Comprehensive Evaluation of Human Value and Efficiency: The Co-op Kobe Case, Japan

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1. Development of the Idea

Co-op Kobe is a consumer cooperative with 1,040,000 members. In 1993, Isao Takamura, who was then chairman of the board, published a book, in which he stressed the importance of measuring the basic values of cooperatives for evaluating their business and activities. To develop his idea, a project was started in Co-op Kobe in autumn 1993. Participating were scholars from various universities and staff of the cooperative. Core group for steering the project was formed, and the author of this paper was among them.

Since the research theme was new, few documents were available. The process advanced, therefore, by trial and error. Almost two years were required to create a desirable, suitable, and systematic method. The method is called a Comprehensive Evaluation of Consumer Cooperative (CECC), in which "comprehensive" describes the character of the method that includes various kinds of evaluation including, especially, evaluation of basic values and efficiency of cooperatives.

In spring 1997, a new project was started in Co-op Kobe so that the evaluation could be practically applied. At this new stage, the original method of the CECC was revised and improved. A survey questionnaire

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was introduced. In autumn 1998, after one and a half years from starting the new project, Co-op Kobe published a report titled "Comprehensive Evaluation of Co-p Kobe [see Evaluation Committee of Co-op Kobe: 1998]." It was referred to as the evaluation report. The report is to be published every three years. The method of the CECC and some results of the evaluation are explained in the following sections.

2.　Evaluation Method

2-1　Framework of the Method

Purpose of the CECC

Four purposes for the development of the method of the CECC are defined as follows:

1)　Cooperative business should allow objective self-assessment by evaluation for efficiency and for determining the basic values of cooperatives. As is explained in the following section, this purpose was achieved in a certain extent by the CECC method, especially through the measurement of basic values.

2)　Common criteria should enable comparison of the business of different cooperatives. Though this purpose has not yet been achieved, it is not difficult if the method for the first purpose succeeds.

3)　Lofty business policy goals should be maintained for cooperatives. By connecting basic values, policy goals, and business planning, the CECC was formed to enable the achievement of this purpose. Though the idea is still elementary, it is possible to introduce policy-oriented consideration in the CECC. A value efficiency graph, which is described later, illustrates a way for cooperatives to select desirable directions.

4)　Co-operative business needs to be compared with a traditional corporation. However, it is difficult to objectively compare different kinds of organizations by using common criteria. As our method is not useful for the fourth purpose, it needs to be revised.

Core Elements of the Method

The CECC consists of three core elements, in which two have an intimate connection with each other and form the base of the CECC. The first

element, indicators for evaluation, has six indicators that are classified into those belonging to the basic values and business operations basis, which are explained in detail in the next section. These indicators are the aggregation of numerical data. The second element, a survey questionnaire, supplements the indicators in various respects. For example, the questionnaire is more absolute than are the indicators. The third element, a special report, deals with specific topics of a cooperative. Items are evaluated in a flexible manner; however, the report maintains some common purpose with the system of indicators. For example, the special report has a policy-oriented character in that it includes values, policy aims, and instruments. Characters of these three core elements are summarized shortly.

1) Indicators: evaluation with numerical, objective, and relative character.

2) Survey questionnaire: evaluation with numerical, objective, and in part absolute character.

3) Special report: evaluation with specific, flexible, and policy-oriented character.

In the following sections, the indicators and the questionnaire are explained.

2-2 Indicators, Intermediate items, and Data

The total business of a cooperative is evaluated from the viewpoints of its basic values and business operation basis. This is the foundation of the CECC method. Cooperatives attach much importance to the basic values. The business operations basis is broadly defined here as efficiency including short-term management efficiency and long-term development potential. Basic values and business operations basis are the system of indicators as a whole. For the systematic construction of the indicators, the concept of an intermediate item is used. Intermediate items make up a group of items that exists between the indicators and items of numerical data. The basic values, business operations basis, indicators, intermediate items, and items of data are related as follows and are more or less used as the materials and tools for evaluation:

[Table 1　Relationship of all factors relating to indicators in the CECC]

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┌── Basic values ── 4 Indicators ── 20 Intermediate items ── 105 Items of data
│
└── Business operations ── 2 Indicators ── 10 Intermediate ── 39 Items of data
      basis                                 items
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In the comprehensive evaluation of Co-op Kobe, the basic values have four indicators, and each indicator has five intermediate items, respectively. Comparatively, the business operations basis has two indicators, and each one has five intermediate items, respectively. The details are showed in Appendix 1. The system of desirable indicators was carefully considered. Cooperation between scholars and managers of the cooperative was necessary for attaining the final version of the indicator system.

2-3　Data Collection
Process of the Collection

Suitable data for indicators belonging to the business operations basis are readily available. Such data are normally accumulated for financial statements. On the other hand, little data is available for the basic values; therefore, it had to be manufactured for the construction of the indicators. To a large extent, success or failure of the CECC depends on whether systematic compilation of data is possible. Multiple steps for systematic data collection are listed here:

1) List possible data for use as each indicator.
2) Select desirable data.
3) Produce annual numerical data.
4) Improve the data.

For the first step, more than 400 items were listed as possible candidates for use as indicators. They range from the brilliant to the mediocre. In the next step, we selected the desirable data according to the concept of each indicator or intermediate item. Furthermore, the steps of processing and improving the selected data continued. The number of items was finally reduced to 144. The task of improving the data continues for a long time.

Classification of the Data

The total data collected for evaluation in the CECC is classified into the following four categories.

1) Ordinary data
2) Data obtained from research by professional advisors
3) Data obtained from the survey questionnaire
4) Data obtained from several ranks, determined from outside for evaluation

The ordinary data consist of such items as amounts of money, numbers of people or things, and ratios, and make up about 85% of the total number of data. The second category includes data obtained from research conducted by professional advisors who have the national license for consumers' life. From the research of the advisors, six items of data that are to be assigned to the indicator titled "Reliability and Care for Others" are produced. The third category consists of data obtained from a questionnaire. Though the answers to a questionnaire are subjective in character, they may be objective if a large amount of data is accumulated. Using the survey, as explained later, about 18 items of data belong to four indicators in the basic values. The data in the fourth category were to be used only had it been impossible to use data collected by other means. In such a case, several categories were considered for evaluation. For example, think of data that might fall under an intermediate item titled "Degree of Openness of Information." The item may belong to the indicator, "Social Responsibility and Fairness." Though it would be very difficult to originate the data, the possible way is to divide the "Degree of Openness of Information" into several sub-categories, each with a different evaluation score.
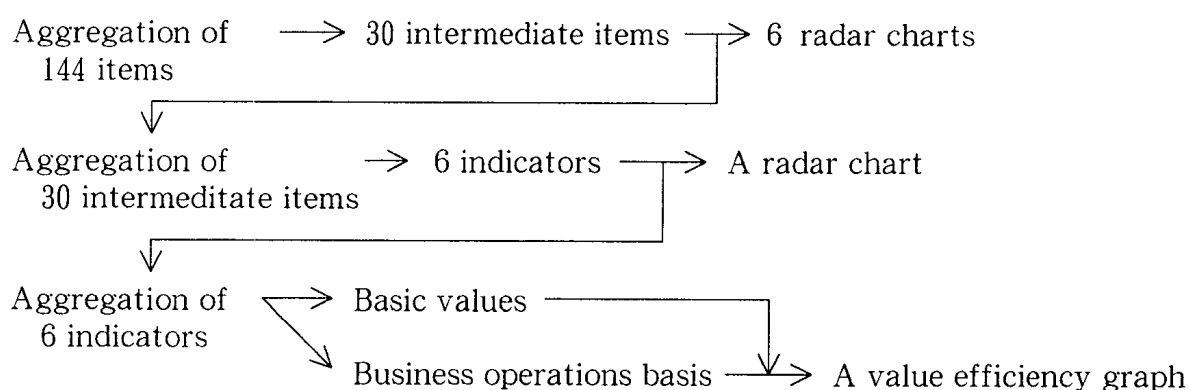
2-4 Radar Chart and Value Efficiency Graph

Cooperatives are evaluated from various respects. Radar charts and a value efficiency graph are useful instruments for evaluation. A radar chart shows an annual change in several factors such as intermediate items or indicators. The value efficiency graph was originally devised for

analyzing the relationship between human value and efficiency of the various participating organizations [N. Tsuda: 2000c]. In the CECC method, the graph is used, particularly, to analyze the relationship of the basic values and business operations basis. Procedures and meanings of radar charts and a value efficiency graph are explained in the section that follows.

Procedure

The total data is aggregated into 30 intermediate items from which six radar charts are made. The 30 intermediate items are aggregated into six indicators from which another radar chart is made. After that, the six indicators are reduced to two index numbers from which a value efficiency graph is made. The process depicted by arrows is shown in the following diagram:

[Figure 1　Derivation of radar charts and a value efficiency graph]

Aggregation of　　　—> 30 intermediate items —┬> 6 radar charts
　144 items
　　　　　　　⟱

Aggregation of　　　　　—> 6 indicators —┬> A radar chart
　30 intermeditate items
　　　　　⟱

Aggregation of　　⟨—> Basic values —————┐
　6 indicators　　　⟍
　　　　　　　⟍> Business operations basis —⟱> A value efficiency graph

Radar Chart

There are two classifications of radar charts. One includes intermediate items as elements, and the other includes indicators. The radar charts can be called an intermediate item-or an indicator type, respectively. An intermediate item radar chart explains the relationships between the changes of intermediate items over several years, while a radar chart of indicators explains the relationships of indicators. Annual changes in the relationships between the elements are easy to understand by using the radar charts. The radar charts for Co-op Kobe in the CECC can be seen in Appendix 3.

[Figure 2   Radar chart]

⟨Intermediate item type⟩
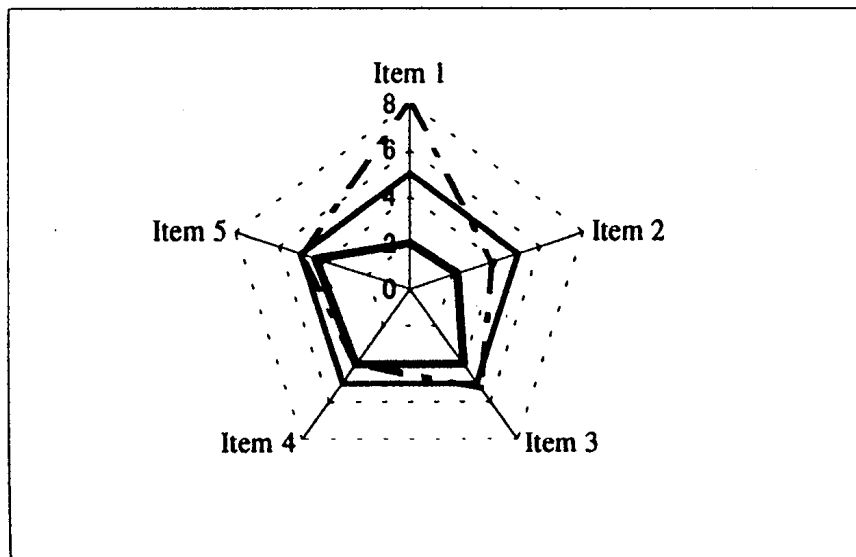
⟨Indicator type⟩
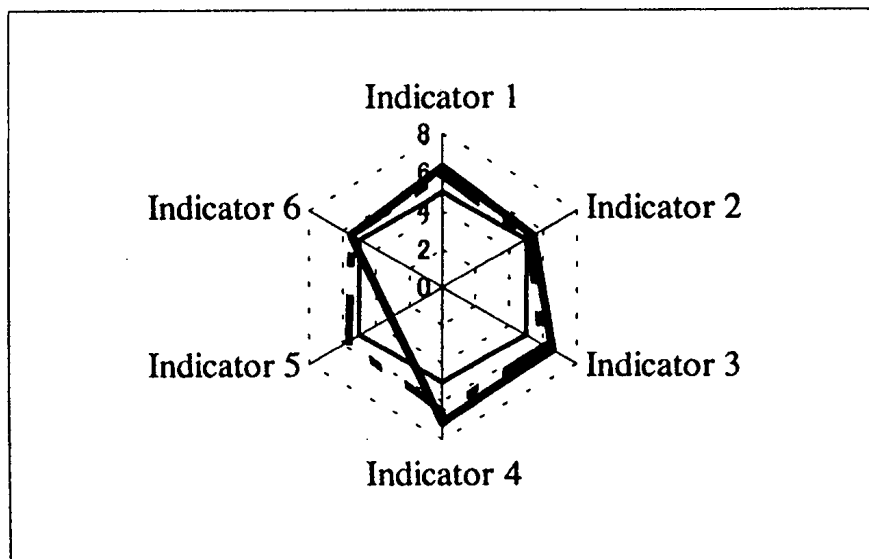
Value Efficiency Graph

If the index numbers of the basic values and business operations basis are measured on horizontal and vertical axes, the figure that appears is called a value efficiency graph.

Changes in the relationships between basic values and business operations basis provide valuable information for the future direction of

[Fugure 3　Value efficiency graph]

Business operations basis

High

		Initial point
Area 2	Area 1	
Area 3	Area 4	

Low

Low　　　　Basic Values　　　　High

[Table 2　Direction of the Change and the Meaning for Development]

Direction from the initial point	Typr of the change	Meaning for development
Area 1	Basic values : increase, Business opreations basis : increase	Optimum
Area 2	Basic values : decrease, Business opreations basis : increase	Degeneration for a cooperative
Area 3	Basic values : decrease, Business opreations basis : decrease	Extinction
Area 4	Basic values : increase, Business opreations basis : decrease	Possibility of declining

the development of a cooperative. The meaning of a change from medium to long range on a value efficiency graph is easy to understand if the space on the graph is divided into four parts, as in Figure 3. Each area seen from the initial point of the change has a different meaning for the development of a cooperative. Table 2 shows the direction of the change and the meaning for the development. The annual changes in the relationships between basic values and business operations basis in Co-

op Kobe on the value efficiency graph are shown in Appendix 4.

2-5 Statistical Method

Standardized Index Method and an Alternative

Index numbers for the items of data for certain periods are needed to create radar charts and a value efficiency graph. However, oversimplification of the statistical method of aggregation for the calculation of index numbers can result in serious difficulties. For example, there are many classifications for data. Some undergo large-scale change, and others change only slightly. Some data items may consist of ratios or some may be mature. If these differing items of data are aggregated, the index numbers acquired may not express the real situation. Another problem may occur if the different index numbers are added without giving relative weights for the aggregation. Each indicator and intermediate item included, especially in the basic values, has a different kind of value that must be given a different weight.

The best method for resolving these problems is to use a standardized index that is explained in Appendix 2. For two reasons, the method cannot be used immediately. One is the shortage of the time series data for calculating a standardized index that demands at least three or four year data. The other is the appearance of a lot of abnormal data caused by the 1995 Great Hanshin Earthquake that affected Co-op Kobe.

A simple method was devised for use as an alternative to the standardized index. The method transforms the normal index number of the data into a score according to the table in Appendix 2. The scores are aggregated into an index at levels such as the intermediate items or indicators. In this way, the score is indexed at the data level, intermediate item, indicator, basic values, and business operations basis, respectively. Radar charts and a value efficiency graph can be derived from these index scores.

This simple index method may be useful for only two or three years. If it is used longer, the margin of error grows larger because of some subjective factors included in the transformation process from an original index to a score index. The method is now in a transitional period from

the simple to the better, standardized index method. Since the project started in 1997, the statistical time series data collected in 1995-1999 have become sufficient for constructing a standardized index.

The standardized index method was developed by the Economic Planning Agency of Japan for the construction of "People's Life Indicators" in which different kinds of data are aggregated at the national or prefecture level. It appeared possible to apply the method to the evaluation of an organization.

Adding Relative Weight

It may be better for the index numbers to have relative weights in the aggregation process. Relative weight could be thought at different four levels that include intermediate items, indicators, basic values, and business operations basis. On the data level, the statistical method of multivariate analysis could be used to calculate a relative weight. However, still more statistical data are needed to calculate the weight on this level. On the other levels, the relative weights were derived by the methods, as shown in Table 3; most of them are survey questionnaire. All

[Table 3　Method of calculating weight]

Area	Phase where the weight is required	Method of acquiring weight
Area on the basic values	On the aggregation from intermediate iteme to an indicator	Questionnaire survey to the members and staff of the cooperative
	On theaggregation from indicators to the basic values	Aggregation of the values of the weights acquired by the above survey
Area on the business operations basis	On the aggregation from intermediate items to an indicator	Questionnaire survry to the directors
	On the aggregation from indicators to the business operations basis	Decided by the staff of the project
Area on the value efficincy graph	No aggregation. The weight of the basic values to the business operations basis is the same	

[Table 4 Calculation of relative weight : Example]

Intermediate item	Score	Relative weight
Cooperative involvement in human welfare	4. 3	0. 217
Cooperative involvement in environmental issue	3. 7	0. 187
Cooperative involvement in the local community	3. 5	0. 177
Impartiality of cooperative management practices	4. 8	0. 247
Faimess of employment conditions for copperative staff	3. 5	0. 177
Total	19. 8	1. 000

(All the intermediate items belong to the indicatoe "Social Responsibility and Fairness")

the weights belonging to the basic values are derived from a question-naire that was completed by members and staff of the cooperative, and the weights belonging to the business operations basis are derived from the questionnaire completed by directors or decided by the staff of the evaluation project.

As is explained in the next section, it is possible to calculate relative weight from the importance of a particular question and/or an achievement or satisfaction assigned to a question in the survey. The importance of a survey question was favored for assigning a relative weight. A hypothetical example, shown in Table 4, shows how the value of a relative weight is calculated when the information is obtained from a question regarding importance.

An answer on the questionnaire regarding importance is selected by indicating one item from five titled: Very Important, Important, Indifferent, Unimportant, and Very Unimportant. The value of the score ranges from 5 to 1. Summing up the value of the scores and dividing each score by the total scores calculates relative weight.

2-6 Survey Questionnaire

Roles and Method of the Survey questionnaire

The survey questionnaire is one of the three core elements of the CECC method. It is complementary to the indicators in that the answer to a

survey question furnishes a lot of qualitative information in addition to quantitative data. A central part of the questionnaire is a question on the importance and achievement, or satisfaction, concerning each intermediate item. They are called the "Importance Survey" and "Achievement (Satisfaction) Survey." Since the questionnaire fulfills many roles, here is a list with a corresponding method for achieving each role.

1)　Giving stakeholders a chance to participate in the cooperative.

Each stakeholder has a chance to participate by completing the survey questions for the next five roles (2～6).

2)　Giving the numerical value of the relative weight.

Answers regarding importance are processed into the numerical value of the relative weight as explained in the previous section.

3)　Giving a part of the data.

Answers on the achievement part of the survey are used to construct the part of the data that belongs to the basic values as explained" in section 2-3 titled "Classification of the Data." Although the data regarding the index number has a common character for relative evaluation, the data processed from the answer regarding the subjective evaluation is important in that it has the character of the evaluation itself. The number of the data constructed in this way is 18 among a total of 144.

4)　Giving an absolute evaluation in addition to a relative evaluation.

The part of the survey regarding importance and/or achievement, or satisfaction, provides information that has a character of absolute evaluation. For example, the answer to a survey question consists of selecting the degree of satisfaction from five alternatives ranging from "very satisfied" to "very dissatisfied." The answer has a character of absolute evaluation compared to the relative evaluation of an index number.

5)　Giving a gap analysis shows differences in consciousness among stakeholders.

If the answers to the questions regarding importance and achievement on each intermediate item are compared, the difference of the consciousness among stakeholders is shown as a numerical difference. The method for analyzing the difference is called a gap analysis. If the magnitude

derived from the gap analysis is large, meaning that the difference between the importance and achievement on some intermediate item is large in some stakeholder, it becomes necessary for the manager to decrease the difference. The gap analysis information is useful to management for making decisions about improving the present situation.

In order to grasp the inherent details of the stakeholder, the questionnaire includes different questions for each stakeholder. The same questions for different stakeholders make it possible to find the difference in answers between the stakeholders. Different questions for each stakeholder make it possible to find answers to problems peculiar to an individual stakeholder.

6)   Giving materials for formulating a management policy.

One of the purposes of the CECC method is to pursue the higher aims of cooperative business policy. Results from gap analysis and the general survey provide information for formulating cooperative policy.

Scale of the Survey Questionnaire

The scale of the survey questionnaire affects the quality of the evaluation as a whole. Although the survey performs valuable roles as listed above, the cost of the survey is high when conducted on a large scale. Because it is possible to evaluate a cooperative by indicators alone without using a survey, the scale of the survey must be chosen in terms of the accompanying benefits and costs.

[Table 5   Scale and survey particpants in the Co-p Kobe project]

Survey particpants	Questionnaire distribution	Number of respondents	Rete of answer	Particpant selection method
Members of the cooperative	1, 375	703	51. 1 %	Random sampling
Active membership	109	108	99. 1	All the people
Full-time staff	454	277	61. 0	Random sampling
Part-time workers	456	331	72. 6	Random sampling
Middle management	350	326	93. 1	All the people
Directors	47	31	66. 0	All the people
Total	2, 791	1, 776	63. 6	

In the CECC in Co-op Kobe, a small-scale tentative survey question-naire was first conducted. After investigating the results of the tentative survey, a large-scale survey was conducted confidently, knowing that the risk of failure was small. Table 5 shows the scale and participants of the Co-op Kobe survey.

2-7　Organizations for the Evaluation

Organization

Three organizations were set up in spring 1997 to apply the CECC method to Co-op Kobe. They are a secretariat, evaluation committee, and steering group, and each is related to the other. The secretariat con-sists of five to six members including the core staff of the project. The secretariat constructs the annual schedule for the evaluation. The evalu-ation committee is the central organization of the project and consists of more than 20 members who come from areas such as the board, the membership, and various universities. According to the schedule, the sec-retary presents drafts for discussion to the evaluation committee, which examines and finally publishes the draft as an evaluation report. The steering group consists of about 15 cooperative managers who develop data and draft a special report.

Process of the Evaluation

The two-stage evaluation process results in the publishing of a report titled "Comprehensive Evaluation of Co-op Kobe." The first stage, which lasted nearly one year, was devoted to the improvement of the original CECC method, giving emphasis to the practical details and data origination. There was, for instance, an active discussion in the evalua-tion committee on the appropriateness of each indicator's relationship to the data. The improved method was applied tentatively, and the results were analyzed and tested. At the second stage, six months were devoted to the full-scale evaluation and publication of the report. Discussion materials were presented to the evaluation committee. They included, for example, the radar charts with background analysis, value efficiency graph with recommended alternatives for management policy, special

report drafts, and analytical results of the survey questionnaire. The evaluation is gradually edited into a final report during the cooperative process by the three organizations.

3. Method Improvement

As is explained in the previous sections, the CECC evaluation method is to make evaluation of total business and activities of a cooperative in the past, present, and future, on the basis of two criteria; basic values and business operations basis, through quantitative/qualitative and relative/absolute methods. Those methods are still being improved. Since this is the first trial evaluation of the basic values of a cooperative, a few shortcomings are still being analyzed and improved. Some of the findings are described in the following:

1) Wholesale replacement of data is not desirable if it hurts the continuity of the data. However, improvement of the quality of the data is necessary, especially if the data does not reflect the concept of the intermediate item or the indicator. In 1999, there were 34 changes among the data and intermediate items. The improvement process is still underway.

2) After the first evaluation report was published, a drawback was detected concerning the relative weights between the intermediate items that belong to the basic values. The difference in the upper and lower relative weight was so small that the effective influence on the result of the aggregation could not figured. A 2000 change in the style of the questionnaire will enable a more desirable calculation of the values of the weights. Also, there is a value of the weight between the two indicators that belongs to the business operations basis. The value has been weighted as "1" for both indicators, which indicates that management efficiency and future potential are on an equal footing. However, many people in the cooperative maintained an intuitive notion that the weight on management efficiency should be increased, and as a result, the relative weight is being changed to 2 : 1 this year.

3) The survey method is being revised slightly. A "No Response" choice will be added to the possible answers. The number of cooperative member respondents is being decreased and only the responses received

by fax will be monitored. The reliability of the answers by fax was the same as those by mail.

4) A simple index method and a standardized index method for the period of 1995-1998 were compared in order to obtain the differences of the methods. The results are in Appendix 4. Because the differences between the two methods have increased over the past two years, it is better at this time to begin using the superior standardized method.

5) How can the results of a comprehensive evaluation be applied to management policy? In the first evaluation report in 1998, for example, policy alternatives were explained for the future direction of the cooperative by using a value efficiency graph. There were three analytical alternatives to select for the management. Figure 3 and Appendix 4 indicate that the cooperative should be moved to the northeast as a best choice; north, second best; and northwest, worst. Escaping from the slump was the urgent subject for the management policy in the spring of 1998, when the cooperative stagnated since the last year. However, the management board of the cooperative was not able to achieve the target, even thought the goals were clear, which indicates the extreme difficulty management faces as it tries to achieve its goals during the deep stagnation of the national economy. There is a necessity for a strong trade-off relationship involving most parts of the basic values and the business operations basis.

References

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3.　Naonori Tsuda [2000a], *Method and Practice of the Comprehensive Evaluation of Consumers' Cooperative*, (in Japanese), Co-op Kobe Research Institute.

4.　Naonori Tsuda[2000b],"Method of the Economics of Value and Participation," (in Japanese), *Social and Economic Systems Studies*, No. 19.

5.　Naonori Tsuda [2000c], "Innovation in Human values and Support Systems," *St. Andrew's University Bulletin of the Research Institute*, vol. 25-3, pp. 45-57.

6.　Akira Kurimoto [1999], "Evaluation Performance by Co-operative Values and Efficiency," A Paper to the International Co-operatives Research Conference on

28-29$^{\text{th}}$ August 1999 in Quebec City, Canada.

Appendix 1 *Details of the Basic Values and Business Operations Basis*

(The number of the data is in parentheses)

Basic Values (105)

Indicators 1. Reliability and care for others (29)

   Intermediate items 1) Shopping convenience (5)

2) Merits of shopping (5)

3) Product availability (5)

4) Product safety and reliability (9)

5) Staff competence (5)

Indicators 2. Democratic member control and participation (21)

1) Participation in the decision making process (6)

2) Participation in the implementation process (4)

3) Member participation in everyday cooperative activities (5)

4) Adoption of member views in everyday cooperative management (4)

5) Adoption of staff views in everyday cooperative management (2)

Indicators 3. Social responsibility and fairness (32)

1) Cooperative involvement in human welfare (6)

2) Cooperative involvement in environmental issues (7)

3) Cooperative involvement within the local community (8)

4) Impartiality of cooperative management practices (5)

5) Fairness of employment conditions for cooperative personnel (6)

Indicators 4. Autonomy, solidarity, and improvement (23)

1) Solidarity among cooperatives (5)

2) Cooperation among cooperative members (5)

3) Cooperative efforts to raise members' knowledge (4)

4) Cooperative efforts to increase staff awareness and ability (5)

5) Cooperative autonomy (4)

Business Operations Basis (39)

Indicators 1. Management efficiency (17)

   Intermediate items 1) Profitability (2)

2) Effectiveness of capital and real assets (5)

3) Effectiveness of labor (3)

4) Management safeguards (3)

5) Efficiency of operations (4)

Indicators 2. Future potential (22)

1) Financial resources (3)

2) Organizational base (4)

    3) Growth potential (7)

    4) Investment (4)

    5) Human resources (4)

Appendix 2   Calculation of Index: Simple Index and Standardized Index

1. Simple index method of converting index to score

Index	Score	Index	Score
110.1 and over	8	99.0-94.6	4
110.0-105.6	7	94.5-90.1	3
105.5-101.1	6	90.0 *and under*	2
101.0- 99.1	5		

2. Standardized index

  1) *Calculation of symmetry rate of change* $[Ci(t)]$

    Case 1: *When a data is nomal index or real valu.*

$$Ci(t) = \frac{Di(t) - Di(t-1)}{\dfrac{Di(t) + Di(t-1)}{2}} \times 100$$

    Case 2: *When a data is rata, zero or negative value.*

$$Ci(t) = Di(t) - Di(t-1)$$

  2) *Calculation of standardized facor* $[Ai]$

$$Ai = \frac{\sum_{i=2}^{N} |Ci(t)|}{N-1}$$

  3) *Calculation of standardized rate of change* $[Bi(t)]$

$$Bi(t) = \frac{Ci(t)}{Ai}$$

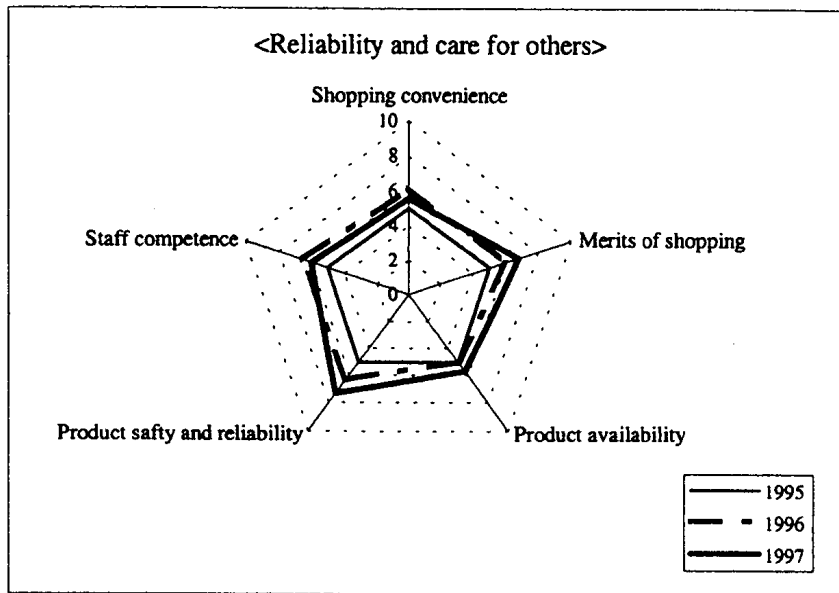 4) *Calculation of standardized index* $[Si(t)]$

    Case 1:
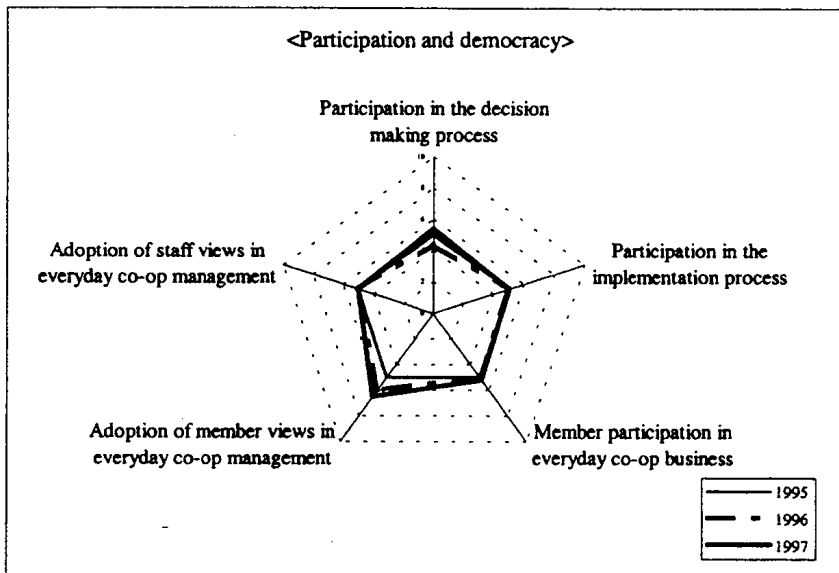
$$Si(t) = Si(t-1) \cdot \frac{200 + Bi(t)}{200 - Bi(t)}$$

  Case 2:

$$Si(t) = Si(t-1) + Bi(t)$$

## Appendix 3 Radar Chart (Simple Index Method)

<Reliability and care for others>

Intermediate item	'95	'96	'97
Shopping convenience	5.0	6.2	5.6
Merit of shopping	5.0	6.0	6.8
Availability of products	5.0	5.0	5.7
Safety and trusty of products	5.0	6.3	7.3
Competence of personnel	5.0	6.5	6.0

<Participation and democracy>

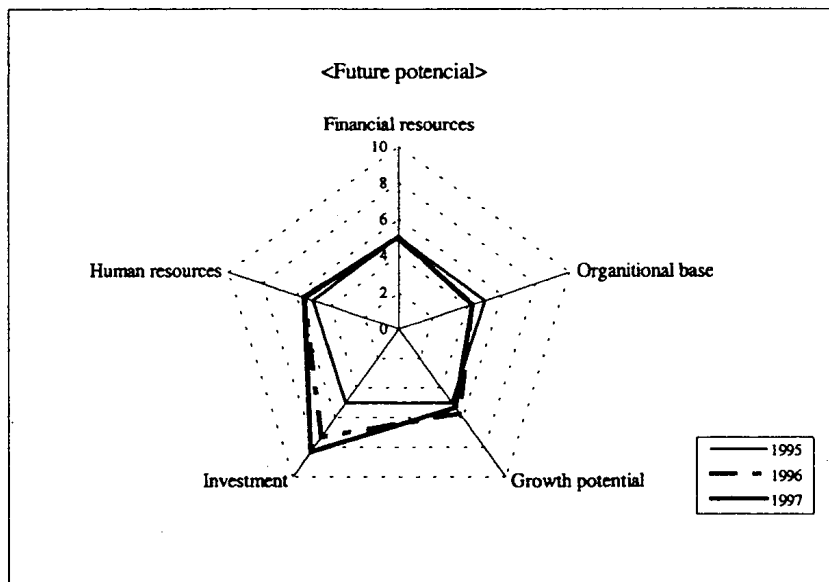| Intermediate item	'95	'96	'97
Participation in the decision making process	5.0	4.4	5.4
Participation in the executing process	5.0	5.0	5.0
Member participation in everyday co-op activities	5.0	5.0	5.2
Adoption of members' views in everyday co-op management	5.0	6.0	6.5
Adoption of personnel's views in everyday co-op management	5.0	5.0	5.0
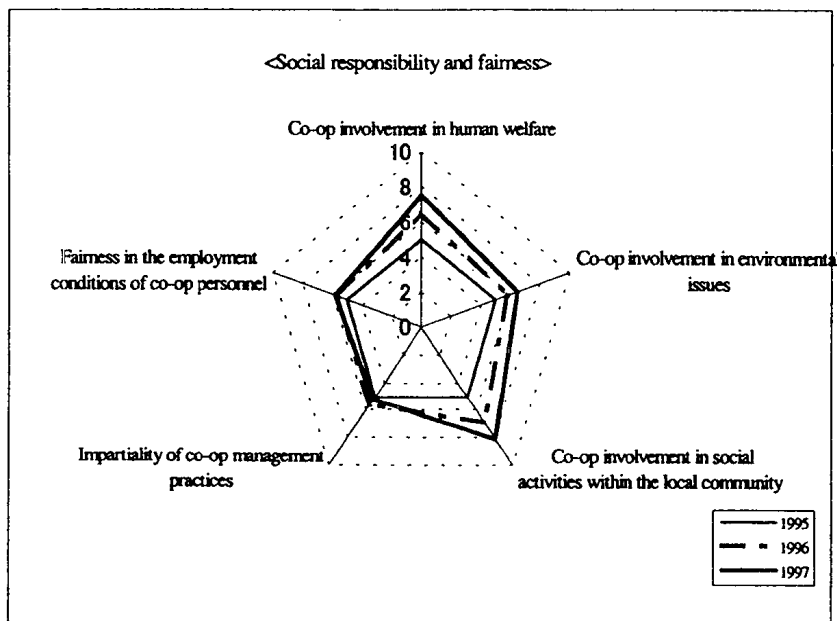
Intermediate item	'95	'96	'97
Co - op involvement in human welfare	5. 0	6. 5	7. 5
Co - op involvement in environmental issues	5. 0	5. 8	6. 5
Co - op involvement in social activities within the local community	5. 0	6. 9	8. 1
Impartiality of co-op management practices	5. 0	5. 6	5. 2
Faimess in the employment conditions of co-op personnel	5. 0	5. 7	5. 8
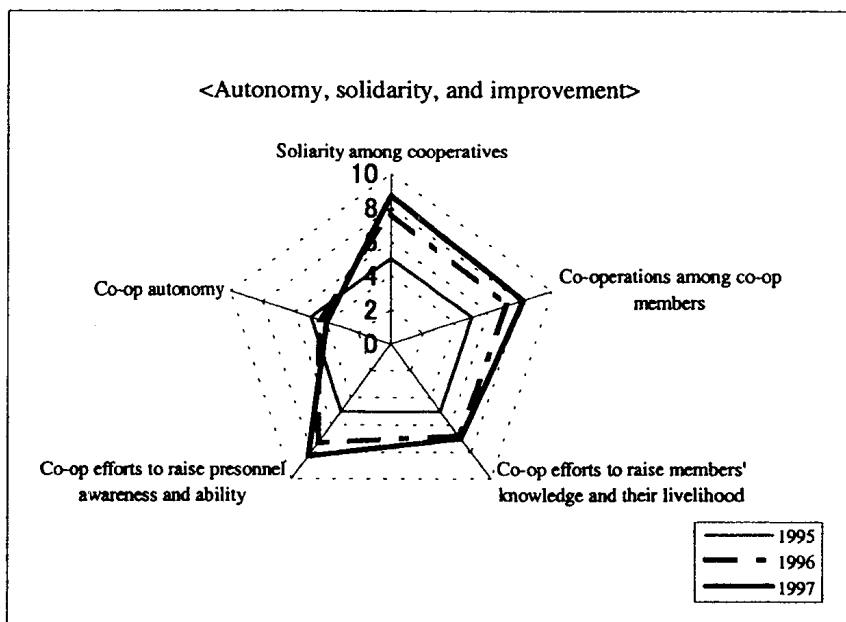
Intermediate item	'95	'96	'97
Solidarity among cooperatives	5. 0	7. 7	8. 7
Co - operations among co - op members	5. 0	7. 2	8. 2
Co - op efforts to raise members' knowledge and their livelihood	5. 0	6. 8	7. 0
Co - op efforts to raise personnel awareness and ability	5. 0	7. 3	8. 3
Co - op autonomy	5. 0	4. 5	4. 0

<Management efficiency>
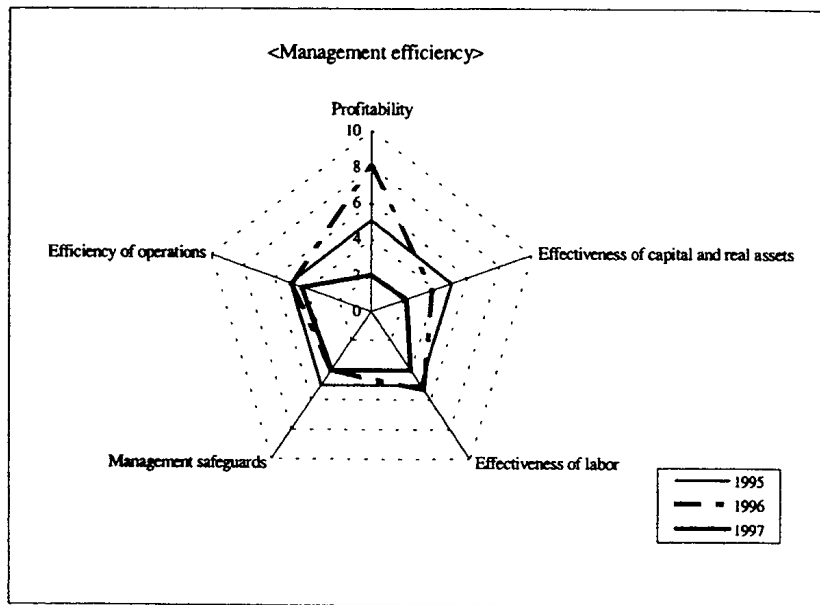
Intermediate item	'95	'96	'97
Profitability	5. 0	8. 0	2. 0
Effective use of capital and real assets	5. 0	3. 8	2. 2
Effective use of labor	5. 0	5. 3	4. 0
Management safeguards	5. 0	4. 0	4. 0
Efficiency of operations	5. 0	5. 0	4. 3

<Future potencial>

Intermediate item	'95	'96	'97
Financial resource base	5. 0	5. 0	5. 0
Organizational base	5. 0	4. 3	4. 3
Growth potential	5. 0	5. 7	5. 3
Investment in assets	5. 0	7. 3	8. 3
Human resource base	5. 0	5. 5	5. 5

<Six indicators>
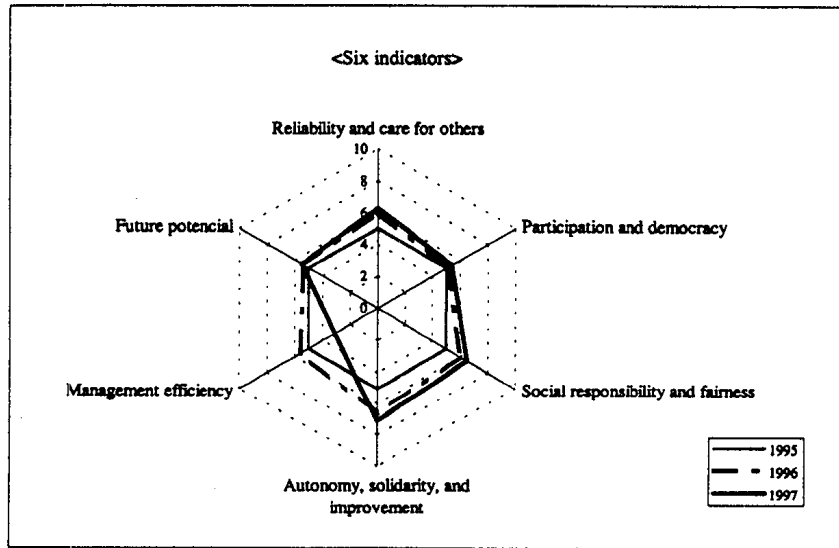
Intermediate item	'95	'96	'97
Reliability	5.0	6.0	6.3
Democratic member control and participation	5.0	5.1	5.4
Social responsibility and fairness	5.0	6.0	6.5
Autonomy, solidarity, and improvement	5.0	6.6	7.1
Management efficiency	5.0	5.6	3.1
Future potential	5.0	5.4	5.5

Appendix 4   Value Efficiency Graph
(Simple Index Method and Standardized Index Method)

Simple Index Method
〈Value Efficiency Graph 1995-1998〉
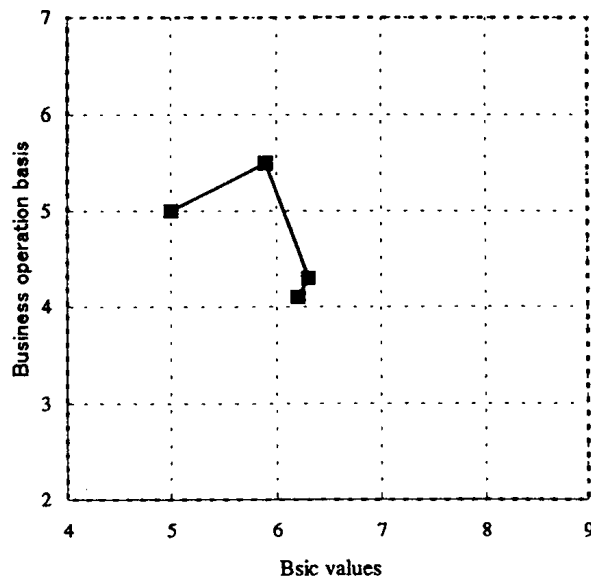
	'95	'96	'97	'98
Basic values	5.0	5.9	6.3	6.2
Business operations basis	5.0	5.5	4.3	4.1

Standardized Index Method
〈Value Efficiency Graph 1995-1998〉
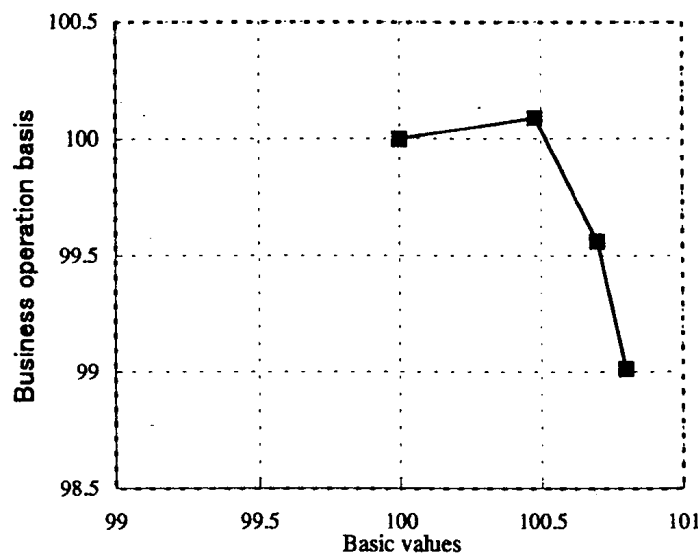
	'95	'96	'97	'98
Basic values	100.00	100.48	100.70	100.81
Business operations basis	100.00	100.09	99.56	99.01

(Naonori TSUDA, Professor, Faculty of Economics, Received November 27, 2000)

Comprehensive Evaluation of Human Value and Efficiency: The Co-op Kobe Case, Japan

Naonori TSUDA

The basic values of cooperative society consist of the various values such as democracy, cooperation, solidarity, and contribution to community, which relates to the values of the human nature. Co-op Kobe has been researching the method of the measurement of the basic values and its applying to the management evaluation of cooperatives.

The evaluation method developed in Co-op Kobe was named a Comprehensive Evaluation of Consumer cooperative (CECC). In section 1, a development of the idea is described. In section 2, various elements of the method of the CECC are explained. In section 3, a possibility of the improvement of the method is shown.

The contribution of the CECC method is that it has originally measured the basic values of cooperatives statistically and systematically, and become possible to apply to the evaluation of the business of Co-op Kobe from the viewpoint of efficiency and basic values.