

IT 지원 조직의 조직 적합성에 관한 연구 : 농촌 IT 지원조직의 사례

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A Study on the Organizational Fit of IT Supporting Organizations : A Case of IT Supporting Agricultural Promotion Agencies

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■ Abstract ■

The concrete information technology (IT) has affected ways for supporting agricultural products. However, studies relating IT to agriculture in a broader sense have not been prevalent. The objective of this study is to improve agencies' effectiveness and performance in the use and application of IT through understanding the organizational fit and misfit. This research applied a multi-contingency view to Korean IT supporting agricultural promotion agencies and it evaluated the competitiveness of these agencies with reference to the correspondence of factors (Goal, Strategy, Environment, Knowledge Exchange, Task Design, and Information System) affecting their performance with organizational goals. The results reveal that organizations with good performance show better organizational fit with their organizational goal. This study contributes to the ways of efficient IT management in agricultural organizations in Korea.

Keyword : Organizational Fit, Information Technology(IT), Contingence Theory(CT),
Multi-Contingency View, IT Supporting Organizations

1. Introduction

IT-intensive industries have significantly achieved better productivity than those that underutilize IT [12]. Strategic management research often attempts to reveal the root causes of firm-level competitive advantage [16]. Many studies have shown that the fitness of the strategies that are implemented to improve organizational performance on the intra- and inter-firm levels is rapidly changing in the presence of IT [18, 29].

IT policy for agriculture and rural development began in the 1990s in Korea but IT applications and use of IT have not spread rapidly in the agricultural industry comparing to other industries. Korea is one of the world's most wired nations, and the rate of households with access to a home computer is 81.6% in 2010, and 81.9% in 2011 [37]. The 45.7% of farm households, however, own personal computers (PCs) and only 20.5% of them use PCs for farming in 2010 [1]. This lack of interest in IT by farmers is often explained by factors such as low levels of education and relatively high age, and even the most IT-experienced farmers have not appeared to accrue significant benefits from using the IT applications that are available to them [8, 10, 32]. On top of that, the insufficient use of IT can be explained in various ways, and it is obvious that organizational support is necessary for the effective propagation of IT and the fulfillment of IT's potential [17, 23, 26].

In Korea, the agricultural promotion agencies affiliated with each local government play a pivotal role in various educational and business programs that encourage the effective diffusion of IT. Although they are uniform as government organizations, they have different structures and

promote projects differently according to the regional context [2]. Their projects and management practices are based on regional characteristics, and experts observe that performance varies from region to region [3]. But there is no tool consistently used to evaluate the performance of these kinds of organizations.

For an IT organization, the main issues are the fitness of the IT, organizational strategies, and methods for revitalizing IT knowledge management [19, 30, 36]. IT continues to grow and spread quickly to nearly every industry. However, there are few studies that have evaluated the competitiveness of an organization with reference to the correspondence of its component factors with organizational goals. Above all, studies about evaluation of IT supporting organizations in agriculture area have not been conducted in Korea.

Therefore, this research investigates the cause of the performance gap among regional agricultural promotion agencies that employ strategies customized by region. Toward this end, using a multi-contingency view, we extract six factors; goal, strategy, environment, knowledge exchange, task design, and information system. Next we examine the factors that affect the performance gap among those organizations. This method is not intended to determine the most important factor but instead helps to examine whether these factors are consistent with the goals of the organization from various points of view [6]. The objective of this study is to improve agencies' effectiveness and performance in the use and application of IT through understanding the organizational fit and misfit.

This paper is mainly organized as five parts. First, we offer a brief theoretical review on or-

ganizational adaptation such as Contingence theory (CT). Next, we explore six agricultural promotion agencies in Korea. Based on experts' recommendations, the regional agencies are divided into two groups, namely, high- and low-performing organizations, and analysis of these organizations are conducted through interviews of key authority figures in each organization. Thirdly, we examine whether high- and low-performing organizations show different degrees of fit between the factors and the goals of the organizations. Then, we analyze the performance gap among agencies based on the results of a survey distributed to farmhouses, targets of projects done by the agricultural promotion agencies. Finally, the results confirm that the agencies, receiving favorable evaluation from experts, fit well overall, and the six factors are consistent with the organizational goals.

2. Fit and Organizational Performance

As the world has become an increasingly more knowledge-based society, knowledge has also attracted attention as an important element of continuous competitiveness [13]. Many studies about knowledge and information within organizations have treated person-job fit and knowledge management as important factors in IT. In addition, studies have stressed the importance of corporate and IT strategy to organizational performance [23, 31].

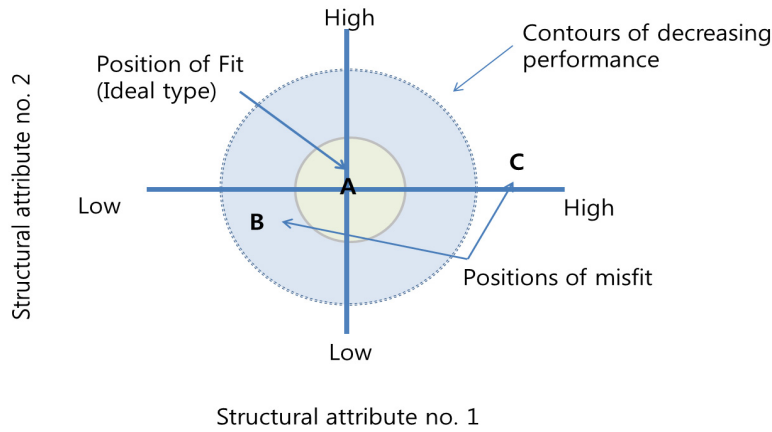
Organizational performance has become an important component of research. Contingency theory (CT) remains the most widely utilized contemporary theoretical approach to the study of organizations [11]. The term contingency theo-

ry was created by Lawrence and Lorsch [9], in an empirical study, showing that effects from organizational structure on relative economic performance were contingent upon environmental attributes. CT emphasizes the design of an organization and its subsystems and it stresses that organizational viability is contingent upon a fit between organization and environment.

As developed by Hickson [22], the strategic contingencies theory states that the control of contingencies needed by other subunits within the organization is related to the power of the controlling subunit. The strategic contingency theory highlights the need to fit strategies in the exterior firm environment, and many studies have focused on the relationship between environment-strategy fit and management performance. Miller [29] reported that the strategies varied with environmental uncertainty and suggested that this type of fit has a meaningful relationship with corporate performance.

The fit concept plays a pivotal role [18] and lies at the heart of CT [7]. Based on Drazin and Van de Ven [18], Klaas [25] shows an example of a typical gestalt approach in [Figure 1] below. There are two approaches within multi-contingency models. One is the Gestalt approach, the other is the Configuration approach. It assumes an ideal type organization, for simplicity consisting of two structural attributes. Drazin and Van de Ven [18] identify three different forms of fit in CT. First one, based on the gestalt approach, focuses on internal fit between different attributes of the organization.

This notion of fit is another central concept and it is essentially a qualitative approach, relying on classification of different structural attributes [25]. Position A is the fit position while



[Figure 1] Measuring Fit in the Gestalt Approach (Adapted from Klaas. 2004)

position B and C represent positions of misfit. Typically measuring is done through a survey and respondents assess this on a Lickert type scale. The principal research problem became one of identifying structural designs which are efficient, effective and viable under conditions of changing environments. Plus CT research has hosted an overwhelming number of different contingencies on which organizational viability is thought to be dependent, such as structural centralization, technology, task uncertainty, organizational climate, national culture, and incentive schemes [25]. Later, by integrating of early research, developments are done. One approach is a multi-contingency model [5, 21].

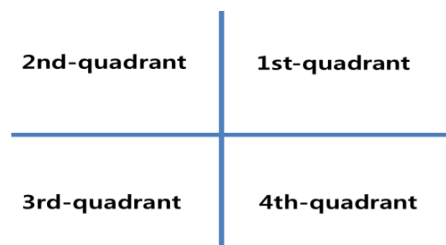
An organization divides important tasks and their related objectives into subcomponents, creating an interdepartmental system of departments and tasks [22]. In this process, the fit of contingency factors determines the level of organizational performance, and an organization with poor fitness will obtain a poorer outcome [6]. The effect of various factors on organizational performance has been discussed, but we use the multi-contingency view to observe the fit of

these various factors. The multi-contingency view offers a comprehensive view of an organization in that it reviews corporate strategy, technology, management, environment, and size as contextual factors.

3. Research Design

3.1 Two-Dimensional Graph

Burton et al. [6] provide diagnostic questions and the two-dimensional graphs shown in [Figure 2], and suggest the step-by-step approach based on an information-processing view which is the way to see organization and its design.



[Figure 2] Two-Dimensional Graph

This approach is based on the fundamental

assumption that the work of an organization can be seen as information processing. According to them, there are fourteen types of components in organizational design; goal, strategy, environment, configuration, complexity, geographic distribution, knowledge exchange, task design, people, leadership style, climate, coordination/control, information systems, and incentives. After interviewing with officers at agricultural IT management and discussing each component, we extract six factors that affect the organizational performance among above fourteen components. Because agricultural IT supporting agencies are small size organizations and subunits of a central agency in Korea, other components are not influential.

<Table 1> Dimensions by factors

Organizational Factor	Criteria
Goal	Efficiency Effectiveness
Strategy	Exploitation Exploration
Environment	Complexity Unpredictability
Knowledge exchange	IT-infused Virtualization
Task design	Divisibility Repetitiveness
Information system	Amount of information Tacit nature of information

Six factors are goal, strategy, environment, information systems, tasks, and knowledge exchange. Each factor is explained in detail later in a conceptual framework. As suggested by Burton et al. [6] each component factor has two dimensions as shown above <Table 1> and four different kinds of states are possible. Annex A shows the each factor's four different kinds of states according to the high and low performance.

3.2 A Conceptual Framework

Although organizations attempt to achieve both effectiveness and efficiency, a firm may take a different direction depending on its goal upon which it is focused. Efficiency requires the minimization of costs or the improvement of processes; the focus is the firm's inputs. Effectiveness focuses on the development of new products or innovation in the market; the focus is on the firm's outputs. Organizations that focus on efficiency are more interested in minimizing costs by exploiting new technology and continually improving processes. On the other hand, organizations that focus on effectiveness are more interested in developing first-mover advantage and attempting to produce new ideas consistently.

In contrast, organizations that aim for both effectiveness and efficiency strive to achieve innovation while keeping costs low. This is the model that most organizations aim to employ eventually. The agricultural promotion agencies in Korea are affiliated with local governments and aim to increase the income of agricultural management organizations through IT support. Because the technology that is developed by central organizations is used on site, there appears to be more of a focus on efficiency than on effectiveness via innovation.

An organization, in the 3rd Quadrant, emphasizes both efficiency and effectiveness in contrast to one in the 1st quadrant. The 2nd quadrant represents an organization which focuses on efficiency while the 4th quadrant represents indicating organizations focusing on effectiveness. Likewise, strategy has two components; exploitation and exploration. If both are high, it is located in 1st-quadrant, and if only exploitation

is high, it is located in 2nd-quadrant. <Appendix A> shows a detailed description regarding the framework.

After synthesizing various studies that considered fit within organizations, we made a conceptual framework, as shown <Table 2> below, which is used to evaluate fit within IT-supporting agricultural promotion agencies in Korea. It functions as an analytical tool for determining whether empirically observed incidents support or refute the model theoretically. Using such a framework, the theory can be verified by analyzing whether the six agencies are consistent with.

In the case that an organization has high exploitation and low exploration, it represents a Defender but both showing high mean an Analyzer. Exploitation and exploration are developed by analyzing the characteristics of knowledge and learning and are related to strategy. When it comes to environment, it leads to two concerns, namely, complexity and unpredictability. In addition, Knowledge exchange is managed using two main methods, knowledge virtualization and IT in contemporary companies and both are high in 1st-quadrant. If both are low, it is assigned in the 3rd-quadrant. If dimensional components are both high, it is located in the 1st-quadrant. On the contrary, if both are low, it

is located in the 3rd-quadrant.

The previous studies are those that discussed the general characteristics of the environment, and the environment as it is understood by managers rather than as a matter of objective fact is considered important for organizations. This leads to two concerns, namely, complexity and unpredictability. Complexity indicates the number of factors that can seriously affect an organization. If an organization has one or two main competitors, the level of complexity is low. If an organization must continuously adjust itself to various conditions (e.g., competitor price, the labor pool, or new products), its complexity is high. Unpredictability refers to the degree of uncertainty surrounding these factors.

Contemporary companies can manage knowledge exchange using two main methods, knowledge virtualization and IT. In an organization with high knowledge virtualization, teams, business units, and sometimes even the entire company obtains knowledge by connecting with a group outside its own organization. In contrast, an organization with low knowledge virtualization is focused inwardly and obtains knowledge within the company boundaries or in specialized groups; such a firm protects whatever knowledge it acquires from outside the firm. The degree of IT infusion is how much a company de-

<Table 2> A Conceptual Framework of Six Components

	1 st -quadrant	2 nd -quadrant	3 rd -quadrant	4 th -quadrant
Goal	Efficiency and Effectiveness	Efficiency	No Dominant Goal	Effectiveness
Strategy	Analyzer	Defender	Reactor	Prospector
Environment	Turbulent	Varied	Calm	Locally Stormy
Knowledge exchange	Network	Unformatted	As hoc Communications	Cellular
Task design	Knotty	Complicated	Orderly	Fragmented
Information system	Relationship-Driven	Data-Driven	Event-Driven	People-Driven

depends on an IT-based system. This concept includes the use of data processing systems and computer-based communication systems to manage knowledge exchange.

Task design is the act of decomposing a task into subtasks and coordinating those subtasks and to achieve corporate objectives. Based on previous studies of the relationships between different kinds of tasks, it appears that task design can be analyzed based on the task's level of repetitiveness and divisibility. Standardized task execution can be referred to as repetitiveness. If a task becomes continuously repetitive, it has high repetitiveness. In contrast, if a task is not standardized but is instead operated in various ways, it is said to have low repetitiveness. Highly repetitive tasks have low uncertainty, whereas low-repetition tasks have high uncertainty. If a large task is divided into subtasks that do not require coordination, as when subtasks are independent, then this task can be regarded as having high divisibility. In contrast, a task has low divisibility if its subtasks require extensive coordination. The definition of divisibility is related to Thompson's separation of tasks into three categories, namely, sequential, common, and interdependent. Along with the two dimensions of repetitiveness and divisibility, there are four basic task designs; these are orderly, complicated, fragmented and knotty.

Information systems are an important part in organizational infrastructure and provide meaningful data to decision makers. Such frameworks include every system that collects, stores, and processes information within an organization. They also include one-on-one, in-person meetings, although computers and communication equipment may be used as well. Information sys-

tems can be analyzed with regard to the amount and the degree of implicitness of the information being processed. The amount of information is the size of the information that should be collected, processed, and stored by the organization, and although the amount of information is determined according to the size of company, the amount of shared information may increase even in a small organization if the organization completes many different types of tasks and if the design of those tasks is complex. The degree of the implicitness of the information can be measured based on the degree of information exchange within the organization.

Based on the framework of the six organizational component factors isolated using the multi-contingency view, we verify whether the organizational fit of IT-supporting agricultural promotion agencies has a significant impact on performance.

4. Methodology

4.1 Data Collection

Agricultural promotion agencies are affiliated with local governments in Korea, and the structure and operation of the agencies can be reorganized depending on the circumstances. Although the objective of each organization is slightly different, their main activities are similar including farm management consulting, farm IT education, e-commerce education, and information exploitation education.

But there is no tool consistently used to evaluate the performance of the agricultural promotion agencies that are affiliated with local governments. Therefore, based on the recommen-

dations of a few experts who are more than 10 years experienced senior research officers in the agricultural IT management and Agri-food information science society, we divided case agencies into two groups, Region A (which exhibits good performance) and Region B (which exhibits poor performance). According to the program results, Region A shows high performance on the agricultural IT management development and manages their web pages well with providing highly organized information. Moreover, they inform residents of IT programs regularly but others do not progressively give those information. Three organizations from each region were selected, and a total of six organizations were interviewed.

To increase the reliability and internal validity of the qualitative research, the multiple case-study method [35] was used. The interviews with six organizations were conducted based on the pre-configured logic model, and we compared the overall fit of the organizations by diagnosing the component factors for each organization through interviews and then placing them within the quadrants. Diagnostic questions and two-dimensional graphs for interview were made. After overall discussion of organization's performance, each interviewee filled out the questionnaire used Likert scale.

Because the organizations were selected based on expert recommendations, we surveyed the farms in the two regions to confirm the existence of significant differences in performance between the two regions. Thirty-four farms from high-performing Region A and Thirty-three farms from low-performing Region B completed the questionnaire. The survey was distributed to each farm family. Adult members of farmhouse

work together but usually male farmers participate in the education programs. Therefore most of surveys were done by male farmers.

4.2 Measurement

For the interviews that were used to determine the level of organizational fit, a survey proposed by Burton et al. [6] was modified for use with the agricultural promotion agencies, and the interviews were conducted using semi-structured questions. Each interview lasted for approximately two hours and five questions were used to evaluate each factor. A survey was also conducted to identify performance differences using a structured questionnaire. The items on the questionnaire were used to determine the farms' level of satisfaction with the activities of the agricultural promotion agencies. The survey was conducted in 34 farms in Region A and in 33 farms in Region B. Although the survey was conducted in a total of 67 farms, 15 farms that did not respond were excluded. <Appendix B> shows the demographic information about farms.

5. Results and Analysis

5.1 Result of Case Analysis

Organization-a in the high-performing region exhibited high efficiency and low effectiveness and exhibited low exploration and high exploitation in terms of its strategy. Also, it exhibited high complexity and low unpredictability within its environment and exhibited low virtualization and high IT-infusion in terms of knowledge exchange.

〈Table 3〉 Results of analysis of fit of two regions

Organization-a in good-performing region					Organization-d in poor-performing region				
	1 st quadrant	2 nd quadrant	3 rd quadrant	4 th quadrant		1 st quadrant	2 nd quadrant	3 rd quadrant	4 th quadrant
Goal					Goal				
Strategy					Strategy				
Environment					Environment				
Knowledge exchange					Knowledge exchange				
Task design					Task design				
Information system					Information system				

Organization-b in good-performing region					Organization-e in poor-performing region				
	1 st quadrant	2 nd quadrant	3 rd quadrant	4 th quadrant		1 st quadrant	2 nd quadrant	3 rd quadrant	4 th quadrant
Goal					Goal				
Strategy					Strategy				
Environment					Environment				
Knowledge exchange					Knowledge exchange				
Task design					Task design				
Information system					Information system				

Organization-c in good-performing region					Organization-f in poor-performing region				
	1 st quadrant	2 nd quadrant	3 rd quadrant	4 th quadrant		1 st quadrant	2 nd quadrant	3 rd quadrant	4 th quadrant
Goal					Goal				
Strategy					Strategy				
Environment					Environment				
Knowledge exchange					Knowledge exchange				
Task design					Task design				
Information system					Information system				

In addition, it showed low task divisibility and high task repetitiveness. In addition, this organization exhibited a high degree of the implicitness of information and employed a low amount of information. The interview results for the other five organizations are shown in the <Table

3> using quadrants, as is the case for organization-a above.

Overall, organization “a” and “c” exhibited high organizational fit, with all factors except one being in the first quadrant. Although organization-b in the good performing region did not

exhibit good overall fit, three of its factors were well aligned with the goal. Meanwhile, organization-d shows the difference between its goal and other component factors, and other components fit well in the 3rd-quadrant which represents all factors low. Organization “e” and “f” exhibited more misfits and their goals do not fit other factors.

5.2 Results of the Survey on the Differences between the Performance of Farms

The responses of 52 farms were used for the T-test. The T-test assumes a normal distribution and can be generally assumed to have normality according to the central limit theorem when the sample size is over 30 [14]. In this study, more than 30 samples were used to satisfy that assumption, and we believe that there were no problems with the T-test. The results of the T-test are shown in <Table 4>.

As shown in <Table 4>, the agencies in

Region A (good performance) and those in Region B (poor performance) exhibit significant differences in 95% confidence level with regard to Question 3 (“How helpful is business management in farming?”). Moreover there is difference in 90% confidence level with regard to Question 1 (“How much did the agricultural technology center of cities and counties contribute to improving the level of information exploitation?”) and Question 2 (“How helpful is cultivation technology to farming?”).

The average difference between the results for the two regions cannot be considered meaningful. That may result from other variables such as the different IT programs and attendance frequency. It can be explained by overall programs of IT-supporting agencies. Only fifty two questionnaires were collected and it was difficult to analyze the performance according to the each program. However, given that the number of samples used for the T-test was low and that the survey was conducted as a pilot test,

<Table 4> Result of Satisfaction of Farmer in Two Regions

	Question	Average		Ave. Diff.	T-test of the identity of the average	
		Good-performing region	Poor-performing region		t	p-value (one-tailed)
1	How much did the agricultural technology center of city and country contribute to improving the level of information exploitation?	4.64	4.37	0.27	1.401	.084*
2	How helpful is cultivation technology to farming?	3.96	3.52	0.44	1.595	.059*
3	How helpful is business management to farming?	3.72	3.19	0.53	1.985	.027**
4	How helpful is produce distribution to farming?	3.64	3.41	0.23	.911	.183
5	Are you satisfied with the role of agricultural technology of city and country for managerial improvement consulting?	3.46	3.27	0.19	.722	.237
6	How satisfied are you with the information literacy of the agricultural technology of city and country so far?	4.20	4.04	0.16	.866	.145

Note) ** p < 0.05, * p < 0.1.

the average difference can be considered meaningful. The results for the organizations in the region recommended for its good performance indicate the high overall fit within those organizations, and the farms upon which they focus indicate a high level of satisfaction with them. These findings support our initial assumption that the performance of these agricultural promotion agencies can be measured based on the satisfaction level of the farms that they assist.

5.3 Analysis

According to the results, two out of three organizations (a and c) in the high-performing region possessed five out of six organizational factors located in the same quadrant, indicating a high correlation among the organizational factors. This finding differentiates this study from previous studies that only isolated strategy and knowledge management as important to organization performance. Because each organization has different characteristics, it is better to analyze overall fit than to judge performance based on one or two factors [6]. In addition, when the organization-b was compared with the low-performing organizations, a difference was observed between Region A and Region B in terms of whether other factors were consistent with the goal, although the overall fit was relatively low.

This finding implies that even if the factors are consistent with each other, they are not consistent with the goal that is being pursued by an organization. This result is also consistent with previous studies that stressed the importance of setting a goal [20, 27, 34] and structuring the organization in accordance with that goal. Furthermore, according to the survey re-

sult, it confirms that there is difference between the organizations in the two regions in terms of their performance. Although only question-1 shows the significant difference in 95% confidence level, they show that differences exist overall between two regions given the clear average differences between their answers to the other questions.

6. Conclusion and Discussion

This study examined the fit of organizational component factors affecting agricultural promotion agencies given their goal of improving IT use in farms. The results of the study revealed that organizations in the region that had been recommended for their good performance exhibited better fit than those in the region noted for its poor performance. Also, farmers supporting from the good performance agencies show the comparatively high satisfaction of programs. This suggests that both overall fit and alignment with goals are important. Even though IT supporting agricultural agencies in Korea is uniform as government organizations, each performance difference can be explained by the components in organizational design.

This study has a few limitations. We examined only six small agencies in affiliation and officials rotate around the different sections. If more and varied-sized organizations would be analyzed using this framework it could be used to generalize. Moreover organization-b can be affected by other factors. Because it shows more misfits compared to two others, but it was recommended as a good performance by experts. And there may be regional differences. Even though case agencies do the same role, each re-

gional distinct circumstance could affect their functions. For examples, every person performs the same task differently. Also we conducted and recorded interviews of individuals employed at agricultural promotion agencies disinterestedly, the individual opinions might be colored by their representation of the actual situation. Furthermore, various questions were asked whenever one axis was judged to prevent such issues, but they might not be completely prevented. Finally, the overall performance can be studied further in order to measure the IT-supporting agencies in Korea.

Despite these limitations, we expect that other agriculture IT organizations can be adapted to evaluate their performance. Agriculture IT utilization is low as compared with other industries and IT-supporting agencies have a key role in utilizing IT system in agriculture. Evaluation of these agencies is important in order to improve its performance. This study focused on IT-supporting agricultural promotion agencies. The multifaceted method of analysis used in this study should offer different insights than conventional tools that determine factor-factor fit among organizations. It will also be possible to conduct a structured survey via multiple interviews in future research.

Mutual cooperation between farmers and IT supporting agencies is very important in agriculture IT utilization and agricultural industry has a wealth of possibilities. Evaluating the competitiveness of those agencies can contribute to the development of performance. Under the limited resources and the same organizational design, the results show that each performance is different according to the correspondence of its component factors with organizational goals. So,

fitness between organizational goals and other components needs to be treated importantly. This study can be utilized by managers and policy makers in order to help their IT utilization in agriculture area. Also ultimately it can contribute to improve better market access for farmers and increase productivity.

The digital divide between rural and urban areas has been emerging issues and government agencies endeavor to lessen the gap providing education opportunities and IT applications for farms. It has been implemented for years but overall satisfaction level of farmers is not high enough. Even though IT supporting agencies play a pivotal role in IT education and programs, there was no tool for the evaluation framework. Therefore evaluation IT supporting agencies using this framework should be done and this could contribute to developing farmers IT adaptation.

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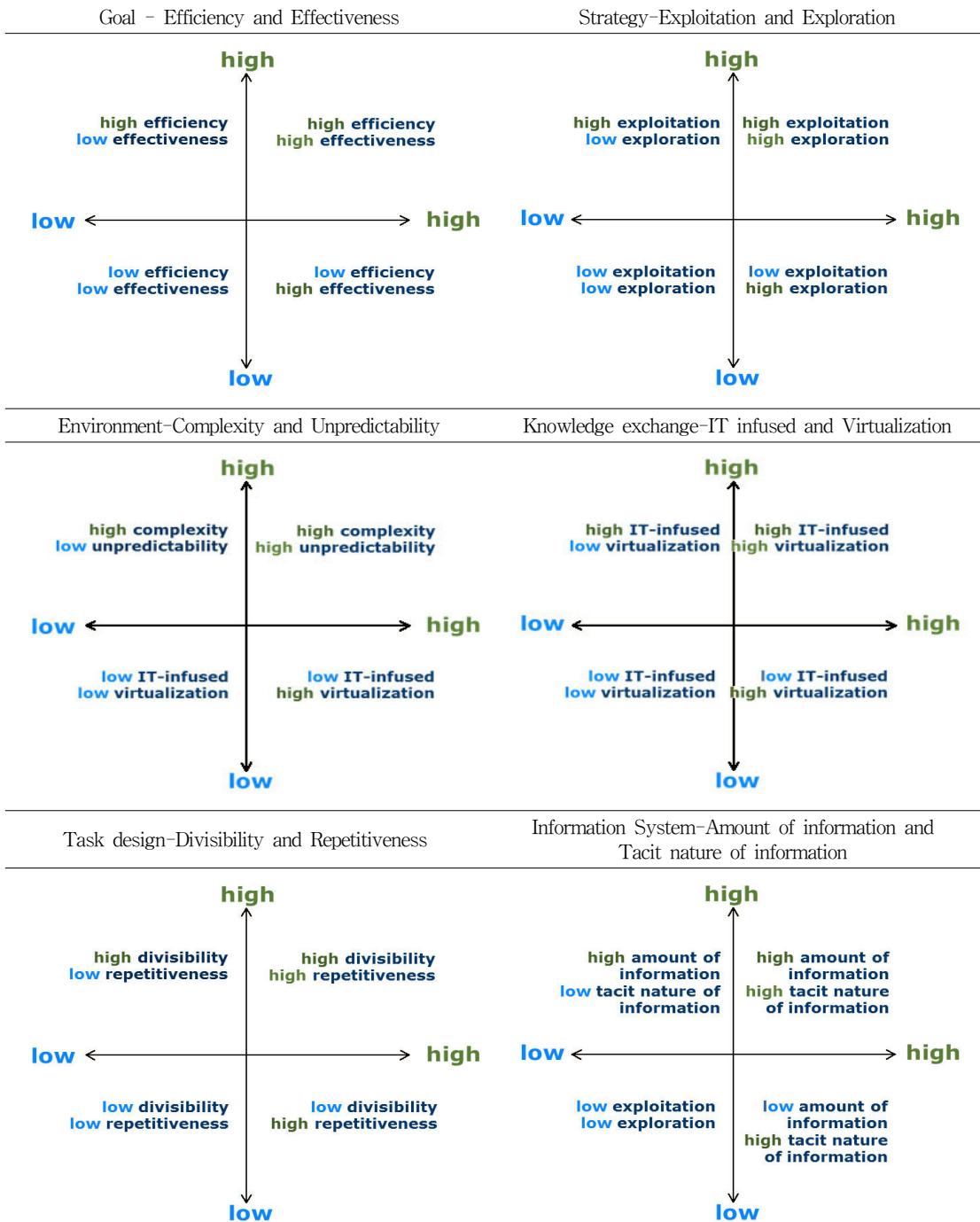
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〈Appendix A〉

Two-Dimensional Graph of Describing Organizational Factors



〈Appendix B〉

		Good-performing region		Poor-performing region	
		Frequency	%	Frequency	%
Farm manager (age)	30~39	4	16	0	0
	40~49	10	40	14	51.85
	50~59	8	32	8	29.63
	Over 60	3	12	5	18.52
Farm experience (year)	1~9	6	25	6	22.22
	10~19	8	33.33	11	40.74
	20~29	7	29.17	4	14.82
	Over 30	3	12.5	6	22.22
Cultivation area (m ²)	99~13,223	11	44	9	33.33
	13,223~23,140	2	8	12	44.44
	23,140~33,057	1	4	3	11.11
	Over 33,057	10	40	3	11.11

〈Appendix B〉

		Good-performing region		Poor-performing region	
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Farm manager (age)	30~39	4	16	0	0
	40~49	10	40	14	51.85
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	23,140~33,057	1	4	3	11.11
	Over 33,057	10	40	3	11.11

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서울대학교 농경제사회학부 박사과정 수료하였다. 주요 관심 분야는 농업 정보화, 농촌 개발, 기후변화 등이다. “작목전환의 단계별 성공요인 분석”, 그리고 (지자체 기후변화대응종합계획 수립 지원을 위한) 『온실가스 감축 계획 수립 가이드라인』에 참여했다.



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서울대학교 농경제사회학부 박사과정중이며, 최근 논문으로는 “작목전환의 단계별 성공요인 : HERO 모델”, 농촌지도와 개발 19권 3호, 2012가 있다. 관심분야는 계약관계, 수직수평 통합, 생산자-소비자 연계 등 분야이다.



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<식생활 라이프스타일에 따른 꾸러미 시장의 세분화 및 소비자 만족 요인의 차이에 관한 연구>논문으로 서울대학교 농경제사회학부 석사 졸업하였으며 관심분야는 사회적경제, 대안농업이다.



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미국 University of Michigan에서 농경제학 박사를 취득한 후 서울대학교 농경제사회학부 교수로 재직 중이다. 주 관심분야는 농업정보화, 경영정보학, 농식품마케팅 등이고, 주요 저서로는 “농림정보화 성과분석”, “지식정보사회의 성숙과 IT산업이 농업에 미치는 영향”, “왜 최고 산지조직체인가”와 국제학술지 12편(SCI급 논문 8편 포함) 등이 있다.



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서울대농생대를 졸업하고 버팔로 뉴욕 주립대학교에서 이비즈니스분야 경영학박사를 취득하였다. ICU, KAIST의 경영과학과에서 조교수로 재직하였으며, 현재 서울대학교 농생대농경제사회학부에서 농식품 비즈니스 분야 부교수로 재직 중이다. 주요 관심분야는 소비자 및 사용자 행동, 농식품 분야 정보 전략 및 기술 경영, 식품리테일 분야 기술 기반 마케팅이다.