

# Developing Framework and Indicators for Assessing Organizational Intelligence

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## Abstract

**Background/Objectives:** This study is to develop the indicators and framework for assessing organizational knowledge levels, apply the developed indicators and framework to an administrative entity, diagnose its organizational IQ level and seek some improvement measures. **Methods/Statistical Analysis:** For assessing factors' weight score of organizational IQ Delphi surveys with 5-point Likert scale questionnaire and Analytical Hierarchy Process method were used. The Content Validity (CVR) was tested and a set of 39 indicators were selected for diagnosis. The AHP analysis was performed to estimate the weighted values of four categories. As a result, a total of 39 indicators across twelve divisions were identified and weighted by their significance priorities. To measure the organizational knowledge levels and to verify the applicability of the proposed indicators and framework we applied the model to a research institute affiliated with a local government. **Findings:** This study considers four fundamental elements of knowledge-friendly organizational culture. 39 indicators out of 52 candidates screened by the CVR reflects the opinion of expert panels. Specific indicators for each element were introduced to measure the influence factors. Four fundamental elements have a weight. In the order of weighted values are organizational flexibility (0.440), organizational rationality (0.261), organizational openness (0.216) and organizational cohesiveness (0.083) identified as the significant elements. The organizational flexibility involving formalization and transformational leadership were the most significant indicators. Also, among 39 indicators, 'Flexibility in complying with business rules or procedures' scored 0.114, which were the most significant indicator, followed by 'the easy-to-use information system', 'trust in superiors', 'empowerment through learning'. The lowest weighted value was also found in 'organizational members' involvement in decision making'. The empirical analysis revealed that the proposed organizational IQ measurement contributed to identify the status of organizational knowledge management and the aspects that would require support for approaches to improve measures. **Application/Improvements:** The quantitative findings from this study will provide fresh insight to policy development for organizational knowledge management and the adoption of IT-based KMS, particularly to those organizations being skeptical about the return on their investments and those that have already adopted knowledge management systems only to see mediocre or unsatisfactory results

**Keywords:** AHP, CVR, Delphi, Indicators of Organizational IQ, Organizational Intelligence,

## 1. Introduction

The concept of knowledge or knowledge management has widely been investigated<sup>1-3</sup>. The term knowledge management was first used in 1986 by an AI (Artificial Intelligence) expert and consultant<sup>1</sup>. In Korea, knowledge management has been introduced and drawn attention since the late 1990s. Knowledge management involves enterprise-wide knowledge-based strategic management activities intended to create profits<sup>4</sup>. Central and local

government offices as well as other public agencies have applied the knowledge management in practice to raise competitiveness and add value, e.g. a knowledge society designed to provide quality administrative services. As an initiative to encourage knowledge management activities, the 'Knowledge Innovation Award (formerly Knowledge Management Award)' presented by the Maeil Business Newspaper since 1999 and the 'Knowledge Administration Award' granted by the Ministry of Government Administration and Home Affairs since

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2004 were incorporated into the most prestigious 'Korea Knowledge Award' as of<sup>5</sup>.

Meanwhile, the encouragement measures from the perspective of Information Technology (IT) involving the implementation of knowledge management systems have revealed an 'IT paradox', failing to meet the expectations of organizations, which were initially willing to adopt the knowledge management. <sup>6</sup>Proposed the knowledge-friendly organizational culture. In his doctorate dissertation, <sup>2</sup>remarked that the concept of knowledge-friendly organizational culture influenced the analysis of the limitations of Nonaka Ikujiro's SECI model<sup>3</sup>, the elucidation of knowledge-friendly factors and the improvement of organizational competencies.

Based on the four significant factors and relevant indicators derived by<sup>2</sup>, the present study intended to develop some indicators for rating organizational knowledge competency levels and a framework or an organizational IQ measurement model. First, the Delphi method was used to verify the content validity of the indicators. From a preliminary survey and two Delphi surveys, 4 factors and 39 indicators were derived, based on which the AHP was conducted with public servants and research experts, who were in charge of or had performed the organizational knowledge management, to elicit the weight of each indicator. A research institute affiliated with a local government was selected for the empirical analysis. Then, improvement measures were proposed based on the analysis results.

## 2. Organizational IQ and Knowledge-Friendly Culture

Previous studies defined the knowledge management activities as a series of activities intended to manage organizational knowledge and enhance its value. <sup>7</sup>Viewed the knowledge management activities as the process of Nonaka's SECI (Socialization, Externalization, Combination, Internalization) and asserted the factors impacting upon customer outcomes included socialization, externalization and combination, whilst internalization influenced financial outcomes. Yet, extensive prior studies showed differences in perspectives. Studies on successful organizational knowledge management suggested the 'organizational culture' as an essential factor for successful knowledge management<sup>8</sup>. Organizational cultural factors could hinder the growth of knowledge management, implying the organizational

culture serves as a significant factor for successful knowledge management. That is, organizational culture may support the knowledge management activities successfully. Lots of studies highlighted the knowledge-friendly culture as the essential factor for creating, sharing and utilizing<sup>6,7,9</sup>. According to<sup>2</sup> concerning organizational intelligence, organizational cohesiveness<sup>10</sup>, organizational flexibility<sup>11</sup>, organizational rationality<sup>12</sup> and organizational openness<sup>5</sup> laid the foundation for organizational culture conducive to the success and sustainability of knowledge management. Table 1 is shown the fundamental factors of organizational culture and relevant concepts.

**Table 1.** Fundamental factors of organizational culture and relevant concepts

Factors	Concepts
Organizational cohesiveness (Organizational commitment)	Strong trust in and acceptance of organizational goals and value, intention to work hard for an organization, and a strong desire to maintain organizational membership <sup>10</sup>
Organizational flexibility (Creativity)	Activities to derive novel and useful ideas, and to combine them with existing ones, so as to develop some beneficial perspectives <sup>11</sup>
Organizational rationality (Collective learning)	An organization where its members can expand their competencies to do what they desire to do, where newly known types of thinking are respected and cultivated, where collective visions are freely set, and where its members share learning methods and learn constantly together <sup>12</sup>
Organizational Openness (Communication)	Delivering one's intentions and ideas to another so that the latter can put those into action, and the procedures of delivering some news, attitudes or ideas to others, as well as having people understand and cooperate with one another based on such procedures <sup>5</sup>

### 2.2 Organizational IQ and Knowledge Management

<sup>13</sup>Defined the organizational IQ as the coefficients quantifying the organizational activity levels and as the scale representing the levels of organizational capacities

for effective decision-making and execution. Still, organizational IQ (Intelligence Quotient) has not been extensively investigated. A similar rating concept was derived in the mid-1990s by Stanford University based on empirical studies on global companies, shedding light on strong correlations between organizational activity levels and corporate achievements. That is, corporate profits and growth potential depend on organizational IQ whilst the effects of organizational IQ on corporate achievements increases in proportion to corporate growth and scale.

Suzuki Kan Ichiro's organizational IQ indicates organizational activities from two perspectives, i.e. 'information application' and 'resource application' and comprises such sub-categories as external information awareness, internal knowledge dissemination, effective decision architecture, organization focus and information age business network<sup>13</sup>. To paraphrase, organizational IQ is defined as the organizational competency levels in terms of the application of organizational information

and resources. The present study suggests knowledge-friendly organizational culture serves as an important factor that successfully induces the knowledge management. Application of organizational information and resources is comparable to that of knowledge. Thus, the present study defines the organizational IQ as the levels of organizational knowledge management. Given it is necessary to constantly verify if organizational systems facilitate organizations' and their members' responsiveness to changes and to take improvement measures, organizational IQ may serve as an essential tool to measure and strengthen the organizational management competencies<sup>5</sup>.

This study adopts some fundamental elements of knowledge-friendly organizational culture. For each element, specific indicators are used to measure the influence factors. Then, following the validation of an expert group, a framework designed to measure and manage the organizational IQ is proposed here See Table 2.

**Table 2.** Components of knowledge-friendly organizational culture<sup>2</sup>

Factors	Attributes	Measurement
Cohesion	Shared vision	Organizational vision towards future, KM as a vision and core strategy, Perception of organizational vision/strategy, Organizational members' involvement in decision making
	Centralization	Organizational members' empowerment to make decisions, Organizational members' empowerment to process business, Report on matters of arbitrary decision
	Rewards	Fair measurement of performance, Objective personnel management, Creativity and job performance reflected in promotion, Incentive payment, Satisfaction with wages,
Flexibility	Transformational leadership	Trust in superiors, Empowerment through learning, Superiors' logicity and problem-solving skills, Rapport with superiors, Superior's skills to identify the essence of problems, Encouragement over job performance, Emphasis on need for organizational innovation
	Formalization	Business handbooks ready for use, Rules or policies in effect, Rules or policies for reference, External business process, Flexibility in complying with business rules or procedures
Rationality	Quality of Contents, ,	User-friendliness of information system, Easy-to-use information system
	Documentation	Knowledge acquisition via documents and manuals, Documentation of projects/business meetings, Knowledge sharing, Documentation of management-related knowledge, Processing of useful data, Documentation of necessary knowledge
	User-orientation	Accuracy of knowledge, Sufficiency of knowledge, Easy-to-understand necessary knowledge, Convenience of knowledge in business execution, Knowledge supporting decision making
Openness	Participatory Leadership between Members	Gathering organizational members' opinions in decision making, Quality improvement of organizational members, Sharing business ratings, Superiors' internal/external activities
	Participatory Leadership	Budget support for necessary knowledge management activities, Personnel support for knowledge management activities
	Trust between Members	Trust in organizational members' speech and act, Autonomous business execution, Job-related knowledge, Sharing knowledge for business execution, Legitimate use of knowledge provided
	Trust in the Executive	Trust in the executive's decision, The executive's fairness in business, The executive's consistency in speech and act, Trust in the executive's expertise

### 3. A Framework for Organizational IQ Measurement

#### 3.1 Indicators: Overview

To present the areas and indicators of the organizational IQ measurement as well as to conceptualize the organizational intelligence, experts were surveyed with the Delphi method. Then, the content validity was analyzed to select the indicators. Based on these results, AHP analysis was performed to calculate the weighted values of the indicators and to propose a framework for measuring the organizational IQ.

First of all, the candidate indicators were selected from the four areas of knowledge-friendly organizational culture suggested by Lee and relevant specific indicators<sup>11</sup>. Experts were surveyed to get their opinions in the form of free comments about the derived factors and indicators. According to the experts' consensus in the preliminary survey, the 'organizational members' involvement in decision making' related to the 'shared vision' in the 'organizational cohesiveness' and the 'effects of rewards on knowledge application' were excluded. To validate the 52 candidate indicators selected from the results of the preliminary survey, the procedure in Figure 1 was performed. First, 16 local knowledge management experts were surveyed in two rounds using the Delphi method, followed by the Content Validity (CVR) analysis, to pick out 39 final diagnosis indicators. In addition, the AHP analysis was performed to estimate the weighted values of 4 categories, 12 divisions and 39 indicators. Figure 1 is shown indicator development procedure.

#### 3.2 Content Validity Ratio, CVR analysis

The Delphi and the Content Validity Ratio (CVR) analysis are the methods of validating the content of indicators with expert panels. The validity of an indicator is determined based on the percentage of panels responding that the

indicator is important out of the total number of panels. The validity is accepted/rejected when an indicator's CVR value measured in compliance with a formula is higher/lower than the minimum allowable value based on the number of panels. That is, in accordance with<sup>14</sup>, an indicator is regarded as meeting the content validity whose CVR value is greater than the minimum allowable value based on the number of expert panels at a significance level of 0.05. The CVR is calculated based on the following formula:  $CVR = (ne - n/2) / (n/2)$  (Here, ne: The number of panels who respond an indicator is important (4 and 5 on a 5-point scale) / n: The total number of panels).

The 52 candidate indicators were presented to the 16 experts, who rated the validity of each indicator on a 5-point Likert scale. For accuracy, two rounds of the Delphi method were conducted. Table 3 shows the mean (3.97) of all indicators with the Standard Deviation (SD) being -.72 from the first round, indicating differences in experts' opinions. The CVR analysis found 39 indicators were valid with 14 being rejected due to their scores lower than the minimum acceptable value (0.49).

In the second round of the Delphi survey where the results from the first round were presented, the mean of all indicators increased to 4.06 with the SD being 0.56, indicating the differences in experts' opinions were narrowed. In the CVR analysis, the 'organizational flexibility > transformational leadership > empowerment through learning' which were rejected in the first round scored 0.75 and was accepted. As a result, 13 indicators were rejected whereas 39 proved to be valid.

#### 3.3 AHP Analysis To Estimate Weighted Value of each Indicator

AHP is a method of decision making by capturing a rater's knowledge, experience and intuition via a pair wise comparison between the elements constituting the hierarchical structure in decision making. Developed by Saaty<sup>10,15</sup> in the early 1970s, AHP simplifies the decision

1	2	3	4
Expert Delphi(1st) Inquiry about validity of 52 indicators(ACG, SD, CVR)	Expert Delphi(2nd) Re-inquiry about validity of 1st round results (ACG, SD, CVR)	CVR analysis Elimination of sub-stand- ard indicators, 39 indicators selected	Weighting AHP analysis to estimate the weighted values of selected indicators

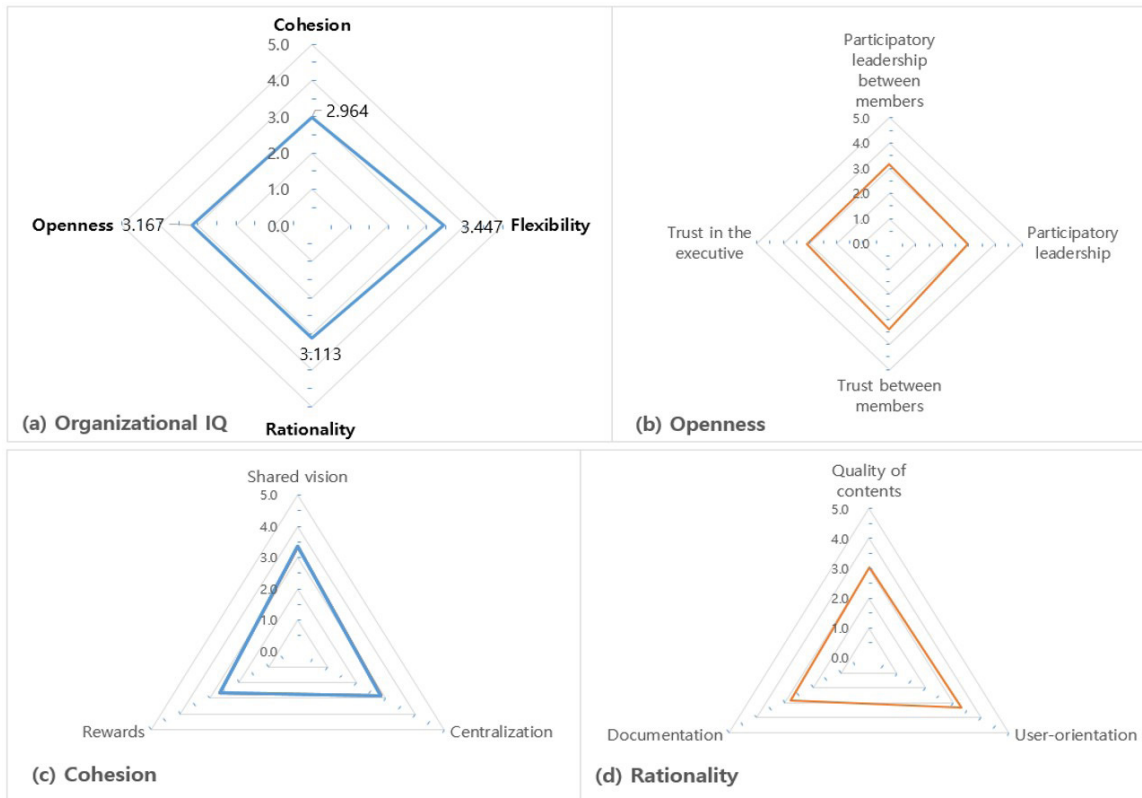
Figure 1. Indicator development procedure.

**Table 3.** Expert Delphi and CVR

Fundamental elements	Influence factors	Measurement elements	1st AVG	1st SD	1st CVR	2nd AVG	2nd SD	2nd CVR
Organizational cohesiveness	Shared vision	Organizational vision towards future	4.50	0.63	0.88	4.31	0.60	0.88
		KM as a vision and core strategy	3.81	0.66	0.38	3.81	0.66	0.38
		Perception of organizational vision/strategy	4.25	0.68	0.75	4.50	0.52	1.00
		Organizational members' involvement in decision making	4.19	0.83	0.75	4.25	0.68	0.75
		Organizational members' empowerment to make decisions	4.00	0.73	0.50	4.00	0.52	0.75
	Centralization	Organizational members' empowerment to process business	4.13	0.62	0.75	3.88	0.62	0.50
		Report on matters of arbitrary decision	3.25	0.68	-0.50	3.38	0.62	-0.13
		Fair measurement of performance	4.69	0.48	1.00	4.75	0.45	1.00
		Objective personnel management	4.56	0.73	0.75	4.56	0.51	1.00
	Rewards	Creativity and job performance reflected in promotion	4.06	0.68	0.63	4.25	0.68	0.75
		Incentive payment	4.13	0.62	0.75	4.25	0.86	0.50
		Satisfaction with wages	4.06	0.93	0.50	4.50	0.52	1.00
Organizational flexibility	Transformational leadership	Trust in superiors	4.31	0.60	0.88	4.69	0.48	1.00
		Empowerment through learning	3.94	0.77	0.38	4.06	0.77	0.75
		Superiors' logicity and problem-solving skills	4.19	0.54	0.88	4.25	0.68	0.75
		Rapport with superiors	3.81	0.75	0.25	3.56	0.81	0.00
		Superior's skills to identify the essence of problems	4.33	0.49	0.88	4.38	0.62	0.88
		Encouragement over job performance	4.25	0.45	1.00	4.06	0.68	0.63
		Emphasis on need for organizational innovation	3.75	0.77	0.38	3.63	0.50	0.25
	Formalization	Business handbooks ready for use	3.13	0.81	-0.38	3.63	0.50	0.25
		Rules or policies in effect	3.75	0.45	0.50	3.75	0.45	0.50
		Rules or policies for reference	3.38	0.62	-0.38	3.25	0.68	-0.25
		External business process	3.50	0.52	0.00	3.31	0.60	-0.25
		Flexibility in complying with business rules or procedures	3.81	0.54	0.50	3.69	0.60	0.50



Organizational rationality	Quality of contents	User-friendliness of information system	3.88	0.62	0.50	3.88	0.34	0.75
		Easy-to-use information system	4.06	0.77	0.50	4.13	0.62	0.75
	User-orientation	Accuracy of knowledge	4.06	0.77	0.75	4.00	0.52	0.75
		Sufficiency of knowledge	3.88	1.02	0.50	4.13	0.34	1.00
		Easy-to-understand necessary knowledge	4.06	0.68	0.63	3.88	0.62	0.50
		Convenience of knowledge in business execution	3.88	1.09	0.38	4.19	0.40	1.00
		Knowledge supporting decision making	3.75	0.77	0.38	3.75	0.68	0.25
	Documentation	Knowledge acquisition via documents and manuals	3.50	0.89	0.13	3.88	0.34	0.75
		Documentation of projects/business meetings	3.81	0.75	0.25	3.63	0.50	0.25
		Knowledge sharing	4.19	0.75	0.63	4.25	0.45	1.00
		Documentation of management-related knowledge	3.31	0.70	-0.38	3.63	0.72	0.00
		Processing of useful data	3.94	0.68	0.50	3.50	0.52	0.00
		Documentation of necessary knowledge	3.88	0.72	0.38	3.63	0.72	0.00
		Gathering organizational members' opinions in decision making	4.00	0.73	0.50	3.94	0.57	0.63
		Quality improvement of organizational members	3.88	0.81	0.50	4.13	0.34	1.00
Organizational openness	Participatory leadership between members	Sharing business ratings	3.75	0.86	0.25	4.25	0.45	1.00
		Superiors' internal/external activities	3.19	0.83	-0.38	3.13	0.62	-0.50
		Budget support for necessary knowledge management activities	4.06	0.93	0.75	4.63	0.50	1.00
		Personnel support for knowledge management activities	4.13	0.81	0.75	4.63	0.50	1.00
	Trust between members	Trust in organizational members' speech and act	4.25	0.77	0.63	4.50	0.52	1.00
		Autonomous business execution	4.29	0.73	0.50	4.63	0.50	1.00
		Job-related knowledge	3.94	0.77	0.63	4.13	0.62	0.75
	Trust in the executive	Sharing knowledge for business execution	4.06	0.68	0.63	4.25	0.45	1.00
		Legitimate use of knowledge provided	3.81	0.75	0.50	3.88	0.62	0.50
		Trust in the executive's decision	4.31	0.70	0.75	4.63	0.50	1.00
		The executive's fairness in business	4.33	0.82	0.75	4.31	0.60	0.88
		The executive's consistency in speech and act	4.31	0.60	0.88	4.50	0.52	1.00
		Trust in the executive's expertise	4.19	0.75	0.63	4.31	0.48	1.00
		Mean	3.97	0.72	0.49	4.06	0.56	0.63



**Figure 2.** The result Assessing of Organizational IQ.

making process contributing to effective decision making on complex issues. Also, AHP structuralizes complex situations and relies on a ratio scale to derive priorities and weights, enabling integration and verification of logical consistency.

This study used the AHP to analyze the selected indicators and confirmed the reliable criteria for consistency ratios, where values of 0.1 or less were used for the analysis, assuming the respondents had performed

a consistent pair wise comparison. The respondents were experts who participated in the questionnaire survey intended to analyze the validity of indicators. Given the respondents were familiar with the content and goals of the survey, AHP was used to analyze the data from 11 respondents, whose consistency ratios were 0.1 or less, based on strict criteria (See Table 4).

As the fundamental elements of knowledge-friendly organizational culture, organizational cohesiveness (0.083),

**Table 4.** AHP analysis: Consistency Ratios

Response No.	Consistency Ratio	adopted	Response No.	Consistency Ratio	adopted
1	0.06	adopted	9	0.05	adopted
2	0.00	adopted	10	0.09	adopted
3	0.08	adopted	11	0.07	adopted
4	0.03	adopted	12	0.33	rejected
5	0.04	adopted	13	0.38	rejected
6	0.01	adopted	14	0.25	rejected
7	0.02	adopted	15	0.44	rejected
8	0.02	adopted	16	0.66	rejected

**Table 5.** AHP analysis results

Fundamental elements	Influence factors	Measurement elements	weight	Fundamental elements	Influence factors	Measurement elements	weight
Cohesion 0.083	Shared vision 0.391	Organizational vision towards future	0.496	Rationality 0.261	User-orientation 0.426	Accuracy of knowledge	0.532
		KM as a vision and core strategy	0.504			Sufficiency of knowledge	0.232
		Organizational members' empowerment to make decisions	0.189			Easy-to-understand necessary knowledge	0.115
		Organizational members' empowerment to process business	0.312			Convenience of knowledge in business execution	0.120
	Centralization 0.153	Report on matters of arbitrary decision	0.499	Openness 0.216	Documentation 0.167	Knowledge acquisition via documents and manuals	0.397
		Fair measurement of performance	0.208			Knowledge sharing	0.603
		Objective personnel management	0.178		Participatory leadership between members 0.237	Gathering organizational members' opinions in decision making	0.566
		Creativity and job performance reflected in promotion	0.098			Quality improvement of organizational members	0.258
		Incentive payment	0.241			Sharing business ratings	0.176
		Satisfaction with wages	0.275			Budget support for necessary knowledge management activities	0.594
	Rewards 0.456	Trust in superiors	0.238	Participatory leadership 0.217	Trust between members 0.256	Personnel support for knowledge management activities	0.406
		Empowerment through learning	0.100			Trust in organizational members' speech and act	0.205
		Superiors' logicity and problem-solving skills	0.236			Autonomous business execution	0.129
		Superior's skills to identify the essence of problems	0.301			Job-related knowledge	0.270
		Encouragement over job performance	0.125		Trust in the executive 0.289	Sharing knowledge for business execution	0.186
		Rules or policies in effect	0.303			Legitimate use of knowledge provided	0.211
		Flexibility in complying with business rules or procedures	0.697			Trust in the executive's decision	0.186
		User-friendliness of information system	0.384			The executive's fairness in business	0.357
Rationality	Quality of contents 0.408	Easy-to-use information system	0.616			The executive's consistency in speech and act	0.269
						Trust in the executive's expertise	0.188



organizational flexibility (0.440), organizational rationality (0.261) and organizational openness (0.216) were weighted. In the order of weighted values, organizational flexibility, organizational rationality, organizational openness and organizational cohesiveness proved significant. Notably, the organizational flexibility involving formalization and transformational leadership proved to be the most significant. Also, among 39 indicators, the organizational flexibility (0.440) → Formalization (0.371) → Flexibility in complying with business rules or procedures (0.697) scored 0.114, which proved to be the most significant, followed by the organizational rationality → quality of contents → easy-to-use information system, the organizational flexibility → transformational leadership → trust in superiors and the organizational flexibility → transformational leadership → empowerment through learning in the order named, which suggested the indicators relevant to the transformational leadership proved relatively more significant. Also, the lowest weighted value was found in the organizational cohesiveness → centralization → organizational members' involvement in decision making. Likewise, the rewards-related indicators showed relatively low weighted values (See Table 5).

## 4. Empirical Analysis

### 4.1 Overview

To measure the organizational knowledge levels, to verify the applicability of the proposed indicators and framework, to measure the organizational IQ of a real agency and to seek for improvement measures, the developed model was applied to a research institute affiliated with a local government for measurement and analysis. The target institute empirically analyzed here was a research and administrative organization founded and operated to contribute to local development by systematically studying and analyzing every aspect and presenting efficient alternatives for problems and issues raised in the region. From December 1015, 2015, the organizational members were interviewed face to face and over the phone to inform the objective and method of this study prior to diagnosis. Each question item was rated on a 5-point Likert scale.

### 4.2 Results

Each question item was rated on a 5-point Likert scale. 32 valid response sheets were analyzed. The analysis of weighted items highlighted the institute's status relevant

to the organizational knowledge-friendly indicators, i.e. flexibility (3.447), openness (3.167), rationality (3.113) and coherence (2.964) in the order named. Figure 2 shows the empirical results using the organizational IQ assessing indicators.

Concerning the cohesiveness, the reward was found relatively less significant: Shared vision (3.360), centralization (2.840), rewards (2.667). The indicators associated with the 'rewards' came 25th, 27th, 30th, 31st and 39th among the 39 indicators, being low in rank overall. In particular, the 'creativity and job performance reflected in promotion' came 39th, being lowest in rank, which suggested policy measures would be required. Concerning the flexibility, flexibility and standardization including guidelines and leadership in business execution scored highest, i.e. transformational leadership (3.572) and formalization (3.235). Concerning the rationality, using information systems and user-oriented knowledge systems outweighed document-based sharing or acquisition of knowledge: quality of contents (3.024), user-orientation (3.311) and documentation (2.808). This finding suggested that IT-based knowledge application was in place. Finally, concerning the openness, the 'personnel and budget supports for knowledge management activities' should be considered given the result: Participatory leadership between members (3.182), participatory leadership (2.972), trust between members (3.404) and trust in the executive (3.101).

The foregoing empirical analysis proved the proposed organizational IQ measurement contributed to identifying the status of organizational knowledge management and the aspects that would require supports for systematic approaches to improvement measures.

## 5. Conclusions

The present study approached the knowledge management from the perspective of knowledge-friendly organizational culture beyond the perspective of technology with a view to helping organizations to make efforts for and invest in knowledge management, to identify current conditions based on the quantified evidence and to develop systematic improvement measures.

This paper proposed a framework for measuring and managing the organizational IQ from the perspective of knowledge-friendly organizational culture. To develop the proposed framework, four influence factors for

organizational IQ measurement were derived and the measurement elements' content validity was secured based on the consensus of an expert group surveyed. Also, AHP was used to calculate the weighted value of each factor and thus to propose the framework capable of measuring and managing the organizational IQ.

This paper proposed some areas and indicators for evaluating organizational intelligence and defined the concepts of knowledge application competencies in relation to organizational knowledge management. Also, each indicator was weighted to determine its importance, which served as the starting points in identifying, measuring and analyzing the essential conditions for the improvement of organizational knowledge management levels. The proposed indicators and relevant findings are conducive to organizational knowledge management by helping organizations to identify their cultural status in view of the implementation of organizational knowledge management and serve as the specific reference data for policy measures that need be developed for future viability of organizations. 'If you can't measure it, you can't manage it' said Peter Drucker, implying that the first step of management is measurement. The present quantitative findings will give fresh insight into policy development for organizational knowledge management and the adoption of IT-based knowledge management information systems, particularly to those organizations being skeptical about the return on their investments and those that have already adopted knowledge management systems only to see mediocre or unsatisfactory results.

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