

# Comprehensive Evaluation of Co-op-Kobe: Measurement, Evaluation, and Policy Making

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## 1. Background and Objectives of Comprehensive Evaluation Project

A project of Co-op-Kobe, Hyogo Prefecture, is to measure the "Basic Values" of co-operatives, which is emphasized by International Co-operative Alliance (ICA), started in 1993. In 1996, the methodology, "Method of Comprehensive Evaluation of Consumer Co-operatives" was completed and the board of Co-op-Kobe decided to implement the project from April, 1997. After a period for preparation of statistical data and trials for comprehensive evaluation, in October, 1998, the first report "Comprehensive Evaluation of Co-op-Kobe" was published. The second report was published in October, 2001 and reports will subsequently be published every three years.

The comprehensive evaluation report of Co-op-Kobe consists of two parts; Part 1 and Part 2. In Part 1, six indexes for evaluation have been measured by statistical data, and either aspect of businesses and activities of Co-op-Kobe are systematically evaluated by the index values. In Part 2, specific issues are featured and these are stated through self-evaluation concerning philosophy, history, present conditions and objectives etc. In the 1998 report, the featured theme was "Welfare" and in the 2001 report, it was "Environment." Hereinafter, I will take up the issues in Part 1 focusing on the evaluation of basic values and omit Part 2.

The objectives of comprehensive evaluation of Co-op-Kobe have been stated in the comprehensive evaluation report as follows. These are valid if we limit the application only to Part 1 of the report.

- ① Self-check by Co-op-Kobe: It is the first objective that Co-op-Kobe checks the balance of progress of business activities and the methods with the cooperation of professional experts and directs them to contribute to reviews of future policies by sampling the policy issues.
- ② The second objective is the disclosure to a variety of people involved in the cooperative movement; We will communicate the real image of business and activities of Co-op-Kobe as a co-operative to the people involved in the cooperative movement, including not only co-op members but also consumers, clients, administrative bodies and mass media as well as presenting it as a basis for discussion to accept criticism and proposals from objective viewpoints.

Comprehensive evaluation of Co-op-Kobe impacts other co-operatives. Fukui Kenmin Co-op started to prepare a comprehensive evaluation report in 2002, using a similar method adopted by Co-op-Kobe.

## 2. Basic Framework of Comprehensive Evaluation

The core of comprehensive evaluation is to evaluate the businesses and activities of co-operatives by evaluation indexes prepared from statistical data. There are six indexes in total and these belong either to "basic values" or "management foundations." Indexes belonging to "Basic Values" are indexing of values of co-operatives, emphasized by ICA, which consists of four indexes of "Sincerity and Caring for Others," "Participation and Democracy," "Social Responsibility and Fairness" and "Autonomy, Solidarity and Improvement." Other "Management Foundations" means foundations for realizing basic values, which consist of two indexes of short-term "Business Efficiency" and long-term "Expansion Potential." In other words, comprehensive evaluation aims at evaluating co-operatives comprehensively from the two dimensions of basic values and management

foundations and provides a frame for evaluating whole businesses and activities of Co-op-Kobe by the six evaluation indexes.

Between the six evaluation indexes and statistical data (total 142) for preparation of indexes, there are intermediate items called "Evaluation Items," which have been devised to evaluate whole businesses and activities systematically. There are five evaluation items for each of the six indexes, thus totaling 30 evaluation items. We have used a "Standardized Index" to compile data of a different nature in computation of the indexes derived from the data (Note 1).

The table for the relationship between the two evaluation axes, six evaluation indexes, 30 evaluation items and 142 pieces of data is as follows. Please refer to the attached materials for each evaluation item and the statistical data (Material 1).

[Table 1] Relationship between Evaluation Axis, Evaluation Index, Evaluation Item and Data

(Evaluation Axes)	(Evaluation Indexes)	(Evaluation Item)	(Evaluation Data)
Basic Values	Sincerity/Caring for Others	(Evaluation Items) (5)	Data (27)
	Participation/Democracy	(Evaluation Items) (5)	Data (20)
	Social	(Evaluation Items) (5)	Data (33)
	Responsibility/Fairness	(Evaluation Items) (5)	Data (23)
	Autonomy/Solidarity /Improvement	(Evaluation Items) (5)	Data (23)
Management Foundations	Business Efficiency	(Evaluation Items) (5)	Data (18)
	Expansion Potential	(Evaluation Items) (5)	Data (21)

A standardized index to be used for evaluation exists at four levels. There is an index at each level of data, evaluation items, evaluation indexes and evaluation axes. An index computation of three levels, excluding the data is weighted. We can carry out evaluation at every fourth level by using the indexes of the four levels. We can make an evaluation analysis by observing actual data at the data level, and we use a radar chart or sequential line graph beginning from the base year as a method to grasp problems visibly at a level of evaluation items or evaluation indexes. At the level of evaluation axes, we may understand the shifting of basic values and management foundations each year by plotting the indexes of basic values and management foundations obtained from a three-tier compilation. It is an advantage of the comprehensive evaluation of Co-op-Kobe that we can develop diversified evaluations by putting together evaluations at each of the four levels and analyzing them.

In order to increase the credibility of the comprehensive evaluation, a survey is conducted each spring covering more than 2,000 people. The focus of the survey is to conduct the survey according to the basic values of twenty evaluation items and the level of importance and realization attached to these items of each of its members, full-time staff, fixed-hourly staff (part-time staff), managerial staff, board members. Questions particular to each of the said stakeholders have also been prepared (e.g., as to full-time staff, human resources and wages). By using the questionnaires, the reliability of the data is increased in the following points.

- ① Evaluation of level of realization (evaluation by score from 1 to 5) by questionnaires will be numerically arranged and become the data of evaluation indexes. At least one piece of data obtained from the evaluation of level of realization is included in each of the twenty evaluation items in the above. That is, in the evaluation items belonging to basic values, evaluations by co-operative stakeholders through questionnaires are contained as data, which increases the credibility of the evaluations.
- ② Ordinary data are shown as relative evaluations to the base year and the said data obtained from the questionnaires will also be subject to relative evaluation. At the same time, however, what we may know from the survey of the level of importance and level

of realization is information about how important an item is or how much the item was realized with respect to each evaluation item. In that sense, we could develop a specific absolute evaluation in addition to a relative evaluation. We may also determine discrepancies between the level of importance and the level of realization numerically, which will be an important information source for business policies. These will enhance the reliability of a comprehensive evaluation.

- ③ In order to increase credibility in the course of compiling data, weighted values will be necessary, which are obtained from the survey of the level of importance each year. The weighted values of the evaluation items belonging to management foundations rely on questionnaires to board members. The weighted values between the two evaluation indexes of business efficiency and expansibility (0.55 : 0.45) have been obtained by compiling the weighted values between the evaluation items.

Questionnaires in the comprehensive evaluation not only increase the reliability of the data but they also play a specific role in the participatory system of the co-operative from another perspective. They also significantly serve as an information source for developing business policies. As I said in the above, that the evaluation of the co-operative stakeholders by scores from 1 to 3 are input as data or weighted values means that stakeholders participate in preparation of the data in the process of comprehensive evaluation. As we shall see later, the data of evaluation of the level of importance and level of realization are critical pieces of information in developing business policies because they show in terms of values what has not been realized, in which item the gap is greatest, and where the differences in consciousness come from among stakeholders. Items in which the gap is great can be judged that the gap should be narrowed through implementation of the policies.

Here, I will explain the standardized index method, which is used to obtain indexes. There is a great amount of data that is heterogeneous data related to comprehensive evaluation. These include the number of people, items, scores, times, kwh/h, %, man-hour and amount, etc. If we translate the heterogeneous data into indexes by an ordinary method, problems will occur. In order to avoid such problems, we have used the "Standardized Index" developed by the former Economic Planning Agency of the central government in compiling heterogeneous data.

### 3. Annual Transition of Evaluation Items, Evaluation Indexes and Evaluation Axes

Here, we will take up the characteristic portion of 30 evaluation items, 6 evaluation indexes and 2 evaluation axes for a period between the base year of 1996 and 2001 to see how the indexes have changed (see, Fig. 1-9).

Fig. 1 shows how the five evaluation items have changed every year with regard to the evaluation index of "Sincerity/Caring for Others." As to the sharp decrease in the "Degree of Satisfaction of Shopping Opportunities," the fact that the "Market Share of Foods" (Data No. 1103) and "Purchase Amount per Member" (Data No. 1104) have continuously decreased has been the greatest contributor.

Fig. 2 shows the annual transition of the evaluation index of "Participation/Democracy." Among evaluation items, as to participation at the "Decision Making Level" and "Policy Implementation Stage," the indexes have increased but that of "Participation Consciousness of Staff" has dropped for the period between 1999 and 2000. The decline in the latter can be attributed to the fact that the "Co-op-Kobe Business Rehabilitation Plan" to revitalize the deteriorated business as a result of the recession was implemented during this period, which was made from the top down. As a result, "Participation Consciousness of Staff" (Data No. 2501, 2502) declined, which was revealed in staff questionnaires.

Fig. 3 shows the annual transition of "Social Responsibility/Fairness." The reason for the

decrease in "Fairness of Staff Treatment" from 1999 is that the said evaluation of the business rehabilitation plan in the questionnaires to staff had dropped (Data No. 3501 and 3505).

Fig. 4 shows the annual transition of "Autonomy/Solidarity/Improvement." "Solidarity among the Members" has moved upward but "Solidarity among Co-operatives" has sharply dropped. The reason for the former is that the number of participants in various seminars has increased and that for the latter is that the number of dispatched or transferred people to other co-operatives has decreased due to cost reductions imposed by the recession.

Fig. 5 shows the annual transition of "Business Efficiency." As a result of prolonged stagnation, "Capital/Equipment Efficiency" and "Operation Efficiency" have been declining but "Operation Efficiency," "Safety of Business" and "Profitability" have been rising because of the implementation of a business rehabilitation plan.

Fig. 6 tells us about the transition of "Expansion Potential." With respect to "Organizational Foundation," a high level is still maintained although the index shows a downward tendency due to a decline in the organization rate of members and co-operative purchase groups. On the other hand, the indexes of "Growth Potential of Business" and "Improvement of Hardware and Software" are sluggish.

Fig. 7 shows the annual transition of the above six evaluation indexes. The evaluation index that realized the highest level was "Social Responsibility/Fairness" in 2001. "Business Efficiency" had continued to decline until 1988 but it has since turned upward due to the implementation of a business rehabilitation plan.

Fig. 8 shows the annual transition of "Basic Values" and "Management Foundations." "Management Foundations" had declined until 1998 and then increased. "Basic Values" appeared to have worsened for some time but now show upward movement again.

Fig. 9 describes Fig. 8 on the coordinate axes of two dimensions. Readers can more clearly understand the relationship between management foundations and basic values according to this Figure. "Basic Values" had increased until 1999 but this was sacrificed to recover "Management Foundations." The trajectory of annual indexes appears to move in a northeast direction, tracing a zigzag course.

#### 4. Trade-off between Basic Values and Management Foundations

Here, we will consider the relationship between basic values and management foundations mentioned in the above by considering evaluation item levels. We will also organize how the business policies of Co-op-Kobe relate to Fig. 9. The discussion below takes the form of analytically reviewing the relationship between the comprehensive evaluation of Co-op-Kobe from FY 1996 through FY 2001 and its business policies. Through the discussion, we will clearly see the points that business policies must keep in mind in implementing a comprehensive evaluation and the significance of the comprehensive evaluation in developing the business policies.

At Co-op-Kobe, the comprehensive evaluation and business policies have been integrated and the results of comprehensive evaluations have been submitted to board meetings held in July each year, and are reflected in the business policies of the following year. In preparation of a business plan of each division, the related points to the division in a comprehensive evaluation are reviewed and reflected in the business plan for the next year.

The direction of the business policy objectives on the evaluation axes is clear in theory. If we place the management foundations and the basic values on a vertical and horizontal axis respectively, the direction for the co-operative to take is in the northeast, which means that both are developing in a positive direction. Under the policies of the co-operatives, it is generally understood that an expansion of basic values is the objective and the management foundations is the instrument, but if we disregard the management foundations, it may lead to lower competitiveness or a management crisis. Therefore, we cannot disregard either of them.

Co-op-Kobe was severely damaged by the Great Hanshin Earthquake in 1995, but since then maximum effort has been to recover and revitalize the cooperative and as a result it has rapidly recovered since 1996. The prolonged sluggish economy in Japan and further deterioration in 1997, however, threatened the business of cooperatives throughout the country and it became inevitable that Co-op-Kobe would record a deficit in FY 1998.

Business Rehabilitation Plan prepared by the board adopted the policies of developing from the blood stanching period (1999-2000) to the curing period (2001-2002). In FY 1999, various business reforms were implemented. As a result, management foundations rapidly improved in FY 2000 but basic values have been greatly deteriorated. The focus of discussion at the comprehensive evaluation committee (to be explained later) in FY 2001 based on the data of FY 2000 was on the correlation in the improvement of management foundations and the deterioration in basic values. As we can see from the annual transition on the two dimensional axes in Fig. 9, there seems to be a trade-off relationship between management foundations and basic values in relation to a shift in the southeast direction for the period between 1996 and 1998 and in the northwest direction from FY 1998 to FY 2000. Whether this relation was unavoidable or not has been the focus of discussion (see, Note 2).

There is some basis for such trade-off relationship during stagnation. If we attempt to enhance basic values under stagnation, the management foundations are inevitably deteriorated as can be seen for the period between 1996 and 1998. If we realize improvements in deteriorated management foundations through cost reductions, many evaluation items in the basic values will decline. They will appear both through a negative impact due to cost reductions and a deterioration of evaluations in questionnaires to stakeholders. In the graph of annual transition, we have seen them appear in the evaluation items of "Participation Consciousness of Staff," "Fairness of Staff Treatment" and "Solidarity among Co-operatives," etc., from FY 1999 to FY 2001.

However, there is not necessarily a trade-off between the management foundations and basic values. We can assume that if an improvement in management foundations is realized through an upturn in economy, then basic values will also rise. In this case, the trajectory of points in Fig. 9 moves in the northeast direction. We may find such a direction when the Japanese economy rids itself of its prolonged stagnation.

Then, is there any way to mitigate or avoid a deterioration in basic values if we improve management foundations through cost reductions during a recession? Let's think of it now. A possible method is to review whether there are any items that could prevent a drop in values among evaluation items in basic values or if there are any items to be improved among the evaluation items.

In order to prevent a drop in basic values, we must consider a method to prevent a decline in "Participation Consciousness of Staff" and "Fairness of Staff Treatment," whose values have largely decreased among the evaluation items in the basic values from FY 1999 to FY 2001. Such data have been collected through evaluations in the questionnaires to full-time and part-time staff. In order to prevent or mitigate a decline in these evaluation items, it is necessary to increase understanding and consensus-building of full-time and part-time staff in implementation of business rehabilitation policies, aiming at improvements in management foundations. Stakeholders of the cooperative participate in comprehensive evaluations through questionnaires and it is essential to perform business improvements, taking into consideration the evaluation results by participation.

Next, we must also consider the method to raise basic values. There are the evaluation items in the basic values closely connected to improvements in management foundations. They are, for example, evaluation items in the evaluation index of "Sincerity and Caring for Others." If we develop a policy that will increase the values of these evaluation items, then they will lead to improvements in "Business Efficiency." But it is difficult to enhance effects

in this way in policies that have been developed focusing on cost reduction. Instead, strategic investment and policies in development and innovation will be required.

#### 5. System of Participation in Comprehensive Evaluation

Annual comprehensive evaluation activity of Co-op-Kobe is a process for making objective evaluations of businesses and activities of the co-operative in general. It is, at the same time, a process for participation activities by the co-operative stakeholders. The board develops business policies through such processes every year.

There are several forms of systems of participation by stakeholders in comprehensive evaluation activities. I will mention the year (every three years) when the comprehensive evaluation report is published. As we see chronologically, at the time of data preparation, in addition to the ordinary data, the results of questionnaires to stakeholders, including ordinary members, staff, and board members are the data and weighted values. In other words, the stakeholders directly participate in the evaluation during the data preparation level. The evaluation of the level of importance and the level of realization provides information on discrepancies and certain absolute evaluations as well as clearly presenting differences in evaluation by stakeholders.

Next, the data are analyzed by the secretariat and several researchers to investigate the characteristics of annual changes and background causes. Then, a draft of a comprehensive evaluation is submitted to the comprehensive evaluation committee, consisting of stakeholders representatives. In FY 2001, the comprehensive evaluation committee consisted of three co-op committee members (three regional female committee members), two advisors (former female board members), four board members (including one woman) and six university academics (from four universities). It prepares a comprehensive evaluation report after revisions and additions based on a through discussion of the draft. Sometimes it is necessary to make an adjustment as the evaluation differs by stakeholders. The opinions of the researchers in the field of economics and management may be added from a professional point of view.

Finally, the published comprehensive evaluation report is examined at the regional committee members meeting, etc. An evaluation here is made not only of the contents of the report but also of the completion and publication method of the report. These evaluation results are reflected in the development of business policies over the next year and in the manner of evaluation of the comprehensive evaluation secretariat. Each division of Co-op-Kobe refers to the evaluated portion related to its division in the report in preparing business plans for the following year.

Establishment of a comprehensive evaluation committee and publication of a comprehensive evaluation report is scheduled every three years. As mentioned before, the report consists of two parts; one that provides objective and systematic analyses focusing on evaluation indexes stated in the above and the other that features a specific issue. For the remaining two years, the comprehensive evaluation report, excluding a special edition, is prepared. This report is submitted to the board meeting usually held in July.

Evaluations of businesses and activities made by co-operative stakeholders considerably differ between ordinary members (fax monitors), co-op committee members, full-time staff, part-time staff, managerial staff, and board members and the differences will clearly appear in the values of evaluation of the questionnaires. The comprehensive evaluation is indicated as a result of participation by stakeholders. Here, let's look at differences in evaluations by stakeholders, which can be seen from the survey of the level of importance and level of realization (evaluation by scores from 1 to 5) with respect to the twenty evaluation items in basic values (Material 2, Figure 1-7).

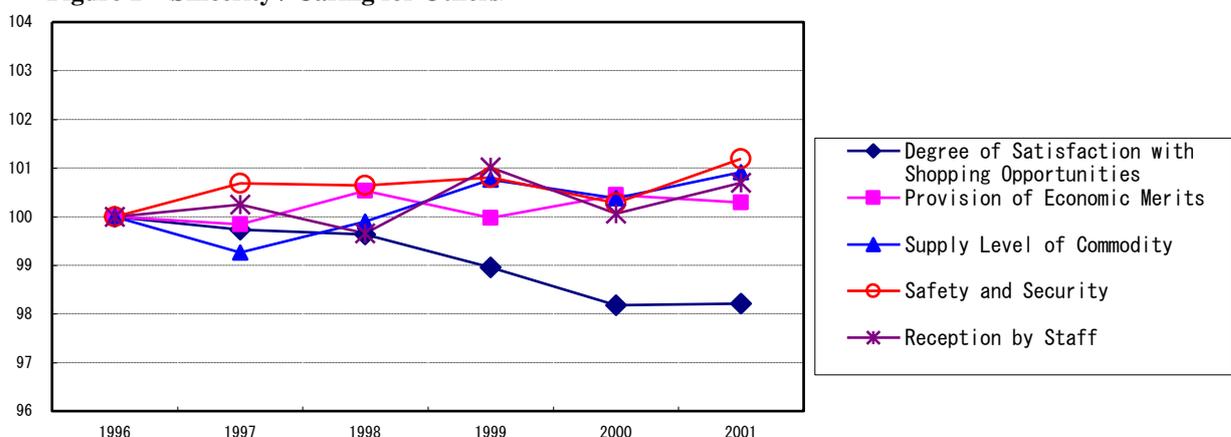
In general, the most optimistic evaluation of the level of realization is made by board

members and the severest evaluation comes from full-time staff. The optimistic evaluation of board members appears in the fact that the minimum score of the level of realization is higher than any other stakeholders (about 0.5). With respect to the evaluation of the level of importance, the board members also gave very high score, over 4.5, to more evaluation items than any other stakeholders. In other words, we may say that recognition by board members of the level of importance is high but the evaluation of the level of realization is optimistic as for the minimum score.

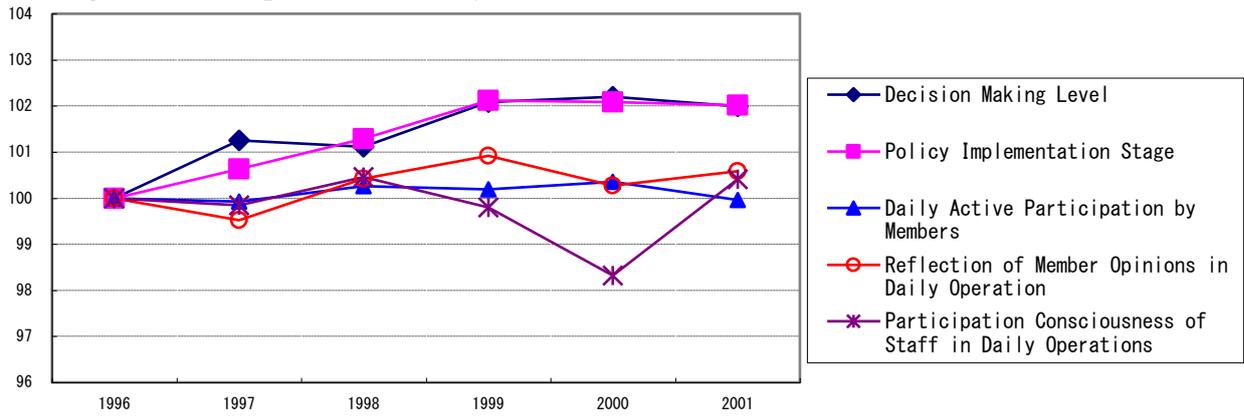
Comparing ordinary members and the Co-op committee members (activists), the Co-op committee members generally gave higher scores to more items in the evaluation of the level of importance. With respect to evaluation of the level of realization, the Co-op committee members revealed more items having large differences between maximum and minimum scores. This indicates the characteristics of the committee members having better knowledge with regard to the reality of businesses and activities and thus evaluate high what should be duly evaluated regarding the level of realization but severely evaluate items whose performance is poor. Evaluation of the level of importance of "Caring for the safety of foods" and "Accuracy of indications" by the Co-op committee members, for example, showed 4.99 and 4.98, which was almost a perfect score of 5. With respect to these two items, gaps indicated discrepancies between the level of importance and the level of realization were 0.49 and 0.56, respectively, which means the level of realization is high. In contrast to them, with respect to the items, "Reflection of the opinions of users" and "Participation in operation by staff," evaluation of the level of realization is much lower than that of ordinary members and the gaps are also considerably greater. They evaluated the level of realization low.

Items which were evaluated as those whose level of realization was high or gaps were small are as follows; "Open hours access friendly," "Caring for safety is enforced," "Indications are accurate," "Efforts in welfare," "Efforts in environment," "Regional activities such as regional events," "Promotion of efforts in consumer movements" and "Enhanced seminars and lectures." On the other hand, the items with a low level of realization and greater gaps were "Reasonable prices," "Selection of foods good," "Selection of daily commodities good," "Decision of policies from the standpoint of members," "Reflection in the opinions of users," "Participation in operation by staff," "Treatment of staff" and "Staff education," etc. With regard to items with a low level of realization or greater gaps, actions should be taken from the viewpoint of business policies.

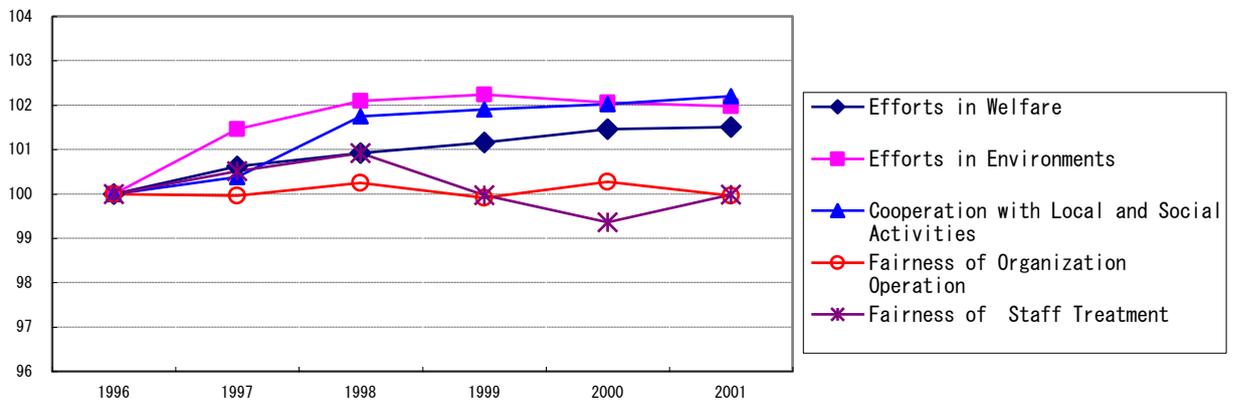
**Figure 1 <Sincerity / Caring for Others>**



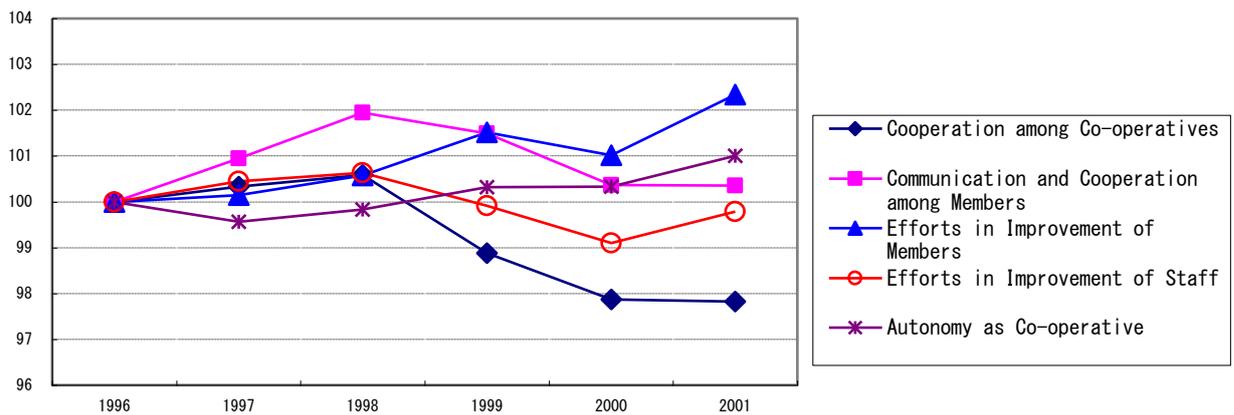
**Figure 2 <Participation / Democracy>**



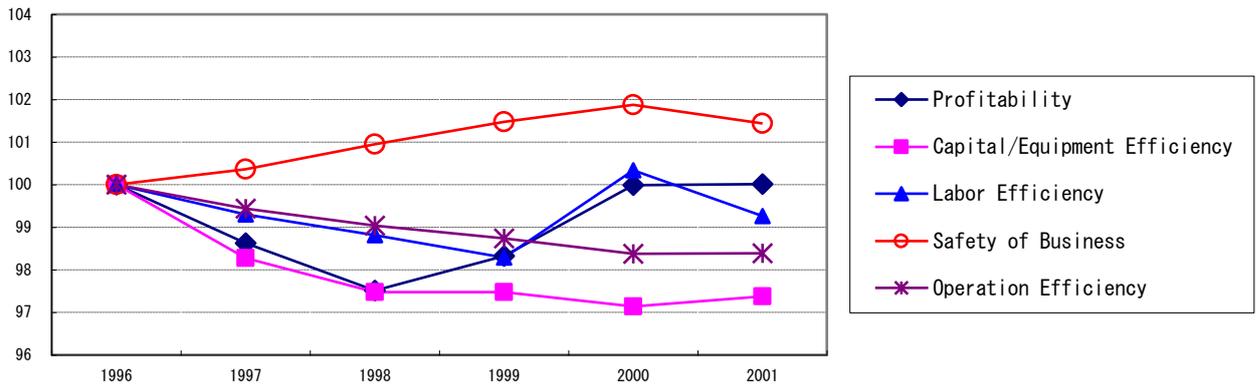
**Figure 3 <Social Responsibility / Fairness>**



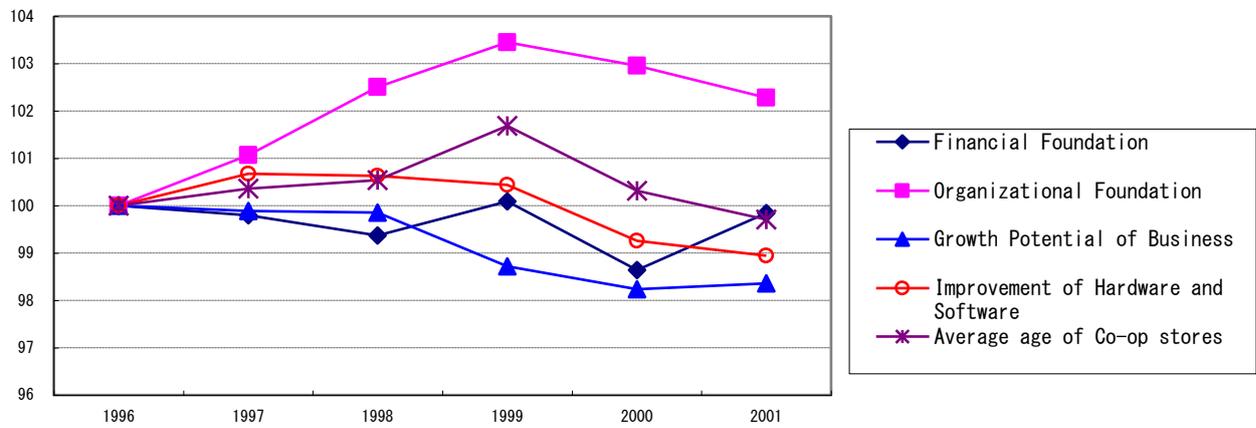
**Figure 4 <Autonomy / Solidarity / Improvement>**



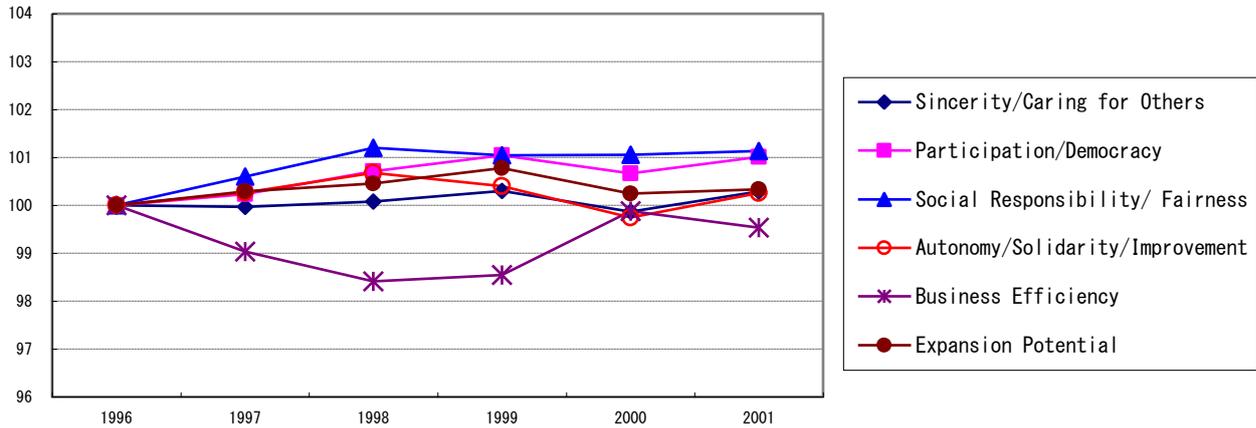
**Figure 5 <Business Efficiency>**



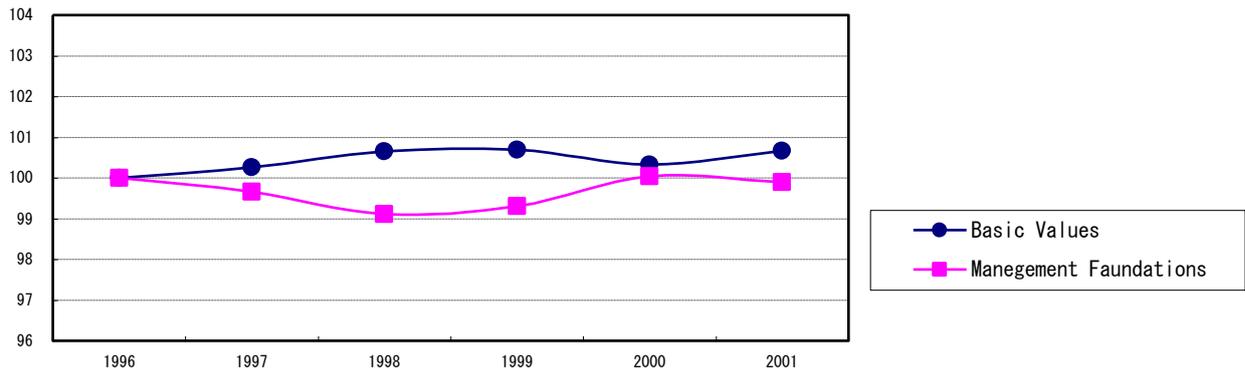
**Figure 6 <Expansion Potential>**



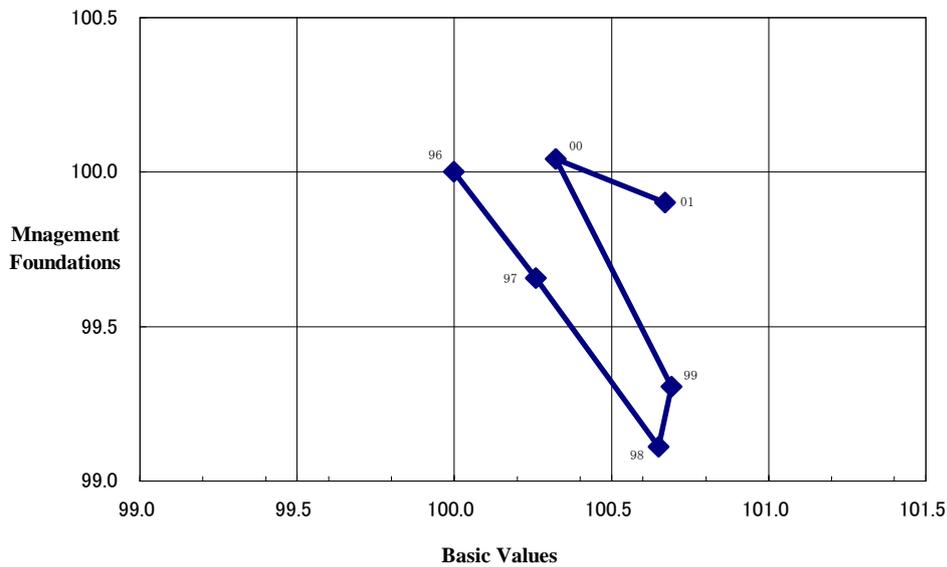
**Figure 7 <Six Evaluation Indexes>**



**Figure 8 <Basic Values and Management Foundations>**



**Figure 9 Transition of Basic Values and Management Foundations on the Two Dementional Axes**



Note 1 : Standardized Index

1) Calculation of symmetry of change [  $C_i(t)$  ]

Case 1: When a data is normal index or real value.

$$C_i(t) = \frac{D_i(t) - D_i(t-1)}{\frac{D_i(t) + D_i(t-1)}{2}} \times 100$$

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

$$C_i(t) = D_i(t) - D_i(t-1)$$

2) Calculation of standaredized factor [  $A_i$  ]

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

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

$$B_i(t) = \frac{C_i(t)}{A_i}$$

4) Calculation of standardized index [  $S_i(t)$  ]

Case 1:

$$S_i(t) = S_i(t-1) \times \frac{200 + B_i(t)}{200 - B_i(t)}$$

Case 2:

$$S_i(t) = S_i(t-1) + B_i(t)$$

Note 2: The graph in Fig. 9 differs slightly for FY 2002 and FY 2001. In the graph of FY 2001, the position of the year FY 2000 is closer to the position of the year FY 1996. The reason for this is that a revision in data was made in FY 2002 and also by the nature of the Standardized Index. The standardized Index corrects the previous data slightly to standardize as new data is added.

#### References

- 1) Co-op-Kobe Comprehensive Evaluation Committee [2001] "Co-op-Kobe Comprehensive Evaluation Report," 2001 Ed. (in Japanese).
- 2) Co-op-Kobe Comprehensive Evaluation Committee [1998] "Co-op-Kobe Comprehensive Evaluation Report," 1998 Ed. (in Japanese).
- 3) Naonori Tsuda [2000] "Method and Practice of Comprehensive Evaluation of Co-operatives," Co-op-Kobe Co-operative Research Institute (in Japanese).
- 4) Naonori Tsuda [1999] "Toward Establishment of Comprehensive Evaluation of Co-operatives—Direction of Comprehensive Evaluation and Practices of Co-op-Kobe," "Workers Welfare Study" No. 49, pp.6-35 (in Japanese).