0	3.4	*
8	Co-operative form and co-operative level (primary, secondary)	3.1	2.9	3.3	**
9	The Process of co-operative formation	3.1	2.9	3.2	
10	The role of government in co-operative development	3.1	3.1	3.2	
11	The role of co-operatives in various market structures	2.9	3.2	2.4	***
12	Economic theory and its implementation for co-operatives	2.9	3.2	2.4	***
13	Co-operation among co-operatives	2.9	3.0	2.7	
14	Co-operative evaluation from member perspectives	2.9	2.9	2.8	
15	Potency and problems of co-operatives in Indonesia	2.9	2.8	3.0	
16	Co-operative entrepreneurship	2.8	3.0	2.6	
17	Decision-making in co-operative organizations	2.8	2.9	2.6	
18	Leadership in co-operatives	2.8	3.1	2.5	**
19	Financial management of the co-operative organization	2.8	2.7	2.8	
20	Co-operation among co-operatives with other business forms (private and public enterprise)	2.8	3.1	2.5	**
21	Co-operative evaluation from business perspectives	2.8	2.9	2.7	
22	The history of international co-operative development	2.7	2.7	2.8	
23	Marketing management of co-operative organization	2.7	2.9	2.4	*
24	Co-operative laws and regulations	2.7	2.7	2.7	
25	Prospects of co-operatives in the future	2.7	2.8	2.6	
26	Co-operative human resource development (co-operative education and training)	2.6	2.8	2.3	
27	Business management of co-operative organization	2.6	2.6	2.5	
28	The role of co-operatives in agricultural development	2.6	2.3	3.1	***
29	Co-operatives in developing countries	2.5	2.7	2.3	
30	Case study of co-operatives in Indonesia	2.4	2.3	2.5	
31	Co-operatives in industrial countries	2.3	2.3	2.1	
32	Operation/production management of co-operative organization	2.3	2.3	2.3	
33	Strategic management for co-operative development	2.3	2.4	2.1	
34	Co-operative movement at the national and international level	2.3	2.3	2.3	
35	Communication process in co-operative organization	2.2	2.4	2.0	
36	Organizational culture in co-operative organizations	2.1	2.2	1.9	
37	Co-operatives and taxes	1.9	2.0	1.6	*

Scale used: 1 = when never explained; 2 = little; 3 = adequate; 4 = much

³⁶⁴ The topics in the syllabi come from literature study, i.e.; Ruslan (1989); Malik (1989); Subyakto (1989); Rangkuti (1989) and Brodjosaputro (1989).

In addition to this, the ease of accessing information on co-operatives is also important for co-operative lecturers. Ease of access is the ease of the respondents to obtain information on co-operatives, both in the library at the university or from the personal collections of other faculty members. Access to more than ten books of co-operatives is stipulated by only 33% of the respondents. Access to more than ten research reports on co-operatives is limited to 16% of the respondents. Similarly, only 22% of respondents have access to more than 25 scientific assignments of students (field reports on co-operatives). This information also indicates the low intensity of research on co-operative issues that is done by the faculty members as well as the students. Furthermore, only 41% of respondents have access to two years of magazine issues on co-operatives.

Table 8.7. The Percentage of Respondents based on the Availability and Access to References Related to Co-operative Issues

No	Explanation	All	Faculties		
			FE	FA	Test
The availability of references on co-operative that are owned by respondents					
1	Textbooks on co-operatives	40	43	35	
2	Supporting reference books on co-operatives (at least 3 books)	62	57	70	
3	Subscribing to journals on co-operatives	5	6	4	
4	Subscribing to magazines on co-operatives	17	26	4	**
The access of respondents to various sources of co-operative information					
1	To a collection of books about co-operatives (at least 10 books)	33	31	35	
2	To a collection of research reports about co-operatives (more than 10 reports)	16	17	13	
3	To a collection of students' scientific writings about co-operatives (more than 25 titles)	22	26	17	
4	To a collection of periodical magazines on co-operatives (within at least 2 years period)	41	51	26	**
5	To promoting the co-operative institution at the university	33	43	17	**

Co-operative information collected by the respondents is also affected by their access to co-operative-promoting institutions at universities, such as research and training institutions which conduct many activities on co-operative development issues. A total of 33% of respondents have access to such institutions. The FE lecturers have more access than those of the FA. This difference is statistically significant (**).

The results of the correlation analysis between the educational backgrounds of respondents with their access to information resources on co-operatives provide some important information (Table 8.8). The master degree level background strongly associated with co-operative issues has a strong correlation in almost all types and sources of information on co-operatives, except for access to book collections on co-operatives. All correlations are statistically significant.

Table 8.8. Correlation Analysis between Education Backgrounds of Co-operative Lecturers and Access to Informational Sources about Co-operatives

No	Access to Information on Co-operatives	Educational Backgrounds of Co-operative Lecturers			
		PhD	Master-SR	Master-WR	Non-Formal
1	Textbooks on co-operatives	-0.123	0.284**	-0.217	0.403***
2	Subscribing to journals on co-operatives	0.206	0.414***	-0.169	0.218*
3	Subscribing to magazines on co-operatives	0.022	0.383***	-0.235	0.243*
4	Access to book collections on co-operatives	0.309**	0.121	-0.197	0.210
5	Access to journal collections on co-operatives	0.198	0.275**	-0.091	0.386***
6	Access to collections of research reports about co-operatives	0.377***	0.315**	-0.010	0.209
7	Access to collections of student scientific writings about co-operatives	0.277**	0.277**	-0.129	0.253*
8	Access to magazine collections on co-operatives	0.116	0.344***	-0.241*	0.152
9	Access to promoting institutions of co-operatives at universities	0.047	0.379***	-0.429***	0.357***

Note: Master-SR or WR means strongly-related or weakly-related to co-operative issues

A nearly identical finding was made with regard to the correlation among the intensity of training attended by respondents with access to various informational resources. However, again, this excluded access to book collections on co-operatives. This indicates that the respondents' access to book collections on co-operatives is very low. Except for respondents who have achieved PhD degrees on co-operatives, it was found that such education level is positively correlated with the access to book collection of co-operatives, as well as to research report collections and student scientific writings on co-operatives.

This information suggests that co-operative lectures may be better taught by those who have masters degrees in fields that are strongly related to co-operative issues, rather than by other lecturers, even by those who have already earned PhD degrees on co-operatives. This is because they can easily access more information about co-operatives. However, they have to be occupied by the availability of sufficient book references.

8.1.6. The Effectiveness of Co-operative Education at Universities

The backwardness of co-operative education was really felt by the respondents. This is directly related the low ability of the universities to produce graduates who have a strong interest in developing co-operatives in Indonesia. The universities have not been able to respond to the challenge and solve the problems faced by co-operatives, particularly in the agribusiness sector. The universities have also not been able to produce alumni who consider the co-operative as a promising employment choice with a bright future. This is evidenced by the reply of respondents to the statement that the

university's role is still very low in producing alumni who are ready to develop co-operatives. About 90% of the respondents stipulated that they agreed with this statement (Table 8.9). There is no significant difference among the two faculties. This means that these problems are faced by all faculties of universities in Indonesia.

Table 8.9. The Percentages of Respondent Opinions Regarding the Weaknesses of Universities in Co-operative Education

No	Explanation	All	Faculties		
			FE	FA	Test
1	Agree that the university does not have adequate performance in producing alumni who are ready to develop co-operative institutions	90	86	96	
2	Agree that there is a weak connection among education with research as well as community service on co-operatives	57	57	57	

In terms of co-operative education development at universities, the respondents indicated that the relationship between education and research activities, as well as community service on co-operatives is still weak. About 57% of respondents agreed with this statement. The activities of the university's three mandates are carried out in different directions, so they cannot strengthen one to another. This is especially true for co-operative lectures; the weak relationship might be the reason for the lack of illustration in the lectures, making co-operative lectures not well-developed, monotonous and uninteresting. The lack of significant difference between the faculties indicates that this phenomenon is taking place in both the FE and the FA.

8.2. The Students of Universities and Activities of Co-operative Development

The students who became respondents of this study informed that, in addition to co-operative education at universities, some of them are also active in various activities related to co-operatives (Table 8.10).

Table 8.10. The Percentage of Students Based on Their Experiences with Co-operative Issues

No	Experiences of Students	Graduate ¹⁾				UG	Chi-square test ²⁾		
		All	IKO	FE	FA		I-O	E-A	G-U
1	Experience in attending co-operative training	23	50	18	9	57	***		***
2	Experience in conducting co-operative research	29	55	12	22	80	***		***
3	Experience in conducting co-operative extension	35	78	6	25	48	***	**	
4	Working experience in co-operative institutions	13	15	15	10	16			
5	Working experience in other institutions	21	18	21	22	14			

1) IKO = IKOPIN; FE= Faculty of Economics; FA = Faculty of Agriculture; UG= Undergraduate level

2) I-O= between IKOPIN and Other (FE and FA); E-A= between Faculty of Economic and Faculty of Agriculture; G-U= between Graduate and Undergraduate levels

About 23% of the graduate students have attended training related to co-operative issues. Meanwhile 29% and 35% of them have had experience in conducting

research or community service on co-operative issues, respectively. The comparative experience between IKOPIN (Indonesian Institute for Co-operative Management) and non-IKOPIN students indicates a very significant difference statistically for the three activities, while when comparing FE and FA students it was evident that there was a statistically significantly difference in terms of their experiences in community service. The experience of FA students is much higher than those of the FE. This is inclusive of the implementation program for Student's Field Work (*Kuliah Kerja Nyata* or *KKN*), which is compulsory for FA students, requiring them to live in rural areas for about two months.³⁶⁵

The comparison between graduate and undergraduate students indicates that the latter are more experienced in co-operative training activities as well as research activities. It is seen that the opportunity to attend co-operative training is more open for the undergraduate students, who study in the specific field of co-operative management. The high percentage of undergraduate students (80%) with experience in co-operative research can be easily understood, because during the sixth semester (namely the final semester for the program), the undergraduate students conduct research in co-operative institutions for completing their final assignment.

8.2.1. Students' Opinion to Co-operative Lectures

The views of students towards co-operative lectures are described in Table 8.11. The rating given by the students for co-operative lectures they attended is not too good, namely 3.3. The highest rating is found in the variable which stipulates that co-operative subjects are considered as important for the students (4.1). However, the ratings for lecture delivery and teaching methods are low (respectively 2.9 and 2.8). Similarly, the rating for the practicum activities is also low (2.8). This indicates that co-operative education, in general, is not interesting, even though the students realized that this lecture is quite important to attend.

In general, the students of IKOPIN gave higher ratings to all the variables, resulting in statistically significant differences. In contrast, many low ratings were given by FA students, so at least two variables were found to be significantly different between the FA and the FE, i.e.; for the variables of good delivery and interesting lectures (*) as well as the variable of comprehensive syllabus (**). This suggests that more improvements are needed in the implementation of co-operative lectures in the FA than in the FE. Furthermore, comparisons between graduate level and undergraduate level students show very significant differences (***) related to the importance of co-operative lectures.

³⁶⁵ *Kuliah Kerja Nyata* or Student's Field Work is designed to give an opportunity for the students to directly study the real problems of agricultural development in rural areas. The students are encouraged to study the problem and create a program in order to give a solution. Among the programs is community development, which is somewhat related to supporting rural co-operatives.

Table 8.11. The Students' Opinions Regarding Co-operative Lectures

No	Students' Opinions	Graduate ¹⁾				UG	T-test ²⁾		
		All	IKO	FE	FA		I-O	E-A	G-U
The students' opinions of lectures on co-operatives									
1	In general, co-operative lectures have been well conducted	3.3	3.5	3.5	3.1	3.4			
2	The course content is important for students	4.1	4.3	4	4	4.4	**		***
3	Faculty members know the course content well	3.7	4	3.6	3.6	3.9	**		
4	Co-operative teaching has been well held and is interesting	2.9	3.5	2.9	2.5	3	***	*	
5	Syllabi of co-operative lectures is quite comprehensive	3.1	3.6	3.2	2.7	3.3	***	**	
6	Teaching method is effective to increase student understanding	2.8	3.5	2.7	2.4	3	***		
7	Lecturer's assistants know the practicum materials well	3.2	3.3	3.3	3.2	3.2			
8	The method of practicum is attracting students' interest	2.8	3.3	2.5	2.5	2.9	***		
The students' opinions regarding the need to improve co-operative lectures									
1	Should be more applicative	48	20	39	69	34	***	***	*
2	Should be more attractive/interesting	27	45	21	19	36	***		

1) IKO = IKOPIN; FE= Faculty of Economics; FA = Faculty of Agriculture; UG= Undergraduate level

2) I-O= between IKOPIN and Other (FE and FA); E-A= between the Faculty of Economic and Faculty of Agriculture; G-U= between Graduate and Undergraduate levels

Scale used: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree

To increase the positive impact of co-operative lectures at universities, about 48% of the graduate students suggested that co-operative lectures need to be accompanied with applicative activities (practicum), such as; case study, simulation, and visits to co-operatives. In addition to this, 27% suggested that co-operative lectures should be made more attractive, for example by improving the teaching methods, or using illustrations that stimulate higher motivation for the students. Interestingly, the suggestion to increase the applicative aspect (not too theoretical) came from the students of the FA, even though their lectures already use the SCS 2-3 system.³⁶⁶ This phenomenon indicates that after conducting the practicum activities, the students of FA considered that there are many things which need to be directly studied from co-operative institutions.

About 45% of the IKOPIN students suggested that co-operative lectures should be more attractive and interesting. On this point there is a very significant difference (***) between IKOPIN and non-IKOPIN students. This phenomenon is interesting because co-operative lectures at IKOPIN are relatively better than those in other

³⁶⁶ See the explanation at Sub-chapter VII.1.4.

faculties.³⁶⁷ This explains that the more the students understand about co-operatives, the higher their demand towards the improvement of co-operative lectures.

8.2.2. Enthusiasm of Students Regarding Co-operative Lectures

The low rating given by both graduate and undergraduate students is related to their enthusiasm towards co-operative lectures, i.e.; both scoring 2.8 (Table 8.12).

Table 8.12. Student Enthusiasm Regarding Co-operative Lectures

No	Students' Opinions	Graduate ¹⁾				UG	T-test ²⁾		
		All	IKO	FE	FA		I-O	E-A	G-U
The benefits of co-operative lectures									
1	Generally the students attended co-operative lectures with full enthusiasm	2.8	3.4	2.8	2.5	2.8	***		
2	Generally the students are satisfied with the performance of co-operative lectures	2.8	3.5	2.5	2.5	3.0	***		
3	Generally the student's grade in the co-operative subject is fairly good	3.5	3.7	3.1	3.5	3.6	**	*	
4	Generally the student feels the benefits/ importance of co-operative subjects taught at universities	3.4	4.0	3.2	3.2	3.8	***		**
The impact of co-operative lectures									
1	Co-operative lectures have changed students' opinion of the co-operative world	3.3	3.8	3.4	2.9	3.7	***	**	**
2	Co-operative lecture motivate students to know more about co-operative issues	3.1	3.7	3.4	2.7	3.6	***	***	**
3	Co-operative lecture motivate students to develop co-operative institutions	3.0	3.5	3.2	2.6	3.1		**	
4	Practicum activities within co-operative lectures help students to improve their understanding of the subjects	3.6	3.8	3.4	3.5	4.0			***
Interest of student in co-operative issues									
1	The student's interest is quite high to do the final assignment (research) related to co-operative issues	3.1	4.0	2.6	2.7	3.7	***		***
2	The student's interest is quite high to actively participate in the community service activities related to co-operative issues	3.1	3.7	2.8	2.9	3.4	***		*
3	The student's motivation is quite high to be active in co-operative activities among the students at universities	3.0	3.5	2.8	2.7	3.1	***		
4	The student's motivation is quite high to work in a co-operative institution after they finish their education	3.0	3.6	2.8	2.8	3.0	***		

1) IKO = IKOPIN; FE= Faculty of Economics; FA = Faculty of Agriculture; UG= Undergraduate level

2) I-O= between IKOPIN and Other (FE and FA); E-A= between Faculty of Economic and Faculty of Agriculture; G-U= between graduate and under-graduate levels

Scale used: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree

³⁶⁷ Sub-Chapter III.3.2 explains that the respondents of IKOPIN students come from the three existing faculties in IKOPIN, namely: The Faculty of Production and Marketing Management, The Faculty of Financial Management and The Faculty of Human Resources Management (see Table 3.5). All of these faculties are related to co-operative education. So, co-operative education in IKOPIN has been well developed into various aspect of co-operative management.

The FA students gave a lower rating for this variable (2.5). However, regarding the benefits of co-operative lectures, the undergraduate students gave a higher rating (3.8) compared to those given by the graduate students (3.4). This phenomenon indicates that even though they did not have a lot of enthusiasm and satisfaction with co-operative lectures, the undergraduate students still thought that there were some benefits from the lectures.

The low enthusiasm and satisfaction of the students regarding co-operative lecture resulted on the impact of the lectures on the students being not so good. A medium rating was given by graduate students regarding the impact of co-operative lectures on changing their way of thinking, giving motivation to study more, and even on becoming involved in the development of co-operatives. In particular, the students of the FA rated far lower. The differences are statistically significant for several variables between the students of IKOPIN and non-IKOPIN, as well as in the difference between the students of the FE and the FA. The undergraduate students have a better rating regarding the impact of practicum activities in increasing their understanding of co-operative issues, in which case the difference of the rating given by graduate students is statistically very significant (***)

The low enthusiasm of the students in attending co-operative lectures as well as its moderate level of impact on student motivation might be a factor in the low willingness of students to involve themselves in activities that are related to co-operative issues. This can be seen, in particular, for the students of the FE and the FA. Table 8.12 describes the difference between IKOPIN and non-IKOPIN students, which was very significant statistically for all variables of student interest. This indicates that co-operative education at universities, in general, still does not have a significant impact on the students. This is also likely due to co-operative lectures in the FE and FA being limited to one or two subjects, while IKOPIN offers more than that.

Furthermore, the comparison between graduate and undergraduate level students indicated that the undergraduate students have a higher interest in research and community service activities, compared to the interest of graduate students. However, there was no significant difference for their willingness to be involved in co-operative institutions. This indicates that the undergraduate level, which is specifically established to support co-operatives, has still not been able to motivate the students to play a role in co-operative institutions during and after finishing their studies.

8.2.3. Student Access to Participating in Activities Related to Co-operatives

Access to attending co-operative training is quite high for students of the IKOPIN and the FE, but not so for students of the FA (Table 8.13).

Table 8.13. The Access of the Students to Activities Related to Co-operatives

No	Explanation	Graduate ¹⁾				UG	T-test ²⁾		
		All	IKO	FE	FA		I-O	E-A	G-U
1	Attending co-operative training	3.3	3.7	3.8	2.9	3.5	**	***	
2	Conducting co-operative research	3.2	3.6	2.8	3.2	3.7	**	*	**
3	Conducting co-operative community service	3.4	3.7	3.5	3.3	3.5			
4	Discussion forum for co-operative issues	3.1	3.4	3.3	2.8	3.2	**	*	

1) IKO = IKOPIN; FE= Faculty of Economics; FA = Faculty of Agriculture; UG= Undergraduate level

2) I-O= between IKOPIN and Other (FE and FA); E-A= between the Faculty of Economic and Faculty of Agriculture; G-U= between graduate and undergraduate levels

Scale used: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree

This conforms to the facts in Table 8.10, which indicate that only a few FA students have attended co-operative training. To the contrary, students of the FA have better access to co-operative research activities compared to students of the FE. The difference is quite significant statistically. Certainly, the students of the two faculties are far below the access available to students at IKOPIN.

Students at the undergraduate level have better access for conducting co-operative research than students at the graduate level. This is because the undergraduate level is actually designed in such a way that the students must perform co-operative research as a part of the final assignment. Meanwhile, access to the other three activities (training, community service and discussion forum) showed no significant differences between the two education levels.

8.2.4. Motivation to Work in Co-operative Institutions

The students were asked for their opinion on whether they agree that universities, in general, have not been able to create alumni who are ready to contribute to co-operative development (Table 8.14). Most of the graduate and undergraduate students agreed with this statement, which accounted for 84% and 75% respectively, while the number of students who did not agree with the statement came to 10% and 20% respectively. The remaining students did not give a yes or no opinion. The comparison between the faculties indicates that there is no significant difference among the IKOPIN and the non-IKOPIN students. However, between the FE and the FA there is a significant difference, in which more students of the FA agreed that the university graduates in general are not ready to develop co-operatives.

In the comparison between education levels, it was discovered that there was no significant difference between the percentages of students who agreed; however, there was quite a significant difference between the graduate and undergraduate students who disagreed. This is a likely indication that more undergraduate students are really ready to get involved in co-operative institutions after they have finished their studies, or is

just a verification, as the undergraduate program that they took is actually intended to create co-operative managers.

Table 8.14. The Percentages of Students Based on Their Motivation to Work in Co-operative Institutions

No	Explanation	Graduate ¹⁾				UG	Chi-square test ²⁾		
		All	IKO	FE	FA		I-O	E-A	G-U
The students' opinions regarding to statement that the university has not adequately created alumni who are ready to develop co-operative institutions									
1	Yes, agree	84	88	73	87	75		*	
2	Disagree	10	13	18	4	20		**	*
The students' motivation in developing co-operative institutions									
The willingness to work in co-operative institutions (Yes)		38	63	33	26	30	***		
The reasons for answering "Yes"	Idealism of co-operatives	18	40	6	10	9	***		
	Good prospect of co-operatives	9	10	15	4	14		*	
	Having fairly high rewards	9	13	0	10	7		*	
The reasons for answering "No"	The weakness of co-operatives in rewarding employees	29	30	18	34	43		*	*
	The negative image of co-operative institutions	3	0	6	3	5			
	Not ready at all	6	3	3	9	9			
The requirement of the students before involving themselves in co-operative institutions									
1	Requiring additional education/training	35	50	30	28	25	**		
2	Requiring a mental strengthening program	19	15	18	22	16			
3	Co-operatives able to provide adequate reward	21	23	18	21	32			
4	The business environment being suitable for co-operative development	6	10	3	6	2			

1) IKO = IKOPIN; FE= Faculty of Economics; FA = Faculty of Agriculture; UG= UnderGraduate Level

2) I-O = between IKOPIN and Other (FE and FA); E-A = between the Faculty of Economic and Faculty of Agriculture; G-U= between graduate and undergraduate levels

Regarding to the willingness to work in co-operative institutions, 38% of the graduate students and 30% of the undergraduate students answered "Yes" to this question. In particular, the 63% of IKOPIN students accounted for a significantly different answer compared to the students of other faculties. Furthermore, about 40% of the IKOPIN students explained that their reason for answering "Yes" was due to the idealism about co-operatives. Some of the reasons for such idealism are: (1) The co-operative is the backbone of the economy, and needs to be developed; (2) The co-operative in Indonesia has been not well developed, therefore it needs many good co-operative cadres; (3) The co-operative is a very good economic concept to be developed, as it touches the lives of the little people. The higher motivation of the

IKOPIN students may be due to their sense of moral responsibility as students of the only Indonesian university that has been established for co-operative development.

A total of 9% of the graduate students and 14% of undergraduate students stated that the reason for their “Yes” answer was related to the bright prospect of co-operatives in the future. In this context, students of the FE have higher confidence compared to students of the FA. Meanwhile, the remaining students (9%) are willing to work in co-operative if said institution is able to pay high rewards.

Meanwhile, most of the graduate students who are unwilling to work in co-operative institutions (29%) believe that co-operative institutions are not able to pay them sufficiently. The remaining respondents had the argument that the image of the co-operative is very bad (3%) and honestly admitted that they are not ready to work in co-operatives (6%). For the first reason, there was a quite significant difference (*) between FE and FA students, in which more of the FA students were pessimistic about the ability of co-operatives to give them good employment and good rewards.

A serious problem has been identified among the undergraduate students, because only a few of them are willing to work in co-operative institutions. This is despite the fact that the undergraduate program is deliberately designed to supply professional personnel who will support co-operative institutions. The most distressing reason is that they have confidence that co-operatives will not be able to provide them with sufficient rewards.

In order to be willing to work in co-operative institutions, some requirements have been set by the students. About 35% of the graduate students require additional education and training to prepare them with the skills needed. Interestingly, 50% of IKOPIN students set this requirement, which is far higher compared to the other two faculties, which was only about 30%. This is also despite the fact that IKOPIN is the Co-operative University which might have the best co-operative education system in Indonesia. This possibly indicates two things: (1) that what is obtained during their study in IKOPIN is still insufficient for them to go to work in co-operative institutions, or (2) the students understanding towards co-operatives is changed after attending lectures at IKOPIN, in which with the new horizon there is a need for specific knowledge related to work in co-operative institutions.

8.2.5. Correlation Analysis

A correlation analysis was done to discover the relationship between student backgrounds and their motivation. Table 8.15 shows that the experiences of graduate students in co-operative trainings and researches are significant positively correlated with their willingness to work in co-operative institutions, particularly due to the reason of idealism. Similarly, practical experience in co-operative activities (such as student co-operatives) has a positive correlation with idealism as a motivation. Besides this, it was also discovered that experience in co-operative research had a significant negative

correlation with the reason for answering "No" related to the weakness of co-operatives in rewarding their employees. This information means that co-operative research experiences for graduate students tends to lead to a positive attitude towards co-operative institutions. There should be, therefore, efforts to increase the access of graduate students to various co-operative researches, including directing and encouraging the graduate students to perform co-operative research as part of the accomplishment of their final assignment.

Table 8.15. Correlation Analysis between Student Backgrounds and Their Willingness to Work in Co-operative Institutions (Graduate Level)

Students' Opinions (Graduate Level)		Experience with Co-operatives				Other Works
		Training	Research	Community Service	Practices	
The willingness to work in co-operative institutions (Yes)		0.200**	0.299***	0.087	0.005	-0.04
The reasons for answering "Yes"	Co-operative Idealism	0.325***	0.276***	0.122	0.156*	-0.098
	Good prospect of co-operative	-0.044	0.029	-0.014	-0.041	0.033
	The rewards are fairly high	0.017	0.141*	0.04	-0.117	0.033
The reasons for answering "No"	The weakness of co-operatives in rewarding employees	-0.011	-0.204**	0.048	0.036	0.138*
	The negative image of co-operative institutions	0.009	0.079	-0.037	0.063	-0.087
	Not ready at all	-0.06	0.045	0.075	-0.002	-0.049

Work experience in other institutions is positively correlated with the reluctance to work in co-operative institutions, particularly those related to the assumption of the weakness of the co-operative to provide desired rewards. It seems that work experience in other institutions may convince students that they should not work at co-operative institutions. However, it is interesting to note that the opposite phenomenon occurred among the undergraduate students, in which their previous work experience in other institutions had a significant positive correlation with their willingness to work in co-operative institutions. Even so, it should be kept in mind that their willingness is in accordance with the ability of the co-operative to provide good rewards (Table 8.16).

Among undergraduate students, the experience of conducting co-operative research had a significant negative correlation with the reasons for a negative image of co-operative institutions. This means that even though they are mostly unwilling to work in co-operative institutions, this is not because of the negative image of co-operative institutions.

In addition to this, the students' experiences in organizing co-operative institutions (for example; student co-operatives) had a significant positive correlation with their motivation to work in co-operative institutions, especially for those who cited the reason of the bright prospect of co-operatives in the future. Therefore, it is important to give an opportunity to undergraduate students to have experiences in running co-

operative activities, for instance by encouraging them to establish student co-operatives in each university or faculty.

Table 8.16. Correlation Analysis between Students' Background and Their Willingness to Work in Co-operative Institutions (Undergraduate Level)

Students' Opinion (Undergraduate Level)		Experience With Co-operative				Other Work
		Training	Research	Community Service	Practices	
The willingness to work in co-operative institutions (Yes)		0.162	0.205	-0.123	0.263*	0.323**
The reasons for answering "Yes"	Co-operative Idealism	-0.044	-0.036	-0.144	-0.188	0.105
	Good prospect of co-operative	0.213	0.201	0.151	0.551***	0.035
	The rewards are fairly high	0.054	0.137	-0.258	-0.118	0.418**
The reasons for answering "No"	The weakness of co-operatives in rewarding employees	0.019	0.101	0.177	-0.128	-0.213
	The negative image of co-operative institutions	-0.25	-0.430***	-0.209	0.203	0.231
	Not ready at all	0.116	0.16	0.014	-0.038	-0.126

8.3. Lessons Learned

There are several important points that can be taken as lessons in the development of agribusiness co-operatives in Indonesia.

The first lesson is that the productivity of universities in producing alumni who are ready to work in co-operative institutions is still low. This was admitted by most of the respondents from the faculty members, as well as by the students. The faculty members faced various constraints in the effort to increase the effectiveness of the co-operative lectures which they conducted. There are at least three main constraints: the low qualification of the faculty members in co-operative teaching, the lack of curriculum, and the lack of availability of teaching references. These constraints have become a classic problem at nearly all of the universities. Actually, it is very ironic that this problem has been faced by nearly each university, but there has not been an initiative to try to overcome it collectively. They teach about co-operatives, but the spirit of co-operation is absent in their efforts to overcome various constraints faced by them individually.³⁶⁸

The second lesson is that the universities' constraints in developing co-operative education is not only due to the lack of information sources related to co-

³⁶⁸ In September 2002, several faculty members from several universities in Indonesia had a scientific meeting in Surabaya with regards to the development of co-operative education at universities. One output of the meeting was that an association of co-operative academic staff was established. Much of the discussion on the meeting was directed to the improvement of co-operative curriculum at universities; however, unfortunately it did not give much emphasis on the importance of improving the qualifications of co-operative lecturers (see LSP2I, 2002, p. 133)

operatives which can be accessed by faculty members, but also due to low intensity of conducting research and community service. Apart from various obstacles, which resulted in the low involvement of faculty members in the two activities, this matter reflects that co-operative education at universities is not well developed.³⁶⁹ There is no quality improvement process through information enrichment and field experience in the co-operative field. So it is reasonable that co-operative education has become a very theoretical and abstract subject, with a lack of illustration and case study, making it unable to impart an ideological bearing, in turn giving the co-operative subject a reputation as an uninteresting subject for students.³⁷⁰

The third lesson is that the improvement of co-operative education at universities is not only related to the improvement of the education material, but also related to the improvement of the quality of the lecturers, as well as the improvement of the teaching methods. The results of this study indicate that improvement of teaching method demands the implementation of practicum activities as a part of co-operative education. The needs for practicum activities are not only for students, but also for lecturers. This will be in line with the effort to increase the effectiveness of co-operative education. This may direct the students to become closer to co-operative activities and better understand the problems faced by co-operatives, and this will motivate them to make a contribution to co-operative development. The improvement of teaching methods will have implications on curriculum improvement of co-operative education and for the funding needed for practicum activities.

The fourth lesson is that co-operative formal education through universities is still unable to encourage their alumni to become motivators of co-operatives or co-operative leaders–entrepreneurs as needed for developing co-operatives, particularly related to agribusiness co-operatives. This can be seen not only at general universities, but also in special universities regarding co-operative education (such as IKOPIN, as well as at some undergraduate programs on co-operative development). It is still quite difficult to obtain university graduates who become primary co-operative leaders–entrepreneurs who have motivation and capability to initiate the emergence of genuine co-operatives in the field of agribusiness.³⁷¹ If there are some examples of co-operative entrepreneurs, basically these are a matter of chance, and did not emerge from well-prepared programs.³⁷² Therefore, the improvement of co-operative education programs

³⁶⁹ MacPherson, 2002, p. 35. There are so many needs for co-operative research that are beneficial for co-operative lectures.

³⁷⁰ Cf. Swasono, 2002, p. 54.

³⁷¹ Beside the example of Daman Danuwidjaja (as explained in Chapter IV), there are very few cases where universities alumni develop agribusiness co-operatives. This was also found when the researchers conducted a survey on 30 dairy co-operatives in West Java and East Java. Few of co-operative leaders, in particular for the co-operatives Quadrant-I, graduated from universities which specifically provide co-operative education programs.

³⁷² One example is Danang, who coincidentally loves his hometown. He graduated from an agricultural faculty of a private university in Solo. His years of experience in private companies made him miss

is really needed in order to increase their effectiveness in creating co-operative leaders-entrepreneurs.

The fifth lesson is that the students' direct involvement in co-operative activities (such as at KOPMA or the students' co-operative) to some extent has a direct influence on their motivation to be active in co-operative development after they graduate. This was discovered in a difference between graduate and undergraduate students. The motivation of graduate students correlated with the emergence of co-operative idealism (Table 8.15), while the motivation of undergraduate students correlated with confidence about co-operative prospects in the future (Table 8.16). This phenomenon implies that direct practical activities of students in a co-operative may somewhat increase their motivation to develop co-operatives. In this case, student co-operative institutions at the university had an important role as a laboratory for the students to increase their understanding regarding the co-operative mechanism and to increase their leadership skill and ability in developing a co-operative. It could be expected that their frequent interaction with co-operative issues will increase their motivation to get involved in developing co-operatives after they have completed their education.³⁷³

the rural tranquil atmosphere. When he come back to the village he continued his parents' business; the plantation of *pomelo* (a kind of citrus fruit). In order to facilitate the marketing of *pomelo*, he initiated the establishment of a *Koperasi Tani Jeruk Jaya* (Co-operative of Pomelo Farmers) (see Kompas Cyber Media, April 23, 2003). This story indicates an incidental factor that characterized the involvement of a university's alumni in the rural areas, not being due to a program in a curriculum.

³⁷³ This includes the effort of developing entrepreneurship through co-operative institutions. See further Srinarni *et.al.*, 1998.

CHAPTER - IX

STRATEGY FOR DEVELOPING CO-OPERATIVE ENTREPRENEURS

9.1. The Need of Co-operative Entrepreneurs

Soedjono (1997) states that a co-operative entrepreneur is more than just an entrepreneur. Their role is much more complex than that played as an individual entrepreneur. A co-operative entrepreneur focuses not only on increasing their personal welfare, but also on increasing the welfare of its thousands of members. The history of co-operatives indicates that behind the success of co-operative development in the world there are always people who act as pioneers, who pave the way and make efforts to develop co-operatives from the time of their initial establishment.³⁷⁴ These pioneers are the people who first provide the idea regarding co-operatives, and many of them have been personally involved to developing co-operatives with other co-operative members. They act as motivators, uniting members, act as educators, and also make difficult decisions in beginning of co-operative establishment. Some of these pioneers are: Hermann Schulze-Delitzsch,³⁷⁵ Friedrich Wilhelm Raiffeisen,³⁷⁶ Wilhelm Haas,³⁷⁷ Franz Oppenheimer,³⁷⁸ Eduard Pfeiffer,³⁷⁹ Heinrich Kaufmann,³⁸⁰ Victor Aimè Huber,³⁸¹ (Germany), Rochdale pioneers³⁸² and Robert Owen³⁸³ (British), Phillipe Joseph Buchez³⁸⁴ (French), Luigi Luzzati (Italy), Edward A. Filene (USA) and Alphonse Desjardins (Canada).³⁸⁵ In Spain there is Jose Maria Arizmendi, who developed the Mondragon Worker Co-operative.³⁸⁶ The list also includes pioneers in developing countries, such as the contribution of Sardar Patel, Tribhuvan Das Patel and

³⁷⁴ Cf. Röpke, 1992, p. 85.

³⁷⁵ Cf. Dülfer, 1994, pp. 787-789. Akpoghor, 1993, pp. 11-15.

³⁷⁶ Cf. Seuster, 1994, pp. 755-756. Hanel, 1992, pp. 7-9. Akpoghor, 1993, pp. 8-11.

³⁷⁷ Cf. Seuster, *op.cit.*, pp. 418.

³⁷⁸ Cf. Hahn, 1994, pp. 654-656.

³⁷⁹ Cf. Stoffregen, 1994, pp. 682-684.

³⁸⁰ *Ibid*, pp. 528-529.

³⁸¹ Cf. Jenkis, 1994, pp. 453-457. Hanel, 1992, p. 10.

³⁸² Cf. Garrat, 1994, pp. 776-778. Hanel, 1992, p. 45. Akpoghor, 1993, pp. 1-4.

³⁸³ Cf. Pollard, 1994, pp. 665-667. Akpoghor, 1993, pp. 5-8.

³⁸⁴ Cf. Kamdem, 1994, pp. 63-64.

³⁸⁵ Cf. Dülfer, 2000, p. 60. Hanel, 1992, pp. 3-10. Röpke, 1992, p. 85. Baker, 1994, p. 188.

³⁸⁶ For details see Whyte and Whyte, 1998; Hettlage, 1994.

Varghese Kurien in India,³⁸⁷ as well as Aria Wiria Atmaja and Mohammad Hatta in Indonesia.³⁸⁸

The aspects that have been developed by co-operative pioneers vary, in which many of those aspects are innovative breakthroughs for overcoming the problems faced by people at certain times. For example, the credit co-operatives developed by Schulze-Delitzsch was an innovative step in addressing the problem of high-interest loans that had to be paid by the craftsmen of urban society.³⁸⁹ Similarly, there were: the consumer co-operatives motivated by Rochdale pioneers, the workers co-operative pioneered by Jose Maria Arizmendi, and a housing co-operative by Victor Aime Huber. In the agricultural sector and the development of rural economics, Raiffeisen and Hass in Germany, and Plunkett in Ireland³⁹⁰, are also well known, while in Indonesia, in the agricultural sector, Daman Danuwidjaja³⁹¹ should be included.

The pioneers of co-operatives act as initiators and also as the chairman of co-operatives. They are the people who have a clear vision and mission, as well as high spirit for working to increase the welfare of members through collective efforts. They are people who have positive personalities, who are close and trusted by many people. They are able to detect various innovative business opportunities that may be done collectively, and also lead the organization as well as the business of co-operatives, which can provide advantages for its members. Obviously, the pioneers of such co-operatives also act as the leader of co-operatives who also have the spirit of entrepreneurship, which is why Röpke categorizes these pioneers as co-operative entrepreneurs.³⁹²

Entrepreneurs are badly needed in economic development. The economic growth level depends on the availability and quality of entrepreneurs in a nation, in which entrepreneurs not only develop the demand aspect, but also the supply aspect of various products and services in an economy.³⁹³ The problem is how to develop the number of these entrepreneurs in a society.

Due to the economic crisis period that has occurred since 1997, Indonesia actually needs many entrepreneurs, particularly to develop the agribusiness sector. As has been discussed in Chapter I, agribusiness is the most potential sector to be

³⁸⁷ For details see Mascarenhas, 1988, p. 66. These three persons are the founder of dairy co-operatives in Anand, India. Also see Ismangil, 1993, p. 50.

³⁸⁸ Cf. Röpke, 1992, p. 85. Mohammad Hatta was the first Vice President of Indonesia, who has suggested that the Indonesian economy should be based on a collectivity mechanism, in which co-operatives are the most appropriate institution (see also Djohan, 1997, pp. 19-34).

³⁸⁹ See Hanel, 1992, p. 6. At that time the interest rate was up to 500%.

³⁹⁰ Cf. Bayley, 1994, pp. 684-685. Hanel, 1992

³⁹¹ Soewardi, 1997, pp. 235-238. Jailani, 1997, p. 209. They have noted clearly that Daman Danuwidjaja was a pioneer in the Indonesian co-operative development.

³⁹² Röpke, 1992, pp. 85-87.

³⁹³ Kent, 1982, pp. 239-247.

developed in Indonesia to overcome the ongoing impact from the economic crisis. The multiplier effect of agricultural sector development will be felt, not only in the improvement of the monetary aspect, but also in the expansion of employment, distribution of development in various regions, and development of rural human resources.³⁹⁴

Unfortunately, it is very difficult to expect the emergence of entrepreneurs among the agricultural society in Indonesia at this time. On the one hand, the quality of farmer's human resources in Indonesia in general is very low. Beside their low average education level, they also do not have sufficient skills needed for the development of this sector, particularly in the off-farm activities. Meanwhile, the rural youth, who currently tend to have higher levels of education and relatively better skills, are abandoning the rural and agricultural sector. They consider that rural areas and the agricultural sector are not prestigious, are high-risk, and lack of opportunity for career development. Therefore, the Indonesian agribusiness sector and rural areas do not seem to be getting better over time, especially in the era of free markets, in which the competition is increasing due to a flood of imported agricultural products.³⁹⁵

On the other hand, the existence of co-operative entrepreneurs, who are expected to bring progress to the agribusiness sector, seems to emerge naturally and is very slow in regeneration. The result of study that was discussed in Chapter IV showed that even though the milk agribusiness is not easily developed in tropical country like Indonesia, there was still a time that was called the golden period of milk agribusiness development. During this period, there was very significant growth of the cow population, as well as a sharp increase in milk production that was organized by dairy co-operatives. Behind this extraordinary achievement, there were people who acted as co-operative entrepreneurs. However, this role was not sustainable due to the lack of a regeneration process.

Furthermore, the discussion in Chapters V and VI concluded that the role of co-operative entrepreneurs have been proven in the development of dairy co-operatives. Some important characteristics of co-operative entrepreneurs have been proven to be possessed by co-operative leaders in Quadrant-I co-operatives. However, again, those co-operative entrepreneurs emerged naturally, more due to their work experience in developing co-operatives rather than due to the result of CET (co-operative education and training) programs.

³⁹⁴ As described in Chapter-I (Sub-chapter 1.2.2) agribusiness development policy in Indonesia is still distributed among several ministries, which caused the development program ineffective in terms of increasing farmer welfare.

³⁹⁵ The condition of farmer and Indonesian agricultural sector become worse. Moreover, by starting the free market era in ASEAN since January 1, 2003, it is worried that Indonesian agricultural sector is further destroyed, and million farmers will lost their source of income. (As stated by Siswono Yudohusodo, the Chair of Indonesian Farmer Association (HKTI) at a National Conference on Farmer Empowerment at Brawidjaja University, Malang.)

Regarding the availability of great agribusiness resources in Indonesia, there are thousands of tropical commodities that could be utilized to make economic improvements in the country. Since the actors of agribusiness are mostly small farmers throughout the nation, there is a more urgent need for co-operative entrepreneurs than for individual entrepreneurs. This is due to the fact that co-operative entrepreneurs will bring many farmers together to improve their business, which in turn will improve their welfare.

Unfortunately, the result of study which has been discussed in Chapters VII and VIII, showed the weaknesses of the CET programs in Indonesia, particularly in terms of producing more co-operative leaders-entrepreneurs. On the one hand, training activities which co-operative leaders participated in did not have a significant influence on the performance of their co-operatives.³⁹⁶ On the other hand, co-operative education has been carried out by some levels of formal education, which is finally being offered by several faculties at the university level. This is also being carried out under a specific program of co-operative development at universities. Nevertheless, the results of such education programs are still unsatisfactory. Co-operative education programs are still very weak in encouraging university graduates to involve themselves in the development process of co-operatives.

Education and training activities are very important for the development of co-operatives. Without effective CET programs, it may prove to be impossible to develop co-operative.³⁹⁷ As discussed in Chapters VII and VIII, each of the CET institutions in Indonesia have been conducting their own programs, each of which has its own specific limitation and problems. There is, therefore, a program of synergy among all institutions in conducting an effective CET program is necessary.³⁹⁸ Besides this, the CET program should be focused, systematic and integrative, so that it can accelerate the formation of co-operative leaders-entrepreneurs. A systematic and integrative approach means that the CET program should combine its method with a selection process of the personnel to be developed. If the CET programs are implemented effectively, then the existence of co-operative entrepreneurs would no longer occur by chance, but by design.

9.2. The Three-Pillars Strategy for Developing Co-operative Entrepreneurs

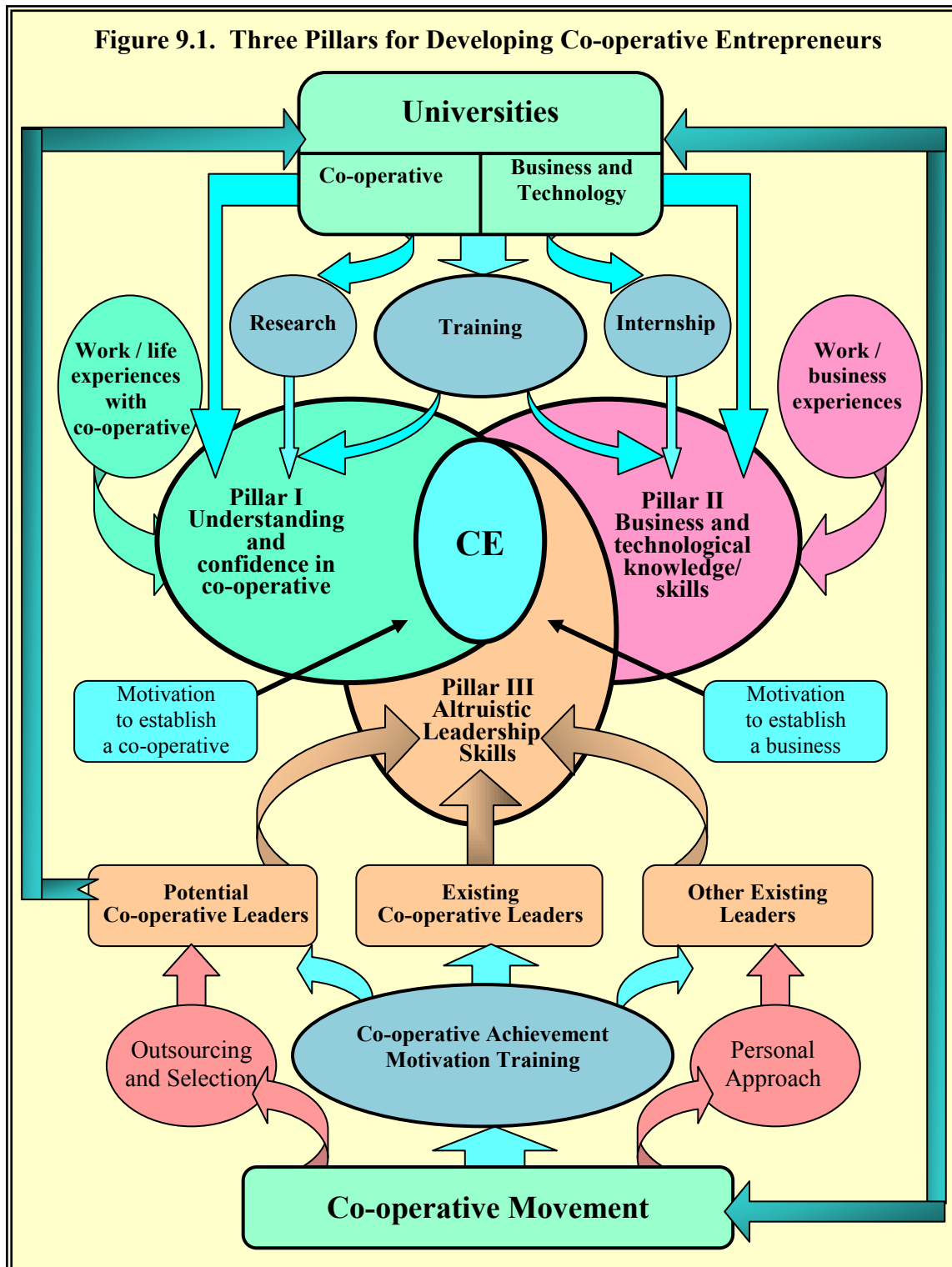
Based on research findings discussed in Chapters IV, V, VI, VII and VIII, it can be concluded that there are three pillars that are needed to form the character of a CE,

³⁹⁶ See again Chapter-VI, Sub-chapter 6.1.3.

³⁹⁷ Cf. Soedjono, 1997b, p. 73; Anschhoff and Henningsen, 1996, p. 162, which quoted Friedrich Fürstenberg: "There is, I am sure, no other modern form of economic activity whose development was accompanied by such strong educational impulses as the co-operatives". The importance of education for the co-operative movement caused it to become one of the seven principles of co-operatives. (ICA, 2001. pp. 44-46)

³⁹⁸ As it is the spirit of co-operative action that is needed when individual ability become a constraint, this is why synergic co-operation in conducting CET programs becomes necessary.

namely: (1) understanding and confidence in co-operatives, (2) business and technological knowledge/skill, and (3) altruistic leadership skill (Figure 9.1).



Source : Author's Own Depiction, 2003

9.2.1. Understanding and Confidence in Co-operatives

The education is directed to increase the understanding and confidence of students or participants in the efficacy of co-operative institutions as a powerful instrument for endeavoring for a people's economy. Without the right understanding and strong confidence in co-operative institutions, it is difficult to expect people to be motivated to establish co-operatives, even if such people have good characteristics and high leadership skills.

There are four target groups which are related to this pillar, namely: (1) those who understand and have confidence in the usefulness of co-operatives; (2) those who understand but still do not have confidence in the usefulness of co-operatives; (3) those who do not understand co-operative mechanism but have confidence that co-operatives can be effective in helping the weak; and (4) those who do not understand and have no confidence in co-operatives.

The first group can exist in the general community, even if they do not have formal education about co-operatives. Their understanding and confidence have come about due to the fact that they are often in contact with co-operative activities in rural areas, and they are motivated to contribute to improving such co-operatives. This motivation is not separate from the altruistic factor in their personality.

The second group is mainly found among the students of co-operative studies. They obtain knowledge during their studies at the university, which enables them to become people who accurately understand the vision, mission and mechanism of co-operatives, yet they still doubt whether co-operatives can be developed well and whether co-operatives can play an important role in helping the weak. Even if they are working in a co-operative, their doubt in co-operatives leads to the ineffectiveness of their efforts in developing co-operatives, which in turn cause co-operatives to be not well-developed. Such people will soon abandon co-operatives because they consider that the co-operative is not a good workplace.³⁹⁹ The second group is actually a very large source of human resource leakage for co-operatives. Various investments in CET programs for such people will become useless. Therefore, the improvement of co-operative education must also be accompanied by efforts to build student confidence in the power and usefulness of co-operative institutions.

The third group, are the people who have positive morale, co-operation and altruistic attitudes, and have a strong desire to struggle on behalf of the condition of the weak. Unfortunately, due to many factors, they still have not accurately understood that a co-operative is a good mechanism and also an effective organization to help the weak.

³⁹⁹ Results of the study in Chapter VIII support this explanation. See also the proceeding of Seminars and Workshops: Standardization of Economic Co-operative Learning in the Framework of Developing Co-operative Entrepreneur Spirit in Public and Private Higher Education for All of Indonesia, Surabaya, 17-18 September, 2002. Co-operation between the Indonesian Institute for Co-operative Development Studies (LSP2I) and the Faculty of Economics - Airlangga University and the Canadian Co-operative Association (CCA).

This misunderstanding is due to a stereotypic perception of co-operatives institution in Indonesia, which presently has a negative image. This group may never have the chance to attend CET programs which can provide an accurate understanding. Furthermore, they do not have balanced information regarding the great role of co-operative institutions around the world in struggling on behalf of weak people.

The fourth group is the group of dangerous people, because this group has the potential to destroy the co-operative movement. This group is generally outside of co-operatives, but it is still possible some of them are present in co-operative institutions. Their presence in co-operative institutions is more due to other motivations, such as a stepping stone for their own career or to gain mass support.⁴⁰⁰

Efforts to promote this understanding and confidence must be preceded by providing a good impression to someone about the co-operative movement, for example by describing the success of the co-operative movement, both in Indonesia and around the world. A good impression of co-operatives serves to destroy the negative image that co-operative institutions are identical with weak institutions and small business. It is also to increase the altruistic motivation of the learners in an effort to come to the aid of farmers in Indonesia who have been marginalized. Therefore, the material that explains the success of the international co-operative movement appears to be important for the co-operative education curriculum.

In addition to improving the co-operative education system, the intensification of training activities and research on co-operatives is expected to increase understanding and confidence. Training activities are shortcuts in providing an understanding of co-operatives to more people in a relatively short time. Training materials should be tiered according to the segmentation of the target participants. Then, more research activities on co-operatives will further clarify what the problems of co-operative development in Indonesia are, and wherein they lay, followed by the rationale for addressing the issues. The survey of graduate students in this study also indicated that training and research activities are very significantly correlated with their willingness to develop co-operatives.

9.2.2. Business and Technological Knowledge/Skills

Business and technological knowledge is highly needed in developing the agribusiness co-operative, and this development will be much better if this knowledge focuses on the needed skills. Such knowledge and skills are preconditions for a person to be interested in developing an innovative business. However, this pillar should not be separated from the first pillar; otherwise this will lead to a loss of human resources to other sectors.

⁴⁰⁰ Cf. Parnell, 1999, pp. 117-119.

There are three approaches to strengthening this pillar. Namely: (1) to increase the business and technological knowledge as well as skills for co-operative leaders; (2) to increase the understanding and confidence in co-operatives for qualified persons who have business and technological skill, so that they are attracted to contribute and involve themselves in developing agribusiness co-operatives; and (3) to simultaneously develop two pillars for certain people who have high potential in developing agribusiness co-operatives.

The first approach has been done in many CET programs. Actually, various training programs conducted by the government have emphasized development using this approach.⁴⁰¹ The results of the training will be felt if its participants are those who have an understanding and confidence in co-operatives. However, if not, then the effort to strengthen this pillar is precisely the source of losses of co-operative human resources to other sectors.⁴⁰²

The second approach is made by trying to acquire students from fields related to aspects of business and technology that are needed by agribusiness co-operatives. In the Faculty of Economics, the knowledge of students in economics are strengthened (such as in micro and macro-economics, as well as in development economics); likewise, various aspects of business management (such as accounting and finance, marketing, organization and management, human resources, and production aspects). Even in several departments, other subjects such as business communication, information systems, and feasibility studies are also taught. Nevertheless, there are no subjects regarding agribusiness technology. As a result, supplementary training is needed for this aspect.

Meanwhile, the Faculty of Agriculture provides a variety of comprehension and basic skills of cultivation technology and factor inputs required, as well as agro-processing technologies.⁴⁰³ An understanding of this technology will be very influential in the development of co-operatives, as the CE will clearly know what direction and what is needed in the development of the agribusiness co-operatives that they lead.⁴⁰⁴ For the alumni of the Faculty of Agriculture in general, supplementary training is needed to strengthen their skills in business aspects. This is that they will be able to translate the technological excellence that they understand into a profitable business for co-operative members.

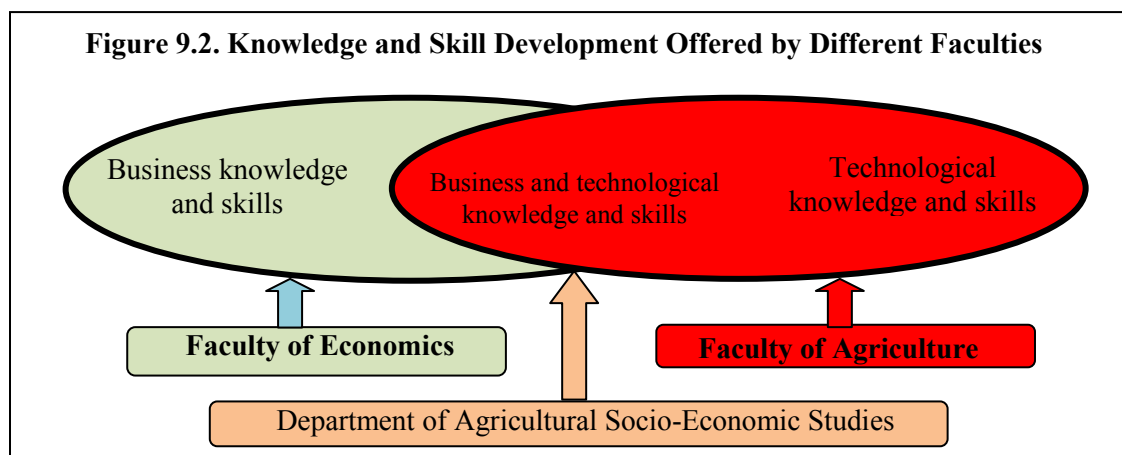
⁴⁰¹ See again Chapter-VII, Sub-chapter 7.2.

⁴⁰² It has already been proved that other training (such as technical training in the form of livestock, etc.) has a strong influence on the level of business success of co-operatives (see again Chapter VI, Sub-chapter 6.1.3).

⁴⁰³ Agriculture in the widest sense of the word, including the agriculture of food crops, animal husbandry, fisheries, and forestry.

⁴⁰⁴ Chapter IV explains that the processes of the formation of some dairy co-operatives in Indonesia were pioneered by veterinarians who had an intimate knowledge of technical and business aspects of animal husbandry. See again Chapter IV, Sub-chapter 4.3.

However, in the Faculty of Agriculture there is a department which strengthens these two aspects simultaneously, namely the Department of Agricultural Socio-Economic Studies (DASES, see Figure 9.2).⁴⁰⁵ Nearly all of the Faculties of Agriculture at universities in Indonesia generally have a DASES.⁴⁰⁶ In this department, rural sociology and community extension are also taught. This means that the higher the number of co-operative leaders coming from the alumni of DASES, the greater the savings in both time and training funds in an effort to strengthen this second pillar.



Source: Author's own depiction, 2003

The third approach is a program that is specifically associated with the regeneration process of the primary co-operative leaders (PCL). The co-operative movement needs to select people who are potential CEs, then include them in the educational process at the university. The importance of university education is due to its being more comprehensive and integrated than if the person engaged in various training programs of business and technology. Obviously, this approach will take a long time and have a greater cost, but it is a matter that is indispensable in the development of the type of CE required. In particular, it is associated with the regeneration of the PCL in greatly successful co-operatives, and as such the case of decreasing co-operative performance after co-operative leadership succession will be no longer take place.

9.2.3. Altruistic Leadership Skills

A co-operative entrepreneur is basically a PCL, and vice versa. Therefore, the development of entrepreneurial activities in co-operative institutions requires the ability to lead other people, for example, having the skill to communicate ideas and to influence other people, interpersonal skills, courage in decision-making, bearing responsibility, and so on.

⁴⁰⁵ At the Bogor Agricultural University (IPB), there are the Department of Agricultural Socio-Economic Studies, the Department of Socio-Economics of Animal Husbandry, the Department of Socio-Economics of Fishery, and the Department of Forestry Management.

⁴⁰⁶ See Directory of Universities in Indonesia, 1998, Directorate General of Higher Education, the Ministry of National Education.

The development strategy of co-operative entrepreneurs will be associated with three target groups, namely: (1) existing co-operative leaders who still do not have co-operative entrepreneur skills, (2) leaders of other organizations, both formal and informal leaders, who can be motivated to contribute in developing co-operatives, (3) potential co-operative leaders (future prospective co-operative leaders), particularly youths with high levels of idealism in struggling for the people's economy, which in this study refers to university students.

The first strategy is the development of the existing co-operative leaders who still do not have skills to be co-operative entrepreneurs. Chapter VI indicates that not all co-operative leaders of the dairy co-operatives possess entrepreneurial characteristics, particularly the co-operative leaders in Quadrant-II and III. For these co-operative leaders, a better human resource development program towards developing co-operative entrepreneur characteristics or traits is needed. Understandably, it will be easier to develop co-operative entrepreneur characteristics in a co-operative that is already running well. Therefore, the co-operatives in Quadrant-II and III need to study the co-operative management system in Quadrant-I. For example, the interview result with co-operative leaders of a dairy co-operative in Quadrant-1 indicated that the leaders have implemented the pattern of leadership with reference to "The Seven Habits of Highly Effective People" from Stephen R Covey.⁴⁰⁷ The result of these interviews came as a surprise for the researcher, in which the Covey's approach has already been applied in rural areas by co-operative leaders. This is because this approach is not well-known by many educated people in major Indonesian cities. As a result, it is no wonder that this particular KUD has very good organization performance.

The development of existing co-operative leaders to become co-operative entrepreneurs needs training related to "concept of self" development according to the co-operative spirit. As has been discussed in Chapter VI, a special program of Achievement Motivation Training (AMT) needs to be developed for co-operative leaders, called Co-operative Achievement Motivation Training (CAMT). From the three existing target groups, the existing co-operative leaders are a target group that needs to be prioritized in this CAMT program.

The second strategy is co-operative entrepreneur development of other existing leaders. Co-operative entrepreneur development from the existing leaders can be divided into two different targets, namely formal and informal leaders. The involvement of leaders who work on the development of co-operative institutions in Indonesia can be attributed to the development of the role of catalyst CEs. A formal leader who have a high altruistic character may exist in various structural positions ranging from the national level to the village level, in both government and non-government organizations.

⁴⁰⁷ See Covey, 1993, regarding to need of change individual habits in order to be a highly effective person. This book was followed by Covey's second book, Principle-Centered Leadership, which is very relevant for co-operative leaders (see Covey, 1997).

The formal leaders that have a high altruistic character need to be properly introduced to the essence of the co-operative movement. However, this is not easy to do, especially in Indonesia, where their view of co-operatives is already influenced by the negative image of the co-operative institution. Furthermore, it is often the case that the formal leaders already have their own concepts and approaches in channeling their altruistic attitude. Therefore, a systematic personal approach needs to be made on those formal leaders. One approach which can be done is to invite them to a co-operative seminar and workshop (either as participants or as a resource person), or to a comparative study of co-operatives which have outstanding performance. Similarly, they can be provided with information regarding the advantages of co-operatives, as this might change their way of thinking about co-operatives.⁴⁰⁸ Basically, a personal approach is needed, one which is systematically designed, in order to increase their understanding, which in turn will increase their positive contribution to the development of co-operatives.

This personal approach also needs to be carried out on the existing informal leaders. Although it might appear easy to conduct an approach process, it should still be planned systematically. This is because the informal leaders probably have heterogeneous characteristics. These characteristics may relate to differences of education level, knowledge, beliefs and personality, as well as of group interest. However, they have one thing in common, namely that they are people who have gained the trust of society or a group, and so anything they say will be easily followed by their group.

The potential of this informal leader is very important in developing micro aspects of co-operatives, particularly those related to the development of new agribusiness co-operatives. It is recognized that the initial steps of establishing a co-operative is not easy. They require the patience to invite and convince others to join in the co-operatives to be formed. Here, the role of the informal leader is needed. At some of the dairy co-operatives that have been studied, the role of informal leader was seen to be very important, for example those who are teachers, ex-military figures, agricultural extension workers or religious leaders.

The third strategy is the development of CEs who are potential co-operative leaders. In general, anyone can be a potential CE. However, this strategy is focused on the co-operative leader potential of university students, who are prospective co-operative leaders for the future, particularly students majoring in DASES who already have an understanding of co-operatives, business aspects, and agricultural technology. In addition to them, many students are activists in student co-operatives at universities. An activist in a student co-operative is a prospective co-operative leader who needs to

⁴⁰⁸ The experience of Bustanil Arifin SH (the first Minister of the Ministry of Co-operatives) may be a good example. By chance he read information in Time Magazine, April 1978, regarding Operation Flood, the Milk Agribusiness Development in India (see Syarief, 1997, p. 239). Due to this impressive information, he had the idea to develop dairy co-operatives in Indonesia.

be prioritized for the CE development process. Their involvement in student co-operatives at least shows their good impression regarding the co-operative movement.

The co-operative movement needs to recruit students basically possess all three pillars, in order to developing their potential, and then provide them with access to be actively involved in co-operative development. The last thing is something very important to do. Without having access to engage in co-operative institutions, the high potential of student (youth) CEs will be useless. They will not engage in co-operative development, but in other work.

9.3. Strategic Alliance in Co-operative Entrepreneur Development

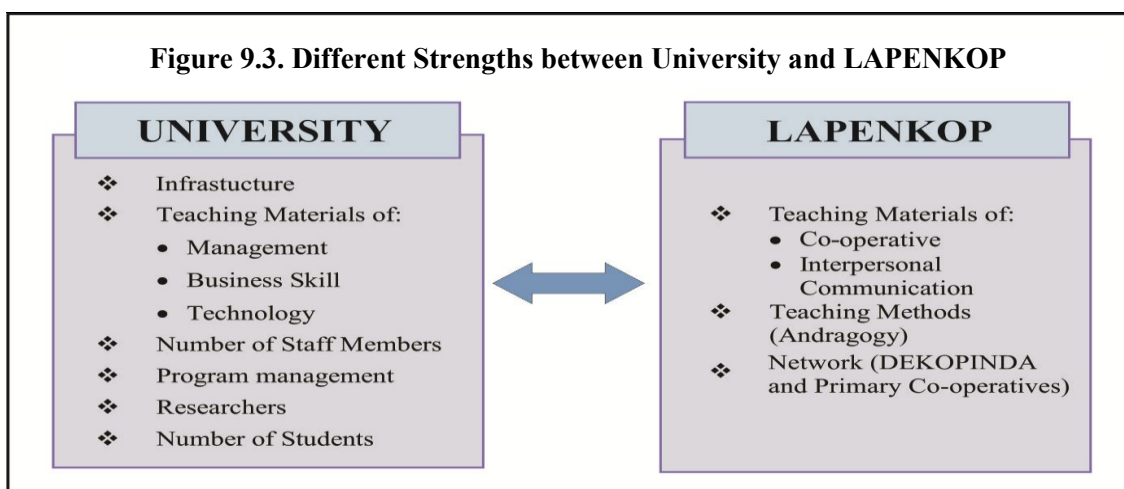
The active role of the co-operative movement to develop co-operative leaders is extremely urgent. With the many weaknesses still present in the co-operative movement, strategic alliances with other institutions are a necessity. Hitherto, co-operation in CET programs in Indonesia have been carried out between co-operative movements (DEKOPIN) and the government. However, this co-operation has not run successfully.⁴⁰⁹ Therefore, other forms of alliances are needed that can play a role in improving the quality of co-operative leaders.

One new type of alliance is an alliance between universities and the co-operative movement. Based on the AHP (Analytical Hierarchy Process) results in Chapter VII, such alliances should be built between the co-operative movement and universities. These two institutions are expected to be the most responsible for the development of co-operative leaders in Indonesia. Improved performance of co-operative education by the universities need to be pursued by building networks between universities, namely the Inter-University Center for Co-operatives (IUCC), which concentrates specifically on co-operative issues. Furthermore, in the context of making CET programs more effective, the IUCC is expected to synergize with the co-operative movement so that each program would be able to cover their own weaknesses and even improve the performance of both institutions.

On the one hand, the greatest problem faced by universities is their low understanding on co-operative issues, including the lack of teaching material as well as ineffective teaching methods, while such matters have been developed properly by LAPENKOP. On the other hand, teaching infrastructure availability, lecturers and teaching materials related to non-co-operative aspects (such as business management and technological aspects) are widely available at universities. In fact, materials on non-co-operative aspects is a part of the problem faced by LAPENKOP, as these training materials are needed for follow-up training in its co-operative education. In addition, the universities have thousands of students who can potentially be developed into co-

⁴⁰⁹ Nasution, 1999, p. 32. This failure was caused by DEKOPIN not being able to place itself parallel to the government. DEKOPIN still relies on the initiative and the provision of facilities by the government.

operative leaders, while LAPENKOP has a co-operative network of trainers throughout Indonesia. Figure 9.3 explains the different potential of universities and LAPENKOP.

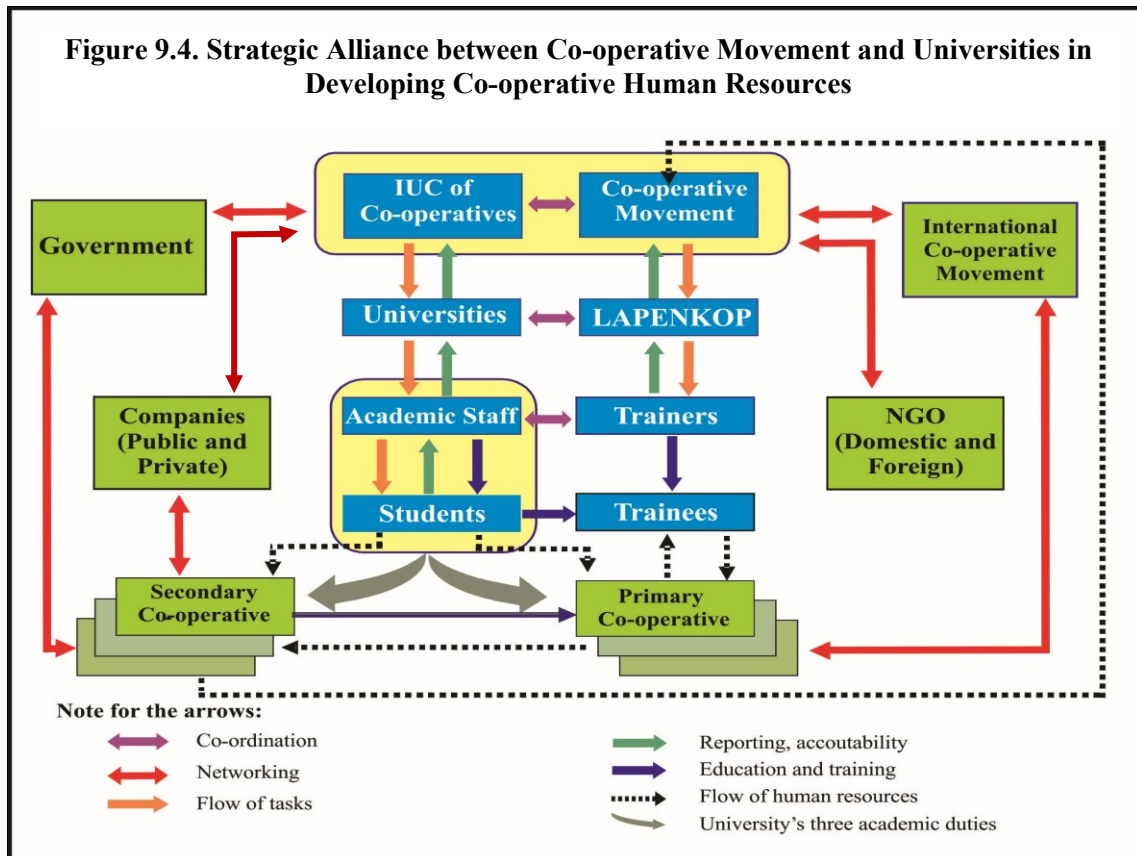


Source: Author's own depiction, 2003

Furthermore, Figure 9.4 is a graphic which describes how synergy between the IUCC and the co-operative movement can be a force to complement and enhance the performance of CET programs. This synergy is expected to increase the effectiveness of CET in Indonesia. Currently, there are a large number of people who need to improve their understanding and confidence in co-operatives, as well as their business knowledge and skills. Among them are those who have already involved themselves in co-operative institutions, as well as those educated people who have the potential to contribute to co-operative development. The weaknesses of universities in producing co-operative cadres will be compensated by the training series provided by LAPENKOP. On the contrary, the weakness of LAPENKOP in its infrastructure and expertise of agribusiness technology can be covered by the potency of the universities.

Open communication between universities and the co-operative movement will facilitate universities in involving the practitioners of co-operatives in co-operative education. Besides this, it will also facilitate universities in the implementation of practice activities (such as: case studies and comparative study, apprenticeships, field work, etc.), which will greatly support the effectiveness of co-operative education. Beside improving the CET program, synergy between the IUCC and the co-operative movement can achieve many things related to national co-operative development, for example, through: (1) A socialization process of co-operative values and principles; (2) The promotion of co-operative institutions as well as the promotion of co-operative education; (3) Improving co-operative regulations which are less precise and reduce various forms of fraud which utilize co-operative institutions, (4) Perform a variety of innovations in the development of co-operatives; (5) Foster communication and networking with similar institutions from other countries, and so forth.

Figure 9.4. Strategic Alliance between Co-operative Movement and Universities in Developing Co-operative Human Resources



Source: Author's own depiction, 2003

CHAPTER - X

STRATEGY FOR DEVELOPING AGRIBUSINESS CO-OPERATIVES IN INDONESIA

As discussed in Chapter I and Chapter II, the term “agricultural co-operative” fell out of use a long time ago in Indonesia. The use of “KUD” has replaced the term “agricultural co-operative”. However, with the issuance of Presidential Decree No. 18 of 1998, in which the KUD (Village Unit Co-operatives) was no longer the only co-operative operating in rural areas, the term “agricultural co-operative” has begun to re-emerge. This is particularly related to the propensity for the development of the agricultural sector in the direction of the agribusiness sector. This chapter will discuss alternative strategies for developing co-operative agribusiness, those in which the scope of agribusiness co-operatives becomes more widespread in the effort to increase the effectiveness, efficiency, productivity and sustainability of agribusiness, while employing an integrated systems approach.

Based on the study findings discussed in Chapters IV, V and VI, some lessons can be drawn upon to formulate alternative strategies for developing agribusiness co-operatives in Indonesia. Basically there are two approaches for the development of agribusiness co-operatives in Indonesia today, namely: (1) the development of existing agribusiness co-operatives; and (2) the development of new agribusiness co-operatives. Both of these approaches will be discussed with reference to the cases of milk agribusiness and dairy co-operatives researched in this study.

10.1. Strategy for Developing Existing Agribusiness Co-operatives

Strategies to develop the existing agribusiness co-operatives should be a priority. This is because those agribusiness co-operatives have been running, and have members who certainly greatly hope that their welfare will increase through their co-operatives, and already have business opportunities, although these are not yet optimally utilized.

The establishment of co-operative typology into four quadrants, as discussed in Chapter V, will be the basis of strategic formulation for the development of the existing co-operatives. This means that, before formulating a strategy, the typology of co-operatives as based on their performance must first be made. In addition to this, there must be a willingness to co-operate among agribusiness co-operatives, so that they can develop in tandem. Table 10.1 describes some strategies that can be used in the development of the existing co-operatives.

Table 10.1. Alternative Strategies for Developing Existing Agribusiness Co-operatives

Alternative Strategies	Quadrant-I	Quadrant-II	Quadrant-III	Quadrant-IV
Benchmarking Strategy	<ul style="list-style-type: none"> ➤ To the Quadrant-I co-operatives with better CDI. ➤ Functional benchmarking to other kinds of co-operatives 	<ul style="list-style-type: none"> ➤ To Quadrant-I and IV 	<ul style="list-style-type: none"> ➤ To Quadrant-I and IV 	<ul style="list-style-type: none"> ➤ To Quadrant-I and II
Strategy for Business Development	<ul style="list-style-type: none"> ➤ Agribusiness product (and by-product) development towards differentiation and low-cost products ➤ Agribusiness market development ➤ Establishing specific business networks among co-operatives as well as with private companies ➤ Outsourcing for advancing appropriate technology ➤ Implementing TQM for agribusiness co-operatives 	<ul style="list-style-type: none"> ➤ Agribusiness product (and by-product) development towards differentiation of products ➤ Agribusiness market development 	<ul style="list-style-type: none"> ➤ Determining core business ➤ Building a clear business plan ➤ Market development by focus strategy 	<ul style="list-style-type: none"> ➤ Determining core business ➤ Building a clear business plan ➤ Market development by focus strategy
Strategy for Organizational Development	<ul style="list-style-type: none"> ➤ Strategic alliance for institutional development (federation and networking) ➤ Developing a co-operative training model ➤ Strategic alliance for more effective co-operative education 	<ul style="list-style-type: none"> ➤ Organizational development toward System-4 ➤ Member education towards enhancing control system 	<ul style="list-style-type: none"> ➤ Organizational development toward System-4 	
Strategy for Leadership Development	<ul style="list-style-type: none"> ➤ Regeneration of PCL from internal as well as external sources 	<ul style="list-style-type: none"> ➤ Strengthening primary co-operative leaders (PCL) 	<ul style="list-style-type: none"> ➤ Injection PCL-CE 	<ul style="list-style-type: none"> ➤ Strengthening managerial skills (SCL)
Other Strategies	<ul style="list-style-type: none"> ➤ Building a franchising system for new agribusiness co-operatives ➤ Promotor for better co-operative organization 		<ul style="list-style-type: none"> ➤ Franchising ➤ Merger ➤ Liquidation 	<ul style="list-style-type: none"> ➤ Franchising ➤ Merger

10.1.1. Benchmarking Strategy

The benchmarking process aims to compare the performance of co-operatives with better-performing co-operatives, in order to improve their efficiency and effectiveness of learning, as well as to accelerate the needed improvement processes. The result of the benchmarking process among the typology of dairy co-operatives

shows there are several variables that are significantly different, indicating the need for improvement.⁴¹⁰

The co-operatives in Quadrant-I can benchmark their processes against other co-operatives which have higher CDI levels. In addition to this, it is necessary to perform functional benchmarking against other agribusiness co-operatives or even against other non-agribusiness co-operatives, both domestically and internationally. If there is any chance to conduct a comparative study against agribusiness co-operatives with outstanding performance, then the involvement of the co-operative leaders of Quadrant-I needs to be prioritized.

The co-operatives in Quadrant-II can benchmark against Quadrant-I co-operatives in terms of improving the quality of their organizational performance. Even the Quadrant-II co-operatives may also benchmark against co-operatives in Quadrant-IV, which have relatively better performance in organizational aspects. In the same way, the co-operatives in Quadrant-IV can benchmark against those in Quadrant-I in terms of improving the quality of their business performance. Even the Quadrant-IV co-operatives may also benchmark against co-operatives in Quadrant-II, which have relatively better performance in business aspects.

Meanwhile, the co-operatives in Quadrant-III can benchmark against Quadrant-I co-operatives in terms of improving their performance for both business as well as organizational aspects. For some matters, the Quadrant-III co-operatives may benchmark against co-operatives in Quadrant-IV in order to first improve their organizational performance before improving their business aspects. It is necessary to do this, due to the findings of this study, which indicate that the success of organizational performance is the foundation of success in other aspects.

10.1.2. Strategy for Business Development

There are different priorities for business development for co-operatives in each quadrant. This is due to the differences in potential and the problems faced by each type of co-operative. Understandably, the co-operatives in Quadrant-I have more of a chance to develop varied strategies which are expansive and related to networking with external groups. Meanwhile, it will be appropriate for the co-operatives in Quadrant-III to develop their defensive strategy and matters related to internal consolidation. The form of their respective business development also varies, in which it is possible for co-operatives in Quadrant-I to aim for differentiated business. To the contrary, it is better for those in Quadrant-III to have business which is more focused.⁴¹¹

⁴¹⁰ Refer to Chapter V, Sub-chapter 5.4.

⁴¹¹ Porter, 1980, pp. 35-39. Porter develops three generic strategies for industry to face competition, namely: (1) low-cost leadership strategy, (2) differentiation strategy, and (3) focus strategy. These strategies are determined by the growth and size of the market.

1) Business Development for Quadrant-I and II Co-operatives

The development of the business aspects of Quadrant-I and II co-operatives will be carried out in accordance with their own potentials and problems. This is because, even though each has the same advantages in the business aspect, not all strategies that are good for co-operatives in Quadrant-I are also appropriate for those in Quadrant-II. This is related to the cautious attitude towards the possibility of misdirected business development, which could eliminate the character of the co-operative as a unique organization.

a. Differentiation and Low-Cost Product Development

Like the co-operatives in Quadrant-I, the co-operatives in Quadrant-II need to conduct a strategy of differentiation for developing their agribusiness products (as well as for agribusiness by-products); however, a low-cost strategy does not apply here. Product differentiation enables the emergence of innovation towards the development of various new products with more utilities and a better selling price in the market. The capability of co-operatives in Quadrant-I and Quadrant-II in business aspects enables them to perform innovative breakthroughs in developing such product differentiation. In addition to the ability to penetrate the market, the use of technology and the availability of human resources are also due to their relatively healthy financial condition, which can support various needed investments.

To the contrary, it is not recommended that co-operatives in Quadrant-II develop products by implementing a low-cost strategy. This is based on the consideration that co-operatives in Quadrant-II have weaknesses in organizational aspects, so there is concern that the development of low-cost products will only lead to exploitative acts by members regarding their own resources. The same basic consideration is made regarding the business network development strategy, to outsource appropriate and advanced technology, as well as a Total Quality Management (TQM) implementation strategy for developing agribusiness co-operatives. By implementing a differentiation strategy it is expected that the uniqueness of co-operative organization will not be ignored during the drive to develop co-operative business.

In the context of the development of product differentiation, it is necessary to build harmonious co-operation among all co-operatives in Quadrants I and II, so there will not be any cannibalization process among them. To the contrary, this is expected to create a synergistic power among them. This is based on the consideration that there is a limited market demand during the initial stages of product differentiation, so there is a need to expand the coverage area of the marketing, which could encroach upon the working areas of other co-operatives. Ideally, each co-operative differentiates its products from the others. In other words, there is a differentiation focus.⁴¹² The studies on thirty dairy co-operatives indicated a product differentiation development trend with

⁴¹² Cf. Porter, *ibid*; Herindajanto, 1999, pp. 39-40.

the manufacture of pasteurized milk in cups. However, there is emerging high competition in the marketing, because several neighboring co-operatives are producing the same product. Ideally, neighboring co-operatives are not all producing pasteurized milk products, but develop other product such as: cheese, yoghurt, milk candy, tofu milk, milk crackers, and others.

b. Market Development

The development of this market can be a market expansion as related to the previous strategy, namely to reach a wider area or more market segments (horizontal development). This also means strengthening the co-operative's bargaining position for price determination (vertical development). It is expected that co-operatives in Quadrants I and II can drive this market development, especially for vertical market development. This need is due to the fact that it rarely occurs that secondary co-operatives actively fight for improving the bargaining position of farmers as well as primary co-operatives in the market.⁴¹³

c. Specific Business Networking

Co-operation among co-operatives in the development of specific business needs to be pioneered and developed by the co-operatives in Quadrant-I. This allows for the mobility of resources in the development of product differentiation and low-cost products, or in developing products needed by members of co-operatives.

There are many forms of product differentiation where the raw materials are produced by members, or are production waste. So it often happens that economies of scale are not achieved due to the small amount of raw materials available in a working area of a co-operative. For example, the manufacture of high-quality animal feed needed various kinds of raw materials in rather large amounts. This will be difficult and expensive if they only rely on the potential of raw materials in the region of the dairy co-operative.⁴¹⁴

d. Outsourcing Advanced and Appropriate Technology

This strategy is highly related to the development of the agribusiness system. Nevertheless, in this case it should be adjusted to the characteristics and mission of the co-operative institution. Consequently, the chosen technology should increase the

⁴¹³ As described in Chapter IV, the KPBS (Dairy Co-operative of South Bandung) and several large dairy co-operatives had become pioneers in establishing the GKSI (Union of Indonesian Dairy Co-operatives = the Secondary Dairy Co-operative at National Level). Since then, dairy agribusiness in Indonesia could be rapidly developed.

⁴¹⁴ Cf. Baga, 1999, p. 23. There are some examples related to this issue, such as the case of the animal feed industry in the District of Garut, and the case of fish powder industry that uses inedible fish as raw material in the District of Subang. In both cases the raw materials must be imported from outside of the co-operative region. For the case in Subang, the raw material of inedible fish must be collected from all regions of KUDs in Subang, and even from other districts along the northern coast of Java island, even including from outside of Java.

relationship between co-operative business and the members' business.⁴¹⁵ It seems that the choice for a labor-intensive technology in the agro-industrial activities is more suitable with the interests of the Indonesian rural community, compared to a capital-intensive technology.

e. Application of TQM

The application of TQM for co-operative organization should be contrasted with its developed in private companies, which are mainly profit-oriented. The application of TQM needs to be accompanied by added social value, namely the application of co-operative values and objectives. Davis (1999) called it World Class Co-operative Quality (WCCQ).⁴¹⁶ Therefore, the application of WCCQ should be developed by co-operatives in Quadrant-I, while building a co-operative quality development model, which in turn would be very beneficial lessons to be learned by other co-operatives.

2) Business Development for Quadrant-III and IV Co-operatives

The Quadrant-III and IV co-operatives can carry out a relatively similar strategy for business development. Both types of co-operatives have relatively similar problems in business aspects, necessitating a defensive strategy to achieve co-operative internal consolidation. Although the type of strategy developed is relatively the same, it is expected that co-operatives in Quadrant-IV will grow easier due to having a more solid organizational basis than co-operatives in Quadrant-III.

a. Development of Core Business

The co-operatives in Quadrant-III and IV need to carry out a portfolio analysis on their business units. The portfolio analysis would be related to the internal and external condition of the co-operatives.⁴¹⁷ This can distinguish which business units have relatively good growth potential. The results of the portfolio analysis may direct co-operatives to develop a core business unit, thus making it possible to have a focus in the use of resources owned by a co-operative.⁴¹⁸

b. Creating A Business Plan

Development of core business goes hand-in-hand with the development of a clear co-operative business plan. As a result, boards, employees and even members can

⁴¹⁵ Prakash, 1998, p. 24. In an effort to enhance the competitive advantage of co-operative business, the selection of technology must be adapted to the characteristics of the value chain activities that exist in the co-operative. Porter (1985) states that the availability of appropriate technology is one of the support activities that may improve value chain performance of a business organization.

⁴¹⁶ See Davis, 1999, p. 93.

⁴¹⁷ For example by using the BCG Matrix approach. See further Mintzberg, Ahlstrand and Lampel, 1998, pp. 94-97. Johnson and Scholes, 1989, pp. 104-106.

⁴¹⁸ Cf. Wibowo, 1997, pp. 76-77.

understand which direction and in what capacity co-operative businesses will be run.⁴¹⁹ Especially for co-operatives in Quadrant-III, the preparation of the business plan will help co-operative leaders in formulating various activities and the business mechanism of the co-operative, so that it will always be associated with the business and interests of the members.

c. Market Development Towards Focus Strategy

This strategy focuses on products produced and the intended market segment. In this case, the KUD of Cilawu can be an example, where its milk products are only sold to one buyer of the MPI (milk processing industry). This strategy is not based on a monopolistic MPI, but is in the context of mutually beneficial co-operation between the two institutions. The MPI must also pay attention to the development of milk production as well as the human resources of KUD Cilawu. As a result, even though it is not large in terms of business volume, in terms of the productivity aspect of the cows it has relatively high performance among the surveyed dairy co-operatives.⁴²⁰

10.1.3. Strategies for Organizational Development

a. Organizational Development Towards System-4

The co-operatives in Quadrant-II and Quadrant-III, in particular, need to develop a strategy related to organizational development towards System-4. As has been discussed in Chapter V, the character of Organization System-4 is relatively closer to the nature of organizations such as co-operatives. In the case of the thirty dairy co-operatives, it was found that the performance of co-operatives in Quadrant-I was significantly different from its counterparts in the aspects of decision-making, goal setting and leadership processes.⁴²¹

b. Member Education

Members of Quadrant-II co-operatives especially need to develop a control system. This includes education for members that motivates and increases their awareness regarding the importance of member-based control in achieving co-operative success.

c. Strategic Alliance Towards Institutional Development

In terms of organizational development, the Quadrant-I co-operatives are expected to play a significant role not only related to their own interests, but also for the interests of the development of agribusiness co-operatives as a whole. This role is related to the development of co-operation among organizations, both among similar co-

⁴¹⁹ Cf. Kuratko and Hodgets, 1989, pp. 299-303.

⁴²⁰ See again Chapter V, Sub-chapter 5.2.1 regarding to the productivity of lactation cows.

⁴²¹ See again Chapter V, Sub-chapter 5.3.

operatives in establishing the secondary co-operatives (vertical integration),⁴²² and with other co-operative or other institutions (horizontal integration) in developing a more solid agribusiness system.⁴²³ The role of the KPBS (Dairy Co-operative of South Bandung) in initiating the development of GKSI (Union of Indonesian Dairy Co-operative) could serve as an example of this strategy.⁴²⁴

d. The Co-operative Training Model

The co-operatives in Quadrant-I are expected to be able to develop a training model for similar agribusiness co-operatives. This required training course model is not only related to the development of co-operative businesses, but also to the development of co-operative organizations. Development of this training model is specifically related to the method of on-the-job training, as done through various forms of inter-related work interactions. It is expected that the application of this method, on the one hand, will reduce training costs and the need for training facilities; on the other hand, it will not reduce the productivity of co-operatives and even can enhance the solidity of work between superiors and subordinates. Furthermore, the co-operatives in Quadrant-I are also expected to take the initiative and play an important role in starting and developing a synergic co-operation with other CET (co-operative education and training) institutions, particularly with universities, in order to conduct CET programs which are highly effective, efficient and productive.

10.1.4. Strategies for Leadership Development

Strategies for leadership development need to be given specific attention in the context of the development of agribusiness co-operatives in Indonesia. This study indicates that the leadership variable obtains the highest eigenvectors compared to other variables.⁴²⁵ This indicates that improvement of the leadership aspect will provide a tremendous impact on the development of co-operatives. Therefore, the leadership aspect is particularly relevant to efforts to revitalize the KUD to be a strong agribusiness co-operative.

Nevertheless, leadership development strategies need to be carried out in different ways for co-operatives in different quadrants. In particular for co-operative in

⁴²² Cf. Parnell, 1999, p. 284. The second or third level of co-operatives should not be encouraged until the primary co-operatives are firmly established. Thus it is reasonable if the vertical integration of co-operatives should be initiated by the Quadrant-I co-operatives.

⁴²³ For an explanation about vertical and horizontal integration of co-operative, see Chukwu, 1990, pp. 108-117.

⁴²⁴ See again Chapter IV related to the history of the dairy co-operative in Indonesia.

⁴²⁵ See again Chapter V, Sub-chapter 5.3.2 regarding to the group variable of the board of directors as the highest eigenvectors among measured organizational variables (Figure 5.4 and Table 5.10). In addition to this, Table 5.19 indicates the important of the BOD (Board of Directors) and the chairman of the BOD in terms of the success of co-operatives in Quadrant-I.

Quadrant-I, a leadership development strategy is needed for the development of cadres of primary co-operative leaders. This is due to several considerations:

- 1) In order to maintain the performance of Quadrant-I co-operatives, so that they do not decline due to the failure of the leadership succession process.⁴²⁶
- 2) Co-operatives in Quadrant-I are often visited by students for the purposes of co-operative teaching, field study, apprenticeship or student research related to the final assignment of their studies at the university. Visiting co-operatives can be a very good chance for the students to directly learn about the advantages of various aspects of co-operative institutions. It is equally important to make an effort to transfer motivation and co-operative ideals to the young people in order to raise their interest and motivation towards participating in the development of co-operative institutions.

For co-operatives in Quadrant-II, leadership development strategies should be directed to proactively prevent the occurrence of a process of *managerialism*⁴²⁷ in which the growth of co-operatives is only oriented towards business development. In other words, the process of developing strong PCL (primary co-operative leaders) is needed for Quadrant-II co-operatives.

In contrast, the Quadrant-IV co-operatives need a strategy for developing SCL (managerial skills) in order to better manage their business. Meanwhile, leadership is a very difficult and dilemmatic problem for co-operatives in Quadrant-III. A strategy which could be suggested for co-operatives in Quadrant-III is to assign an external PCL who functions as catalyst for the co-operative entrepreneur. The PCL assigned preferably comes from a similar type of co-operative, particularly from co-operatives in Quadrant-I.

10.1.5. Other Strategies

Some other strategies can be used to develop existing co-operatives, such as promoting the co-operative movement, franchising, and mergers and liquidations of the existing co-operatives.

a. Promoting Co-operatives

In the context of co-operative development of agribusiness in Indonesia, the role of co-operatives in Quadrant-I is required to promote the co-operative movement. This role is very important because, in general, Indonesian people and their leaders still have

⁴²⁶ The leadership succession process at some co-operatives in the sample of this study turned out to be a very critical issue. There was a co-operative that was initially very good, which was led by a great leader for decades, but after the replacement of the leadership in the co-operative there was a visibly drastic deterioration of performance. This performance degradation started with the performance of the organization, followed by the decline of the co-operative's business performance (see again Subchapter 5.3; the third lesson learned).

⁴²⁷ See Davis, 1999, p. 19.

a low opinion about co-operative institutions. Co-operative promotion cannot be done by the co-operatives in Quadrant-I alone. It should be a collective program of co-operative movement, in which Quadrant-I co-operatives take lead, like a locomotive of a train. The promotion strategy should be also supported by other institutions, such as education and media institutions.⁴²⁸

b. Franchising

The Quadrant-I co-operatives could establish a franchising system in order to develop an excellent business unit in a co-operative, one that could be duplicated by other co-operatives, both by the existing co-operatives as well as by the new ones.⁴²⁹ If the Quadrant-I co-operative becomes the franchiser, Quadrant-III co-operatives and probably Quadrant-IV co-operatives can become franchisees, by which their business performance can be improved in a relatively short learning process.

c. Merger

In certain conditions, it may be suggested for co-operatives in Quadrant-III as well as Quadrant-IV to perform an amalgamation (merger) with co-operatives in Quadrant-I, either in the sense of an amalgamation of the organization of the co-operative as a whole, or a merger of a business unit. The merger of this business unit is required to achieve an economy of scale associated with increasing business efficiency, opening a wider market, reducing transaction costs, and avoiding business cannibalization among similar co-operative institutions.

d. Liquidation

Particularly for the co-operatives in Quadrant-III, in which the condition of the co-operative is very poor, there is the possibility to carry out liquidation.⁴³⁰ This would apply to very bad financial conditions which are difficult to improve through any means. This may also be done for co-operatives whose organizational process has deviated from co-operative values and principles. There is, of course, difficulty to implement this strategy, as it cannot be carried out by the co-operative itself, but must be established in the national co-operative system in the form of regulations. The protective attitude towards the Quadrant-III co-operatives which are in a very bad condition will lead to a negative image, which will have a negative effect on promoting the co-operative movement as a whole.⁴³¹

⁴²⁸ See Mutis, 1992, p. 91, referring to the success of a co-operative in Japan being inseparable from the promotion support played by a Co-operative Newspaper, called *Nihon Nogyo Shimbun*, with a circulation of 500,000 copies.

⁴²⁹ Cf. Parnell, 1999, pp. 298-299.

⁴³⁰ Cf. Vilstrup, Cobia and Cropp, 1989, pp. 392-394.

⁴³¹ This takes place in a KUD which is protected by the government, even though the co-operative is in a seriously weak condition and is difficult to be developed. Co-operative Law No.25/1992 is not accompanied by an audit system that enables the liquidation process for the co-operative institution.

10.2. Alternative Strategies for Developing New Agribusiness Co-Operatives

The establishment of new agribusiness co-operatives could be in the form of: (1) shifting of KUD business orientation; (2) separation of an autonomous business unit; (3) amalgamation of several KUDs into a new agribusiness co-operative; (4) franchising, and; (5) Innovative action of co-operative entrepreneurs in establishing new agribusiness co-operatives. Nevertheless, all of these strategies can be more effectively implemented if these are associated with the role played by co-operative entrepreneurs.

a. Shifting of KUD Business Orientation

A KUD that has many constraints in performing multi-purpose functions and multi-business units needs to reorient its business to the development of a core business.⁴³² Selection of a core business can be based on the consideration that: (1) such a commodity is supported by the availability of a plentiful amount of suitable resources in the region of the co-operatives; (2) There are many local farmers who are involved in producing such commodities, in the sense that farmers already have skill in this business; (3) Said commodity has a comparative advantage and even more competitive advantage if it is developed jointly among the farmers through a co-operative; and (4) The co-operative has the competency to develop such business.

The development of the core business must be preceded by the preparation of a feasibility study of the various potential business alternatives. This should be followed by the preparation of a business plan for the type of business selected. The business plan becomes very important for co-operatives, because in it various business operating steps that strongly involve the members can be well-planned ahead of time. This can avoid co-operatives from becoming trapped in a business which is only feasible in terms of economic and financial aspects, but has no relationship with the interest of members.

b. Spin-Off an Autonomous Business Unit

The development of a new agribusiness co-operative is also possible by separation (spinning-off) an autonomous business unit of a KUD to be an independent single-purpose co-operative. The application of this strategy can make a KUD act as an incubation center for ushering in the creation of various single purpose co-operatives. The incubator KUD should, of course, be a well-qualified KUD (such as several KUDs in Quadrant-I), so that the process of releasing a business unit to be a new co-operative will not be based on compulsion, but on the dynamic calculation of the optimal usage of available opportunities in terms of improving the benefits for members.

The application of this strategy may also enable the acceleration of the development process of PCL compared to the establishment of a single-purpose co-operative that starts from scratch. This strategy is suitable for KUDs in the regions that

⁴³² Cf. Wibowo, 1997, p. 77.

have potential in various agribusiness commodities. For example, in the Province of North Sulawesi, in addition to the clove commodity, there is also a huge potential for coconuts, nutmeg, vanilla, and pepper. Similarly in North Sumatra, there are many potential commodities, such as rubber, coconut, coffee, and tobacco. The demand for the establishment of single purpose co-operatives is related to the development of the agro-industry, as well as the marketing of specific commodities.

c. Merger of Several KUDs

The amalgamation of several KUDs can be a merger of several co-operatives, or a merger of similar business units of several co-operatives, into one agribusiness co-operatives with a new name. This merger is made possible due to the demand to expand the economy of scale, or because a KUD is no longer isolated from the others.⁴³³ The historical formation of co-operatives, which was location-based, could be suitable for a multi-purpose co-operative.⁴³⁴ However, it will not be suitable if a KUD will concentrate on only handling one advantageous commodity in a working area where economies of scale will not be achieved. Under such conditions, a merger is an appropriate alternative strategy to be implemented.⁴³⁵

d. Franchising

A franchising system needs to be developed as a strategy of establishing new agribusiness co-operatives in new regions. As has been discussed previously, the Master Franchise co-operatives should be from Quadrant-I co-operatives. The franchising system developed is not only limited to the context of business unit development, but also in regards to developing a co-operative organizational system in an integrated manner. As a result of this, it will be easier for the franchisee to develop similar co-operatives in other regions.

The franchising system has benefits for the development of small and medium-sized enterprises as well as co-operatives.⁴³⁶ However, this strategy is quite unfamiliar in the development of agribusiness co-operatives in Indonesia. In particular, this strategy is very important for Indonesian people because many Indonesians still do not understand the mechanism of co-operatives as unique business organizations. Additionally, this strategy is very important because potential agribusiness commodities are scattered in various provinces throughout Indonesia, requiring a faster way to be optimally utilized for the benefit of the people.

⁴³³ Cf. Vilstrup, Cobia and Ingalsbe, 1989, p. 362.

⁴³⁴ The initial concept of the KUD includes an area of 600-1,000 hectares, which comprise one or several villages.

⁴³⁵ Cf. Vilstrup, Cobia and Ingalsbe, *ibid.* The merger strategy is also related to an effort to avoid competition among co-operatives in similar markets, and to reduce the duplication of unnecessary equipment and activities. Meanwhile, the general procedure of merger implementation among co-operatives is explained by, for instance, Vilstrup, Cobia and Cropp, 1989, pp. 385-388.

⁴³⁶ Cf. Parnell, 1999, pp. 298-299.

e. Innovative Action of Co-operative Entrepreneurs

Based on the type and level of their education, the CEs (co-operative entrepreneurs) are supposed to be able to make innovations in terms of spotting co-operative opportunities in the agribusiness sector. Such innovations are related to product development as well as innovative approaches in establishing a co-operative.⁴³⁷ From the experience of establishing dairy co-operatives in Indonesia, several large co-operatives were initiated by veterinarians who saw co-operative opportunities in their region. Due to their veterinary education background, they understood what could and should collectively be done in developing the dairy business to help dairy farmers.

It is expected that the CEs will emerge from universities on account of the improvement of co-operative education at universities.⁴³⁸ Various innovations will certainly be strongly related to the mastery of the field of expertise. For example, graduates of the Fishery Faculty will be more able to innovate in the development of fishery co-operatives or shrimp co-operatives. Likewise, graduates of Agricultural Technology will be better able to innovate in agro-industrial development for fruit or vegetable co-operatives, and so on.

The emergence of CEs with higher education backgrounds will accelerate the growth of agribusiness co-operatives. With the mastery of the problems needing the requisite specific expertise, certainly the alumni of these universities will have a clearer vision regarding which direction such agribusiness co-operatives should be developed (effectiveness issue). Besides this, they also understand and probably have properly mastered the technology needed (efficiency issue) to achieve the co-operative's purposes. Mastery of these two issues (effectiveness and efficiency) by the CEs will lead to great savings for the co-operative movement with regard to the time and cost of the education and training needed.

⁴³⁷ Cf. Ingalsbe, 1989, pp. 369-380. Initial consideration is mentioned here in the development of the agricultural co-operative and the stages of its development, as well as several important issues which need to be considered.

⁴³⁸ This has been discussed in depth in Chapter VII and Chapter VIII.

CHAPTER – XI

CONCLUSIONS AND RECOMMENDATIONS

11.1. Conclusions

This study is related to the issues of co-operative entrepreneurs, which in particular in Indonesia are still in the early stages of development. This study was conducted to answer the four research objectives as expressed in Chapter I. Several conclusions can be drawn from this research in regards to said four objectives.

11.1.1. The Performance of Agribusiness Co-operatives

- 1) Although Indonesia has enormous agribusiness resources, this sector has not been developed well to strengthen economic development. In fact, this sector seems neglected. The low quality of human resources among Indonesian farmers is one serious problem that requires attention. This is related to the low quality of their education and skills, limited capital and small land ownership, as well as low entrepreneurship ability. These problems result in not only a low contribution from the agribusiness sector towards the national economy, but in turn negatively impact farmers' welfare. Therefore, efforts to develop the agribusiness sector must firstly be pursued through institutional development which is oriented towards the economic and social development of farmers. The institutional form considered to be suitable for such development is the co-operative. This is because, on one hand, the co-operative is an institution mandated in the Indonesian Constitution. On the other hand, co-operative institutions have demonstrated their ability to play a significant role in the development of agribusiness in other countries. The problem is, Indonesia is still in the early stages of looking for an effective means of co-operative development.
- 2) The development of an integrated agribusiness system from downstream to upstream sub-systems, coupled with its supporting sub-systems, could be carried out by farmers, if only they were able to unite themselves through co-operative institutions. Such development can be seen in the development of the dairy agribusiness in Indonesia. Even though milk is a not a commodity which is suitable for a tropical region such as Indonesia, the co-operative movement enabled the dairy agribusiness to reach its golden period in Indonesia. This golden age is marked by a significant increase in milk production as well as creating new employment opportunities. The interests of farmers could be advocated through a co-operative movement. Similarly, the business environment, which is often not favorable for farmers, could be improved by endeavoring to gain the support of various parties, including the government.

- 3) One main factor in the successful development of dairy co-operatives in Indonesia was the presence of highly educated people concerned about developing co-operatives in rural areas, namely veterinarians. They fill the agribusiness leadership vacuum in rural areas by taking the role of co-operative leaders-entrepreneurs. They were instrumental in creating innovative breakthroughs related to aspects of the application of technology, market development and institutional development. Unfortunately, the presence of veterinarians in rural areas was due to chance factors (not by design), and the success which has been achieved has not run on an ongoing basis due to the lack of the regeneration of leadership.
- 4) The dairy co-operative is a type of co-operative in Indonesia which developed into two types, namely the type of KUD which was established by a top-down policy of government and the type of Non-KUD which was established by dairy farmers. Results showed that average KUD business performance was lower compared to Non-KUD. This might have been due to the fact that KUDs were relatively recently established, and do not focus on managing business aspects. However, after the 1998 crisis, government intervention in the KUD has been greatly reduced, and the development of KUD became more related to the potential of the rural economy. In contrast, the performance of those KUD in organizational aspects was no worse than in the Non-KUD. Even in many aspects they fared better, as in the implementation of co-operative principles and the process of organization. This led to a positive belief that, although the KUD was initially developed by a top-down approach, by the end of the KUD's officialization process in 1988, the KUD possessed great potential to be developed into agribusiness co-operatives which can play a major role in efforts to improve the welfare of their members.
- 5) Through the PCA (Principle Component Analysis) several determinant variables were obtained which can be used as key success indicators for dairy co-operatives. For the business aspects, several determinant variables are: (1) Total Sales and Total Expenses, and the growth of both variables; (2) Total business turnover, particularly for feed and milk units, along with their total growth; (3) The number of matured cows and lactation cows; and (4) sales as well as total cost per employee. Several determinant variables of the organizational aspects are: (1) members' acceptance to the BOD as well as the activeness of the chairman; (2) the 2nd and the 7th principles of co-operatives, namely democratic member control and concern for community; (3) interaction of members with co-operative businesses and the number of employees; (4) frequency of external visits; and (5) controlling process as well as interaction and influence processes in organizations. These variables have the largest eigenvector from the result of processing data for each group of variables. By giving more attention to the development these determinant variables, it could be expected that dairy co-operatives would grow more rapidly and co-operative performance would be much improved.

- 6) By combining the business index and the organization index, a typology of dairy co-operatives could be constructed. Interestingly, that trend line of 30 sample dairy co-operatives in the four quadrants shows the exponential form. This indicates that co-operative development requires the consolidation of organizations before any further business expansion is carried out. Of the ten co-operatives located in Quadrant-I, there are three Non-KUDs that have been developed well in both their business and organizational aspects. The rest are mostly KUDs that are located adjacent to the abscissa line, which indicates that these six KUDs are relatively solid in organizational aspects and are ready to expand their businesses. This phenomenon has re-affirmed that the development of co-operative organizational aspects is very important and needs to be prioritized in order to build a strong foundation for the development of co-operatives as a whole.
- 7) The acceptance of members to boards of directors, especially as the chairmen of the boards, is the cornerstone in the organizational development of agribusiness co-operatives. Even the members are not concerned about how long a person sits as the chairman of their co-operative, as long as the person has the capability and necessary to lead them. Similarly, members do not care whether the chairman is working full-time or part-time in the co-operative, as long as the chairman is able to develop the co-operative in accordance with the needs of the members. On top of this, several phenomena were encountered which indicate that the succession process of the chairmen of co-operatives is a critical factor that greatly affects the performance of co-operatives. This indicates that there have been shortages of agribusiness leaders in rural areas, a problem which needs to be overcome. By presenting the CE in rural areas, it is expected that agribusiness potential can be developed through the rise of agribusiness co-operatives.
- 8) The evaluation of co-operative performance needs to be done to determine whether co-operative development has been directed towards the desired level of success. CDI is a method that can be used to objectively measure the success level of co-operatives. CDI also shows the relative success of a co-operative compared to other similar co-operatives, by considering both the business and organizational aspects of the co-operatives. Even though Non-KUD, in general, are large co-operatives and have actively been running for a long time before the emergence of the KUD, the evidence suggests that among the ten best co-operatives there are only four Non-KUDs, while the other six best co-operatives are KUDs. The results of this study confirm that the co-operatives can also progress well, despite being initially established by the government, as long as they have co-operative leaders who are also co-operative entrepreneurs, as this results in a co-operative becoming independent and not reliant upon the government.

11.1.2. The Performance of Co-operative Leaders

- 1) The good performance of co-operatives, in fact, is not related to the formal educational background of co-operative leaders. Similarly, it is not related to the variety of co-operative training they have participated in. This phenomenon indicates that the ability of co-operative leaders is obtained naturally based on their working experience in co-operative institutions. This indicates that the effectiveness of existing CET (co-operative education and training) programs is still very low. Therefore, the effectiveness of CET program needs to be improved; otherwise, the development of agribusiness co-operatives in Indonesia will still be very slow.
- 2) The typology of co-operatives shows that there were ten co-operatives in Quadrant-III. Based on the results of comparative analysis among Quadrants, it appears that co-operative leaders in Quadrant-III are, generally, relatively low on work experience in co-operative institutions, both in the co-operative in which they are now working, as well as in other co-operatives. In addition to this, this includes the leaders who rarely attended the dairy business and technology training needed for the business development of dairy co-operatives. However, this type of training shows a significant influence on the progress of co-operative business (Quadrant-I and II). Additionally, a review of entrepreneurial character found that co-operative leaders in Quadrant-III ranked lowest in these traits compared to those in other quadrants. These results confirm the need for serious improvements to enhance the quality of co-operative leaders in Quadrant-III. Otherwise, those co-operatives will continue to have marginal performance or even be disbanded.
- 3) This study proves that good dairy co-operatives (in Quadrant-I) are led by co-operative leaders who ever served as co-operative entrepreneurs. Co-operative leaders in Quadrant-I proved to have characteristics that are often attributed to entrepreneurial spirits, namely: (1) the highest scores for internal locus of control; (2) the highest score of n-Ach, while the personal graphs of social motives tends to the ideal form; and (3) tendencies to be moderate risk-takers. These results confirm that entrepreneurial traits of the co-operative leaders will provide positive benefits for the growth of co-operatives. Therefore, strengthening the entrepreneurial character of the co-operative leaders is something essential which needs to be developed in CET programs in Indonesia.

11.1.3. The Performance of Co-operative Education and Training

- 1) CET programs in Indonesia are organized by several institutions, namely: the government, the co-operative movement, universities and NGOs. However, CET programs are still ineffective. This is because each institution runs CET its own program, each of which has its internal problems. The study confirmed that CET programs should be developed by the co-operative movement in synergy with universities. These two institutions exist in all regions of Indonesia, so the

advantages of each institution can complement one another, as well as cover their shortcomings, in order to improve the effectiveness of CET programs.

- 2) Formal education for co-operatives in Indonesia is still not able to produce human resources for co-operative entrepreneurs who are ready to develop agribusiness co-operatives in Indonesia. This was reflected in the opinions of the lecturers and students who were taken as samples for this study. There are three main obstacles in improving the effectiveness of co-operative formal education, namely: unpreparedness of lecturers, lack of teaching references, and unsupported curriculum. The unpreparedness of lecturers is due to having a very small number of faculty members who have educational backgrounds related to co-operatives. Therefore, they need to develop co-operative education for university teaching staff, especially for the masters program. This is because the graduates of master's programs for co-operatives have been seen to be more relevant for the three academic activities (teaching, research and public services) that are closely related to co-operative issues.
- 3) Curriculum development for co-operative education at the university needs to be directed to raise the motivation of students to be ready to work at co-operative institutions. Curriculum improvement needs to be associated with the development of teaching methods, so it can appear more attractive and challenging for students. The results of this study also confirm that the improvement of teaching methods requires the implementation of practical activities, namely those which can bring students closer to the world of co-operatives, so they can better understand the problems and advantages of co-operatives. It is expected that this will motivate them to contribute to the development of co-operatives.

11.1.4. Strategies for Developing Agribusiness Co-operatives

- 1) Strategies to develop the human resources of co-operative entrepreneurs need to be done by relying on three pillars, namely: (1) understanding and confidence in co-operatives, (2) business and technological knowledge/skills, and (3) altruistic leadership skills. Eliminating any one of these pillars will lead to co-operative development which does not coincide with the identity of co-operatives. Towards this end, the materials and methods of CET programs should be formulated in such a way that leads to the resurgence of those three pillars.
- 2) The strategy for developing agribusiness co-operatives in Indonesia can be directed towards the development of existing agribusiness co-operatives and the establishment of new ones. Although the KUD is a co-operative which was established by a government initiative (top-down approach), this study indicates that some KUDs have good performance, and even have started to develop into successful co-operatives. By using a benchmarking strategy, the co-operative development process can be more focused and systematic. In addition to this, there are several other strategies that can be used to develop agribusiness co-operatives.

In any case, the involvement and role of co-operative entrepreneurs is very essential in accelerating the implementation of such strategies.

11.2. Recommendations

- 1) Rather than using a subjective method, it is necessary to implement an objective method in order to measure co-operative performance. The outcome of this could be the basis for the further development of co-operatives. This study has exercised the use of PCA in determining key success indicators, building the typology of co-operatives, as well as creating CDI. The method of Quadrants, which is based on two major aspects of co-operatives (i.e. businesses and organizations), will greatly assist in the development of co-operatives to be more “fit to purpose”. As CDI plots the position of one co-operative relative to the others, its position may change dynamically from time to time. It will be a challenge for co-operative leaders to maintain achievements and even add to them over time.
- 2) Co-operative performance needs to be periodically evaluated. Therefore, a database system of co-operatives needs to be made which could support the annual measurement of co-operative performance. In this way, improvements could also be targeted every year. In addition to this, the evaluator should come from neutral parties, those which have no interest in the evaluation process and its results. The university can play a role as neutral evaluators.
- 3) Co-operative Quadrant-I needs to be encouraged to become the locomotive of the development of similar agribusiness co-operatives. Co-operation among co-operatives as the implementation of the 6th co-operative principle should be initiated by the co-operatives of Quadrant-I, for example, by building secondary co-operatives at the national level. This is because the problems faced by agribusiness co-operatives are not only limited to the scope of their working area in rural areas, but also exist in large cities, especially Jakarta as the government and market center. The co-operative movement should be able to fight on behalf of farmers so that market structure and government policies are favorable to the efforts of improving farmer welfare.
- 4) This study proves that the advanced co-operatives were led by leaders who also had entrepreneurial character. Therefore, the co-operative movement in Indonesia needs to actively socialize and campaign regarding the importance of the role of co-operative entrepreneurs in the development of the nation's economy, particularly in the agribusiness sector. Furthermore, the co-operative movement needs to proactively initiate various forms of synergistic co-operation with other institutions in order to develop programs that accelerate the procurement of CE from various segments of society.
- 5) Development of the three pillars of co-operative entrepreneurs needs to be prioritized for the existing co-operative leaders. Of course, this should take into

account the specific needs of co-operative leaders in different quadrants. For example, for co-operative leaders in Quadrant-IV, development of the second pillar should be emphasized. As for co-operative leaders in Quadrant-II, the first and third pillars need to be strengthened. In addition to this, the development of the three pillars of co-operative entrepreneurs also need to be directed at the leaders existing at other institutions, those who can have renewed interest in developing co-operatives. For this segment, priority should be given to existing leaders in social institutions. Furthermore, the development of co-operative entrepreneurs needs to be focused on the youth, particularly to those who potentially possess all three pillars (for instance, the students of DASES in the Faculty of Agriculture). This will improve the effectiveness and productivity of the implementation of the CET programs, which can overcome the problem of the lack of CE at the present time, and also to meet CE's future regeneration needs. Each of these segments requires the implementation of the CET programs through different methods. Therefore, the co-operative movement, in conjunction with universities, needs to develop these CET programs in an integrated and systematic manner.

- 6) Co-operative lecturers have a strategic position in the creation of co-operative entrepreneurs at universities. Therefore, universities need to improve the competence of their co-operative lecturers. For this purpose, Indonesian universities need to develop a master degree program that is specifically related to the development of co-operatives. Such a program has actually been done by the University of Padjadjaran, in co-operation with the Philipps University, Marburg, Germany, since 1984; however, there is still a great need for competent co-operative educators in Indonesian universities. Developing master degree programs will contribute to the scientific development of co-operatives in Indonesia. There will be more writings about co-operative to enlighten the public, and they will be easier to obtain, so that people can be free from ignorance about co-operatives. On top of this, the graduates of such masters programs will accelerate the growth of activities associated with the development of co-operatives in Indonesia, namely through the implementation of the three mandates of universities (teaching, research and community service).
- 7) Additionally, universities need to develop special recruitment pathways for students who are associated with altruistic leadership talent potential. Recruitment for this particular pathway is to be primarily associated with study programs of agricultural technology and agribusiness development. Furthermore, universities need to network with the co-operative movement, so that universities also have access to channel their alumni to co-operative institutions, especially agribusiness co-operatives. This is because whatever the skill level possessed by the alumni, it will be in vain if they do not have access to work in co-operatives.
- 8) As there are many problems faced by Indonesian universities, in this case the lecturers in implementing effective co-operative education, efforts for the

development of networking among co-operative lecturers is becoming a necessity. In this regard, there is an immediate need to set up an Inter-University Center for Co-operative Development in Indonesia (IIUC). This is consistent with the co-operative philosophy that by working together many problems can be easier solved and the goal can be more rapidly achieved. The IIUC would be a co-operative institution of sorts that serves its members, the co-operative lecturers. With the IIUC, the co-operative lecturers could improve their capacity and competence in carrying out co-operative education, and moreover, could improve the effectiveness and productivity of universities in creating co-operative entrepreneurs, who are needed for economic development in Indonesia.

REFERENCES

- Abdulmanap, Soerowo. 1987. Benang Merah Ajaran dan Konsepsi Ekonomi Bung Hatta; in Swasono, Sri-Edi (Ed.). 1987. Sistem Ekonomi dan Demokrasi Ekonomi. UI Press. Jakarta.
- Akpoghor, Peter S. 1993. Selected Essays on Co-operative Theory and Practice. Marburg Consult for Self-Help Promotion. Marburg. Germany..
- Aksi Agraris Kanisius. 1974. Beternak Sapi Perah. Penerbit Kanisius, Yogyakarta
- Alma, Buchari. 2001. Kewirausahaan. CV Alfabeta. Bandung.
- Amang Beddu. 1997. Tokoh Penggerak Koperasi Indonesia yang Tetap Mengabdikan pada Cita-cita; in Tjokrowinoto et.al. 1997. Membangun Koperasi Sepenuh Hati. LSP2I. Jakarta.
- Anderson, T. W. 1960. A Modification of the Sequential Probability Ratio Test to Reduce the Sample Size. Ann. Math. Statist 31:165-197
- Arifin, Bustanul, 2004; Refleksi dan Pengembangan Agribisnis Indonesia. Agrimedia, Vol. 9 No.1, Maret, pp. 4-11.
- Arifin, Zaenal. 1998. Asia Miracle, Indonesia yang Babak Belur. Wacana, Edisi Khusus 1997-1998.
- Aschhoff, Gunther and Eckart Henningsen, 1996, The German Co-operative System, Its History, Structure and Strength, Fritz Knapp Verlag, Frankfurt.
- Asian Development Outlook, 2001.
- Asian Development Outlook, 1998.
- Asian Development Outlook, 1996.
- Asmin. 2001. Konsep dan Metode Pembelajaran untuk Orang Dewasa. Jurnal Pendidikan dan Kebudayaan Edisi 34. Departemen Pendidikan Nasional. Jakarta.http://www.pdk.go.id/Jurnal/34/konsep_dan_metode_pembelajaran.htm (accessed on 10-04-2003)
- Atkinson, John W. 1974. Motivational Determinant of Risk Taking Behavior; in Atkinson, John W and Norman T Feather (Eds). A Theory of Achievement Motivation. Robert E Krieger Publishing Company, Huntington, New York.
- Atkinson, John W and Norman T Feather (Eds). 1974. A Theory of Achievement Motivation. Robert E Krieger Publishing Company, Huntington, New York.
- Aziz, Iwan Jaya. 1998. Asia's Economic Downturn; Prospect for Reform in Economics and Governance. The Asia Foundation.
- Aziz, M Amin. 1987. Meninjau Kembali Kebijakan Operasional Pengembangan KUD; in Swasono, Sri-Edi (Ed.). 1987. Sistem Ekonomi dan Demokrasi Ekonomi. UI Press. Jakarta.

- Baga, Lukman M, A. Herindajanto, A H Dharmawan, D B Hakim, E. Hartulistiyoso, H Ahmad S and L Abdullah. 1999. Revitalization of Scientists Contribution on Agribusiness Development. Proceeding, the 4th ISSM, 1999. Kassel.
- Baga, Lukman M. 1999. Entrepreneurship Development for Agricultural Co-operatives. Proceeding, the 4th Indonesian Students Scientific Meeting, October 8-9th. Kassel
- Baharsyah, Syarifuddin. 1997. Koperasi sebagai Jembatan Emas Memberdayakan Ekonomi Kerakyatan; in Djohan, Djabaruddin, et.al., (Editors). 1997. Koperasi Indonesia Menghadapi Abad ke-21. DEKOPIN. Jakarta.
- Baharuddin. 1993. Akademi Manajemen Koperasi Sumatera Barat; Usulan Kurikulum Pendidikan/Pelatihan Kewirausahaan Koperasi; in IKOPIN. 1993. Seminar Proceeding on Co-operative Entrepreneurship Education. Philipps University of Marburg – Konrad Adrenauer Stiftung – IKOPIN. Jatinangor
- Baker, Christopher. 1994. Credit Union, World Council of; in Dülfer Eberhard (Editor). 1994. International Handbook of Co-operative Organization. Vandenhoeck & Ruprecht. Göttingen.
- Basith, Abdul. 2005. Pengembangan Agribisnis: Matahari Berselimut Kabut; in Krisnamurthi Bayu (Editor). 2005. Menumbuhkan Ide dan Pemikiran : Pembangunan Sistem Dan Usaha Agribisnis (60 Tahun Bungaran Saragih). Pusat Studi Pembangunan Pertanian dan Pedesaan-LPPM IPB. Bogor.
- Basri, Faisal. 2002. Perekonomian Indonesia: Tantangan dan Harapan Bagi Kebangkitan Indonesia. Erlangga. Jakarta.
- Beierlein, J G, K C Shneeberger, and D D Osburn. 1986. Principles of Agribusiness Management. Prentice-Hall. Englewood Cliffs. New Jersey
- Bergmann, Theodor and Takekazu Ogura (Eds). 1985. Co-operation in World Agriculture; Experiences, Problems and Perspectives. Food and Agriculture Policy Research Centre. Tokyo.
- Biere, A W. 1988. Involvement of Agricultural Economics in Graduate Agribusiness Programs; An Uncomfortable Linkage. Western Journal of Agricultural Economics 13, 128-133.
- Billet, Steephen. 2002. Work place Pedagogic Practices: Co-participation and Learning. British Journal of Education Studies , Vol. 50, No.1. December 2002.
- Bisri, Slamet R (translator). 1995. Koperasi Petani Denmark. LAPENKOP-DEKOPIN. Bandung.
- Bjorn, Claus. 1992. Co-operation in Denmark; Past and Present. Danske Andelselskaber.
- Blümle, Ernst-B. 1985. Methods of Measuring Success and Effect in a Co-operative; in Dülfer and Hamm. 1985. Co-operatives in the Clash between Member Participation, Organisational Development and Bureaucratic Tendencies. Quiller Press. London.
- Bone, Louis E and Donald D Bowen. 1987. The Great Writings in Management and Organizational Behavior, 2nd Ed.. Random House Inc. New York.

- Brazda, Johann and Tode Todev. 1994. Education and Training in Europe, Co-operative; in Dülfer Eberhard. 1994 International Handbook of Co-operative Organizations. Vandenhoeck and Ruprecht. Göttingen.
- Brockhaus, Robert H. 1982. The Psychology of The Entrepreneur; in Kent Celvin A, Donald L Sexton and Karl H Vesper. 1982. Encyclopedia of Entrepreneurship. Prentice-Hall, Inc. Englewood Cliffs, New Jersey.
- Brodjosaputro, Sutomo. 1989. Kurikulum dan Silabus Mata Ajaran Koperasi pada Fakultas Pertanian Institut Pertanian Bogor; in DEKOPIN. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta.
- Brown, Jim and Lydia Baker. 1989. Co-operative Training and Development; Measuring Success. London Co-operative Training. London.
- Budiharjo, Frans. 1988. Hubungan antara Pola Pengambilan Resiko, Motif untuk Berprestasi, Urutan Kelahiran dan Prestasi Akademik Mahasiswa. Skripsi. Fakultas Psikologi UI, Depok.
- Bundschu, Inge. 1995. Ländliche Genossenschaften (Koperasi Unit Desa / KUD) in Indonesies. ZfgG 45, 198-211.
- Carland, James W., Frank Hoy, William R. Boulton, and John Ann C. Carland. 1984. Differentiating Entrepreneurs from Small Business Owners: A Conceptualization, Academy of Management Review, April 1984, 356.
- Chaniago, Adrinof A. 2001. Gagalnya Pembangunan; Kajian Ekonomi Politik terhadap Akar Krisis Indonesia. LP3ES. Jakarta.
- Chell, Elizabeth, Jean Haworth and Sally Brearly. 1991. The Entrepreneurial Personality: Concepts, Cases and Categories. Routledge. London.
- Chourmaen, Imam. 1989. Pembinaan dan Pengembangan Pendidikan Koperasi pada Institut Keguruan dan Ilmu Pendidikan (IKIP) Jakarta in DEKOPIN. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta.
- Chukwu, Samuel C. 1990. Economics of the Co-operatives Enterprise. Marburg Consult for Self-help Promotion. Marburg.
- Cobia, David W (ed). 1989. Co-operatives in Agriculture. Prentice Hall. New Jersey.
- Covey, Stephen R. 1997. Principle-Centered Leadership (Kepemimpinan yang Berprinsip). Binarupa Aksara. Jakarta.
- Covey, Stephen R. 1993. The 7 Habits of Highly Effective People. Simon & Schuster, Inc.
- Dahruri, Rokhmin. 2000; Prospek Bisnis Perikanan dan Kelautan Indonesia. Agrimedia, Vol. 6 No.1, Maret 2000, p.26-29.
- Daryanto, Arief. 2007. Peningkatan Daya saing Industri Peternakan. PT Permata Wacana Lestari. Jakarta.
- Daryanto, Arief. 2001. Peranan Sektor Pertanian dalam Pemulihan Ekonomi. Agrimedia 6(3), 42-47.

- Daryanto, Arief. 1999. Indonesias Crisis and the Agricultural Sector: the Relevance of Agricultural Demand-Led Industrialisation. UNEAC Asia Papers. No.2. 1999, p. 61-72.
- Daryanto, Arief and Henny K S Daryanto. 1999. Model Kepemimpinan dan Profil Pemimpin Agribisnis di Masa Depan. Agrimedia Volume 5, No.1, February 1999, p.6-17.
- Dasgupta, Dipak. 1998. Poverty reduction in Indonesia”, in Rowen, Henry S (Ed). 1998. Behind East Asian Growth; the political and social foundations of prosperity. Routledge. New York.
- Davis, Peter. 2001. Gaining the Commitment of Youth for the Vitalization of Co-operative Societies. Paper presented on ICA Global Youth Seminar, Seoul, Korea, October 13th-17th, 2001.
- Davis, Peter. 1999. Managing the Co-operative Difference; A Survey of the Application of Modern Management Practices in the Co-operative Context. COOPNET, ILO. Geneva.
- Davis, John H and Ray A Goldberg. 1957. A Concept of Agribusiness. Graduate School of Business Administration. Harvard University. Boston.
- De Jong, Jan A and Bert Versloot. 1999. Structuring on-the-job training: report a multiple case study. International Journal of Training and Development, 3:3. Blackwell Publishers Ltd. Oxford.
- DEKOPIN. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta.
- Department of Co-operatives, Government of Indonesia. 1985. National Plan for the Accelerated Growth of Rural Co-operatives (Rencana Operasional Komprehensif – KUD. Project QTA – 80 / World Bank. Jakarta.
- Departemen Pendidikan dan Kebudayaan. 1996. Identitas SMK, Sekolah Menengah Kejuruan Negeri 1996/1997. Jakarta.
- DePorter, Bobby, Mark Reardon and Sarah Singer-Nourie. 2000. Quantum Teaching: Mempraktekan Quantum Learning di Ruang-ruang Kelas (translated from Quantum Teaching: Orchestrating Students Success). Penerbit Kaifa. Bandung.
- Didu, Muhammad Said. 2003. Kinerja Agroindustri Indonesia. Agrimedia, Vol. 8 No.2, April 2003, p.16-25.
- Didu, Muhammad Said. 1999. Membangun Agroindustri yang Berdaya Saing Global. Agrimedia, Vol. 5 No.2, Juli 1999, p.16-26
- Dillon, H S. 1999. Strategi Pemulihan Ekonomi Indonesia; Melalui Pengembangan Agribisnis. Agrimedia, Vol. 5 No.1, Februari 1999, p.29-34.
- Djohan, Djabaruddin and Bayu Krisnamurthi. 2000. Membangun Koperasi Pertanian Berbasis Anggota. LSP2I – Inkopdit – Yappika. Jakarta.
- Djohan, Djabaruddin. 1997. Setengah Abad Pasang Surut Gerakan Koperasi Indonesia, 12 Juli 1947 – 12 Juli 1997. DEKOPIN. Jakarta.

- Djohan, Djabaruddin, et.al. (Editors). 1997. Koperasi Indonesia Menghadapi Abad ke-21. DEKOPIN. Jakarta.
- Djohan, Djabaruddin. 1996. Koperasi Susu, Mampu Meningkatkan Taraf Hidup Peternak Sapi Perah in Soedjono, Ibnoe, et.al.. 1996. Koperasi di Tengah Arus Liberalisasi Ekonomi. Yayasan Formasi. Jakarta.
- Downey, W D and S P Erickson. 1987. Agribusiness Management, 2nd. McGraw-Hill, Inc. Singapore.
- Drucker, Peter F. 1985. Innovation and Entrepreneurship. Harper and Row. New York
- Dülfer, Eberhard. 2000. Die Zukunft der Genossenschaft als Unternehmungstyp in der Europäischen Union. Mauke, Hamburg.
- Dülfer, Eberhard (Editor). 1994. International Handbook of Co-operative Organization. Vandenhoeck & Ruprecht. Göttingen.
- Dülfer, Eberhard. 1994. Schulze Delitzsch, Herman (1808-1883); in Dülfer Eberhard (Editor). 1994. International Handbook of Co-operative Organization. Vandenhoeck & Ruprecht. Göttingen.
- Dülfer, Eberhard and Walter Hamm. 1985. Co-operatives in the Clash between Member Participation, Organizational Development and Bureaucratic Tendencies. Quiller Press. London.
- Düffler, S. E. 1980. Genossenschaften in Entwicklungsländern; in Handbuch der Genossenschaft.
- Dumary. 2003. Lima Tahun Perbankan Nasional (1998-2003). Ghalia Indonesia. Jakarta
- Dumary. 1996. Perekonomian Indonesia. Erlangga. Jakarta
- Ellyas. 1993. Kasus tentang Pelatihan Kewirausahaan Koperasi di PLPP Cibitung; in IKOPIN, 1993, Seminar Proceeding on Co-operative Entrepreneurship Education. Philipps University of Marburg – Konrad Adrenauer Stiftung – IKOPIN. Jatinangor.
- Everitt, Brian.S and Graham Dunn. 1998. *Applied Multivariate Data Analysis*. John Wiley&Sons. New York.
- Fakultas Ekonomi Universitas Brawijaya. 2000. Buku Pedoman Fakultas Ekonomi Universitas Brawijaya 2000/2001 – 2001/2002.
- Firdaus, Muhammad dan Susanto Agus Edhi. 2004. Perkoperasian: Sejarah, Teori dan Praktek. Ghalia Indonesia. Bogor.
- Fujitani, Chikuji. 1991. Japan's Agricultural Co-operatives; in Departement of Agriultural Economics University of Tokyo. 1991. Agriculture and Agricultural Policy in Japan. Tokyo.
- Galbraith, John Kenneth. 1956. American Capitalism, The Concept of Countervailing Power. The Riberside Press. Massachusetts.
- Garrat, Roy. 1994. The Rochdale Equitable Pioneers Society; in Dülfer Eberhard (Editor). 1994. International Handbook of Co-operative Organization. Vandenhoeck & Ruprecht. Göttingen.

- Gartner, William B. Who is an Entrepreneur? Is the Wrong Question, *Entrepreneurship: Theory and Practice*, Summer 1989, 49-56.
- Garvin, David A. 1993. Building a Learning Organization. *Harvard Business Review*, July-August, 1993, p. 78-91.
- Geertz, Clifford. 1983. *Involusi Pertanian; Proses Perubahan Ekologi di Indonesia*. Bhratara Karya Aksara. Jakarta.
- Gibson, James L, John M Ivancevich and James H Donnelly. 1996. *Organisasi: Perilaku, Struktur, Proses (Edisi Kelima)*. Erlangga. Jakarta.
- Gie, Kwik Kian. 1999. *Ekonomi Indonesia dalam Krisis dan Transisi Politik*. Gramedia. Jakarta.
- Gray, Douglas A. 1996. *Have You Got What It Takes?*. Arcan General Publishers. International Self-Counsel Press. British Columbia.
- Hagen, Everett E., 1962, *On the Theory of Social Change: How Economic Growth Begins*. Homewood, III: Dorsey Press
- Hahn, Oswald. 1994. Oppenheimer, Franz (1864-1943); in Dülfer Eberhard (Editor). 1994. *International Handbook of Co-operative Organization*. Vandenhoeck & Ruprecht. Göttingen.
- Haines, Michael and Said Al Hasan. 1998. Benchmarking and the Evaluation of Co-operative Performance. *The World of Co-operative Enterprise*. 1998, p.19-29.
- Hanel, Alfred. 1992. *Basic Aspects of Co-operative Organizations and Co-operative Self-Help Promotion in Developing Countries*. Marburg Consult. Marburg.
- Hanel, Alfred. 1989. *State-Sponsored Co-operative and Self-Reliance; Some Aspects of the Reorganization of Officialized Co-operative Structures with Regard to Africa*. Institute for Co-operation in Developing Countries, Papers and Reports Nr.24. Marburg
- Hanel, Alfred. 1976. *Conditions for and Selected Problems of De-officialization of Rural Co-operatives in Developing Countries – The Lessening of State Administrative Control*; in Konopnicki M and G Vandewalle (Ed). 1978. *Co-operation as an Instrument for Rural Development*. University of Ghent. Belgium.
- Hanel, Alfred and Julius Otto Müller. 1967. *On the Evaluation of Rural Co-operatives with Reference to Governmental Development Policies – Case Study Iran*. Marburger Schriften Zum Genossenschaftswesen. Vandenhoeck and Ruprecht. Göttingen.
- Harper, Malcolm and A.K. Roy. 2000. *Co-operative Success, What Makes Group Enterprise Succeed*. Intermediate Technology Publication Ltd. London.
- Hassan, Asnawi. 1987. *Strategy of Co-operative Development in Indonesia*. The National Centre for Co-operative Training and Development (PUSLATPENKOP). Jakarta.
- Hassan, Asnawi, 1986. *Selected Reading on Co-operative Development in Indonesia*. PUSLATPENKOP. Jakarta

- Hatta, Mohammad. 1987. *Membangun Koperasi dan Koperasi Membangun*. Inti Idayu Press. Jakarta.
- Hatta, Mohammad. 1946. *Ekonomi Indonesia di Masa Datang*; in Swasono, Sri-Edi (Ed.). 1987. *Sistem Ekonomi dan Demokrasi Ekonomi*. UI Press. Jakarta.
- Hendar dan Kusnadi. 2002. *Ekonomi Koperasi Untuk Perguruan Tinggi*. Lembaga Penerbit Fakultas ekonomi Universitas Indonesia. Jakarta.
- Hen, Lie Toeng. 1990. *Hubungan antara locus kontrol dengan harga diri dan atribusi penyebab keberhasilan-kegagalan*. Skripsi. Fakultas Psikologi Universitas Indonesia, Depok.
- Herindajanto, Agus. 1999. *Agro-based Industry Development: Focus Strategy Approach*; in *Proceeding the 4th ISSM*. ISTECS Europa. Kassel-Germany.
- Hettlage, Robert. 1994. *Mondragon*; in Dülfer Eberhard (Editor). 1994. *International Handbook of Co-operative Organization*. Vandenhoeck & Ruprecht. Göttingen.
- Higgins, Benjamin. 1968. *Economic Development (rev. Ed)*. W W Norton and co., Inc. New York.
- Hind, Abigail M. 1998. *Assessment of Co-operative Performance*. *The World of Co-operative Enterprise*. 1998, p.9-18.
- Hornaday, John A. 1982. *Research about living entrepreneurs*; in Kent Calvin A, Donald L Sexton and Karl H Vesper. 1982. *Encyclopedia of Entrepreneurship*. Prentice-Hall, Inc. Englewood Cliffs, New Jersey.
- Hudson, M A. 1990. *Towards a Framework for Examining Agribusiness Competitiveness*. *Agribusiness*, 6, 3, 181-189.
- Huffman, Karen, Mark Vernoy and Judith Vernoy. 1995. *Essentials of Psychology in Action*. John Wiley & Sons, Inc. New York.
- ICA. 2001. *ICA-Co-operative Identity Statement*; translated by Soedjono, 2001; *Jatidiri Koperasi*. LSP2I. Jakarta.
- IKOPIN. 1999. *Proceedings; Lokakarya Materi Pengajaran Ekonomi Koperasi di Perguruan Tinggi, 27-29 Juli 1999*. IKOPIN. Jatinangor.
- IKOPIN. 1993. *Seminar Proceeding on Co-operative Entrepreneurship Education*. Philipps University of Marburg – Konrad Adrenauer Stiftung – IKOPIN. Jatinangor.
- Indarti Yoyoh (Ed). 2006. *22 Tahun Studi Pembangunan: Pengurangan Kemiskinan, Pembangunan Agribisnis dan Revitalisasi Pertanian*. PSP3-IPB. Bogor.
- Ingalsbe, Gene. 1989. *Starting a Co-operative*; in Cobia David W (ed). 1989. *Co-operatives in Agriculture*. Prentice Hall. New Jersey.
- International Labour Office. 2001. *Promotion of Co-operatives; Report V (1) International Labour Conference 89th Session 2001*. Geneva.
- Ismail Nur Mahmudi, 2000; *Pengembangan Agribisnis Perkebunan Sebagai Basis Pertumbuhan erekonomian Daerah*. *Agrimedia*, Vol. 6 No.2, September 2000, p.16-25.

- Ismangil, Wagiono. 1993. The Entrepreneurial Co-operative, A Schumpeterian Perspective Concerning The Stimulation of Co-operative Entrepreneurship, Suatu Tanggapan terhadap Makalah Prof. Jochen Röpke; in IKOPIN, 1993, Seminar Proceeding on Co-operative Entrepreneurship Education. Philipps University of Marburg – Konrad Adrenauer Stiftung – IKOPIN. Jatinangor.
- Ismawan, Bambang. 2002. Ekonomi Rakyat: Sebuah Pengantar. Jurnal Ekonomi Rakyat: Artikel - Th. I - No. 1 - Maret 2002.
- Ismawan, Bambang. 1997a. Peranan LSM dalam Menumbuhkembangkan Koperasi; Djohan, et.al. (Editors). 1997. Koperasi Indonesia Menghadapi Abad ke-21. DEKOPIN. Jakarta.
- Ismawan, Bambang. 1997b. Menggerakkan dan Mengembangkan Koperasi dari Bawah dan Peranan LSM; in Soedjono Ibnoe, et.al. 1997. Koperasi di Tengah Arus Liberalisasi Ekonomi. Yayasan Formasi. Jakarta.
- Jailani, Jaman. 1997. Keinginan untuk Mengabdikan Diri Ditutupi; in Syarif Abdullah. 1997. Membangun Usaha Koperasi Persusuan Mandiri: Pengalaman, Pemikiran dan Perjuangan Drh Haji Daman Danuwidjaja. KPBS Pangalengan.
- Jenkis, Helmut. 1994. Huber, Victor Aimè (1800-1869); in Dülfer Eberhard (Editor). 1994. International Handbook of Co-operative Organization. Vandenhoeck & Ruprecht. Göttingen.
- Johnson, Gerry and Kevan Scholes. 1989. Exploring Corporate Strategy, Text and Cases. Prentice Hall Inc., Englewood Cliffs. New Jersey.
- Jolliffe, I.T. 2002. Principal Component Analysis, Second Edition (Springer Series in Statistic). Springer-Verlag. New York
- Julia, J.F and Server R.J. 2003. Social Economy Companies in the Agricultural Sector. Delimitation and Situation in Spain. Rev. Annals of Public and Co-operative Economics. No. 74:3, pp 465-488.
- Kamdem, Emmanuel. 1994. Buchez, Philippe Joseph Benyamin (1796-1865); in Dülfer Eberhard (Editor). 1994. International Handbook of Co-operative Organization. Vandenhoeck & Ruprecht. Göttingen.
- Kao, John J. 1991. The Entrepreneur. Prantice-Hall, Inc. Englewood Cliffs, New Jersey.
- KaPUSDIKLAT Pegawai Departemen Pertanian. 2003. Dasa Dharma Balai Diklat (Obsesi untuk Memecahkan Masalah dan Menjawab Tantangan Dalam Era Pasca Krisis, Globalisasi dan Otonomi). Departemen Pertanian. Jakarta.
- Kementerian Koordinator Bidang Perekonomian. 2005. Revitalisasi Pertanian, Perikanan dan Kehutanan. Jakarta.
- Kent, Calvin A. 1982. Entrepreneurship in Economic Development; in Kent Calvin A, Donald L Sexton and Karl H Vesper. 1982. Encyclopedia of Entrepreneurship. Prentice-Hall, Inc. Englewood Cliffs, New Jersey.
- Kent, Calvin A, Donald L Sexton and Karl H Vesper. 1982. Encyclopedia of Entrepreneurship. Prentice-Hall, Inc. Englewood Cliffs, New Jersey.

- Kirk, Michael, Jost W Kramer and Rolf Steding (Hrsg). 2000. *Genossenschaften und Kooperation in einer sich wandelnden Welt; Festschrift für Prof. Dr. Hans-H Münkner zum 65. Geburtstag*. LIT Verlag. Munster.
- Koch, Eckard. 1985. *Officialization of Co-operatives in Developing Countries; Genesis, Causes, Problems*. Fredrich Ebert Stiftung. Bonn.
- Konopnicki, M and G Vandewalle (Ed). 1978. *Co-operation as an Instrument for Rural Development*. University of Ghent. Belgium.
- Krisnamurthi, Bayu (Editor). 2005. *Menumbuhkan Ide Dan Pemikiran : Pembangunan Sistem Dan Usaha Agribisnis (60 Tahun Bungaran Saragih)*. Pusat Studi Pembangunan Pertanian dan Pedesaan-LPPM IPB. Bogor.
- Krisnamurthi, Bayu. 2002. *Pemberdayaan Ekonomi Rakyat: Mencari Format Kebijakan Optimal*. *Jurnal Ekonomi Rakyat: Artikel - Th. I - No. 2 - April 2002*.
- Krisnamurthi, Bayu. 2000. *Membangun Koperasi Pertanian dan Koperasi Perkreditan dalam Rangka Pengembangan Ekonomi Kerakyatan in Djohan Djabaruddin and Bayu Krisnamurthi. 2000. Membangun Koperasi Pertanian Berbasis Anggota. LSP2I – INKOPDIT – YAPPIKA. Jakarta.*
- Krugman, Paul. 2001. *Kembalinya Depresi Ekonomi*. Penerbit ITB. Bandung.
- Kuhn, Johannes. 1990. *Co-operative Organizations for rural Development. Marburg Consult for Self-Help Promotion. Series A-4. Marburg.*
- Kuratko, Donald F and Richard M Hodgetts. 1992. *Entrepreneurship, A Contemporary Approach, 2nd Edition*. The Dryden Press. New York.
- Kuratko, Donald F and Richard M Hodgetts. 1989. *Entrepreneurship, A Contemporary Approach*. The Dryden Press. New York.
- Kuznets, Simon. 1964. *Economic Growth and the Contribution of Agriculture in Eicher, C.K. DAN Witt, L.W. (editor). 1964. Agriculture in Economic Development. McGrwa-Hill. New York.*
- Latco Media. Nov 2000. GKSI. Jakarta.
- Latco Media. Vol.II. No.9, Feb-March 2002. GKSI. Jakarta.
- Latco Media. Vol.II. No.8, Dec 2001-Jan 2002. GKSI. Jakarta.
- Latco Media. Vol.II. No.7, Oct-Nov 2001. GKSI. Jakarta.
- Latco Media. Vol.I. No.5, July 2001. GKSI. Jakarta.
- Latco Media. Vol.I. No.3, March 2001. GKSI. Jakarta.
- Lembaga Manajemen PPM. 2000. *Proceeding of The Indonesian Symposium on The Analytic Hierarchy Process - INSAHP*. Jakarta.
- Lie, Anita. 2002. *Co-operative Learning, Memperaktikkan Co-operative Learning di Ruang-ruang Kelas*. Grasindo. Jakarta.
- Likert, Rensis. 1967. *The Human Organization*. McGraw-Hill. New York.
- LSP2I. 2002. *Prosiding Seminar dan Lokakarya Standardisasi Pembelajaran Ekonomi Koperasi dalam Rangka Menumbuhkembangkan Jiwa Kewirakoperasian di*

- Lingkungan PTN dan PTS Seluruh Indonesia. LSP2I-Fakultas Ekonomi Universitas Airlangga-CCA. Surabaya.
- MacPherson, Ian. 2002. Synchronization of Co-operative Curriculum and Syllabus in University; in LSP2I. 2002. Prosiding Seminar dan Lokakarya Standardisasi Pembelajaran Ekonomi Koperasi dalam Rangka Menumbuhkembangkan Jiwa Kewirakoperasian di Lingkungan PTN dan PTS Seluruh Indonesia. LSP2I-Fakultas Ekonomi Universitas Airlangga-CCA. Surabaya.
- Madjedje, Essowenaza. 1999. Selbsthilfeförderung in Entwicklungsländern als unternehmerische Aufgabe am Beispiel des GACOPEA-Programms (Angepasste Managementsysteme für Genossenschaften von Kleinbauern). Institut für Kooperation in Entwicklungsländern, Studien und Berichte Nr.33. Marburg.
- Maghimbi, S. 1989. Evaluation of Co-operative Education Programmes. International Co-operative Alliance Regional Office for Asia. New Delhi.
- Malik, Abdul. 1989. Makalah Informasi pada Seminar Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi; in DEKOPIN. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta.
- Mändle, Eduard and Walter Swoboda. 1992. Genossenschaftlexikon. DG-Verlag eg. Wiesbaden.
- Manly, Bryan F.J. 1986. Multivariate Statistical Methods: A Primer. Chapman and Hall, New York.
- Manurung, Togu. 2000. Pembangunan Perkebunan Kelapa Sawit di Indonesia: Ancaman terhadap Hutan Alam. <http://www.fahutan.s5.com/sept/SEPT004.html> (accessed on June 26, 2003).
- Marzuki, Laica. 1999. Penerapan Sistem Ekonomi Kerakyatan dalam Kerangka Paradigma Pembangunan Kemandirian Lokal. Seminar sehari tentang Pengumpulan Aspirasi Masyarakat sebagai bahan Penyusunan Kerangka GBHN Tahun 2000-2002, Kerjasama MPR-RI dengan Universitas Hasanuddin, 8 Mei 1999.
- Mascarenhas, R C. 1988. A Strategy for Rural Development, Dairy Co-operative in India. Sage Publications, New Delhi
- McClelland, David C. 1976. The Achieving Society. Irvington Publisher Inc. New York.
- McClelland, David C. and David G. Winter. 1969. Motivating Economic Achievement. New York, Free Press.
- Meier, Dave. 1999. The Accelerated Learning Handbook. The McGraw-Hill Companies, Inc. New York.
- Meredith, Geoffrey G, Robert E Nelson and Philip A Neck. 1982. The Practice of Entrepreneurship. International Labour Office. Geneva.

- Mintzberg, Henry, Bruce Ahlstrand and Joseph Lampel. 1998. *Strategy Safari, The Complete Guidance through the Wild of Strategic Management*. Pearson Education Limited. London.
- Montes, M.F. 1998. *The Currency Crisis in Southeast Asia*, Singapore: Institute of Southeast Asian Studies.
- Morrison, D F. 1990. *Multivariate Statistical Methods, Third Edition*. McGraw-Hill. New York.
- Mosher, A T. 1967. *Menggerakkan dan Membangun Pertanian*. Jakarta, Yasaguna.
- Mubardjo, R S. 2006. *Manajemen Agribisnis Persusuan*. PT Duta Karya Swasta. Jakarta.
- Mubyarto. 2002. *Ekonomi Rakyat Indonesia*. *Jurnal Ekonomi Rakyat: Artikel - Th. I - No. 1 - Maret 2002*.
- Mubyarto. 1997. *Program IDT dan Perkembangan Koperasi Pedesaan di Indonesia*; in Djohan, et.al., 1997. *Koperasi Indonesia Menghadapi Abad ke-21*. DEKOPIN. Jakarta.
- Mubyarto. 1989. *Pendidikan Moral Koperasi in DEKOPIN*. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta.
- Mubyarto. 1988. *Sistem dan Moral Ekonomi Indonesia*. Lembaga Penelitian, Pendidikan dan Penerangan Ekonomi dan Sosial (LP3ES). Jakarta.
- Muljono, Puji. 2000. *Sikap Mahasiswa terhadap Layanan Perpustakaan Perguruan Tinggi, Survei di Institut Pertanian Bogor*. Disertasi. Program Pascasarjana Universitas Negeri Jakarta. Jakarta.
- Mulcahy, Dianne and Pauline James. 2000. *Evaluating the contribution of competency-based training: an enterprise perspective*. *Internal Journal of Training and Development*, 4:3. Blackwell Publishers Ltd. Oxford.
- Münkner, Hans-H. 1998. *Self-organization in group enterprises as an alternative to unemployment? How to provide an appropriate framework for small co-operatives, workers co-operatives and self-managed enterprises in Germany?* University of Marburg. Marburg.
- Münkner, Hans-H. 1997. *Masa Depan Koperasi (Translated by Djohan Djabaruddin)*. DEKOPIN. Jakarta.
- Münkner, Hans-H. 1995. *Chance of Co-operatives in the Future*. Marburg Consult für Selbsthilfeförderung. Marburg.
- Münkner, Hans-H. 1991. *Consequences of a Consequent Self-help Promotion for Co-operative Development Policy in Africa*. Institut für Kooperation in Entwicklungsländern. Marburg.
- Münkner, Hans-H. 1987. *Strengths and Weaknesses of the Co-operative Movement in West Africa, Conditions for its Development*. Paper presented on March 31, 1987 at Abidjan, Côte d'Ivoire. Institut für Kooperation in Entwicklungsländern. Marburg.

- Münkner, Hans-H. 1985. *Co-operative Principles and Co-operative Law*. Friedrich-Ebert-Stiftung. Bonn
- Münkner, Hans-H. 1989. *Co-operative Ideas, Principles and Practices*. Institut für Kooperation in Entwicklungsländern. Marburg.
- Münkner, Hans-H. 1983. *The Legal Status of Pre-co-operatives* (2nd Ed.). Friedrich-Ebert-Stiftung. Bonn.
- Murray, Edward J. 1964. *Motivation and Emotion*. Prentice-Hall Inc. New Jersey.
- Mutis, Thoby. 1992. *Pengembangan Koperasi*. Grasindo. Jakarta.
- Nafziger, E Wayne. 1986. *Entrepreneurship, Equity, and Economic Development*. JAIPress Inc. Connecticut.
- Nakayasu, Sadako. 1985. *Co-operative Organization in Agricultural Production in Japan; Overcomming Small-scale Farming*, in; Bergmann and Ogura (Eds). 1985. *Co-opertation in Woeld Agriculture; Experiences, Problems and Perspectives*. Food and Agriculture Policy Research Centre. Tokyo.
- Nasution, Muslimin. 2007. *Mewujudkan Demokrasi Ekonomi dengan Koperasi*. PIP Publlishing. Jakarta.
- Nasution, Muslimin. 2002. *Evaluasi Kinerja Koperasi, Metode Sistem Diagnosa*. Bank Bukopin dan TPP-KUKM. Jakarta.
- Nasution, Muslimin. 1999. *Koperasi: Konsepsi, Pemikiran dan Peluang Pembangunan Masa Depan Bangsa*. Departemen Kehutanan dan Perkebunan RI. Jakarta.
- Nilsson, Jerker, Kyriakos Kyriakopoulos, Gert van Dijk. 1997. *Agricultural Co-operatives in the European Union, Current Challenges and Trends*. Paper presented at the conference on "Rural Co-operatives in the Perspective of the Integration with the European Union", December. Zakopane.
- Nilsson, Jerker. 1996. *The Nature of Co-operative Values and Principles; Transaction Cost theoretical explanations*. *Annals of Public and Co-operative Economics* 67:4, p. 633-653.
- Nitta, Shunzo. 2000. *Similarity and Difference in the Process of Economic Growth in Germany and Japan after World-War-II to the Present Time*. Center for International Programs. Toyo University.
- Norton, George W and Jeffrey R Alwang. 1993. *Introduction to Economics of Agricultural Development*. McGraw-Hill. New York.
- Nuhung, Iskandar Andi. 2006. *Bedah Terapi Pertanian Nasional; Peran Strategies dan Revitalisasi*. PT Bhuana Ilmu Populer. Jakarta.
- O'connor, John. 2004. *Issues in establishing agricultural co-operatives*. In Trewin Ray (Ed). 2004. *Co-operatives: Issues and trends in developing countries*. Australian Centre for International Agricultural Research. Canberra.
- Osborne, David and Ted Gaebler. 1992. *Reinventing Government, How the Entrepreneurial Spirit is Transforming the Public Sector*. Addison-Wesley Publishing Company, Inc. Reading Massachusetts.

- Pambudy, Rachmat. 2005. Sistem Usaha Agribisnis yang Berkerakyatan, Berdaya Saing, Berkelanjutan, dan Terdesentralisasi, in Krisnamurthi Bayu (Editor). 2005. Menumbuhkan Ide Dan Pemikiran : Pembangunan Sistem Dan Usaha Agribisnis (60 Tahun Bungaran Saragih). Pusat Studi Pembangunan Pertanian dan Pedesaan-LPPM IPB. Bogor
- Parnell, Edgar. 1999. Reinventing Co-operation, The Challenge of the 21st Century. Plunkett Foundation. Oxford.
- Partomo, T.S and A. Soedjono. (2002). Ekonomi Skala Kecil/Menengah dan. Koperasi. Jakarta. Ghalia Indonesia.
- Pinchot, III Gifford. 1985. Intrapreneuring. Harper and Row. New York.
- Pollard, Sidney. 1994. Owen, Robert (1771-1858); in Dülfer Eberhard (Editor). 1994. International Handbook of Co-operative Organization. Vandenhoeck & Ruprecht. Göttingen.
- Porter, Michael E. 1985. Competitive Advantage, Creating and Sustaining Superior Performance. Free Press.
- Porter, Michael E. 1980. Competitive Strategy, Techniques for Analyzing Industries and Competitors. Free Press. New York.
- Prakash, Daman. 1998. Management Leadership Development in Agricultural Co-operative Business. International Co-operative Alliance, Regional Office for Asia and the Pacific. India.
- Prakash, Daman. 1986. Management of Co-operative Training in Indonesia, Some Recent Development; in Hassan Asnawi, 1986. Selected Reading on Co-operative Development in Indonesia. PUSLATPENKOP. Jakarta.
- Pratt, Garth. 1998. The Need for Performance Measurements in Co-operatives: A Practitioners View. The World of Co-operative Enterprise. 1998, p.1-8.
- Priatmono, Bambang. 2000. Introduction to AHP, Reanalysis on the Study of Relocation of the South Kalimantan Province Capital); in Lembaga Manajemen PPM. 2000. Proceeding of The Indonesian Symposium on The Analytic Hierarchy Process - INSAHP. Jakarta.
- Rahardjo, Dawam. 1997b. Peranan LSM dalam Pengembangan Koperasi di Tengah Arus Liberalisasi Ekonomi; in Soedjono Ibnoe, et.al. 1997. Koperasi di Tengah Arus Liberalisasi Ekonomi. Yayasan Formasi. Jakarta.
- Raju, K V. 2004. Changing environment and dairy co-operative in India. In Trewin Ray (Ed). 2004. Co-operatives: Issues and trends in developing countries. Australian Centre for International Agricultural Research. Canberra.
- Rangkuti, Armijn. 1989. Kurikulum dan Silabi Mata Kuliah Koperasi di Fakultas Ekonomi Universitas Airlangga; in DEKOPIN. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta.
- Rasmussen, A E. 1975. Financial Management in Co-operative Enterprises. Co-operative College of Canada. Saskatchewan.

- Rasyad, Husni. 1997. Ir. Ibnu Soedjono, Birokrat, Koperasiwan dan Cendikiawan; in Tjokrowinoto et.al. 1997. *Membangun Koperasi Sepenuh Hati*. LSP2I. Jakarta.
- Rebernik, Mirosalv and Matjaz Mulej. 1996. STIQE 96. Proceedings of the 3rd International Conference on Linking System Thinking, Innovation, Quality and Entrepreneurship. Institute for System Research Maribor- Institute for Entrepreneurship at School of Business and Economics, University of Maribor, Slovenian Society for System Research. Maribor, Slovenia.
- Reeve, Johmarshall. 1992. *Understanding Motivation and Emotion*. Harcourt Brace College Publishers. Fort Worth
- Rhee, Steve, Darrell Kitchener, Tim Brown, Reed Merrill, Russ Dilts and Stacey Tighe. 2004. Report on Biodiversity and Tropical Forests in Indonesia; Submitted in accordance with Foreign Assistance Act Sections 118/119, February 20, 2004. Jakarta.
- Robbins, Stephen P. 1983. *Organization Theory; the Structure and Design of Organization*. Prentice-Hall, Inc. Englewood Cliffs, New Jersey.
- Robbins, Stephen P. 1976. *The Administrative Process*. Prentice-Hall, Inc. Englewood Cliffs, New Jersey.
- Röpke, Jochen. 2004. On Creating Entrepreneurial Energy in the Ekonomi Rakyat. The case of Indonesian Co-operatives. The paper is presented on Seminar National Reinventing Jatidiri dan Reposisi Koperasi dalam Perekonomian Indonesia, Bandung.
- Röpke, Jochen. 2000. Ein Tiger in Armenhaus- Theoretische Anmerkungen zur Depression in Indonesien; in Kirk Michael, Jost W Kramer adn Rolf Steding (Hrsg). 2000. *Genossenschaften und Kooperation in einer sich wandelnden Welt; Festschrift für Prof. Dr. Hans-H Münkner zum 65. Geburtstag*. LIT Verlag. Munster.
- Röpke, Jochen. 1993. The entrepreneurial co-operative: A Schumpeterian Perspective Concerning the Stimulation of Co-operative Entrepreneurship; in IKOPIN, 1993. Seminar Proceeding on Co-operative Entrepreneurship Education. Philipps University of Marburg – Konrad Adrenauer Stiftung – IKOPIN. Jatinangor.
- Röpke, Jochen. 1992. Co-operative Entrepreneurship: Entrepreneurial Dynamics and Their Promotion in Self-help Organizations, Marburg Consult für Selbsthilfeförderung, Reihe A-7.
- Röpke, Jochen. 1992. Strategic Management of Self-Help Organizations. Marburg Consult für Selbsthilfeförderung, Reihe A-8.
- Ruslan, Ahmad. 1989. Silabus: Mata Kuliah Koperasi Semester Ganjil 1988/1989; in DEKOPIN. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta.
- Rowen, Henry S (Ed). 1998. *Behind East Asian Growth; the political and social foundations of prosperity*. Routledge. New York.

- Saaty, R W. 1987. The Analytic Hierarchy Process – What It Is and How It Is Used. *Math Modelleing*, Vol.9, No.4-5, p.161-176.
- Saaty, Thomas L. 1991. *Pengambilan Keputusan Bagi Para Pemimpin*. Pustaka Binaman Pressindo. Jakarta.
- Sadjad, Sjamsoe'oed. 2003; *Kinerja Pembaungan Pertanian Indonesia ; dari Kacamata Agribisns Benih*. *Agrimedia*, Vol. 8 No.2, April 2003, p.26-28.
- Sa'id, Gumbira E dan Galuh Chandra Dewi. 2003. *Kinerja Agribisnis Indonesia Pasca Krisis*. *Agrimedia*, Vol. 8 No.2, April 2003, p.4-7.
- Sa'id, Gumbira E and Intan Abdul Haris, 2001, *Pengembangan Agribisnis Sebagai Prasyarat Pemulihan Ekonomi Nasional (Justifikasi Ekonomi, Sosial dan Politik)*. *Agrimedia*, Vol. 6 No.3, Februari 2001. P. .48-51;
- Sanim, Bunasor. 2000. *Penilaian Kritis Terhadap Kebijakan Makro dalam Pembangunan Pertanian, dalam Wibowo Rudi. 2000. Pertanian dan Pangan; Bunga Rampai Pemikiran Menuju Ketahanan Pangan*. Sinar Harapan. Jakarta.
- Sanim, Bunasor. 1998; *Menggalakan Ekspor Buah-buahan Tropika: Salah satu Alternatif Mengatasi Krisis Ekonomi Indonesia*. *Agrimedia*, Vol. 4 No.2, Juni 1998, p.16-25.
- Saragih, Bungaran. 2003. *Agribisnis Sebagai Landasan Pembangunan Ekonomi Indonesia*. *Agrimedia*, Vol.6 No.1. February 2003. MMA-IPB. Bogor.
- Saragih, Bungaran. 2001. *Suara dari Bogor: Membangun Sistem Agribisnis*. Pustaka Wirausaha Muda. Bogor.
- Saragih, Bungaran. 2000; *Agribisnis sebagai Landasan Pembangunan Ekonomi Indonesia dalam Era Milenium Baru*. *Agrimedia*, Vol. 6 No.1, Maret 2000, p.4-7.
- Saragih, Bungaran. 1998. *Agribisnis: Paradigma Baru Pembangunan Ekonomi Pertanian*. Yayasan Mulia Persada Indonesia-PT Surveyor Indonesia and Pusat Studi Pembangunan LP-IPB. Jakarta.
- Sargent, M J and J R Nicholls. 1995. *Outside Non-Executive Directors of UK Agricultural Co-operatives*. *The World of Co-operative Enterprise 1995*.
- Schwarz, Adam. 1994. *A Nation in Waiting, Indonesia in the 1990s*. Westview Press.
- Seetharaman, S P and N Mohanan. 1985. *Organization Building in Co-operatives – A Framework*. In Dülfer, Eberhard and Walter Hamm. 1985. *Co-operatives in the Clash between Member Participation, Organisational Development and Bureaucratic Tendencies*. Quiller Press. London.
- Senge, Peter M. 1996. *Rethinking Leadership in the Learning Organization*. *The System Thinker*, Vol.7, Nr.1. Feb 1996.
- Seuster, Horst. 1994a. Haas, Wilhelm (1839-1913); in Dülfer Eberhard (Editor). 1994. *International Handbook of Co-operative Organization*. Vandenhoeck & Ruprecht. Göttingen.

- Seuster, Horst. 1994b. Raiffeisen, Friedrich Wilhelm (1818-1888); in Dülfer Eberhard (Editor). 1994. *International Handbook of Co-operative Organization*. Vandenhoeck & Ruprecht. Göttingen.
- Shah, Ashish. 1999. *Staatliche Genossenschaftsförderung und Genossenschaftsrecht in ASEAN, eine vergleichende Studie*. Marburg Consult. Marburg.
- Siagian, Salim and Asfahani. 1995. *Kewirausahaan Indonesia dengan Semangat 17-8-1945*. Puslatkop dan PK. Jakarta.
- Siagian, Salim. 1993. *Gagasan tentang Materi Pelatihan Kewirausahaan Koperasi*; in IKOPIN, 1993. *Seminar Proceeding on Co-operative Entrepreneurship Education*. Philipps University of Marburg – Konrad Adrenauer Stiftung – IKOPIN. Jatinangor.
- Siswoputranto, P S. 1993. *Kopi Internasional dan Indonesia*. Penerbit Kanisius. Jakarta.
- Sjahrir. 1998. *Krisi Ekonomi Menuju Reformasi Total*. Yayasan Obor Indonesia dan Yayasan Padi dan Kapas. Jakarta.
- Soedjono, Ibnoe. 2003. *Instrumen-instrumen Pengembangan Koperasi*. LSP2I. Jakarta.
- Soedjono, Ibnoe. 2002. *Jatidiri Koperasi, Pembentukan Koperasi Sebagai Alternatif dalam Ekonomi Pasar*; in LSP2I. 2002. *Prosiding Seminar dan Lokakarya Standardisasi Pembelajaran Ekonomi Koperasi dalam Rangka Menumbuhkembangkan Jiwa Kewirakoperasian di Lingkungan PTN dan PTS Seluruh Indonesia*. LSP2I-Fakultas Ekonomi Universitas Airlangga-CCA. Surabaya.
- Soedjono, Ibnoe. 2000a. *Jatidiri Koperasi dalam Era Globalisasi*; in. Djohan and Krisnamurthi. *Membangun Koperasi Pertanian Berbasis Anggota*. LSP2I-Inkopdit-Yappika. Jakarta.
- Soedjono, Ibnoe. 2000b. *Rancang Bangun Pola Koperasi Pertanian di Masa Datang*; in. Djohan and Krisnamurthi. *Membangun Koperasi Pertanian Berbasis Anggota*. LSP2I-Inkopdit-Yappika. Jakarta.
- Soedjono, Ibnoe. 1997. *Koperasi dan Pembangunan Nasional*. PIP-DEKOPIN. Jakarta.
- Soedjono, Ibnoe, et.al. 1996. *Koperasi di Tengah Arus Liberalisasi Ekonomi*. Yayasan Formasi. Jakarta.
- Soedjono, Ibnoe. 1985. *Self-Help Promotion by Governmental and Semi Official Bodies, the Indonesian Experiences*; in Dülfer and Hamm. 1985. *Co-operatives in the Clash between Member Participation, Organisational Development and Bureaucratic Tendencies*. Quiller Press. London.
- Soedjono, Ibnoe. 1983. *Masalah Peranan dan Kedudukan Koperasi dalam Hubungan dengan Pelaku Ekonomi Lainnya*; in Swasono Sri-Edi. 1983. *Mencari Bentuk, Posisi dan Realitas Koperasi di Dalam Orde Ekonomi Indonesia*. UI-Press. Jakarta.
- Soehardjo, A. *Sistem Agribisnis dan Agroindustri*. Makalah Seminar, 1997, MMA-IPB, Bogor

- Soekmadi, Rinekso. 2002. *National Park Management in Indonesia: Focused on the Issues of Decentralization and Local Participation*. Cuvllier Verlag. Göttingen.
- Soemanto, Wasty. 1999. *Pendidikan Wiraswasta, Sekuncup Ide Operasional*. Bumi Aksara. Jakarta.
- Soetrisno, Noer. 2001. *Rekonstruksi Pemahaman Koperasi: Merajut Kekuatan Ekonomi Rakyat*. Intrans. Jakarta
- Soetrisno, Noer. 1988. *Evolution of Rural Co-operative in Indonesia*; in Taimni K K (Editors). 1988. *Asias' Rural Co-operatives*. Oxford & IBH Publishing Co. PVT. LTD. New Delhi.
- Soewardi, Herman. 1997. *Daman Pionir Koperasi Peternakan*; in Syarief Abdullah. 1997. *Membangun Usaha Koperasi Persusuan Mandiri: Pengalaman, Pemikiran dan Perjuangan Drh Haji Daman Danuwidjaja*. KPBS Pangalengan.
- Solahuddin, Soleh. 1998. *Strategi Pengembangan Agribisnis dan Agroindustri dalam Mengatasi Krisis Ekonomi*. Agrimedia, Vol. 4 No.2, Juni 1998. Hal:2-9
- Sonka, S T and M A Hudson. 1989. *Why Agribusiness Anyway?* *Agribusiness*, 5, 4, 305-314.
- Spendolini, Michael J. 1992. *The Benchmarking Book*. Ammcom. New York.
- Srinarni, Endah, Idham Bustaman, Retno Sri Wardani and Siti Djuariah. 1998. *Studi Pengembangan Koperasi Mahasiswa sebagai Laboratorium Pendidikan Kewirausahaan Koperasi*. Badan Penelitian dan Pengembangan Departemen Koperasi dan Pembinaan Pengusaha Kecil. Jakarta.
- Srinarni, Endah. 1997. *Kajian Kinerja Koperasi Secara Nasional*. Badan Penelitian dan Pengembangan, Departemen Koperasi dan Pembinaan Pengusaha Kecil. Jakarta.
- Steers, Richard and Lyman W. Porter. 1991. *Motivation and Work Behavior*. McGraw-Hill Inc. New York
- Stoffregen, Heinz. 1994a. *Kaufmann, Heinrich (1864-1928)*; in Dülfer Eberhard (Editor). 1994. *International Handbook of Co-operative Organization*. Vandenhoeck & Ruprecht. Göttingen.
- Stoffregen, Heinz. 1994b. *Pfeiffer, Eduard (1835-1921)*; in Dülfer Eberhard (Editor). 1994. *International Handbook of Co-operative Organization*. Vandenhoeck & Ruprecht. Göttingen.
- Subyakto, Harsoyono. 1989. *Paper untuk Partisipasi dalam Seminar Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi*; in DEKOPIN. 1989. *Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi*. Jakarta.
- Subyakto, Harsoyono. 1983. *KUD Tumpuan Harapan Petani*; in Swasono, Sri-Edi (Ed). 1983. *Mencari Bentuk, Posisi dan Realitas Koperasi di Dalam Orde Ekonomi Indonesia*. UI-Press. Jakarta.

- Sularso. 2000. Koperasi Unit Desa Upaya Mempertajam Pengertian Sebagai Koperasi Pertanian; in Djohan Djabaruddin and Bayu Krisnamurthi. 2000. Membangun Koperasi Pertanian Berbasis Anggota. LSP2I – INKOPDIT – YAPPIKA. Jakarta.
- Sularso. 1997. Dampak Ekonomi Pasar dan Perjanjian Perdagangan Internasional Terhadap Perekonomian Nasional dan Sikap Koperasi Indonesia; in Soedjono Ibnoe, et.al. 1997. Koperasi di Tengah Arus Liberalisasi Ekonomi. Yayasan Formasi. Jakarta.
- Sumahamidjaja, Suparman. 1993. Membina Sikap Mental Wiraswasta. Gunung Jati. Jakarta.
- Sumantri, Lily R. H. 1997. Ibnoe Soedjono, Benteng Ideologi Koperasi; in Tjokrowinoto et.al. 1997. Membangun Koperasi Sepenuh Hati. LSP2I. Jakarta.
- Sumantri, Suryana. 1995. Pengaruh Pelatihan Pengembangan Tingkah Laku Kerja Terhadap Motif Berprestasi, Sikap dan Morel Kerja, Serta Tingkah Laku Kerja Dalam Rangka Meningkatkan Hasil Kerja. Disertasi. Studi Kuasi – Eksperimen pada Karyawan Pelaksana Bagian Produksi di Salah Satu Perusahaan BUMN yang Bergerak di Bidang Industri Kimia. Universitas Padjadjaran. Bandung.
- Sumardjo. 2006. Kilas Balik Kiprah PSP IPB dalam Pembangunan di Indonesia, dalam Indarti Yoyoh (Ed). 2006. 22 Tahun Studi Pembangunan: Pengurangan Kemiskinan, Pembangunan Agribisnis dan Revitalisasi Pertanian. PSP3-IPB. Bogor.
- Sumawinata, Sarbini. 2004. Politik Ekonomi Kerakyatan. Gramedia Pustaka Utama. Jakarta.
- Sumodiwirjo, Teko. 1983. Beberapa Soal Sekitar Pak Tani dan Hubungannya dengan Gerakan Koperasi; in Swasono, Sri-Edi (Ed). 1983. Mencari Bentuk, Posisi dan Realitas Koperasi di Dalam Orde Ekonomi Indonesia. UI-Press. Jakarta.
- Suprpto, Ato. Komoditas Unggulan Ekspor Agribisnis Indonesia. Agrimedia, July 5, 2, 1999.
- Suryana, Achmad dan Sudi Mardiyanto. 2001. Bunga Rampai Ekonomi Beras (Editor). LPEM FEUI. Jakarta
- Susanto, Harry. 2002. Koperasi sebagai Mata Kuliah di Perguruan Tinggi, Bagaimana Kedudukannya? in LSP2I. 2002. Prosiding Seminar dan Lokakarya Standardisasi Pembelajaran Ekonomi Koperasi dalam Rangka Menumbuhkembangkan Jiwa Kewirakoperasian di Lingkungan PTN dan PTS Seluruh Indonesia. LSP2I-Fakultas Ekonomi Universitas Airlangga-CCA. Surabaya.
- Suwandi, Adig. 2002. Pengamanan Harga Gula Republika Online, Oktober 1, 2002.
- Suwandi, Ima. 1986. KUD Dalam Perspektif Ekonomi Pedesaan. KOPINFO. Jakarta.
- Swasono, Sri-Edi. 2002. "Dapatkah koperasi menjadi pilar orde ekonomi Indonesia"; in LSP2I. 2002. Prosiding Seminar dan Lokakarya Standardisasi Pembelajaran Ekonomi Koperasi dalam Rangka Menumbuhkembangkan

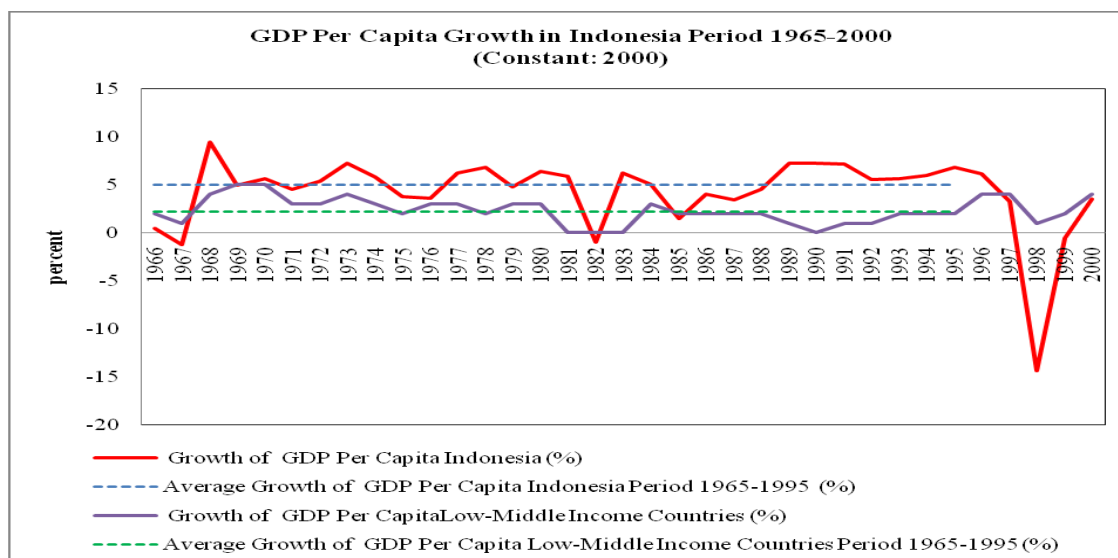
- Jiwa Kewirakoperasian di Lingkungan PTN dan PTS Seluruh Indonesia. LSP2I-Fakultas Ekonomi Universitas Airlangga-CCA. Surabaya.
- Swasono, Sri Edi. 1997. Krisis dan Potensi Ancaman Terhadap Ideologi Perkoperasian Indonesia; in Djohan, et.al. (Editors). 1997. Koperasi Indonesia Menghadapi Abad ke-21. DEKOPIN. Jakarta.
- Swasono, Sri-Edi, 1989. "Koperasi Sebagai Sistem Ekonomi Indonesia: Tantangan dan Momentum"; in DEKOPIN. 1989. Hasil Seminar Sehari tentang Pendidikan dan Pengajaran Koperasi di Perguruan Tinggi. Jakarta
- Swasono, Sri-Edi (Ed.). 1987. Sistem Ekonomi dan Demokrasi Ekonomi. UI Press. Jakarta.
- Swasono, Sri-Edi (Ed). 1983. Mencari Bentuk, Posisi dan Realitas Koperasi di Dalam Orde Ekonomi Indonesia. UI-Press. Jakarta.
- Swoboda, Walter. 1994. Education and Training in Germany, Co-operative, Dülfer Eberhard. 1994 International Handbook of Co-operative Organizations. Vandenhoeck and Ruprecht. Göttingen.
- Syarief, Abdullah. 1997. Membangun Usaha Koperasi Persusuan Mandiri, Pengalaman, Pemikiran dan Perjuangan Drh. H. Daman Danuwidjaja. KPBS Pangalengan.
- Syam, Husain dan Syamsul Ma'arif, 2004; Kajian Perlunya Kebijakan Pengembangan Agroindustri sebagai Leading Sector. Agrimedia, Vol. 9 No.1, Maret 2004, p.32-39.
- Taimni, Krishan K. 1996. Coopnet, Co-operative Training Series, Volume 1. Co-operative Branch, ILO, Geneva.
- Taimni, Krishan K (Editors). 1988. Asias' Rural Co-operatives. Oxford & IBH Publishing Co. PVT. LTD. New Delhi.
- Tambunan, Tulus T H. 2001. Perekonomian Indonesia: Teori dan Temuan Empiris. Ghalia Indonesia. Jakarta.
- Tambunan, Tulus. 1998. Krisis Ekonomi dan Masa Depan Reformasi. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia. Jakarta.
- Tampubolon, SMH. 2000. Arah Kebijakan/Program Diversifikasi Pangan dalam Mengurangi Ketergantungan pada Beras: Aspek Produksi/Suplai; dalam Wibowo Rudi. 2000. Pertanian dan Pangan; Bunga Rampai Pemikiran Menuju Ketahanan Pangan. Sinar Harapan. Jakarta.
- Tatuh, Jen. 2005. Mungkinkah Gagasan Agribisnis Menjadi Sebuah Gerakan Nasional; in Krisnamurthi Bayu (Editor). 2005. Menumbuhkan Ide dan Pemikiran : Pembangunan Sistem Dan Usaha Agribisnis (60 Tahun Bungaran Saragih). Pusat Studi Pembangunan Pertanian dan Pedesaan-LPPM IPB. Bogor.
- Thome, Thorsten. 1998. Unternehmer im Unternehmertum; Ein Beitrag zur Intrapreneurship – Diskussion. Philipps Universität. Marburg.
- Tjokrowinoto, Berbudi, H Woeryanto and Djabaruddin Djohan (Editors). 1997. Membangun Koperasi Sepenuh Hati. LSP2I. Jakarta.

- Tjondronegoro, Sediono M P. 2000; Agribisnis di Masa Depan. Agrimedia, Vol. 6 No.1, Maret 2000, p.8-10.
- Trewin, Ray (Ed). 2004. Co-operatives: Issues and Trends in Developing Countries. Australian Centre for International Agricultural Research. Canberra.
- Van Bekkum, Onno Frank and Gert van Dijk (Eds). 1997. Agricultural Co-operatives in the European Union, Trends and Issues on the Eve of the 21st Century. Van Gorcum. Assen.
- Van der Krogt, Ferd and Ad A Vermulst. 2000. Beliefs about organizing learning: a conceptual and empirical analysis of managers and workers learning action theories. International Journal of Training and Development, 4:2. Blackwell Publishers Ltd. Oxford.
- Vilstrup, Richard H, David W Cobia and Gene Ingalsbe. 1989. Structural Dynamics; in Cobia David W (ed). 1989. Co-operatives in Agriculture. Prentice Hall. New Jersey.
- Vilstrup, Richard H, David W Cobia and Robert Cropp. 1989. Adjustment by Existing Co-operatives; in Cobia David W (ed). 1989. Co-operatives in Agriculture. Prentice Hall. New Jersey.
- Wardhana, Ali. 1998. "Economic reform in Indonesia: the transition from resource dependence to industrial competitiveness" in Rowen, Henry S (Ed). 1998. Behind East Asian Growth; the political and social foundations of prosperity. Routledge. New York.
- Watson, G H. 1993. Benchmarking, Vom Besten Lernen. Verlag Moderne Industrie. Landsberg.
- Watson, J F and T E Copeland. 1986. Managerial Finance. CBS College Publishing.
- Whyte, William Foote and Katheleen King Whyte. 1988. Making Mondragon, The Growth and Dynamics of The Worker Co-operative Complex. ILR Press, New York.
- Wibisono, Christianto. 1998. Menelusuri Akar Krisis Indonesia. PT Gramedia Pustaka Utama. Jakarta.
- Wibowo, Agung Pramono Priyo. 1997. Tantangan dalam Transformasi Organisasi: Suatu Pelajaran dari Pengelola Perubahan KUD. Jurnal Bisnis dan Birokrasi No.2, Vol.III, Agustus 1997, p. 70-79.
- Wibowo, Drajad Hari and MHRS Ario Putra, 2000. Agribisnis Sebagai Soko Guru Perekonomian Daerah: Tantangan di Tengah Upaya Pemulihan Ekonomi dan Euforia Desentralisasi. Pengembangan Agribisnis Perkebunan Sebagai Basis Pertumbuhan Perekonomian Daerah. Agrimedia, Vol. 6 No.2, September 2000, p.10-15.
- Wibowo, Rudi. 2000. Pertanian dan Pangan; Bunga Rampai Pemikiran Menuju Ketahanan Pangan. Sinar Harapan. Jakarta.
- Wirakartakusumah, Aman, 1998. Agribisnis/Agroindustri Solusi Krisis. Agrimedia, Vol. 4 No.2, Juni 1998, p.12-15

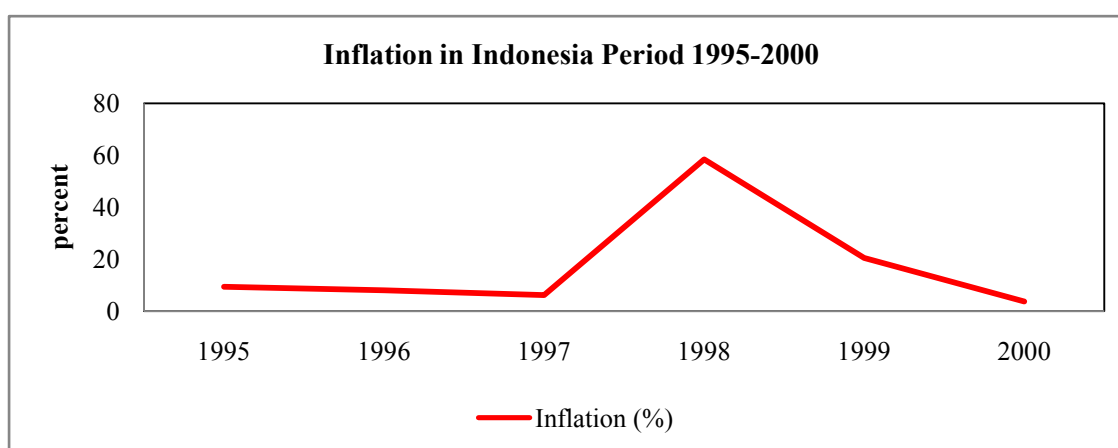
- Yahmadi, Mudrig. 2007. Rangkaian Perkembangan dan Permasalahan Budidaya dan Pengolahan Kopi di Indonesia. AEKI. Surabaya.
- Yoneda, Kimimaru. 2000.1 Asia's Currency and Economic Crises and Japan's Foreign Direct Investment; in Nitta. 2000. Similarity and Difference in the Process of Economic Growth in Germany and Japan after World-War-II to the Present Time. Center for International Programs. Toyo University.
- Yusdja, Yasmichad. 2005. Kebijakan Ekonomi Industri Agribisnis Sapi Perah di Indonesia. Analisis Kebijakan Pertanian, Volume 3 No 3, September 2005.
- Yustika, Ahmad Erani. 2002. Pembangunan dan Krisis: Memetakan Perekonomian Indonseia. Grasindo. Jakarta.

APPENDICES

Appendix 1. Indonesian Economic Conditions



Source: World Bank, various years



Source: World Bank, various years



Source: World Bank, various years

Appendix 2. The Potency of Agriculture in Indonesia

Appendix 2.1. Indonesian Export Products from the Plantation Sector

Product	Year								
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Rubber									
Export	1,810	1,918	1,493	1,101	849	889	786	1038	1485
Volume	1.22	1.43	1.40	1.64	1.49	1.38	1.45	1.50	1.66
Coconut									
Export	111	298	437	244	257	366	159	215	193
Volume	0.17	0.41	0.70	0.45	0.45	0.83	0.47	0.57	0.47
Palm Oil									
Export	935	1,061	1,740	942	1,463	1,328	1,227	2,350	2,721
Volume	1.58	2.01	3.47	1.83	3.90	4.70	5.49	7.08	7.05
Cocoa									
Export	306	300	420	503	423	342	288	701	624
Volume	0.23	0.32	0.27	0.33	0.42	0.42	0.30	0.46	0.36
Coffee									
Export	554	595	511	584	467	319	188	224	259
Volume	0.22	0.37	0.31	0.36	0.35	0.34	0.25	0.33	0.32
Tea									
Export	87	112	89	113	97	112	100	103	96
Volume	0.08	0.10	0.07	0.07	0.10	0.11	0.10	0.10	0.09

Source : BPS, data processed by sub-directorate PIPPH Food Crop, the Ministry of Agriculture (1995-2003). Export in US\$ million and volume in million ton.

Appendix 2.2. Indonesian Shrimp Production and Export Period 1989-1999

Year	Production (000 Ton)				Export	
	Sea	fishpond	Territorial Sea	Total	Volume (000 Ton)	Value (million US\$)
1989	143.27	98.37	17.21	258.85	77.19	556.76
1990	144.82	107.30	15.65	267.76	94.04	690.23
1991	151.44	140.13	16.67	308.24	95.63	769.98
1992	165.48	141.49	16.37	323.54	100.46	764.85
1993	156.78	138.79	14.75	310.31	98.57	876.70
1994	177.73	135.06	18.34	331.13	99.52	1,009.74
1995	181.95	146.61	16.32	344.88	94.55	1,062.82
1996	187.27	151.09	16.27	354.63	100.23	1,018.34
1997	193.28	158.97	15.94	368.19	103.77	1,044.96
1998	222.55	118.11	16.61	357.27	142.69	1,011.47
1999	206.70	181.73	15.41	403.84	109.65	888.98

Source: Fisheries Statistics Directorate General of Fisheries, Ministry of Maritime and Fisheries (1990-2000)

Appendix 2.3. The Production and Export of Fish (1989-1999)

Year	Production (000Ton)				Export	
	Tunas	Cakalang	Tongkol	Total	Volume (000 Ton)	Value (million US\$)
1995	89.33	157.66	186.49	433.48	0	0
1996	101.69	159.67	184.40	445.76	61.90	172.90
1997	115.55	182.15	208.50	506.20	47.54	152.62
1998	116.21	187.21	212.51	515.91	61.04	165.09
1999	136.48	244.85	236.11	617.43	67.57	169.59
2000	163.24	236.76	250.52	650.04	80.24	208.56
2001	153.11	214.08	233.05	600.24	71.77	204.50
2002	148.44	203.11	266.96	618.49	73.70	195.42
2003	151.96	208.63	267.34	627.90	78.77	191.06
2004	160.86	212.80	272.90	646.56	79.67	229.51

Source: The Ministry of Maritime and Fisheries (2005) and United Nations Commodity Trade Statistic Database (COMTRADE), 2007

Appendix 2.4. Potential Production and Export of Forestry Products (Timber)

Commodity	Unit	Timber Export Growth 1997-2001					
		1997/1998	1998/1999	1999/2000	2000*)	2001	
Sawn timber							
Production	(M3/CuM)	2,613,452	2,707,221	2,060,163	2,789,543	674,868	
Export	Volume	1000 M ³ / Cu M	0,30	15,90	20,50	9,87	12,31
	Values	Million US\$	0,48	22,00	68,76	40,52	5,19
Plywood							
Production	(M3/CuM)	6,709,836	7,154,729	4,611,878	4,442,735	2,101,485	
Export	Volume	1000 M ³ / Cu M	4.800,74	4.863,38	3.372,88	3.096,24	930,35
	Values	Million US\$	2.320,38	1.300,53	1.276,41	881,00	315,21
Wood Working							
Production	(M3/CuM)	141,589	65,100	104,720	299,412	278,088	
Export	Volume	1000 M ³ / Cu M	142.11	1,130.49	849.14	1,190.40	153.90
	Values	Million US\$	75.62	480.77	379.71	309.71	66.52
Block Board							
Production	(M3/CuM)	600,734	661,954	427,096	321,125	388,004	
Export	Volume	1000 M ³ / Cu M	120.63	511.74	436.66	368.78	407.95
	Values	Million US\$	37.10	109.39	114.72	70.56	34.05

Source: The Directorate General of Forestry Production

*) Data in April until December 2000

Appendix 3. Problems of Agriculture in Indonesia

Appendix 3.1. The Number and Percentage of Poor People in Rural and Urban

Year	Limit the Poor (Rp / Capita / Month)		Number of Poor People (Million People)			Poor People (%)		
	Urban	Rural	Urban	Rural	Rural+Urban	Urban	Rural	Rural+Urban
1976	4,522	2,849	10.0	44.2	54.2	38.8	40.4	40.1
1978	4,696	2,981	8.3	38.9	47.2	30.8	33.4	33.3
1980	6,831	4,449	9.5	32.8	42.3	29.0	28.4	28.6
1981	9,777	5,877	9.3	31.3	40.6	28.1	26.5	26.9
1984	13,731	7,746	9.3	25.7	35.0	23.1	21.2	21.6
1987	17,381	10,294	9.7	20.3	30.0	20.1	16.1	17.4
1990	20,614	13,295	9.4	17.8	27.2	16.8	14.3	15.1
1993	27,905	18,244	8.7	17.2	25.9	13.4	13.8	13.7
1996	38,246	27,413	7.2	15.3	22.5	9.7	12.3	11.3
1996	42,032	31,366	9.6	24.9	34.5	13.6	19.9	17.7
1998	96,959	72,780	17.6	31.9	49.5	21.9	25.7	24.2
1999	92,409	74,272	15.6	32.3	48.0	19.4	26.0	23.5
2000	91,632	73,648	12.1	25.2	37.3	14.5	22.1	19.1

Source: BPS (various years) in Tambunan, 2003; Arifin 2005

Appendix 3.2. Employment by Sector (%)

Sector	1971	1980	1985	1990	1995	2000	2003
Agriculture	67.04	56.3	54.66	55.87	43.98	45.28	46.26
Industry	6.92	9.14	9.28	10.14	12.64	12.96	12.04
Mines	0.21	0.76	0.67	0.7	0.8	0.58	0.98
Other	25.83	33.80	35.39	33.29	42.58	41.18	40.72

Source: BPS in Tambunan, 2008

Appendix 3.3. Employment Distribution by Region (%)

Region	1990	1995	2000	2003
Rural	75	67	62	60
Urban	25	33	38	40

Source: BPS in Tambunan, 2008

Appendix 3.4. The Distribution of Poor Households by Sector of Employment / Source of Income (%)

Sector	1996	1998	1999	2000	2001	2002
Agriculture	68.5	56.7	58.4	51.7	63.0	67.4
Industry	6.7	7.4	8.7	13.8	11.9	10.3
Services	24.7	35.9	32.9	34.5	25.1	22.3

Source: National Socio-Economic Survey in Tambunan, 2008

Appendix 3.5. The Distribution of Household by Land Area Farmers (%)

Land (ha)	1983	1993	2003
<0,1	8.5	7.0	17.2
0,1-0,49	37.7	40.7	39.2
0,50-0,99	24.1	22.4	18.4
≥1,0	29.7	29.9	25.2

Source: Tambunan, 2008

Appendix 3.6. Changes in Rice Land Area 1999-2003

Region	Fixed land area for rice in 1999 (million ha)	Reduction land area of rice in 1999 (000 ha)	New land for rice (000 ha)	Land area conversion (000 ha)	% from conversion
Java	3.38	167.2	18.1	-149.1	4.42
Outside of Java	4.73	396.0	121.3	-274.7	5.81
Indonesia	8.11	563.2	139.3	-423.9	5.23

Source: BPS in Tambunan, 2008

Appendix 3.7. The Percentage of Farmers by Formal Education Level in Indonesia (2003)

Education Level	Java	Outside of Java	Indonesia
No education	34.44	28.83	31.62
Only basic education	48.07	41.93	44.98
Secondary	15.8	27.56	21.71
Tertiary	1.69	1.68	1.69
Total	100.00	100.00	100.00

Source: BPS in Tambunan, 2008

Appendix 3.8. Paddy Production, Harvested Area, Productivity, Rice Production, Consumption Domestic and Exports of Rice Year 1994-2003

Year	Paddy Production (ton)	Harvested Area (Ha)	Productivity (ton/Ha)	Rice Production (Ton)	Consumption of Rice (ton)	Export Volume of Rice (ton)
1994	46.641.524	10.733.830	4.35	30,316,991	26,478,639	233,000
1995	49.744.140	11.438.764	4.35	32,333,691	32,984,720	10
1996	51.101.506	11.569.729	4.42	33,215,979	25,854,255	200
1997	49.377.054	11.140.594	4.43	31,107,544	27,347,728	60
1998	49.236.692	11.730.325	4.20	31,019,116	28,501,481	1,980
1999	50.866.387	11.963.204	4.25	32,045,824	25,140,011	2,700
2000	51.898.852	11.793.475	4.40	32,696,277	23,401,199	4,671
2001	50.460.782	11.499.997	4.39	31,790,293	24,515,474	5,222
2002	51.489.694	11.521.166	4.47	32,438,507	24,611,977	11,320
2003	52.078.830	11.477.357	4.54	32,809,663	24,687,037	1,234

Source: BPS, 1994-2003

Appendix 4. Co-operative Development in Indonesia

Appendix 4.1. The Number of Co-operative in Indonesia

Type	1997	1998	1999	2000
Non-KUD	43,454	50,521	64,639	95,077
KUD	8,427	8,279	8,036	7,150
Total	51,881	58,800	72,675	102,227
KUD <i>Mandiri</i> (Self-Reliance)	7,401	7,371	7,214	6,946
KUD <i>Non Mandiri</i> (non Self-Reliance)	1,026	908	822	204

Source: The Ministry of Cooperatives and Small-Medium Enterprises (various years)

Appendix 4.2. The Performance of Co-operative Development in Indonesia

Description	Unit	Year					
		1997	1998	1999	2000	2001	2002
Co-operative	unit	52,458	59,458	89,939	103,077	110,766	117,906
Member	000 people	19,266	20,128	22,529	27,377	23,644	24,001
Self Capital	Rp million	4,644,526	5,121,963	5,270,475	6,809,072	11,699,952	8,651,929
External Capital	Rp million	4,610,046	4,330,966	12,466,651	12,353,066	16,322,599	14,961,126
Volume	Rp million	14,643,546	12,592,140	22,244,849	22,656,241	38,730,174	26,582,985
Number of Employees	people	159,459	170,297	174,640	192,610	176,916	194,718
Nets Savings	Rp million	622,557	508,426	557,087	672,134	3,134,446	1,089,661

Source: The Ministry of Co-operatives and Small-Medium Enterprises (various years)

Appendix 5. The Criteria of KUD Mandiri and the Top Model KUD

The 13 Criteria of KUD Mandiri (Self-Reliance)

1. Having more than 25% of adult population who are qualified to be a member of KUD in its business operation area.
2. More than 60% of the business turnover is raised through member patronage.
3. The annual general meeting held on time and has continued for over 3 years.
4. Directors and auditors are selected from members and the maximum numbers are 5 and 3 respectively.
5. Owned capital is more than Rp 25 million, that donation should be less than 60% of the owned capital.
6. No particular problems are checked as the result of audit by Co-operative Accountant Service (KJA) or Public Accountant.
7. The deviation between a plan and performance should be within 20% in minus and 50% more exceeds.
8. Rentability, liquid and fixed assets ration are satisfying more than 75% of the standard.
9. Business turnover per member per annum should be more than Rp 250.000,-
10. Gross revenue is exceeding the amount of gross expenditure.
11. Business facilities are feasible that owned and managed by KUD.
12. There was no fraud and manipulation by the management that detriment of KUD
13. No unpaid debts.

Additional Criteria for National Top Model KUD

Additional Criteria for the Institutional Aspects

1. Ratio between number of group members and non-group members.
2. Ratio between number of community business groups which have been integrated with KUD.
3. Groups belong to TPK-KUD
4. Management are from group management or former management
5. Completeness of administrative books of its organization.
6. Completeness of administrative books of its business
7. Internal Control System (SPI)
8. Professionalism of manager (employment contract, insurance, salary)

Additional Criteria for Business Aspects

1. Capitalization: Capital ratio between equity capital and borrowed capital. Debt equity ratio.
2. Business performance: Business volume (absolute), sales turn over against asset, profitability, main business ratio of KUD against area potential, and interrelatedness between KUD's business and members' business.

The Sub-sector of Food Crop and Horticulture

- Ratio of Sales between to BULOG and to common marketing;
- Farmer Business Credit Value (KUT);
- Volume of Business,
- Channel of distribution,
- Number of vendors distributing

The Sub-sector of Plantation

- Type of Business and its volume;
- Width of planted area owned by members (total or Average);
- Share owned by KUD in processing unit;
- Role of KUD in marketing.

The Sub-sector of Husbandry

- Number of livestock owned by members;
- Type of Business and its volume;
- Role of KUD in marketing.

The Sub-sector of Fishery

- Role of KUD in fish auction (TPI)
- Type and Volume of supporting business;
- Number of ownership of fish catching fleet (total and average)
- Role of KUD in processing unit
- Role of KUD in marketing

Appendix 6. The Identity of Co-operative

The International Co-operative Alliance Statement on Co-operative (ICIS) which declared in the 100th ICA Congress in Manchester, September 1995.

DEFINITION:

A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled business.

VALUES:

Co-operatives are based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. In the tradition of their founders, co-operative members believe in the ethical values of honesty, openness, social responsibility and caring for others.

CO-OPERATIVE PRICIPLES:

The 1st Principle: Voluntary and Open Membership

"Co-operatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination."

The 2nd Principle: Democratic Member Control

"Co-operatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary co-operatives members have equal voting rights (one member, one vote) and co-operatives at other levels are also organized in a democratic manner."

The 3rd Principle: Member Economic Participation

"Members contribute equitably to, and democratically control, the capital of their co-operative. At least part of that capital is usually the common property of the co-operative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership."

The 4th Principle: Autonomy and Independence

"Co-operatives are autonomous, self-help organizations controlled by their members. If they enter to agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy."

The 5th Principle: Education, Training and Information

"Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives. They inform the general public - particularly young people and opinion leaders - about the nature and benefits of co-operation."

The 6th Principle: Co-operation among Co-operatives

"Co-operatives serve their members most effectively and strengthen the co-operative movement by working together through local, national, regional and international structures."

The 7th Principle: Concern for Community

"Co-operatives work for the sustainable development of their communities through policies approved by their members."

Appendix 7. The Market Share of Agricultural Co-operatives in the EU Countries

Countries	Market Share (%)					
	Dairy	Fruit and Vegetable	Meat	Farm Input	Credit	Grain
Belgium	50	70-90	20-30	-	-	-
Denmark	93	20-25	66-93	64-59	-	87
Germany	55-60	60	30	50-60	-	-
Greece	20	12-51	5-30	-	-	49
Spain	35	15-40	20	-	-	20
France	49	35-50	27-88	50-60	-	75
Ireland	100	-	30-70	70	-	69
Italy	38	41	10-15	15	-	15
Luxembourg	80	-	25-30	75-95	-	70
Netherlands	82	70-96	35	40-50	84	-
Austria	90	-	50	-	-	60
Portugal	83-90	35	-	-	-	-
Finland	94	-	68	40-60	34	-
Sweden	99	60	78-81	75	-	75
United Kingdom	98	35-45	20	20-25	-	20

Source: van Bekkum and van Dijk (1996)

Appendix 8. The List of Sampled Universities in the Study

No	Universities	City	Faculty	
			Economics	Agriculture
1	Universitas Syiah Kuala	Banda Aceh	√	√
2	Universitas Sumatera Utara	Medan	√	√
3	Universitas Andalas	Padang	√	√
4	Universitas Riau	Pakan Baru	√	√
5	Universitas Jambi	Jambi	√	√
6	Universitas Sriwijaya	Palembang	√	√
7	Universitas Bengkulu	Bengkulu	√	√
8	Universitas Lampung	Bandar Lampung	√	√
9	Universitas Indonesia	Jakarta	√	-
10	Universitas Krisnadipaya	Jakarta	√	-
11	Universitas Trisakti	Jakarta	√	-
12	Universitas Tarumanegara	Jakarta	√	-
13	Universitas Jayabaya	Jakarta	√	-
14	STIE IBII	Jakarta	√	-
15	Universitas Sahid	Jakarta	√	-
16	Institut Manajemen Koperasi Indonesia	Bandung	√	-
17	Institut Pertanian Bogor	Bogor	-	√
18	Universitas Padjadjaran	Bandung	√	√
19	Universitas Bandung	Bandung	√	-
20	Universitas Soedirman	Purwokerto	√	√
21	Universitas Diponegoro	Semarang	√	-
22	Universitas Nasional Surakarta	Solo	√	-
23	Universitas Gajah Mada	Jogjakarta	√	√
24	Universitas Airlangga	Surabaya	√	-
25	Universitas Brawidjaya	Malang	√	√
26	Universitas Jember	Jember	√	√
27	Universitas Tanjung Pura	Pontianak	√	-
28	Universitas Palangkaraya	Palangkaraya	√	√
29	Universitas Lambung Mangkurat	Banjarmasin	√	√
30	Universitas Mulawarman	Samarinda	√	√
31	Universitas Sam Ratulangi	Manado	√	√
32	Universitas Hasanudin	Makasar	√	√
33	Universitas Udayana	Denpasar	√	√
34	Universitas Mataram	Lombok	√	√
35	Universitas Nusa Cendana	Kupang	-	√
36	Universitas Haluoleu	Kendari	√	√
37	Universitas Tadulako	Palu	√	√
38	Universitas Cendrawasih	Jayapura	√	√

Note: The faculty of agriculture is included, because the faculty offers Department of Agricultural Socio-Economic Studies or Study Program of Agribusiness in which co-operative courses is taught.

Appendix 9. The Financial Ratio that Used in Analysis

A. Liquidity Ratio		
1	Current Ratio	$= \frac{\text{Current Asset}}{\text{Current Liabilities}} \times 100$
2	Quick Ratio	$= \frac{\text{Current Asset} - \text{Inventory}}{\text{Current Liabilities}} \times 100$
B. Solvency Ratio		
3	Current Liabilities to Total Asset	$= \frac{\text{Current Liabilities}}{\text{Total Asset}} \times 100$
4	Total Liabilities to Total Asset	$= \frac{\text{Total Liabilities}}{\text{Total Asset}} \times 100$
5	Net Saving to Fixed Cost	$= \frac{\text{Net Saving}}{\text{Total Fixed Cost}} \times 100$
6	Owners' Equity to Total Asset	$= \frac{\text{Total Owners' Equity}}{\text{Total Asset}} \times 100$
7	Long – term Debt to Capitalization	$= \frac{\text{Total Long – term Debt}}{\text{Total Owners' Equity}} \times 100$
8	Fixed Asset to Owners' Equity	$= \frac{\text{Total Fixed Asset}}{\text{Total Owners' Equity}} \times 100$
9	Sales to Owners' Equity	$= \frac{\text{Total Sales}}{\text{Total Owners' Equity}} \times 100$
10	Asset Turnover	$= \frac{\text{Total Sales}}{\text{Average Total Asset}}$
C. Profitability Ratio		
11	Net Saving to Sales	$= \frac{\text{Net Saving}}{\text{Total Sales}} \times 100$
12	Net Saving to Total Asset	$= \frac{\text{Net Saving}}{\text{Total Asset}} \times 100$
13	Net Saving to Capitalization	$= \frac{\text{Net Saving}}{\text{Total Asset}} \times 100$
14	Sales to Capitalization	$= \frac{\text{Total Sales}}{\text{Total Asset}} \times 100$
15	Return on Investment	$= \frac{\text{Net Profit After Tax}}{\text{Total Assets}} \times 100$
16	Return on Equity	$= \frac{\text{Net Income}}{\text{Total Owners' Equity}} \times 100$
D. Efficiency Ratio		
17	Cost of Goods Sold to Sales	$= \frac{\text{Cost of Goods Sold}}{\text{Total Sales}} \times 100$
18	Gross Marjin to Sales	$= \frac{\text{Margin}}{\text{Total Sales}} \times 100$

19	Operating Expense to Sales	$= \frac{\text{Fixed Cost}}{\text{Total Sales}} \times 100$
E. Capital Ratio		
20	Debt to Equity Ratio	$= \frac{\text{Total Debt}}{\text{Total Owners' Equity}}$
21	Obligatory Saving on Equity	$= \frac{\text{Obligatory Saving}}{\text{Total Owners' Equity}}$
22	Optional Saving on Equity	$= \frac{\text{Optional Saving}}{\text{Total Owners' Equity}}$
F. Productivity Ratio		
23	Sales per Employee	$= \frac{\text{Total Sales}}{\text{Employee}}$
24	Cost of Goods Sold per Employee	$= \frac{\text{Cost of Goods Sold}}{\text{Employee}}$
25	Fixed Cost per Employee	$= \frac{\text{Total Fixed Cost}}{\text{Employee}}$
26	Total Cost per Employee	$= \frac{\text{Total Cost}}{\text{Employee}}$
27	Net Saving per Employee	$= \frac{\text{Net Saving}}{\text{Employee}}$

Sources: Nr. 1 - 22 (Rasmussen, 1975); Nr. 23 - 27 (Srinarni, 1997)

Appendix 10. The Comparison Dimension between Mechanistic and Organic Organizations

Process		Mechanistic Structure	Organic Structure
1	Leadership	Includes no perceived confidence and trust. Subordinates do not feel free to discuss job problems with their superiors, who in turn do not solicit their ideas and opinions	Includes perceived confidence and trust between superiors and subordinates in all matters. Subordinate feel free to discuss job problem with their superiors, who in turn solicit their ideas and opinion.
2	Motivation	Taps only physical, security, and economic motives, through the use of fear and sanctions. Unfavorable attitudes toward the organization prevail among employees.	Taps a full range of motives through participatory methods. Attitudes are favorable toward the organization and its goals.
3	Communication	Information flows downward and tends to be distorted, inaccurate, viewed with suspicion by subordinates.	Information flows freely throughout the organizations; upwards, downward, and laterally. The information is accurate and undistorted.
4	Interaction	Closed and restricted. Subordinates have little effects on departmental goals, methods, and activities.	Open and extensive. Both superiors and subordinates are able to effect departmental goals, methods, and activities.
5	Decision	Relatively centralized. Occurs only at the top of the organizations.	Relatively decentralized. Occurs at all levels through group process.
6	Goal setting	Located at the top of the organizations, discouraging group participation.	Encourages group participation in setting high, realistic objectives.
7	Control	Centralized. Emphasizes fixing of blame for mistakes	Dispersed throughout the organization. Emphasizes self-control and problem solving.
8	Performance goals	Low and passively sought by managers, who make no commitment to developing the organization's human resources.	High and actively sought by superiors, who recognize the need for full commitment to developing, through training, the organization's human resources.

Source. Adapted from Likert, 1967, pp.197-211.

Appendix 11. Milk Standard based on Indonesian National Standardization (SNI)

Description	Requirement	Description	Requirement
a. Specific gravity (at 27.5°C)	Minimum 1.0280	Streptococcus Group	Negative
b. Fat	Minimum 3.0%	Staphylococcus aureus	Maximum 1.10^2 /ml
c. Non-Fat Substance	Minimum 8.0%	Total of inflamed cells	Maximum 4.10^5 /ml
d. Protein	Minimum 2.7%	Pollution of danger metal	
e. Color, aroma, taste, viscosity	No changes	Plumbum (Pb)	0.3 ppm
f. Acidity	6 – 7 PH	Zincum (Zn)	0.5 ppm
g. Alcohol test (70%)	Negative	Mercury (Hg)	0.5 ppm
h. Catalyze test	Maximum 3 cc	Arsen (As)	0.5 ppm
i. Refraction scale	36 – 38	Residue :	According to Agreement
j. Reduction scale	2 – 5 hours	Antibiotic	Letter between Minister of Health and Minister of Agriculture
k. Pollution by micro bacteria:		Pesticide / insecticide	
1. Total bacteria	Max. 1.10^6 CFU/ml	Waste and strange things	Negative
2. Salmonella	Negative	Counterfeiting test	Negative
3. E coli (pathogen)	Negative	Frozen point	$-0.52^0 - 0.56^0$ C
4. Coliform	Maximum 20 / ml	Peroxidation test	Positive

Source: Indonesian National Standardization, 1982

Appendix 12. The Development of Milk Agribusiness in Indonesia (1979 – 2000)

No	Items	1979	1984	1989	1994	1995	1996	1997	1998	1999	2000
I	Numbers of Dairy Co-ops and KUD Milk Unit:	27	180	198	206	205	206	214	219	219	220
	• Members of GKSI	27	180	198	204	205	206	214	219	219	220
	• Non-Members of GKSI	-	-	-	2	-	-	-	-	-	-
II	Labor Absorption (people)	4,800	97,979	173,569	235,276	182,444	187,168	204,070	197,042	197,016	210,831
	• Farmer	1,497	32,999	58,797	80,066	60,262	62,033	67,046	65,412	64,798	69,327
	• Labor	2,495	54,999	97,995	133,443	100,436	103,388	111,743	109,019	107,996	115,545
	• Numbers of Co-ops Staffs	578	6,910	11,615	15,070	15,055	15,055	17,502	15,654	16,769	17,971
	• Numbers of Labor outside Co-op /KUD	231	3,071	5,162	6,698	6,691	6,691	7,779	6,957	7,453	7,987
III	Cow Population (heads):										
	• National (1)	94,000	203,000	287,665	334,000	330,481	330,481	353,199	322,000	332,000	341,000
	• Dairy Co-op and KUD	5,987	131,997	235,188	320,262	241,046	248,132	168,184	261,646	259,191	277,308
	• Local	4,908	75,674	151,403	233,098	239,319	243,782	266,621	261,646	259,191	277,308
	• Imported (cumulative)	1,079	56,323	83,785	87,164	1,727	4,350	1,563	0	0	0
	• Cow Value (billion Rp)	2.25	73.87	226.15	424.62	610.52	514.68	1,120.99	1,286.91	1,138.59	1,528.66
IV	Milk Production (million kg)										
	• National (1)	72.20	179.00	338.20	426.70	433.44	441.16	446.48	451.75	436.00	452.70
	• Dairy Co-op and KUD	12.61	165.84	279.15	361.69	361.69	361.69	420.04	375.70	402.47	431.31
	• Sold to Milk Processing Industry (2)	10.51	138.20	232.62	301.41	301.41	301.41	350.04	313.08	335.39	359.43
	• Others	2.10	27.64	46.52	60.28	60.28	60.28	70.01	62.62	67.08	71.89
	• Milk Ration between Domestic Milk and Imported	1 : 20	1 : 3.5	1 : 0.7	1 : 2	1:2	1:2	-	-	-	-
V	Milk Price (Rp/kg)										
	• Milk Processing Industry Price	196.50	314.00	440.00	615.00	640.30	676.05	702.00	850.00	1,255.00	1,330.00
	• Milk Farm Gate price	147.50	262.50	385.00	516.50	560.26	591.54	614.25	743.75	1,098.13	1,163.75
	• Consumer Price (3)	265.00	750.00	1,261.00	1,823.00	1,957.00	2,101.00	2,255.00	4,250.00	4,800.00	5,160.00
	• Milk sold value (mill USD)	2.04	43.39	102.35	185.37	205.69	219.65	245.73	266.12	420.91	478.04
	• Imported Milk Substitution (mill USD)	3.24	42.13	57.76	85.40	89.24	92.10	43.11	32.85	58.78	53.12
	Dollar exchange rate	6,300.78	1,030.08	1,772.14	2,170.61	2,270.00	2,370.00	5,700.00	8,100.00	7,161.00	9,000.00

Note : (1) Resource of Data from The Directorate General Livestock; (2) Resource of Data from Annual Report of GKSI ; (3) Equal with Fresh Milk

Appendix 13. The Performance of Milk Production

Appendix 13.1. Selected Variables of Milk Production in 2000

	Name of Co-operatives	Milk production per days (kg)	Share on industrial milk production	Number of Cow population	Ratio of lactation cows	Milk production per lactation (kg/day)	Number of Cows per member (head)	Milk production per member (kg/day)	Quality of milk Total Solid (%)
1	KUD Cikajang	24,726	2.17	3,528	57.43	12.20	2.11	14.81	11,35
2	KUD Bayongbong	21,232	1.86	5,538	35.84	10.70	3.24	12.42	10,81
3	KUD Cisurupan	23,541	2.06	5,222	34.81	12.95	3.62	16.31	10,88
4	KUD Samarang	578	0.05	433	19.86	6.72	2.35	3.14	11,35
5	KUD Cilawu	3,541	0.31	561	42.96	14.69	2.05	12.97	10,35
6	KUD Cisarua	39,746	3.48	6,287	49.93	12.66	3.84	24.25	10,76
7	KPS Bogor	13,024	1.14	3,398	49.38	7.76	9.79	37.53	10,60
8	KUD Cibereum	4,106	0.36	825	43.88	11.34	5.54	27.56	10,60
9	KPSBU Lembang	81,804	7.17	11,077	50.08	14.75	3.50	25.81	10,87
10	KUD Ciparay	4,781	0.42	886	56.43	9.56	1.74	9.39	10,55
11	KPBS Pangalengan	88,278	7.74	13,672	61.23	10.54	2.06	13.32	10,98
12	KUD Tanjung Sari	13,502	1.18	3,075	46.83	9.38	3.12	13.68	12,84
13	KUD Ujung Berung	10,771	0.94	1,901	45.08	12.57	3.82	21.67	10,62
14	KUD Pasir Jambu	9,699	0.86	3,183	54.60	5.58	1.45	4.42	10,22
15	KUD Ciwidey	5,807	0.51	1,243	39.90	11.71	1.45	6.79	11,72
16	KUD Cipanas	1,913	0.17	761	47.57	5.28	7.46	18.75	11,70
17	KUD Batu	20,976	1.84	5,284	52.57	7.55	5.04	20.01	11,98
18	KUD Ngantang	26,634	2.33	7,596	40.39	8.68	4.11	14.41	12,72
19	Koperasi SAE Pujon	78,537	6.88	20,001	46.82	8.39	3.10	12.19	11,98
20	KUD Kasembon	16,700	1.46	2,782	42.88	14.00	3.34	20.02	11,56
21	KAN Jabung	14,400	1.26	3,141	41.10	11.15	3.38	15.50	12,49
22	KUD Karangploso	7,122	0.62	1,560	49.87	9.15	2.64	12.07	11,74
23	KPLP Nongkojajar	49,268	4.32	14,302	47.07	7.32	2.23	7.68	11,89
24	KUD Purwodadi	19,902	1.74	4,579	54.38	7.99	2.94	12.78	11,92
25	KSS Prigen	1,561	0.14	374	45.45	9.18	4.30	17.94	12,40
26	KUTT Grati	49,171	4.31	18,078	29.32	9.28	8.61	23.41	11,98
27	KUD Puspo	8,683	0.76	5,798	32.20	4.65	3.57	5.34	11,67
28	KUD Gondang Legi	11,771	1.03	3,306	31.91	11.16	7.50	26.69	11,89
29	KUD Wajak	2,146	0.19	718	45.26	6.60	4.52	13.50	11,85
30	KUD Dau	13,527	1.19	2,210	45.38	13.49	3.39	20.78	11,98
	Average All	22,248	1,95	5,044	44,68	9.90	3.86	16.17	11.48
	Average non-KUD	51.663	4,53	11.557	47,05	9.60	4.80	19.70	11.53
	Average KUD	13.296	1,17	3.062	43,96	9.99	3.58	15.10	11.46
	T-Test	***	***	***					

Appendix 13.2. The Growth of Milk Production (1996-2000)

Name of Co-operatives		Growth in Percentage					
		Milk production per days	Number of Cow population	Ratio of lactation cows	Milk production per lactation	Number of Cows per member	Milk production per member
1	KUD Cikajang	85.4	49.1	35.9	- 8.5	- 9.6	12,5
2	KUD Bayongbong	-1.5	12.5	-12.1	-0.4	12.5	-1,5
3	KUD Cisurupan	61.3	47.0	- 1.9	11.8	42.8	56,7
4	KUD Samarang	-28.5	67.2	-39.5	-29.3	67.2	-28,5
5	KUD Cilawu	47.5	- 6.5	49.0	5.9	- 6.5	47,5
6	KUD Cisarua	16.8	-26.8	51.3	5.5	13.9	81,8
7	KPS Bogor	-17.8	-27.1	-0.3	13.1	-11.8	-0,5
8	KUD Cibereum	28.1	14.4	-18.5	37.3	-24.0	-14,9
9	KPSBU Lembang	43.8	4.5	10.2	27.5	-27.3	0,1
10	KUD Ciparay	154.2	29.7	84.4	6.2	- 33.5	30,3
11	KPBS Pangalengan	-29.68	-2.34	8.20	-33.45	-5.16	-31,71
12	KUD Tanjung Sari	44.1	38.2	0.9	3.4	-10.7	-6,9
13	KUD Ujung Berung	84.7	44.8	- 0.9	28.7	11.3	42,0
14	KUD Pasir Jambu	-40.0	6.0	-5.0	-41.0	22.0	-32,0
15	KUD Ciwidey	18.0	-3.5	8.4	12.8	-22.1	-4,7
16	KUD Cipanas	-36.2	12.7	28.4	-56.0	10.5	-37,5
17	KUD Batu	-18.7	-7.4	17.5	-25.2	-14.5	-24,9
18	KUD Ngantang	24.6	100.6	-10.8	-30.3	111.5	31,4
19	Koperasi SAE Pujon	19.1	6.2	0.3	11.7	-10.5	0,3
20	KUD Kasembon	142.3	86.0	18.8	9.7	5.9	38,0
21	KAN Jabung	93.6	125.8	11.7	- 23.2	118.8	87,6
22	KUD Karangploso	132.9	88.2	21.6	1.8	- 35.9	-20,6
23	KPLP Nongkojajar	-23.2	7.0	-13.6	-16.8	34.4	-3,5
24	KUD Purwodadi	77.1	108.6	- 3.5	- 12.0	82.8	55,2
25	KSS Prigen	1.8	44.4	-24.5	-6.6	-12.0	-38,0
26	KUTT Grati	20.4	-1.7	5.9	15.7	-13.1	6,5
27	KUD Puspo	-1.0	-7.0	-46.0	9.0	2.0	9,0
28	KUD Gondang Legi	51.1	78.7	- 41.3	44.0	- 53.4	-60,6
29	KUD Wajak	-34.1	-14.1	16.4	-34.1	-17.9	-37,0
30	KUD Dau	2.8	4.5	-6.9	5.7	-3.9	-5,4
T-test for the growth			**				
Average All		30,6	29.3	4.8	-2.2	7.5	5.0
Average Non-KUD		2,1	4.4	-2.0	1.6	-6.5	-9.5
Average KUD		39,3	36.9	6.9	-3.4	11.7	9.5

Appendix 14. The Performance of Business Turnover

Appendix 14.1. The Business Turnover of Dairy Co-operatives

Name of Co-operatives		Business Turnover							
		Total	Milk	Feed	Credit	Trade	Other Live-stock	Other Agri-culture	Service and Others
1	KUD Cikajang	16,529	11,347	2,303	121	480	29	544	424
2	KUD Bayongbong	16,734	12,076	2,446	131	533	33	631	433
3	KUD Cisurupan ¹⁾	14,038	8,666	2,183	105	322	15	139	273
4	KUD Samarang ¹⁾	2,557	1,699	359	3	14	0	0	34
5	KUD Cilawu ²⁾	1,915	964	167	3	0	0	0	27
6	KUD Cisarua	25,717	16,588	4,824	168	1,444	179	821	569
7	KPS Bogor ²⁾	7,718	5,049	1,171	60	114	0	0	81
8	KUD Cibereum	2,878	2,106	570	5	25	0	0	34
9	KPSBU Lembang ²⁾	53,111	38,198	7,778	319	2,593	603	1,823	1.803
10	KUD Ciparay	970	224	10	0	0	0	0	0
11	KPBS Pangalengan	97,310	61,443	14,958	380	18,830	1,157	5,696	7.757
12	KUD Tanjung Sari	11,568	8,228	1,866	101	272	4	32	241
13	KUD Ujung Berung ¹⁾	11,002	6,789	1,854	96	156	1	14	197
14	KUD Pasir Jambu	13,097	8,245	1,938	101	295	10	55	268
15	KUD Ciwidey	6,062	3,747	760	11	33	0	0	42
16	KUD Cipanas	1,681	903	158	1	0	0	0	16
17	KUD Batu	19,752	13,280	3,051	167	1,250	77	661	481
18	KUD Ngantang	31,116	20,337	5,568	176	1,552	188	986	595
19	Koperasi SAE Pujon	56,134	46,114	10,019	369	3,126	944	2,249	1.882
20	KUD Kasembon ²⁾	6,432	4,432	1,160	23	35	0	0	67
21	KAN Jabung	18,422	12,187	2,717	143	668	57	660	446
22	KUD Karangploso	4,651	3,136	716	8	26	0	0	40
23	KPLP Nongkojajar ²⁾	36,530	26,073	6,745	229	1,921	490	1,346	713
24	KUD Purwodadi	14,395	10,969	2,237	106	451	21	352	276
25	KSS Prigen	1,302	700	50	0	0	0	0	6
26	KUTT Grati	32,811	24,813	6,518	196	1,609	329	1,019	688
27	KUD Puspo	6,434	4,912	1,171	24	107	0	0	68
28	KUD Gondang Legi	8,874	5,624	1,673	76	116	0	0	84
29	KUD Wajak ²⁾	1,139	644	46	0	0	0	0	2
30	KUD Dau	9,737	6,246	1,681	86	122	0	11	153
Average All		17.687	12,191	2,890	107	1,203	138	568	590
Average non-KUD		40.702	29,113	6,793	166	3,667	199	0.0	765
Average KUD		10.683	7,041	1,702	89	453	119	741	537
T-Test		***	***	***		**		***	

Note: Data are not available: ¹⁾ Data for year 2000; ²⁾ Data for year 1997

Appendix 14.2. The Average Growth of Business Turnover¹

Name of Co-operatives		Total Growth of Business Unit							
		Total	Milk	Feed	Credit	Trade	Other Livestock	Other Agriculture	Service and Others
1	KUD Cikajang	2,581	2,144	514	17	30	-33	33	-123
2	KUD Bayongbong	2,069	1,817	190	18	-4	82	-66	31
3	KUD Cisarupan ¹⁾	2,624	2,120	330	8	3	0	173	-10
4	KUD Samarang ¹⁾	184	21	5	1	0	0	477	-320
5	KUD Cilawu ²⁾	264	291	24	0	-10	3	-43	-1
6	KUD Cisarua	3,243	2,567	668	19	0	-2	-16	7
7	KPS Bogor ²⁾	561	553	-7	-8	-23	-28	0	74
8	KUD Cibereum	365	279	96	0	-1	5	0	-14
9	KPSBU Lembang ²⁾	8,974	6,796	1,594	89	675	60	0	-240
10	KUD Ciparay	-72	-40	-20	0	26	0	-1	-37
11	KPBS Pangalengan	10,709	7,509	1,527	49	1,738	-18	0	-95
12	KUD Tanjung Sari	1,732	1,547	283	44	1	37	-83	-96
13	KUD Ujung Berung ¹⁾	2,275	966	465	1	61	120	608	55
14	KUD Pasir Jambu	1,863	1,248	348	22	242	-28	49	-19
15	KUD Ciwidey	550	453	242	16	4	0	78	-243
16	KUD Cipanas	21	11	-25	6	128	-3	-152	57
17	KUD Batu	1,392	1,329	499	0	469	-28	-808	-70
18	KUD Ngantang	5,575	2,616	1,138	18	15	89	-201	1.900
19	Koperasi SAE Pujon	8,415	6,999	1,185	26	122	60	0	23
20	KUD Kasembon ²⁾	694	776	126	1	-35	0	-150	-23
21	KAN Jabung	3,390	1,683	487	17	240	-3	1.176	-210
22	KUD Karangploso	500	713	63	30	-320	0	0	13
23	KPLP Nongkojajar ²⁾	3,271	2,318	834	4	456	-16	-336	12
24	KUD Purwodadi	2,502	2,068	330	33	19	14	106	-69
25	KSS Prigen	184	121	57	-4	0	5	0	4
26	KUTT Grati	5,300	3,605	1,410	83	113	0	0	89
27	KUD Puspo	843	703	110	14	28	0	-56	43
28	KUD Gondang Legi	233	1,002	179	1	-132	0	-820	2
29	KUD Wajak ²⁾	-304	147	-11	0	-2	1	-454	17
30	KUD Dau	-272	586	258	1	167	1	-1.317	32
Average All		2,322	1,765	430	17	134	11	-60	26
Averaga non-KUD		5,345	3,986	943	34	440	9	-48	-19
Average KUD		1,402	1,089	274	12	41	11	-64	40
T-test		***	***	***	***	**			

Note: Data are not available: ¹⁾ Data for year 2000; ²⁾ Data for year 1997.

¹ Generally, growth rates are presented in percentages. However, because this study wants to see how much growth occurs when facing economic crisis, then the data is presented in nominal terms. Additionally growth data presented in the form of the average growth per year due to differences in the co-operative data completeness specific years, as explained in the methodology of research..

Appendix 14.3. The Share of Selected Business Turnover (%)

Name of Co-operatives		Share of business turnover (%)						
		Milk	Feed	Credit	Trade	Other Live-stock	Other Agriculture	Service and Others
1	KUD Cikajang	73	16	1	19	0	0	2
2	KUD Bayongbong	79	13	1	5	0	0	3
3	KUD Cisurupan ¹⁾	78	12	0	1	2	0	0
4	KUD Samarang ¹⁾	9	2	0	2	2	0	25
5	KUD Cilawu ²⁾	89	8	0	1	0	0	1
6	KUD Cisarua	79	19	1	8	0	31	2
7	KPS Bogor ²⁾	81	15	0	9	0	0	2
8	KUD Cibereum	73	25	0	1	0	0	0
9	KPSBU Lembang ²⁾	72	19	1	0	0	10	0
10	KUD Ciparay	66	17	0	1	0	5	4
11	KPBS Pangalengan	63	15	0	2	0	5	0
12	KUD Tanjung Sari	71	19	3	15	4	17	6
13	KUD Ujung Berung ¹⁾	40	17	1	0	2	4	1
14	KUD Pasir Jambu	66	18	1	11	0	4	0
15	KUD Ciwidey	52	28	2	0	2	0	4
16	KUD Cipanas	42	1	1	10	5	5	3
17	KUD Batu	62	15	0	4	0	1	3
18	KUD Ngantang	53	18	0	2	0	0	0
19	Koperasi SAE Pujon	82	14	0	0	0	0	3
20	KUD Kasembon ²⁾	76	18	4	1	0	16	1
21	KAN Jabung	45	13	0	2	0	0	2
22	KUD Karangploso	81	12	3	0	1	0	1
23	KPLP Nongkojajar ²⁾	71	18	0	0	1	0	2
24	KUD Purwodadi	79	13	1	1	0	4	5
25	KSS Prigen	69	28	0	0	2	0	1
26	KUTT Grati	76	21	1	0	0	88	1
27	KUD Puspo	78	12	2	32	0	8	16
28	KUD Gondang Legi	77	13	0	12	0	0	4
29	KUD Wajak ²⁾	85	4	1	13	0	6	3
30	KUD Dau	58	20	0	1	0	3	6
Average All		68	15	1	5	1	7	4
Averaga non-KUD		74	19	0	5	1	0	2
Average KUD		66	15	1	5	1	9	4
T-test							**	

Note: Data are not available: ¹⁾ Data for year 2000; ²⁾ Data for year 1997.

Appendix 14.3. The Growth Share of Selected Business Turnover (%)

Name of Co-operatives		Growth of the share (%)						
		Milk	Feed	Credit	Trade	Other Live-stock	Other Agri-culture	Service and Others
1	KUD Cikajang	1.4	0.4	0.0	-0.6	0.0	0.0	-0.6
2	KUD Bayongbong	6.6	1.9	0.1	0.9	0.1	0.0	-2.1
3	KUD Cisarupan ¹⁾	3.5	1.1	0.1	0.1	-0.5	0.0	-0.1
4	KUD Samarang ¹⁾	-4.0	-1.6	-0.7	-0.8	-0.2	-2.3	5.8
5	KUD Cilawu ²⁾	19.7	2.9	0.6	0.3	0.0	0.0	0.2
6	KUD Cisarua	5.7	1.6	0.1	-0.9	-0.1	2.6	-5.9
7	KPS Bogor ²⁾	6.9	2.0	0.1	0.7	-0.1	-1.4	-0.2
8	KUD Cibereum	1.7	0.4	0.0	-0.3	0.0	-0.1	0.0
9	KPSBU Lembang ²⁾	1.4	0.3	0.0	0.0	0.0	-1.3	-0.2
10	KUD Ciparay	1.1	0.1	0.0	0.1	-0.7	-1.5	-3.5
11	KPBS Pangalengan	0.4	0.1	0.0	-0.7	0.1	-0.2	-1.6
12	KUD Tanjung Sari	1.2	0.1	0.0	-6.5	0.4	5.5	-2.1
13	KUD Ujung Berung ¹⁾	-3.5	-1.5	-0.6	-0.1	0.5	-1.7	0.1
14	KUD Pasir Jambu	0.6	0.1	0.0	0.7	-0.5	-0.5	-0.4
15	KUD Ciwidey	0.0	-0.6	-0.1	-0.1	0.2	-1.8	-3.6
16	KUD Cipanas	-1.2	-1.1	-0.5	2.4	-0.7	-6.2	-0.8
17	KUD Batu	0.3	0.0	0.0	-0.2	0.0	-2.1	0.6
18	KUD Ngantang	0.1	-0.4	0.0	-1.1	0.0	-3.5	-0.5
19	Koperasi SAE Pujon	10.4	2.3	0.2	-0.4	-0.5	0.0	0.9
20	KUD Kasembon ²⁾	2.2	0.5	0.1	0.0	0.0	-0.3	-6.5
21	KAN Jabung	-0.1	-0.9	-0.3	-12.5	0.0	-0.1	0.2
22	KUD Karangploso	6.7	2.0	0.1	-0.1	0.1	0.0	-1.6
23	KPLP Nongkojajar ²⁾	1.3	0.3	0.0	-1.2	0.1	-5.0	-0.8
24	KUD Purwodadi	4.4	1.4	0.1	-1.7	0.0	-10.4	-0.1
25	KSS Prigen	1.1	0.1	0.0	0.0	0.4	0.0	0.3
26	KUTT Grati	2.1	0.5	0.1	0.0	0.0	15.7	-16.1
27	KUD Puspo	4.2	1.2	0.1	7.6	-0.2	-9.7	3.4
28	KUD Gondang Legi	3.3	0.8	0.1	2.8	0.0	-0.1	-2.7
29	KUD Wajak ²⁾	11.7	2.8	0.3	1.9	0.0	-12.0	0.4
30	KUD Dau	0.2	-0.2	0.0	0.1	0.1	-21.8	1.7
Average All		3.0	0.5	-0.0	-0.3	-0.1	-1.9	-1.2
Averaga non-KUD		0.0	0.4	-0.1	0.2	-0.1	-0.2	-0.2
Average KUD		3.9	0.6	0.0	-0.5	-0.0	-2.5	-1.5
T-Test		***	**				*	*

Note: Data are not available: ¹⁾Data for year 2000; ²⁾Data for year 1997.

Appendix 15. The Financial Performances of the 30 Sampled Dairy Co-operatives

Appendix 15.1. Selected Financial Performance in 2000

Name of Co-operatives		Selected Financial Performance in 2000 (in Million Rupiahs)						
		Total Asset	Total Equity	Total Liabilities	Account Receivable	Working Capital	Members' Saving	Net Savings
1	KUD Cikajang	8,410	1,657	6,753	5,470	3,620	398	207
2	KUD Bayongbong	11,197	3,104	8,093	7,261	862	1,479	379
3	KUD Cisarupan ¹⁾	4,933	1,372	3,562	3,590	839	314	116
4	KUD Samarang	4,515	230	4,285	4,351	1,417	75	3
5	KUD Cilawu	4,913	306	4,607	3,967	84	104	10
6	KUD Cisarua	15,506	4,350	11,157	11,433	5,171	494	302
7	KPS Bogor	11,905	-86	11,991	9,672	-959	423	51
8	KUD Cibereum	2,220	199	2,021	1,779	1,254	74	38
9	KPSBU Lembang	15,378	8,967	6,411	4,919	6,684	1,520	346
9	KUTT Grati	12,705	6,192	6,513	5,925	3,399	515	640
10	KUD Ciparay	1,986	105	1,882	1,356	526	61	-66
11	KPBS Pangalengan	17,206	7,072	10,134	8,397	5,089	5,116	345
12	KUD Tanjung Sari	5,130	1,505	3,626	2,383	1,153	239	50
13	KUD Ujung Berung ¹⁾	4,475	1,277	3,198	1,968	1,355	399	55
14	KUD Pasir Jambu	4,331	1,547	2,783	1,598	-2	619	142
15	KUD Ciwidey	8,120	348	7,772	7,101	634	80	58
16	KUD Cipanas	15,581	289	15,292	13,512	389	104	17
17	KUD Batu	8,601	4,125	4,476	2,942	1,845	1,693	356
18	KUD Ngantang	23,055	5,897	17,158	11,838	1,008	373	115
19	Koperasi SAE Pujon	18,790	12,711	6,079	6,371	5,161	1,431	710
20	KUD Kasembon	1,247	391	856	351	443	83	26
21	KAN Jabung	7,627	2,616	5,011	2,945	994	240	218
22	KUD Karangploso	9,750	629	9,121	8,918	598	41	41
23	KPLP Nongkojajar	17,742	13,712	4,030	4,533	10,069	4,671	1,040
24	KUD Purwodadi	3,825	1,663	2,162	981	810	281	78
25	KSS Prigen	542	209	333	284	230	18	14
27	KUD Puspo	6,107	3,364	2,743	1,764	1,552	60	91
28	KUD Gondang Legi	13,915	2,323	11,591	9,670	606	31	150
29	KUD Wajak	2,421	341	2,080	1,190	498	39	9
30	KUD Dau	5,304	3,070	2,235	667	1,174	1,126	215
Average All		8.915	2,983	5,932	4,905	1,883	737	192
Average non-KUD		13.467	6,968	6,499	5,729	4,239	1,956	449
Average KUD		7.529	1,770	5,759	4,654	1,166	366	113
T-test		**	***			***		***

Note: ¹⁾ Data of Balance Sheet and Operating Statement for year 1999, because data for year 2000 are not available.

Appendix 15.2. The Growth of Selected Financial Performances per Year

Name of Co-operatives		Growth of financial performances 1996-2000 (Rp million per year)						
		Total Asset	Total Equity	Total Liabilities	Account Receivable	Working Capital	Members' Saving	Net Savings
1	KUD Cikajang	1,288	246	1,042	946	738	58	17
2	KUD Bayongbong	1,354	316	1,038	1,134	1	284	61
3	KUD Cisarupan ¹⁾	242	193	49	323	-337	24	-3
4	KUD Samarang	726	4	722	708	20	4	0
5	KUD Cilawu	982	35	946	892	-43	8	-6
6	KUD Cisarua	1,837	391	1,445	1,358	94	40	25
7	KPS Bogor ²⁾	1,357	-235	1,591	1,969	-325	19	71
8	KUD Cibereum ³⁾	177	45	132	180	331	21	6
9	KPSBU Lembang ²⁾	1,426	975	450	77	512	82	-2
10	KUD Ciparay	52	-18	69	14	-4	2	-23
11	KPBS Pangalengan	343	80	262	-330	-130	-27	38
12	KUD Tanjung Sari	667	267	400	270	139	32	5
13	KUD Ujung Berung ¹⁾	519	75	445	323	180	19	-11
14	KUD Pasir Jambu	191	70	121	62	-122	4	12
15	KUD Ciwidey	1,481	2	1,479	1,367	-95	2	3
16	KUD Cipanas	3,366	44	3,322	3,038	-58	16	2
17	KUD Batu	148	238	-90	-79	-164	238	19
18	KUD Ngantang	4,287	546	3,742	2,433	-168	41	13
19	Koperasi SAE Pujon	2,312	1,529	783	1,163	737	75	98
20	KUD Kasembon ²⁾	-150	15	-165	-46	-182	10	3
21	KAN Jabung	1,207	482	725	398	95	52	37
22	KUD Karangploso	2,056	76	1,981	2,011	-20	-34	42
23	KPLP Nongkojajar	1,579	2,289	-710	481	2,401	994	186
24	KUD Purwodadi	334	91	244	220	153	-156	6
25	KSS Prigen	61	27	33	26	20	1	95
26	KUTT Grati	1,525	874	651	576	658	57	117
27	KUD Puspo	814	581	233	340	287	2	12
28	KUD Gondang Legi	1,980	232	1,747	2,032	149	3	15
29	KUD Wajak	-3	29	-32	7	-65	6	0
30	KUD Dau	564	351	212	55	109	269	32
T-test for the growth		***	***			***	***	***
Average All		1.091	328	762	732	164	71	29
Average non-KUD		1.229	791	437	566	553	172	86
Average KUD		1.049	187	861	782	45	41	12

Note: Data are not available for: ¹⁾ Data of Balance Sheet and Operating Statement for year 2000; ²⁾ Data of Operating Statement for year 1997; ³⁾ Data of Balance Sheet for year 1997.

Appendix 15.3. The Performance of Financial Ratio

Name of Co-operatives		Financial Ratio							
		Current (%)	Debt Ratio (%)	Asset turnover (%)	Net Profit Margin (%)	Return on Investment (%)	Operating expenses to sales (%)	Equity to debt (%)	Sales per employee (million)
1	KUD Cikajang	2.6	80.3	2.0	1.2	3.4	17.8	24.5	285
2	KUD Bayongbong	1.1	72.3	1.5	2.3	8.9	11.9	38.4	171
3	KUD Cisurupan	1.3	72.2	2.9	0.8	6.6	15.0	38.5	260
4	KUD Samarang	1.5	94.9	0.1	0.6	0.2	29.6	5.4	19
5	KUD Cilawu	1.0	93.8	0.4	0.5	1.0	21.8	6.6	71
6	KUD Cisarua	1.7	72.0	1.7	1.2	3.9	13.4	39.0	158
7	KPS Bogor	0.9	100.7	0.7	0.7	5.7	5.3	-0.7	98
8	KUD Cibereum	3.1	91.0	1.3	1.3	2.4	12.7	9.9	120
8	Koperasi SAE Pujon	2.1	32.5	3.0	1.3	5.1	8.4	209.1	196
9	KPSBU Lembang	2.5	41.6	3.5	0.7	3.1	12.6	139.9	257
10	KUD Ciparay	1.6	94.70	0.5	-6.8	-5.9	28.4	5.6	30
11	KPBS Pangalengan	1.8	58.9	5.6	0.4	3.2	1.3	69.8	382
12	KUD Tanjung Sari	1.5	70.7	2.3	0.4	1.8	13.4	41.5	175
13	KUD Ujung Berung	2.0	71.5	2.6	0.5	1.8	14.0	39.9	55
14	KUD Pasir Jambu	1.0	64.3	3.0	1.1	6.1	8.7	55.6	122
15	KUD Ciwidey	1.1	95.8	0.8	1.0	3.8	12.1	4.5	155
16	KUD Cipanas	1.0	98.1	0.1	1.0	1.2	23.2	1.9	51
17	KUD Batu	1.7	52.0	2.3	1.8	5.5	2.7	92.2	73
18	KUD Ngantang	1.1	74.4	1.4	0.4	1.6	19.3	34.4	193
20	KUD Kasembon	8.1	68.7	5.2	0.4	2.2	9.8	45.7	165
21	KAN Jabung	1.3	65.7	2.4	1.2	5.2	7.0	52.2	292
22	KUD Karangploso	1.1	93.6	0.5	0.8	3.1	16.9	6.9	123
23	KPLP Nongkojajar	3.5	22.7	2.1	2.8	7.6	11.4	340.2	171
24	KUD Purwodadi	1.8	56.5	3.8	0.5	2.8	9.6	76.9	267
25	KSS Prigen	4.4	61.5	1.7	1.6	3.0	19.8	62.6	102
26	KUTT Grati	1.8	51.8	2.6	1.9	7.8	9.9	95.1	301
27	KUD Puspo	2.2	44.9	1.1	1.4	1.9	17.7	122.6	153
28	KUD Gondang Legi	1.1	83.3	0.6	1.7	3.4	11.8	20.0	158
29	KUD Wajak	1.4	85.9	0.5	0.8	0.8	16.2	16.4	63
30	KUD Dau	2.0	42.1	1.8	2.2	5.2	11.5	137.4	105
Average All		2,0	70.6	1.9	0.9	3.4	11.25	61.1	159
Average non-KUD		2,4	52.7	2.7	1.3	5.1	9.8	130.9	215
Average KUD		1,8	75.6	1.7	0.7	2.9	15.0	39.8	142
T-test			**			**	*	***	

Appendix 16. The Implementation of Co-operative Principles

The Values and Principles of Co-operative	Average KUD	Average Non-KUD
The Values of Cooperatives (members - employees)	2.76	2.68
The first principle (members)	2.99	2.97
The second principle (member)	2.76	2.63
The third principle (member)	2.84	2.72
The fourth principle (members - employees)	2.80	2.79
The fifth principle (members - employees)	2.71	2.56
The sixth principle (members - employees)	2.62	2.60
The seventh principle (members - employees))	2.87	2.78
Organizational Performance (members - employees)	2.79	2.61

Appendix 17. The Result of T-Test for the Implementation of Co-operative Principles and Organizational Processes

Appendix 17.1. The Result of T-Test for the Implementation of Co-operative Principles

No	Principle of Co-operative	Mean		F	Sig.	Code
		Non-KUD	KUD			
1	The 1 st Principle: Voluntary and Open Membership	2.9673	2.9897	1.881	0.181	
2	The 2 nd Principle: Democratic member control	2.6279	2.7612	3.213	0.840	*
3	The 3 rd Principle: Member economic participation	2.7222	2.8423	2.350	0.137	
4	The 4 th Principle: Autonomy and independence	2.7887	2.7942	2.129	0.156	
5	The 5 th Principle: Education, training and Information	2.5569	2.7079	4.769	0.038	**
6	The 6 th Principle: Co-operation among co-operatives	2.6012	2.6152	0.205	0.654	
7	The 7 th Principle: Concern for community	2.7798	2.8710	2.797	0.106	

Appendix 17.2. The Result of T-Test for the Implementation of Organizational Processes

No	Organizational Process	Mean		F	Sig.	Code
		Non-KUD	KUD			
1	Leadership	6.929	7.668	0.887	0.181	
2	Motivation	6.738	7.416	1.376	0.251	
3	Communication	6.684	7.262	4.012	0.055	*
4	Interaction	6.754	7.559	4.550	0.042	**
5	Decision Making	6.339	6.943	1.585	0.218	
6	Goal setting	6.960	7.109	0.468	0.499	
7	Control	6.345	7.304	2.421	0.131	
8	Performance goals	6.389	7.357	0.071	0.792	

Appendix 18. The Eigenvalue of Each Group Variable of Businesses and Organizations

Code	Group Variable	Variables	Eigenvalue
VU23	Operating Statement	Total Sales	0.443
VU27		Total Costs	0.442
VU24		Cost of Good Sales	0.430
VU25		Gross Margin	0.394
VU26		Total Fixed Costs	0.384
VU28		Net Savings	0.347
VU29		The Growth of Operating Statement	The Growth of Total Sales
VU33	The Growth of Total Costs		0.468
VU30	The Growth of Cost of Good Sales		0.453
VU31	The Growth of Gross Margin		0.403
VU32	The Growth of Fixed Costs		0.396
VU34	The Growth of Net Savings		0.190
VU136	The Growth of Business Turnover		The Growth Total business Turnover
VU130		The Growth Feed Turnover	0.469
VU129		The Growth Milk Turnover	0.468
VU131		The Growth of Credit Turnover	0.393
VU132		The Growth of Trade Turnover	0.343
VU133		The Growth of Other Livestock Turnover	0.145
VU149		The Growth of Share of Other Agriculture Turnover	0.122
VU134		The Growth of Agriculture Turnover	0.091
VU146		The Growth of Share of Credit Turnover	0.080
VU135		The Growth of Service and Other Turnover	0.060
VU150		The Growth of Share Service and Other Turnover	0.045
VU145		The Growth of Share Feed Turnover	0.009
VU144		The Growth of Share Milk Turnover	*
VU147		The Growth of Share Trade Turnover	*
VU148		The Growth of Share Other Livestock Turnover	*
VU95	Milk Production	The Number of Matured Cow	0.420
VU94		The Number of Lactation Cow	0.414
VU96		The Number of Cow Population	0.413
VU103		Average Milk Production per Day	0.408
VU104		Milk Production Share	0.408
VU97		The Number of Productive Cow	0.336
VU98		The Number of Cow owned per Member	0.183
VU107		Milk Quality (Total Solid)	0.040
VU106		Milk Productivity per Member	0.020
VU105		Milk Productivity per Lactation Cow	0.017
VU99		The Number of Matured Cow per member	*
VU100		The Number of Lactation Cow per member	*
VU101		The Ratio of Matured Cow	*
VU102		The Ratio of Lactation Cow	*
VU122		Business Turnover	Feed Turnover
VU128	Total Business Turnover		0.476
VU121	Milk Turnover		0.464

Code	Group Variable	Variables	Eigenvalue
VU124		Trade Turnover	0.375
VU123		Credit Turnover	0.276
VU127		Service and Other Turnover	0.228
VU125		Other Livestock Turnover	0.182
VU140		Share of Trade Turnover	0.114
VU138		Share of Feed Turnover	0.099
VU141		Share of Other livestock Turnover	0.062
VU143		Share of Service and other Turnover	0.041
VU137		Share of Milk Turnover	0.021
VU126		Other Agriculture Turnover	*
VU139		Share of Credit Turnover	*
VU142		Share of Other Agriculture Turnover	*
VU89		Productivity Ratio	Sales per Employee
VU92	Total Cost per Employee		0.540
VU90	Cost of Goods Sold per Employee		0.528
VU91	Fixed Cost per Employee		0.370
VU93	Net Savings per Employee		0.030
VU4	Balance Sheet 2000	Total Assets	0.418
VU2		Total Current Assets	0.405
VU1		Accounts Receivable	0.349
VU8		Total Debt	0.345
VU5		Total Current Liabilities	0.322
VU3		Total Current Assets	0.301
VU10		Total Equity	0.287
VU11		Working Capital	0.246
VU9		Member Savings	0.223
VU7		Total Long Term Liabilities	0.167
VU6		Bank Debt	0.067
VU85	Capital Ratio	Contribution of Voluntary saving to capital	0.674
VU83		Independence of Capital (%)	0.673
VU84		Contributions of Compulsory Savings to Capital	0.306
VU55	Leverage Ratio	Sales to Owners' Equity	0.617
VU54		Noncurrent Assets to Owners' Equity	0.570
VU56		Turnover of Total Assets	0.376
VU52		Owners' Equity to Total Assets	0.375
VU51		Closure of Fixed Expenses	0.111
VU49		Currents Liability to Total Assets	*
VU50		Total Liabilities to Total Assets	*
VU53		Long Term Debt to Capitalization	*
VU171	The Opinion of Members towards Co-operative Business	Views on Combined Business Performance	0.294
VU157		Views on the Cost of Animal Health Services	0.289
VU158		Views on the Quality of Animal Health Services	0.286
VU159		Views on the Availability of Animal Health Services	0.286
VU153		Views on the Availability of Feed	0.282
VU156		Views on the Availability of Medicines	0.269
VU155		Views on the Quality of Medicines	0.263
VU166		Views on the Lack of Capital Problem	0.246
VU154	Views on the Price of Medicines	0.238	

Code	Group Variable	Variables	Eigenvalue
VU152		Views on the Quality of Feed	0.229
VU167		Views on the Amount of Net Savings Generated	0.219
VU165		Views on the Availability of Consumer Goods	0.195
VU170		Views on the Quality of Business Services	0.188
VU161		Views on the Ease of Credit and Loans	0.179
VU151		Views on the Price of Animal Feed	0.176
VU164		Views on the Price of Consumer Goods	0.169
VU163		Views on the Limits amount of Loan	0.156
VU160		Views on the Selling Price of Milk	0.118
VU168		Views on Job Creation	0.106
VU169		Views on Co-operative Bargaining Position	0.094
VU162		Views on the Amount of Loan Interest	0.066
VU63		The Growth of Leverage Ratio	The Growth of Sales to Owners' Equity
VU62	The Growth of Noncurrent Assets to Owners' Equity		0.653
VU64	The Growth of Turnover of Total Assets		0.254
VU60	The Growth of Owners' Equity to Total Assets		0.247
VU57	The Growth of Currents liability to Total Assets		*
VU58	The Growth of Total Liabilities to Total Assets		*
VU59	The Growth of Closure of Fixed Expenses		*
VU61	The Growth of Long Term Debt to Capitalization		*
VU86	The Growth of Capital Ratio	The Growth of Independence of Capital (%)	0.708
VU88		The Growth of Contribution of Voluntary Saving to Capital	0.704
VU87		The Growth of Contributions of Compulsory Savings to Capital	0.054
VU44	The Growth of Liquidity Ratio	The Growth of Account Receivable to Working Capital	0.577
VU45		The Growth of Inventory to Working Capital	0.575
VU46		The Growth of Sales to Working Capital	0.575
VU47		The Growth of Days sales in Accounts Receivable	0.063
VU48		The Growth of Amount of Accounts Payable	0.034
VU42		The Growth of Current Ratio	*
VU43		The Growth of Quick Ratio	*
VU39	Liquidity Ratio	Sales to Working Capital	0.558
VU38		Inventory to Working Capital	0.558
VU37		Account Receivable to Working Capital	0.555
VU36		Quick Ratio	0.186
VU35		Current Ratio	0.183
VU40		Days sales in Accounts Receivable	0.031
VU41		Amount of Accounts Payable	0.019
VU15	The Growth of Balance Sheet	The Growth of Total Assets	0.448
VU12		The Growth of Account Receivable	0.446
VU19		The Growth of Total Debt	0.445
VU16		The Growth of Total Current Liabilities	0.445
VU13		The Growth of Total Current Assets	0.442
VU14		The Growth of Total Noncurrent Assets	0.087
VU21		The Growth of Total Equity	0.041
VU17		The Growth of Bank Debt	0.024
VU18		The Growth of Total Long Term Liabilities	*
VU20		The Growth Members Saving	*
VU22		The Growth of Working Capital	*

Code	Group Variable	Variables	Eigenvalue
VO6	The Board of Directors	Members' acceptance of BOD	0.460
VO8		The activeness of the Chairman	0.444
VO10		Members' assessment of the chairman	0.432
VO7		The Solidity of BOD	0.421
VO5		The overall activeness of the BOD	0.360
VO11		Employees' Assessment of BOD	0.293
VO9		Non long-life Chairman	0.111
VO4		The number of Board Director	*
VO21	Co-operative Dynamics	The interaction of members with co-operative businesses	0.370
VO14		The number of employees	0.368
VO20		The intensity of member group meeting	0.359
VO15		The number of cattle breeders	0.354
VO16		The activeness of members in group	0.336
VO22		The control role of group representatives	0.313
VO2		Multi or single purpose	0.286
VO1		The age of the co-operative	0.267
VO18		Member's obligatory saving per liter of milk	0.228
VO13		The existence of a general manager	0.196
VO12		The number of supervisors	0.106
VO3		The number of autonomy business units	0.081
VO19		Voluntary savings	0.031
VO17		Members get benefit from their co-operative	*
VO45		Co-operative Principles	Organizational Performance (Members - Employees)
VO37	Values of Cooperatives (Members - Employees)		0.407
VO44	The Seventh Principle (Members - Employees)		0.399
VO39	The Second Principle (Member)		0.393
VO42	The Fifth Principle (Members - Employees)		0.351
VO40	The Third Principle (Member)		0.297
VO43	The Sixth Principle (Members - Employees)		0.238
VO38	The First Principle (Members)		0.174
VO41	The Fourth Principle (Members - Employees)		0.040
VO25	Network and Development	The Frequency of external visit (much/less)	0.528
VO28		The Existence of networking with other companies (Y/N)	0.453
VO23		Internal Training (Y/N)	0.441
VO24		The Intensity of Extension (enough/ less)	0.430
VO26		Good relationship with GKSI (Y/N)	0.370
VO27		Networking with Other Co-operatives (Y/N)	*
VO35	Organizational Processes	Controlling Process	0.380
VO32		Interaction and Influence	0.380
VO33		Decision Making Process	0.364
VO31		Communication Process	0.358
VO34		Goal Setting	0.350
VO36		Performance, Goals and Training	0.340
VO30		Motivation Development	0.340
VO29		Leadership Process	0.312

Note: * means the eigenvalue is not appeared within the result of data processing. The eigenvalues are sorted from the highest to the lowest for each group variables.

Appendix 19. The Business and Organizational Performance of Dairy Co-operatives based on Quadrants

Appendix 19.1. The Business Performance of Dairy Co-operatives

No	Business Performance	Average All	Quadrant			
			I	II	III	IV
1. Milk Production						
a	Milk production per days (kg)	22,248.3	35,329.0	49,606.8	6,724.4	8,081.1
b	Share on industrial milk production	2.0	3.1	4.3	0.6	0.7
c	Number of Cow population	5,044.0	7,780.5	10,893.8	1,946.8	1,745.2
d	Ratio of lactation cows	44.7	47.1	44.1	41.2	46.7
e	Milk production per lactation (kg/day)	9.9	10.0	10.8	9.2	10.3
f	Number of Cows per member (head)	3.9	3.3	4.4	4.8	2.8
g	Milk production per member (kg/day)	16.2	15.3	18.4	17.5	13.9
h	Quality	11.5	11.9	11.1	11.2	11.4
2. Growth Milk Production In Percentage						
a	Milk production per days	30.6	44.4	1.5	30.6	30.6
b	Number of Cow population	29.3	48.4	-4.6	23.4	29.3
c	Ratio of lactation cows	4.8	3.8	13.3	5.1	4.8
d	Milk production per lactation	-2.2	-2.4	-3.2	0.6	-2.2
e	Number of Cows per member	7.5	31.0	2.0	-6.2	7.5
f	Milk production per member	5.0	22.9	13.8	-5.4	5.0
3. Business Turnover						
a	Total	17,687	27,159	43,143	4,060	7,642
b	Milk	12,191	19,540	28,730	2,656	4,811
c	Feed	2,890	4,447	7,187	649	1,166
d	Credit	107	184	219	20	50
e	Trade	1,203	1,263	5,604	41	105
f	Other Livestock	138	243	425	0	2
g	Other Agriculture	568	879	2,042	0	13
h	Service and Others	590	713	2,362	41	117
4. The Total Growth of Business Unit						
a	Total	2,322	4,046	5,330	279	850
b	Milk	1,765	2,962	3,875	374	681
c	Feed	430	719	949	48	239
d	Credit	17	25	42	1	11
e	Trade	134	203	462	-2	26
f	Other Livestock	11	18	16	-2	16
g	Other Agriculture	-60	6	-20	-120	-97
h	Service and Others	26	112	8	-20	-26

5. The Share of business turnover (%)						
a	Milk	68	69	74	68	61
b	Feed	15	16	17	12	20
c	Credit	1	1	1	1	1
d	Trade	5	5	4	8	2
e	Other Livestock	1	1	0	1	1
f	Other Agriculture	7	3	31	4	2
g	Service and Others	3	2	2	6	2
6. The Growth of the share (%)						
a	Milk	3.0	2.4	2.9	4.5	1.4
b	Feed	0.5	0.5	0.7	0.8	0.1
c	Credit	0.0	0.0	0.0	0.0	-0.1
d	Trade	-0.3	-2.4	-2.2	1.5	0.3
e	Other Livestock	0.0	0.0	-0.1	-0.2	0.1
f	Other Agriculture	-1.9	-1.7	2.3	-3.4	-4.2
g	Service and Others	-1.2	-0.3	-3.7	-0.4	-0.6
7. Selected Financial						
a	Total Asset	7,342.0	9,737.3	12,866.3	3,397.2	7,342.0
b	Total Equity	2,760.2	4,520.6	4,599.0	720.7	2,760.2
c	Total Liabilities	5,748.5	7,790.9	9,002.5	3,208.2	5,748.5
d	Account Receivable	4,306.9	5,951.4	7,339.8	1,918.8	4,306.9
e	Working Capital	1,774.8	2,842.1	2,807.8	493.3	1,774.8
f	Net Savings	160.7	247.6	266.5	50.3	160.7
8. The Growth of financial performances (million Rp per year)						
a	Total Asset	1,031.3	1,282.2	1,170.5	884.0	766.0
b	Total Equity	328.3	470.2	307.0	251.7	233.8
c	Total Liabilities	762.2	1,003.5	864.5	607.5	549.8
d	Account Receivable	731.6	890.7	854.5	592.6	616.2
e	Working Capital	163.7	343.5	140.5	45.6	76.3
f	Members' Saving	71.5	142.1	42.0	28.2	45.8
g	Net Savings	29.0	39.9	30.3	21.0	23.3
9. Financial Ratio						
a	Current (%)	2.0	1.9	1.6	2.2	1.9
b	Debt Ratio (%)	70.3	77.8	68.8	64.6	68.0
c	Asset turnover (%)	1.9	2.1	1.7	1.8	1.9
d	Net Profit Margin (%)	0.9	1.2	1.0	0.3	1.1
e	Return on Investment (%)	3.4	4.2	3.0	2.7	3.7
f	Operating expenses to sales (%)	13.8	15.3	12.4	12.8	13.9
g	Equity to debt (%)	61.1	63.2	35.9	69.6	60.0
h	Sales per employee (million)	159.0	180.6	145.8	151.2	145.0

Appendix 19.2. The Organizational Performance of Dairy Co-operatives

No	Organizational Process	Average All	Quadrant			
			I	II	III	IV
I. Leadership processes						
a	Extent to which superiors have confidence and trust in subordinates	7.0	7.8	6.1	7.3	7.3
b	Extent to which subordinates have confidence and trust in superiors	7.0	7.5	5.5	7.6	8.0
c	Extent to which superiors display supportive behavior toward others	6.9	7.5	5.6	7.7	6.7
d	Extent to which superiors behave so that subordinates feel free to discuss important things about their jobs	7.5	8.7	6.2	7.3	7.9
e	Extent to which superior in solving job problems tries to get in subordinates' idea	7.8	8.3	6.5	8.2	7.3
2. Character of motivational forces						
a	Underlying motives tapped	6.8	7.4	6.0	7.0	6.8
b	Manner in which motives are used	6.8	7.2	6.1	7.2	7.4
c	Kinds of attitudes developed toward organization and its goals	7.5	7.3	6.7	7.7	8.2
d	Extent to which motivational forces conflict with or reinforce one another	7.2	7.7	5.8	7.4	8.0
e	Amount of responsibility felt by each member of organization for achieving organization's goals	7.5	7.6	6.8	7.6	8.0
f	Attitudes toward other members of the organization	7.7	7.6	7.1	7.6	8.4
g	Satisfaction derived	6.4	6.9	5.3	6.7	6.9
3. Character of communication processes						
a	Amount of interaction and communication aimed at achieving organization's objectives	7.6	8.3	6.0	7.6	8.1
b	Direction information flow	7.3	7.2	6.0	7.6	8.1
c	Downward communication					
c.1	When initiated	6.5	6.6	5.5	7.2	7.1
c.2	Extent to which superiors willingly share information with Subordinates	7.0	7.4	6.3	7.2	7.3
c.3	Extent to which communications are accepted by subordinates	7.2	7.7	6.0	7.6	7.2
d	Upward communication					
d.1	Adequacy of upward communication via line organization	6.4	7.2	5.2	6.4	6.9
d.2	Subordinates' feeling of responsibility for initiating accurate upward information	7.3	7.7	6.6	7.3	7.8
d.3	Forces leading to accurate or distorted upward information	6.6	7.4	4.9	6.8	7.1
d.4	Accuracy of upward communication via line	7.2	7.5	6.5	7.1	7.7
d.5	Need for supplementary upward communication system	5.8	5.6	5.4	5.5	7.1
e	Sideward communication, its adequacy and accuracy	7.0	7.6	5.4	7.7	7.7
f	Psychological closeness of superiors to subordinates	7.8	8.3	6.6	8.0	8.1
f.1	How well does superior know and understand problems faced by Subordinates	6.7	7.2	5.7	6.5	7.3
f.2	How accurate are the perception by superiors and subordinates of each other	7.1	7.5	6.4	7.3	7.7

4. Character of interaction-influence processes						
a	Amount and character interaction	7.0	7.5	6.0	7.5	7.4
b	Amount of cooperative teamwork presented	7.2	7.8	5.8	7.7	7.5
c	Extents to which subordinates can influence the goals, methods, and activity of their units and departments					
c.1	As seen by superiors	7.1	7.7	6.1	7.1	7.3
c.2	As seen by subordinates	7.2	7.7	6.4	7.5	7.2
d	Amount of actual influence which superiors can exercise over the goals, activity, and methods of their units and departments	7.5	8.2	6.5	7.3	7.9
e	Extent to which an effective structure exists enabling one part of organization to exert influence upon other parts	7.2	7.7	6.4	7.1	7.7
5. Character of decision making process						
a	At what level in organization are decisions formally made?	6.1	7.3	5.1	5.7	5.8
b	How adequate and accurate is the information available for decision making at the place where the decisions are made?	6.9	7.4	6.1	6.6	6.9
c	To what extent are decision makers aware of problems, particularly those at lower levels in the organization?	6.5	6.9	5.6	6.5	7.2
d	Extent to which technical and professional knowledge is used in decision making	5.3	6.2	5.3	4.8	4.8
e	Are decisions made at the best level in the organization as far as :					
e.1	Availability of the most adequate and accurate information bearing on the decision	6.9	7.7	5.8	6.8	6.7
e.2	The motivational consequences (i.e., does the decision making process help to create the necessary motivations in those persons who have to carry out the decision?)	7.0	7.6	5.5	7.3	7.6
f	To what extent are subordinates involved in decisions related to their work?	6.8	7.6	5.7	6.9	7.2
g	Is decision making based on man-to-man or group pattern of operation? Does it encourage or discourage teamwork?	7.4	8.0	6.2	7.4	7.3
6. Character of goal setting or ordering						
a	Manner in which usually done	7.2	8.3	6.2	6.9	7.2
b	To what extent do the different hierarchical levels and to strive for high performance goals?	6.9	8.0	5.8	7.2	6.8
c	Are these forces to accept, resist, or reject goals?	6.5	7.4	5.6	6.6	6.6
7. Character of control processes						
a	At what hierarchical level in organization does major or primary concern exist with regard to the performance of the control function?	6.9	7.3	6.2	6.9	7.4
b	How accurate are the measurements and information used to guide and perform the control function, and to what extent do forces exist in the organization to distort and falsify this information?	6.8	7.7	5.5	6.9	7.0
c	Extent to which the review and control functions are concentrated	6.4	6.9	5.5	7.1	6.2
d	Extent to which there is an informal organization present and supporting or opposing goals of formal organization	7.1	7.6	6.5	7.0	7.1
e	Extent to which control data are used for self-guidance or group problem solving by managers and non supervisory employees, or used by superiors in a punitive, policing manner	7.2	7.9	5.6	7.6	7.5

8. Performance goals and training						
a	Level of performance goals which superiors seek to have organization achieve	7.7	8.2	7.0	7.6	8.0
b	Extent to which you have been given the kind of management training you desire	6.7	7.3	6.4	6.3	7.1
c	Adequacy of training recourses provided to assist you in training your subordinates	6.7	7.3	6.4	6.6	6.5

Appendix 20. Dairy Co-operative Development Index

Rank	The Name of Co-operatives	Business Aspect	Organization Aspect	Quadrant	DCDI
1 st	KPSBU Lembang	5.0092	2.3175	I	2.5427
2 nd	SAE Pujon Co-operative	4.8243	1.8439	I	2.2578
3 rd	KPLP Nongkojajar	3.6811	1.8808	I	1.9558
4 th	KUD Cikajang	0.7469	1.8337	I	1.1107
5 th	KUD Tanjungsari	0.1075	1.9596	I	0.9915
6 th	KUD Ngantang	2.7571	0.2295	I	0.8863
7 th	KUD Purwodadi	0.3961	1.5502	I	0.8716
8 th	KUD Batu	0.0172	1.5095	I	0.7453
9 th	KPBS Pangalengan	6.0278	-2.1216	II	0.6509
10 th	KAN Jabung	0.4564	0.8480	I	0.5441
11 th	KUUT Grati	3.3914	-0.9471	II	0.4871
12 th	KUD Cisurupan	0.0520	0.6527	I	0.3348
13 th	KUD Dau	-0.8302	1.1204	IV	0.3166
14 th	KUD Ujung Berung	-0.7739	0.9230	IV	0.2356
15 th	KUD Pasir Jambu	-1.3992	0.5648	IV	-0.1156
16 th	KSS Prigen	-1.7361	0.5756	IV	-0.2049
17 th	KUD Karangploso	-1.2449	0.2800	IV	-0.2120
18 th	KUD Ciwidey	-1.2457	0.2588	IV	-0.2227
19 th	KUD Cisarua	0.7775	-0.9263	II	-0.2362
20 th	KUD Puspo	-0.5414	-0.4200	III	-0.3580
21 st	KUD Bayongbong	0.3460	-1.2270	II	-0.5048
22 nd	KUD Cipanas	-1.9258	-0.3668	III	-0.7204
23 rd	KUD Ciparay	-2.3049	-0.3577	III	-0.8223
24 th	KUD Cilawu	-2.3371	-1.0634	III	-0.8529
25 th	KUD Gondanglegi	-1.2173	-1.7354	III	-1.1930
26 th	KUD Cibereum	-1.9808	-1.8591	III	-1.4680
27 th	KUD Wajak	-2.7010	-1.6937	III	-1.5889
28 th	KPS Bogor	-4.1673	-0.8991	III	-1.6106
29 th	KUD Kasembon	-1.0625	-2.8049	III	-1.6742
30 th	KUD Samarang	-3.1222	-2.2914	III	-2.0003