

# **A Study on the Development of Educational Curriculum Model for Labor Manager's Empowerment : Focusing on NCS Labor Management Capability Unit**

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## **Abstract**

**Purpose** – The labor management department is an important area in charge of the labor-management relations that affects the competitiveness of the company. This study seeks to diagnose labor management education focusing on labor manager competency strengthening curriculum that is currently being conducted domestically and propose an educational model that can contribute to the labor manager competency development by researching improvement measures.

**Research design, data, and methodology** – In this study, the first phase is a Delphi open form survey and 15 expert panels participated. The second phase had 31 expert panels participating and in the final IPA analysis, targeting 111 on-site subjects, it conducted a survey regarding desired level of current educational level and future education requirement.

**Results** – A final 57 subjects regarding 11 items to increase the competency of the labor managers through the first and second Delphi survey was deduced through this study. To add, regarding the current education level and desired level that the current workers are thinking with respect to analysis results of the 57 subjects through the IPA analysis, an educational model could be deduced to increase competency of the labor managers based on the result.

**Conclusions** – Thus far, research regarding labor management has been insufficient as it was defined as a subordinate role to human resources. This study reviews the role and competency of labor managers and presented an educational model to strengthen the capabilities of internal labor managers to re-illuminate the labor manager. However, this study is limited in terms of the diversity of the types of companies participating and the small number of panels. Better data can be produced if such parts are supplemented in the future.

**Keywords:** Labor manager, Labor role and competency, Educational model, Delphi technique, IPA technique

**JEL Classification Code:** F23, G32.

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## **1. Introduction**

With the growth of the Korean economy, labor unions too have grown internally/externally. Labor unions are “Organizations or allied organizations organized with the aim of maintaining workers' working conditions and improving their economic and social status with workers as the principals and through independent union” (Labor Union and Labor Relations Adjustment Law Article 2 Sub-paragraph 4) and workers of companies play the role of helping with the growth of the company and the rights of the workers through the labor-management relations with the company. However, labor-management disputes also occur during the process of labor unions carrying activities of diverse forms to find their interests and rights. Labor-management dispute is one of the activities of labor unions for the rights of labors. However, in the aspect of company management, financial loss is incurred and some companies decide to close due to labor-management disputes (Lee, 2013). Through such experience and cases, companies have perceived the importance of labor management and labor managers to try and reduce the loss as a result of labor-management disputes as much as possible. Labor management is a series of management policy measures to make the existence method of the workers working in the company into the most appropriate status for company purpose performance and business maintenance development (Lee, 2009).

With the change in era, companies are recognizing the importance of labor management. However, there are not many basic statistics as well as conceptual studies on the role and competency of labor management in domestic companies. In addition, the status of labor management department is not clear, and even though labor management department is an important sector responsible for labor-management relations affecting company competitiveness, it is regarded as a sub-function of the HR department and related research is very insufficient (Ryu, 2012). Therefore, a conceptual study on competency of labor management department and a new education program to strengthen the competency of labor managers are needed.

With regards to such aspect, the purpose of this study is as follows. First, through the major labor-management relations expert curriculum conducted by domestic education and training institutions, the current domestic curriculum and related materials will be considered and based on such data, curriculum for competency strengthening of labor managers will be reviewed. Second, since there are not many related studies and models, the study will use the Delphi technique to collect the opinions of experts.

Therefore, based on the capacity unit of 'Management/accounting/office work (large classification)-general affairs/human resources (middle classification)-human resources/organization (small classification)-labor management (sub-classification)' in the labor department of NSC, it seeks to deduce the content additionally needed other than the existing curriculum through expert panel. Third, this paper suggests a new educational model for strengthening domestic labor management by organizing the results derived from previous studies and Delphi techniques. Fourth, in order to suggest the current level of problems regarding the deduced basic model and to assert the strengthening of education in the future, the satisfaction level (current level) and importance (expected level) will be analyzed through IPA analysis.

The distinction of this study is that it conducted research regarding labor managers, which were scarcely studied by academics thus far and created a foundation to consider contents regarding the definition and competency of labor management during the research process.

Moreover, as measures to improve the competencies of labor managers, which is the subject of this study, the content regarding 'labor management', 'competency' and 'NCS' was reviewed comprehensively and cases reviewing the on-site opinions were scarce. In such perspective, it has distinction compared to other research thesis.

The educational model presented in this study can be used as a basic model for instructional design in education and training institutions, and it can help small companies such as SMEs with regards to application to their own curriculum.

## **2. Theoretical Background**

### **2.1. Concept of Competency**

Competency is defined as one of the diverse terms referring to an ability a person has and the definition regarding competency is different by scholars. So far, competency was used frequently and limited to competency required to conduct a certain task in business management or organizational psychology (Dubois, 1993). Although was used in a wide range by being introduced to the HR development area, it is hard to find a consistent definition regarding the concept of competency (Zemke, 1982). In particular, the concept of competency in the diverse academic field of everyday life is receiving much interest as it is related to ability. The concepts used in early

competences were broadly interpreted as behavioral and psychological characteristics, mainly related to performance. However, as the concept evolved, it evolved more specifically into knowledge, skills, abilities, and other characteristics that distinguish the difference between the excellent and average performers (Mirabile, 1997).

Research regarding competency began in earnest thanks to social psychologist McClelland (1973). In his research "Testing for competence rather than intelligence", he asserted the superiority regarding competency inspection by comparing with the existing intelligence inspection and investigated the characteristics related to success of business other than the intelligence area. Moreover, McClelland divided competencies into two types, individual and organizational. First, individual competence refers to a collection of skills, knowledge, and attitudes that members of an organization impose on their tasks, and organizational competency is a source of competitiveness of organization as a factor in comparing a service or product of a certain organization with other competitors (Yang, 2010).

## **2.2. Labor Management Department Role and Competency**

Although previous studies on the roles and competencies of the labor management department been conducted diversely, both domestically and internationally, there is a lack of related data. Therefore, the study presents a summary of research by Ryu (2012), which is most similar to this study. The labor management department plays an important role in contributing to stabilizing labor-management relations and achieving positive corporate performance by increasing labor-management cooperation and enhancing workers' voluntary immersion in the company and workplace. As well as planning and establishing effective labor-management policies and practices, it renders these policies and practices to be implemented properly and accepted by labor unions and workers at the company and workplace level, ultimately achieving stabilization of labor-management relations and corporate performance.

Unlike in the past, the role of the labor management department has been expanded and diversified and roles that require strategic judgment have increased. Of these, the most important roles of labor-management are collective bargaining and negotiation, labor management strategy and direction setting (labor management partnership formation strategy), support of front line managers, communication between field labor unions and workers, and grievance resolutions. Furthermore, bargaining power, communication skills and professional knowledge of the company, labor, and human resources department are presented as the competencies of the labor management sector and such roles and competencies of the labor management department have a significant effect on the stabilization of labor-management relations and the competitiveness of companies.

Accumulated competence in the labor management department has a positive effect on the stabilization of labor-management relations. In particular, the accumulation of professional competence was found to be an important contributor to the establishment of a cooperative labor-management relationship and to the rapid and smooth conclusion of labor-management negotiations. In other words, such results can be regarded as an opportunity for providing symbiosis in connection with corporate performance after connection with corporate performance (Ryu, 2012).

## **2.3. The Concept of NCS**

NCS, the National Competency Standards (NCS), was introduced in 2002 to connect the knowledge, skills, and attitudes required at industrial sites with work-education-training-qualifications. Furthermore, as a core international task of 'Creating Conditions for Competency-Based Society' in 2013, the required competency to effectively and successfully conduct tasks in the industrial site has been standardized on national level by the country by level, by industrial department and by systemized standard (Ko, 2015).

In Korea, the institutional mechanism regarding vocational education that could not match the fast development speed of the industrial field did not operate properly and there is a tendency to differently interpret actual vocational education and vocational training. To this, the need to systemize the qualification system, task and education/training that can effectively develop, apply and use NCS has come to the fore (Lee, Park, Park & Jeong, 2004). In response to these social phenomena, government-led NCS has been introduced through benchmarking and research on diverse best practices from abroad.

The use of NCS can be described from the perspective of individuals, education and training institutions, qualification test institutions, and companies. First, in the perspective of the individual, the NCS learning module search can be used as a tool to search for career fields and find a job that suits your aptitude. Thus, it can be used for career selection and lifelong career development path. In the perspective of education and training institutions, the NCS-based curriculum is reorganized and operated so that it can be easily connected with industrial sites. Therefore,

it can be converted to work competency that can be conducted rather than merely knowledge. In addition, the qualification test institution can introduce a course completion qualification system that grant qualification to those who have completed at least a certain level of education and training courses organized and operated in accordance with the NCS by reorganizing from 'test form' to 'test form + course completion form'. Moreover, the NCS application in the stance of the company can be used in basic data and worker job assessment required for HR development and management through career development path, self-diagnosis tool, promotion, employment, placement checklist and job descriptions.

**2.4. NCS Education Concept and Application**

The NCS curriculum is a curriculum developed based on the method and process presented by the standard guidelines. Furthermore, the curriculum applying NCS can be defined as curriculum that includes presented capacity unit presented within NCS of subjects deduced through NCS-based curriculum improvement measures.

NCS presented educational design modules through environmental analysis and demand analysis for each job so that the knowledge required in the industry could be consistently learned. Regarding education that is conducted individually at the education and training institution, the government selects, organizes and evaluates educational contents to achieve the educational purposes and goals in the development of the education and training institution curriculum using the NCS learning module composed of NCS capacity units. It thereby presents methods to construct a comprehensive and systematic education plan.

Examining the NCS learning module, if the NSC is considered as the job requirement of the work site, the NCS learning module can be defined as teaching-learning data that is composed to allow NCS capacity units to be learned through education and training. Hence, the NCS learning module is a module that learns specifically the job in designing the curriculum and presents detailed contents related to theory as well as practice.

**Table 1: NCS Application Area**

Classification		Applied Contents
Industrial Site	Worker	Self-diagnosis tool, Career development path
	Company	Employment/placement/promotion checklist, job descriptions
Education and Training Institution		Education and training workbook, training standard, education and training process
Qualifying Test Institution		Test method, test, qualifying event design, question setting standard

Source: NCS Official Homepage

**2.5. Theoretical Research Summary and Limitations**

Thus far, we have examined previous researches regarding labor management, labor management education and NCS education. To add, if such previous research is summarized, it is as follows. First, previous research regarding labor management performance improvement of the company according to research and labor-management relations regarding labor-management relations, thus subjects regarding the improvement of corporate performance were the major research tasks. Having reviewed such research tasks, labor-management relations affects the performance of companies and for the smooth labor-management relations of the company it occurs when the company and the labor union cooperate together. Furthermore, it explains that such result is a good management performance of the company.

The previous research shows that due to the flow of the era, labor managers play an important role in corporate management performance, rather than merely the response of labor union response. In contrast, in the previous studies, it was limited to the research on the importance of labor-management relations and corporate management performance, thus it was not easy to find the research tasks presenting the role of labor managers and the measures to improve the work ability.

Second if we examine the previous research related to labor management education, we could review content regarding educational design methods for the competency strengthening of labor managers of certain job types called 'civil servants' and subjects related to the importance of labor-management partnership and personnel development through foreign cases. However, albeit reviewing domestic and foreign research regarding educational models and alternatives for the strengthening of work competency of appropriate labor managers other than this research, similar data was lacking. There are limitations in finding diverse case studies for comparative analysis as there are no previous studies related to the trend of more complicated and specialized roles of labor managers in society.

Third, as a result of examining previous studies related to NCS education, it can be understood that it possesses diverse case studies and previous studies as it is NCS conducted at the national level. Researches on diverse introductions have been made on-site as it is trying to be actively used at the national level. As a result of analyzing overseas cases to make NCS in Korea, diverse contents such as the development plan for NCS development and application cases on-site could be confirmed. However, the previous researches thus far confirmed that there are very few professional studies for the competency of labor managers using the NCS learning module. Therefore, we seek to further examine such diverse cases and set the direction for this study.

### 3. Research Design

#### 3.1. Research Method

The purpose of this study is to present the diagnosis and improvement measures of the curriculum of the measures to improve the work ability of the labor management personnel. Therefore, this study used Delphi method two times in order to reflect the opinions of experts as much as possible and regarding the deduced factors targeting the on-site workers, the current level and the expected level were measured to present future improvement measures and presented the results through the Importance-performance analysis (IPA) analysis.

The survey results of the IPA technique can interpret the results of each of the 4 quadrants as follows. The first quadrant means high current level, high desired level, and thus maintaining education. The second quadrant means low current level and high desired level, thus that education must be strengthened. The third quadrant means low current level and low desired level, thus that education must be reduced. The fourth quadrant means that the current level is high and the desired level is low, thus that education must be reduced.

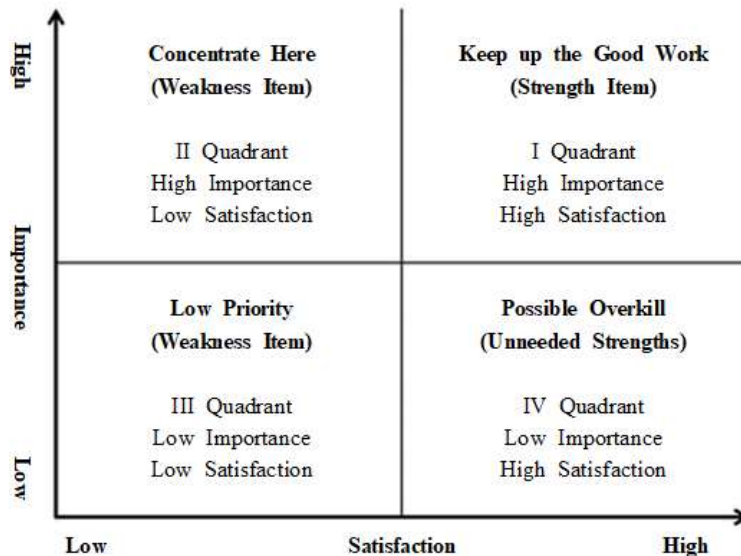


Figure 1: IPA Matrix (Martila & James, 1977)

#### 3.2. Research Subject

Selection of expert panels in the related fields with knowledge of labor management department or labor relations for first open form Delphi survey and second closed form survey involved the composition of 15 expert panels through verification of experts that possess professional qualifications such as university professors and

certified labor lawyers. The 3rd survey of the 3rd IPA survey was conducted and the survey was conducted on 111 subjects in charge of personnel, labor, HR, and labor unions.

**Table 2:** Expert Panel Composition

NO.	Affiliated Institution	Position
1	Labor Corporation Cheungchun	CEO
2	Department of Law, Busan University	Professor
3	Korean Red Cross	Team Leader (Certified Labor Attorney)
4	Isu Co., Ltd.	Executive Manager
5	Korea Racing Authority	Staff (Lawyer)
6	Shinhan Card Co., Ltd.	Labor Union Senior Vice Chairman
7	Seoul Facilities Corporation	Deputy General Manager
8	Seoul Metro	Vice Stationmaster
9	Hyundai Motor Company Co., Ltd.	In charge
10	Presidential Advisory Council on Education, Science & Technology	Doctor
11	Hyosung ITX Co., Ltd.	Deputy General Manager
12	Mando-Hella Electronics Co., Ltd.	Team Leader
13	Employment and Labor Training Institute, Korea University of Technology & Education	Professor
14	The Korea Economic Daily	Expert Committee Member
15	Home & Service Co., Ltd.	Head Manager

### 3.2. Research Process

First, before proceeding with the open form Delphi survey, to examine the labor management curriculum being conducted at domestic universities and education and training institutions as previous researches, 3 curriculums being operated by 3 educational institutions and 7 curriculums in 6 universities were examined.

Second, other than the item extracted in the previous research, an open form first Delphi survey was conducted to add other factors other than extracted items. For this, focused on 10 items of NCS labor management capacity units, additionally required items other than the educational content derived from the previous researches were examined.

Third, for the closed form second Delphi survey, classification work was conducted by category through analysis of response contents collected through the first open form Delphi survey. Furthermore, by conducting similar integration and elimination of factors extracted through previous studies, a closed form survey was conducted to measure the importance of each item using the Likert 5 point scale for 11 items including 10 NCS labor management competence units and other items derived from the first open form survey. In order to select the final items, the below average of each factor was removed from the closed form second Delphi survey results based on the average. Subsequently, through validity test, those with CVR value of 0.49 or less were removed. Finally, for the third phase, after removing 06. or less through reliability analysis (Cronbach's  $\alpha$ ), the final was decided.

Fourth, to propose measures to increase the work competency of domestic labor managers, the current level and desired level was measured and IPA analysis conducted.

**3.4. Composition of Survey**

First, the open form survey composition for the first Delphi is as follows.

**Table 3: Open Form Delphi Questions**

Question	Question Content
1	Please write additionally required education subject and simple content regarding 「Labor management relations plan」 of capacity unit.
2	Please write additionally required education subject and simple content regarding 「Labor management relations education and training」 of capacity unit.
3	Please write additionally required education subject and simple content regarding 「Bargaining preparation」 of capacity unit.
4	Please write additionally required education subject and simple content regarding 「Collective bargaining」 of capacity unit.
5	Please write additionally required education subject and simple content regarding 「Collective agreement implementation」 of capacity unit.
6	Please write additionally required education subject and simple content regarding 「Labor dispute response」 of capacity unit.
7	Please write additionally required education subject and simple content regarding 「Labor management council operation」 of capacity unit.
8	Please write additionally required education subject and simple content regarding 「Committee operation」 of capacity unit.
9	Please write additionally required education subject and simple content regarding 「Labor management relations improvement」 of capacity unit.
10	Please write additionally required education subject and simple content regarding 「Labor management relations assessment」 of capacity unit.
11	Please write if there is other education required in practice other than the above 10 capacity units

The second Delphi proceeded to a closed form consisting of the Likert 5 point scale after removing the duplicate contents of the items extracted from the first. Having classified the contents collected in the first Delphi, a total of 126 questions were derived, excluding similar contents and unsuitable questions. The subjects classified for NCS labor management capacity unit are shown in <Table 4>. Then, based on such content, the closed form Delphi survey questions were written and the investigation conducted.

**Table 4:** Closed Form Delphi Survey Factors

Subject	Composition	Education Subject
Labor Relations Education Development Plan  (Likert 5 Point Scale)	Of capacity unit 「Labor management relations plan」 12 Questions	① Mid-to-long-term goal setting ② Establishing labor-management relations strategy ③ Labor-management relations action plan ④ Labor-management-government partnership ⑤ (Domestic) case studies ⑥ (Foreign) case studies ⑦ Cooperative labor-management relations ⑧ Understanding of labor-management relations ⑨ Trends in labor-management relations ⑩ Labor-management relations theory ⑪ Comparative labor-management relations theory ⑫ Diagnosis and analysis of organization
	Of capacity unit 「Labor management relations education and training」 7 Questions	① Education and training plan establishment capacity improvement ② Education and training operation capacity ③ Conduct education and training assessment ④ Vision and goal setting ⑤ Labor-management relations issue review ⑥ Application with labor-management education cases ⑦ Foster labor-management education teachers
	Of capacity unit 「Bargaining preparation」 13 Questions	① Collective bargaining trend analysis ② Bargaining plan establishment ③ Negotiation team composition ④ Simulation practice ⑤ Communication strategy ⑥ Bargaining theory and practice ⑦ Response strategy by negotiation draft ⑧ Collective bargaining strategy and tactic ⑨ Negotiation skill ⑩ Understanding of collective bargaining ⑪ Understanding financial statements ⑫ Analysis of collection bargaining demand ⑬ Collective bargaining case analysis
	Of capacity unit 「Collective bargaining」 16 Questions	① Collective agreement regulations establishment ② Collective bargaining proceeding ability ③ Agreement signing ④ Simulation ⑤ Collective bargaining adjustment strategy ⑥ Opponent needs analysis ⑦ Reality and improvement measures of labor-management adjustment system ⑧ Negotiation skill ⑨ Negotiation adjustment process ⑩ Collective bargaining understanding ⑪ Collective bargaining case analysis ⑫ Personnel cost analysis technique ⑬ Connected law related to collective bargaining ⑭ Collective bargaining minutes technique ⑮ Collective bargaining labor law total and practical application Collective bargaining practice
	Of capacity unit 「Collective agreement implementation」 8 Questions	① Employment regulation revision ② Agreement content application ③ Revision explanation ④ Collective agreement provision commentary ⑤ Collective agreement related labor law ⑥ Follow-up measures strategy after collective agreement ⑦ Labor relations law, employment regulations, Collective agreement mutual relations ⑧ Specific execution case of collective agreement



<p>Of capacity unit 「Labor dispute response」 15 Questions</p>	<p>① Response establishment of labor disputes ② Labor dispute response ③ Relations improvement ④ Knowing labor rights ⑤ Labor-management conflict curing center operation measures ⑥ Legitimacy judgement according to dispute actions ⑦ Remedies of labor committee and response measures during petition ⑧ Conflict and grievance resolution measures ⑨ Labor dispute adjustment and lawsuit case analysis ⑩ Government policy regarding labor disputes ⑪ Understanding of labor disputes ⑫ Responsibility of labor disputes ⑬ Labor disputes of Korea ⑭ Risk-management Plan ⑮ Adjustment process of labor disputes</p>
<p>Of capacity unit 「Labor management council operation」 12 Questions</p>	<p>① Labor-management council installation ② Labor-management council operation ③ Labor-management council post-management ④ HR management strategy ⑤ (Overseas) Labor-management council system analysis ⑥ Labor-management council expansion ⑦ Labor-management council system understanding ⑧ Labor-management council case research ⑨ Labor union labor-management council ⑩ Labor-management council and labor unions ⑪ Labor-management council development direction ⑫ Understanding and cases of labor-management council system</p>
<p>Of capacity unit 「Committee operation」 6 Questions</p>	<p>① Committee type and acquirement ② Grievance handling system ③ Successful communication of labor-management ④ Labor-management joint committee composition measures ⑤ Operation case analysis ⑥ Leadership of committee leader</p>
<p>Of capacity unit 「Labor management relations improvement」 14 Questions</p>	<p>① Improving labor-management relations ② Abiding by labor law ③ Grievance handling ④ Employment and labor-management relations in Korea ⑤ (Overseas) Case studies on labor-management relations ⑥ Management participation of labor unions ⑦ Labor-management relations theory ⑧ Labor-management conflict and labor-labor conflict prevention strategy ⑨ Wage system improvement measures ⑩ Economic and social labor committee role and limitations ⑪ Sustainable labor-management relations ⑫ Cooperative labor-management relations ⑬ Communication technique ⑭ Leadership type and increase</p>
<p>Of capacity unit 「Labor management relations assessment」 7 Questions</p>	<p>① Establishment of labor-management relations assessment plan ② Conduct assessment of labor-management relations ③ Improvement measures of labor-management relations ④ Types and definitions of assessment techniques ⑤ Normative effect and scope of effect of collective agreement ⑥ Diagnosis of labor-management relations and prevention of disputes ⑦ Model cases of labor-management relations diagnostic assessment</p>

	Other items excluding capacity unit 16 Questions	① Reasonable wage reform ② Government employment and labor policy ③ Revision direction of labor law ④ Western labor-management relations system ⑤ 4th Industrial Revolution and labor-management relations ⑥ Recent labor law major cases ⑦ Recent major labor Issues ⑧ Workplace innovation ⑨ Organization and leadership ⑩ Labor-management relations psychology ⑪ Business strategy and labor-management relations ⑫ Three labor laws ⑬ Improvement measures of HR assessment ⑭ Improvement measures of performance management ⑮ Introduction and operation of welfare system Recent personnel labor core issues
Total	11 Questions	Total of 126 Questions

After conducting the closed form Delphi survey, 57 was decided with below average removed, less than 0.49 validity removed, and less than 0.6 reliability removed. In the IPA survey, the survey questions for each capacity unit was composed and conducted as follows.

**Table 5:** IPA Survey Factors

Composition	Survey Questions
Of capacity unit 「Labor management relations plan」 7 Questions	Setting mid and long-term goals in the labor-management relations plan/Strategies for labor-management relations establishment/Labor-management relations action plan/Understanding of labor-management-government partnership/(domestic)/Cases of success or failure of labor-management relations/Cooperative labor-management relations/Understanding of labor-management relations
Of capacity unit 「Labor management relations education and training」 3 Questions	Education and training plan establishment capacity improvement/Vision and goal setting strategy/Labor-management relations issue review
Of capacity unit 「Bargaining preparation」 6 Questions	Collective bargaining trend analysis/bargaining plan establishment/Response strategies by bargaining plan/Collective bargaining strategies and tactics/Improvement of negotiation skills/Analysis of collective bargaining demand
Of capacity unit 「Collective bargaining」 8 Questions	Enhancement of collective bargaining capacity/Improvement of work capacity for conclusion of agreement/Opponent needs analysis/Negotiation skill/Negotiation adjustment process/Understanding of collective bargaining/Labor cost analysis technique for wage agreements/Law related to collective bargaining
Of capacity unit 「Collective agreement implementation」 4 Questions	Revision of employment rules/Collective agreement related labor law/Labor relations law, employment rules, collective agreements mutual relations/Specific practices of collective agreements
Of capacity unit 「Labor dispute response」 6 Questions	Establishment of measures for labor disputes/Labor disputes response/Improvement of relations/judging legitimacy in disputes/Countermeasures during Labor Commission remedies and complaints/Conflict and grievance resolution

Of capacity unit 「Labor-management council operation」 5 Questions	Labor-management council installation process/Labor-management council operation strategy plan/Understanding the labor-management council system/Strategic plan for multiple union labor-management council/Understanding of labor-management council and labor unions
Of capacity unit 「Committee operation」 1 Question	Successful communication of labor-management
Of capacity unit 「Labor-management relations improvement」 8 Questions	Understanding and utilizing labor-management relations improvement/Research projects for compliance with labor law/Importance of grievance resolution process/Strategic plan for prevention of labor-management and labor-labor conflicts/Improvement plan of wage system/Strategic plan for establishment of sustainable labor-management relations/Understanding cooperative labor-management relations/Strategies for improving communication techniques
Of capacity unit 「Labor-management relations assessment」 2 Questions	Establishment of labor-management relations improvement measures/Diagnosis of labor-management relations and prevention of disputes
Of capacity unit 「Other items」 7 Questions	Definition of wage and rational wage reform plan/Labor law revision and application strategy/Recent labor law major cases studies/Recent major labor issues cases/Management strategies and labor-management relations/Personnel assessment improvement measures case studies/Recent personnel labor core issue cases
10 capacity units + other 1 item, total of 11 items, total of 57 items	

## 4. Research Result

### 4.1. First Open Form Delphi Survey Result

The open form Delphi survey was conducted to gather opinions on the expert panel's opinion on what education can increase the capacity of the labor manager regarding 10 items of capacity units that correspond to labor management of NCS. The results of the gathered open form Delphi surveys are shown in <Table 6> below.

**Table 6:** No. of Collected Opinion by Open Form Delphi NCS Capacity Unit

NO	Capacity Unit Name	Opinion No.	Opinion No. Apart from Repetition
1	Labor management relations plan	25	12
2	Labor management relations education and training	22	7
3	Bargaining preparation	25	13
4	Collective bargaining	20	16
5	Collective agreement implementation	18	8

6	Labor dispute response	23	15
7	Labor management council operation	23	12
8	Committee operation	20	6
9	Labor management relations improvement	22	14
10	Labor management relations assessment	13	7
11	Other	29	16
No.		240	126

**4.2. Second Closed Form Delphi Survey Result**

The closed form survey was conducted from September 30 to October 9 and the final data was used for collecting and analyzing.

**Table 7: Average by Each Item**

NO	Capacity Unit Name	M
1	Labor management relations plan	4.13
2	Labor management relations education and training	4.01
3	Bargaining preparation	4.09
4	Collective bargaining	3.88
5	Collective agreement implementation	4.09
6	Labor dispute response	3.91
7	Labor management council operation	3.68
8	Committee operation	3.69
9	Labor management relations improvement	3.94
10	Labor management relations assessment	3.69
11	Other	3.87

In the above result, the average point regarding capacity unit labor-management relations plan was 4.13, the highest point. In contrast, the capacity unit labor-management council operation, committee operation and labor-management assessment were 3.68, 3.69 and 3.69 respectively to show the lowest average point. Such low points are assumed to be because on-site, the capacities included in such capacity units are not actually applied.

Previously, educational model of the final <Table 8> was deduced by analyzing second closed form Delphi survey result after the open form Delphi survey. For this, each average or below by factor was excluded based on the average. Next, items with CVR value of 0.49 or below was excluded through the validity test. Finally, the third

phase involved 0.6 or below being excluded through the reliability analysis (Cronbach's  $\alpha$ ) and then the final was decided. Consequently, a total of 57 were deduced as educational subjects (7) that were not included in the educational subject (50) and NCS labor management that is being presented by the NCS labor management capacity unit.

**Table 8:** New Educational Model According to Closed Form Delphi Survey Result

Composition	Curriculum Presented by NCS	Deduced Subject
Of Capacity Unit 「Labor management relations plan」 7 Subjects	<ul style="list-style-type: none"> <li>① Mid / long term goal setting</li> <li>② Labor-management relations strategy establishment</li> <li>③ Establishment of labor-management relations action plan</li> </ul>	Setting mid and long-term goals in the labor-management relations plan/Strategies for labor-management relations establishment/Labor-management relations action plan/Understanding of labor-management-government partnership/(domestic)/Cases of success or failure of labor-management relations/Cooperative labor-management relations/Understanding of labor-management relations
Of Capacity Unit 「Labor management relations education and training」 3 Subjects	<ul style="list-style-type: none"> <li>① Establishment of education and training plan</li> <li>② Operation of education and training</li> <li>③ Assessment of education and training</li> </ul>	Education and training plan establishment capacity improvement/Vision and goal setting strategy/Labor-management relations issue review
Of Capacity Unit 「Bargaining preparation」 6 Subjects	<ul style="list-style-type: none"> <li>① Trend analysis of collective bargaining</li> <li>② Establishment of bargaining plan</li> <li>③ Composition of bargaining team</li> </ul>	Collective bargaining trend analysis/bargaining plan establishment/Response strategies by bargaining plan/Collective bargaining strategies and tactics/Improvement of negotiation skills/Analysis of collective bargaining demand
Of Capacity Unit 「Collective bargaining」 8 Subjects	<ul style="list-style-type: none"> <li>① Establishment of collective bargaining</li> <li>② Proceeding with collective bargaining</li> <li>③ Signing agreement</li> </ul>	Enhancement of collective bargaining capacity/Improvement of work capacity for conclusion of agreement/Opponent needs analysis/Negotiation skill/Negotiation adjustment process/Understanding of collective bargaining/Labor cost analysis technique for wage agreements/Law related to collective bargaining
Of Capacity Unit 「Collective agreement implementation」 4 Subjects	<ul style="list-style-type: none"> <li>① Revision of employment regulations</li> <li>② Application of agreement content</li> <li>③ Explanation of revision</li> </ul>	Revision of employment rules/Collective agreement related labor law/Labor relations law, employment rules, collective agreements mutual relations/Specific practices of collective agreements
Of Capacity Unit 「Labor dispute response」 6 Subjects	<ul style="list-style-type: none"> <li>① Establishment of measures</li> <li>② Labor dispute response</li> <li>③ Improvement of relations</li> </ul>	Establishment of measures for labor disputes/Labor disputes response/Improvement of relations/judging legitimacy in disputes/Countermeasures during Labor Commission remedies and complaints/Conflict and grievance resolution

Of Capacity Unit 「Labor management council operation」 5 Subjects	<ul style="list-style-type: none"> <li>① Installation of labor-management council</li> <li>② Operation of labor-management council</li> <li>③ Post-management of labor-management council</li> </ul>	Labor-management council installation process/Labor-management council operation strategy plan/Understanding the labor-management council system/Strategic plan for multiple union labor-management council/Understanding of labor-management council and labor unions
Of Capacity Unit 「Committee operation」 1 Subject	<ul style="list-style-type: none"> <li>① Types and operation method of committee</li> </ul>	Successful communication of labor-management
Of Capacity Unit 「Labor management relations improvement」 8 Subjects	<ul style="list-style-type: none"> <li>① Improvement of labor-management relations</li> <li>② Abiding by labor law</li> <li>③ Grievance handling</li> </ul>	Understanding and utilizing labor-management relations improvement/Research projects for compliance with labor law/Importance of grievance resolution process/Strategic plan for prevention of labor-management and labor-labor conflicts/Improvement plan of wage system/Strategic plan for establishment of sustainable labor-management relations/Understanding cooperative labor-management relations/Strategies for improving communication techniques
Of Capacity Unit 「Labor management relations assessment」 2 Subjects	<ul style="list-style-type: none"> <li>① Establishment of assessment plan</li> <li>② Execution of assessment</li> <li>③ Establishment of improvement measures</li> </ul>	Establishment of labor-management relations improvement measures/Diagnosis of labor-management relations and prevention of disputes
Of Capacity Unit 「Other items」 7 Subjects		Definition of wage and rational wage reform plan/Labor law revision and application strategy/Recent labor law major cases studies/Recent major labor issues cases/Management strategies and labor-management relations/Personnel assessment improvement measures case studies/Recent personnel labor core issue cases
10 Capacity Units and Other 1 Item, total of 11 Items, total of 57 Items		

### 4.3. IPA Analysis Result

Demographic characteristics of IPA survey respondents after Delphi survey are shown in <Table 3-9>. Among the total of 111, 59 were male (53.2%) and 52 were female (46.8%). By age group, there were 10 (9.0%) in their 20s, 55 (49.5%) in their 30s, 36 (32.4%) in their 40s, 7 (6.3%) in their 50s and 3 (2.7%) in their 60s. As for school year, there were 5 high school graduates (4.5%), 96 college graduates (86.5%), 9 masters (8.1%), and 1 PhD (0.9%). For personnel, labor, HR, and labor union department experience, it was 22 (19.8%) under 3 years, 29 (26.1%) for 3 to 5 years, 12 (10.85) for 6 to 8 years, 15 (13.5%) for 9 to 10 years and 33 (29.7%) for over 11 years. In terms of job (type), there were 6 (5.4%) in commerce, 12 (10.8%) in manufacturing, 42 in service (37.8%), and 51 others (45.9%). The area of residence was 82 (73.9%) in the Seoul metropolitan area, 9 (8.1%) in the Chungcheong, 3 in

Honam (2.7%), 14 in Yeongnam (12.6%) and 3 in Gangwon and Jeju (2.7%). Relevant qualifications included 7 certified laborers (6.3%), 0 lawyers (0%), 1 related doctorate (0.9%), and 103 who did not hold related certificates (92.8%).

The results through IPA analysis are shown below in the table.

**Table 9: IPA Survey Result**

Classification	Factor	Current Level	Hope Level	Classification	Classification	Factor	Current Level	Hope Level	Classification
Capacity unit 1 (Current Level M=2.84, Desired Level M=3.68)	1. Mid/long term goal setting	2.85	3.68	2 Quadrant	Capacity Unit 6 (Current Level M=2.61, Desired Level M=3.76)	1. Establishment of alternatives of labor dispute	2.56	3.68	3 Quadrant
	2. Labor-management relations strategy establishment	2.84	3.7	2 Quadrant		2 Labor dispute response	2.64	3.72	4 Quadrant
	3. Establishment of labor-management relations action plan	2.84	3.68	2 Quadrant		3. Improvement of relations	2.66	3.78	1 Quadrant
	4. Understanding of labor-management-government partnership	2.89	3.69	1 Quadrant		4. Judging legitimacy of dispute action	2.59	3.85	2 Quadrant
	5. Education regarding (domestic) labor-management relations success/failure cases	2.77	3.56	3 Quadrant		5. Remedies of labor committee and response measures during petition	2.55	3.75	3 Quadrant
	6. Cooperative labor-management relations	2.77	3.73	2 Quadrant		6. Measures to solve conflicts and grievances	2.64	3.77	1 Quadrant
	7. Understanding of labor-management relations	2.93	3.74	1 Quadrant		1. Establishment of labor-management council	2.79	3.63	4 Quadrant
	Overall average	2.84	3.68		Capacity Unit 7 (Current Level M=2.75, Desired Level M=3.65)	2 Operation of labor-management council	2.77	3.68	1 Quadrant
Capacity Unit 2 (Current Level M=2.8, Desired Level M=3.75)	1. Capacity increase of Education and training plan establishment	2.78	3.72	3 Quadrant	3. Understanding of labor-management council	2.77	3.61	4 Quadrant	
	2. Strategy of vision and target setting	2.78	3.75	3 Quadrant	4. Multiple union labor-management council composition operation practice	2.72	3.66	2 Quadrant	

	3. Major issue review of labor-management relations	2.83	3.77	1 Quadrant		5. Understanding of labor-management council and labor union	2.71	3.67	2 Quadrant
	Overall average	2.8	3.75		Capacity Unit 8(Current Level M=2.77, Desired Level M=3.77)	1. Successful communication strategy of labor-management for problem solving	2.77	3.77	3 Quadrant
Capacity Unit 3(Current Level M=2.67, Desired Level M=3.78)	1. Collective bargaining trend analysis	2.77	3.67	4 Quadrant	Capacity Unit 9(Current Level M=2.81, Desired Level M=3.79)	1. Labor-management relations improvement	2.74	3.72	3 Quadrant
	2. Bargaining plan establishment	2.72	3.69	4 Quadrant		2. Labor law abiding	3.07	3.81	4 Quadrant
	3. Response strategy by bargaining plan	2.65	3.91	2 Quadrant		3. Grievance handling	2.9	3.77	4 Quadrant
	4. Strategies and tactics of collective bargaining	2.6	3.79	3 Quadrant		4. Labor-management conflict and labor-labor conflict prevention	2.79	3.78	3 Quadrant
	5. Negotiation skill improvement	2.66	3.81	2 Quadrant		5. Wage system improvement measures	2.9	3.91	1 Quadrant
	6. Collective bargaining demand analysis	2.62	3.8	2 Quadrant		6. Sustainable labor-management relations establishment strategy	2.64	3.7	3 Quadrant
Capacity Unit 4(Current Level M=2.64, Desired Level M=3.8)	1. Collective bargaining proceeding ability improvement	2.64	3.75	4 Quadrant	Capacity Unit 10(Current Level M=2.75, Desired Level M=3.75)	7. Cooperative Labor-management relations	2.74	3.79	3 Quadrant
	2 Bargaining plan establishment	2.68	3.72	4 Quadrant		8. Communication technique improvement	2.73	3.82	3 Quadrant
	3. Opponent needs analysis	2.57	3.87	2 Quadrant	1. Labor-management relations improvement measures establishment	2.76	3.74	4 Quadrant	
	4. Negotiation skill improvement	2.69	3.85	1 Quadrant	2. Labor-management relations diagnosis and conflict prevention	2.74	3.76	2 Quadrant	



	5. Negotiation adjustment process	2.68	3.75	4 Quadrant	Other (Current Level M=2.87, Desired Level M=3.86)	1. Definition of wage and rational wage improvement measures	2.86	3.91	1 Quadrant
	6. Collective bargaining understanding	2.68	3.73	4 Quadrant		2 Labor law revision direction and application strategy	2.95	3.89	1 Quadrant
	7. Personnel cost analysis technique for wage agreement	2.59	3.9	2 Quadrant		3. Recent labor law major cases	2.91	3.78	4 Quadrant
	8. Related law regarding collective bargaining	2.63	3.85	2 Quadrant		4. Recent major labor issues	2.91	3.82	4 Quadrant
Capacity Unit 5 (Current Level M=2.98, Desire Level M=3.79)	1. Employment regulation revision	3.11	3.72	4 Quadrant		5. Management strategy and labor-management relations	2.77	3.8	3 Quadrant
	2 Collective agreement related labor law	3.01	3.86	1 Quadrant		6. Personnel assessment improvement measures strategy	2.77	3.92	2 Quadrant
	3. Understanding of labor relations law, employment regulations and collective agreement mutual relations	3.01	3.86	1 Quadrant		7. Personnel labor core issues	2.92	3.88	1 Quadrant
	4. Specific execution cases of collective agreement	2.81	3.72	3 Quadrant					

## 5. Conclusion

This study diagnosed the labor management education focused on the labor manager competency strengthening curriculum that is currently being proceeded domestically and has the purpose of providing a proposal of Korea's labor-management relations culture being able to further develop through labor manager competency development by researching improvement measures.

For this, we examined the curriculum and National Competency Standards (NCS) operated by national government-led educational projects (labor-management relations expert development projects), university programs, and education and training institutions. The educational model was diagnosed focused on 10 capacity units of labor management and the results are as follows.

If we examine the IPA analysis result of the first NCS capacity unit 「Labor-management relations plan」, we can see that the education regarding mid/long term goal setting, strategy establishment of labor-management relations, establishment of action plan of labor-management relations and cooperative labor-management relations

must be strengthened. To add, understanding of labor-management-government relations and understanding of labor-management relations requires maintaining the current level. In contrast, it was revealed that the domestic labor-management relations success/failure cases are not important.

The IPA analysis regarding the second NCS capacity unit, 「Labor-management relations education and training」 shows that education regarding the major issues of labor-management relations needs to be maintained at the current level and education regarding education and training plan establishment and vision and goal setting strategy process is not important.

If we examine the IPA analysis result of the third NCS capacity unit 「Collective preparation」, it was confirmed that education on response strategy by bargaining plan, negotiation skills improvement, and collective bargaining demand analysis should be strengthened. The analysis of collective bargaining trends and the establishment of bargaining plans showed that education of the current level was required. On the other hand, the strategies and tactics of collective bargaining turned out to be unimportant.

Having examined the IPA analysis result regarding the fourth NCS capacity unit 「Collective bargaining」, the content regarding opponent need analysis, personnel cost analysis for wage agreement, collective bargaining related law should be further strengthened. Moreover, the negotiation skill improvement requires level that needs to consistently maintain the current level. However, as education regarding collective bargaining proceeding capacity increase, establishment of bargaining plan, negotiation adjustment process and understanding of collective bargaining is already maintaining sufficient level, education must be reduced in the future.

Having examined the IPA analysis results regarding the fifth NCS capacity unit 「Collective bargaining implementation」, the content regarding collective agreement related labor law, labor related law/employment regulation/collective agreement mutual agreement should be maintained at the current level and existing education regarding specific execution case of collective agreement is sufficient. In contrast, education regarding specific execution case of collective agreement does not have to be considered important.

Having examined the IPA analysis results regarding the sixth NCS capacity unit 「Labor dispute response」, the education regarding legitimacy judgment education according to dispute action must be strengthened. Moreover, education regarding relations improvement, conflict and grievance measures must be maintained at the current level. On the other hand, education of labor dispute measures establishment, remedies of labor committee and response measures during petition does not have to be considered important. The education regarding response process of labor dispute should have its education slightly reduced.

Having examined the IPA analysis results regarding the seventh NCS capacity unit 「Labor-management council operation」, education regarding multiple union labor-management council composition and operation practice, understanding of labor-management council and labor unions must be strengthened. In addition, education regarding labor-management council installation requires education that maintains current level, while education regarding labor-management council installation and labor-management council system can be reduced.

Having examined the IPA analysis results regarding the eighth NCS capacity unit 「Committee improvement」, the successful communication strategy of the labor-management for problem solving does not have to be considered important.

Having examined the IPA analysis results regarding the ninth NCS capacity unit 「Labor-management relations improvement」, the education regarding wage system improvement measures requires maintaining education of the same level, but education about labor-management relations improvement, labor-management conflict and labor-labor prevention, sustainable labor-management relations establishment strategy, cooperative labor-management relations and communication technique improvement does not have to be considered important. Furthermore, education about labor law abiding and grievance handling is already sufficient, thus some education should be reduced.

Examining the IPA analysis result regarding tenth NCS capacity unit 「Labor-management relations assessment」, the educational content regarding labor-management relations diagnosis and conflict prevention must be strengthened. To add, the establishment of labor-management relations is already sufficient, thus it is appropriate to reduce some education.

The results of the IPA analysis on 「Other items」 not included in the eleventh NCS capacity unit showed that education on HR assessment strategy should be strengthened. In addition, it was confirmed that education on the definition of related wages and rational wage reform measures, the revision direction and application strategy of labor law, and the key issues of personnel labor were required to consistently maintain the current level. In contrast, the contents of management strategy and labor-management relations do not have to be considered important, and

contents related to the recent major cases of labor law and recent major labor issues should be reduced in its education.

The academic implications of the study are as follows.

First, research on the definition and role of labor managers and their capability strengthening was scarcely found. This is because labor has been regarded as a subordinate role to human resources management or secretary, or as only responding to the demands of labor unions (Ryu, 2012). This study has an academic implication in that it examined the roles and capabilities of labor managers through research on labor managers. Second, as the times change, companies recognize the importance of the role of labor managers and in order to strengthen the labor management department, diverse education is being conducted to employ professional personnel such as certified labor attorney and lawyers, or to strengthen the capability of internal personnel. This study presents the academic implications that the labor managers derived and proposed a new educational model comprehensively through the literature survey, Delphi survey through expert panel, and IPA survey focused on on-site workers. Third, this study presented a new educational model extracted from an objective point of view. This educational model can be used as an objective data for HR design of each company and teaching design of educational institutions to design the curriculum for strengthening the capabilities of labor managers. Furthermore, this survey will be an opportunity to actively research the importance of the role of labor managers and other related studies.

Next, the implications in the business management and practical perspective are as follows.

First, there are diverse attempts to change the development of Korean society from the management-oriented development to that of human rights orientation. Such cases include the diverse issues such as the minimum wage, a 52-hour workweek, flexible work and the ratification of the ILO Convention with some already implemented while others are being prepared. Due to social change, companies are constantly being presented with new tasks to be solved with labor unions. During the course of such change, the implication is substantial in that the role of the labor management department is changing from a simple role to a more complex and specialized field.

Secondly, the necessary work knowledge of labor managers is not limited to labor law, but requires knowledge in various fields, including skills in HR, accounting, and educational planning. In other words, this research possesses substantial implications in the business management/practical perspective as it suggests that a smoother and more appropriate result can be obtained in relations with labor unions based on this specialized and diverse knowledge.

Third, the IPA survey participants consist of 54% for 6 years of experience or more and a total of 80.1% for 3 years or more. Thus, of the IPA survey results, in the educational site, three subjects, including the recent major cases of labor law, recent major labor issues and management strategies and labor-management relations of 「Other Items」, other than the competence unit, were classified as 'subjects not to be considered important'. However, education regarding recent major cases of labor law and recent major labor issues are classified as educational satisfaction in the educational field. The reason for such different results in the educational field and IPA surveys is that most of the survey participants do not need additional training because they have sufficient relevant knowledge (information) for those in high level or those with great experience labor management. Therefore, in the perspective of the manager needing additional work competency or a new worker in the related field, the curriculum may be a very important curriculum.

Fourth, in order to improve the work competencies of labor managers, it is necessary to establish strategies for continuous management and development from the perspective of human resources (HR). Hence, it is not a task that takes charge of various tasks in common or an organization merely responding to labor unions as in the past, but presenting appropriate strategy for corporate management based on diverse cases and grounds founded on labor law and contributing to increase the productivity and efficiency of corporate management through the development as a specialist organization. In such aspects, it possesses implications in the practical/business management perspective.

This study is regarded as an academic and practical contribution in that it presented practical improvement measures focused on expert panels and on-site subjects to strengthen labor manager competency of labor managers, in which there was not much existing study. However, the following limitations exist. First, since there is not much previous research and literary data similar to this study, the main contents were deduced from the researcher's experience and the opinions of the expert panel, rather than a supplementation of previous research. However, there are limitations of not presenting more requirements through more diverse panels. Therefore, follow-up research must extract diverse factors through more panels. Second, due to the broad industries and sizes of the subject companies, it is insufficient to decide the suitability of the study regarding a particular industry and size. Third, the definition and work area of the job group will change according to the environment of the era. Accordingly, the education area will also change. The reason why this survey was conducted was that the data on the existing NCS labor management capacity unit was released in 2013. As such, this study will change the educational model required on-site according to the continuous flow of the era.

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