A Study on the Research Trend of Job Analysis in Korean Universities

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Abstract

The purpose of this study is to investigate the research trend of job analysis presented in the form of academic papers in Korean universities. Academic theses provided by the National Assembly Library were used as data for job analysis. Among the retrieved theses, the study found that there were 194 published papers that included "job analysis" as a title or keyword. After reviewing the published papers, 62 were used for analysis, excluding those that only introduced the concept of job analysis and others in which the methods or results of job analysis were not found. The study results are as follows. First, 2014 saw the largest number of theses published in job analysis by released year, at 9 papers (14.5%) Secondly, by university, the university at which the largest number of theses was released was JoongAng University, at 10 papers (16.1%) Thirdly, in terms of job analysis method used, the DACUM method was most utilized, in a total of 24 papers (21.1%) The survey data, only conducted to ensure the validity, were not utilized for this study since it is not appropriate to regard them as practical job analysis. Lastly, several suggestions for developing job analysis related research in Korea were made based on the results and conclusions of the above study.

Keywords: Thesis, Job analysis, DACUM, Research trend.

1. Introduction

The 21st century calls for diversity, creativity, and professionalism due to rapid social change as well as the emergence of a globalized, information and knowledge-based society. To effectively respond to this changing environment and to raise effective job performance capacity, it is necessary to identify the whole of constituting factors of a job. Furthermore, job analysis is crucial since it enables clear understanding of the knowledge, skills, ability, and responsibility required for fulfilling such job.

In terms of the method of job analysis, a variety of methods were developed over the course of industrialization. Moreover, it was found that very complicated forms and methods of collecting data have been used, which are different from what are generally considered as job analysis. As modern methods of analysis became more prominent, problems with these organizations increased. This fact led to considering a variety of factors in managing these organizations. Job analysis is utilized in a variety of areas within organizations, from recruiting new workers to issues of compensation [1].

Job analysis is employed as a means of human resource development, by not only developing required abilities of employees through training, but also by developing potential capacities to meet needs in self-development. In addition, by developing the ability of employees, a corporation can contribute to accomplishing a positive outcome through smooth job performance. The value of job analysis is significantly high in the areas of human resource development. Human resource development personnel can promote understanding of the job through job analysis, and can take advantage of job related training programs using job analysis results [2][3]

2. Theoretical background

The concept of job analysis is considered differently by researchers. Job analysis is defined as a process of acquiring job related information, defining and researching tasks necessary for performing the job [4]. Noe (2003) defined job analysis as a process through which particular tasks are performed in a job, and a process through which the details (knowledge, skills, ability) required for performing a job are extracted [5]. Harvey (1991) defined job analysis as an activity which includes collecting data describing verifiable job environment characteristics with which workers interact, as well as physical, technical, social, and informational elements [6].

Job analysis methods differ depending on the purpose of the job analysis. Previous studies present various job analysis methods. Raymond (2001) argued that critical case methods, functional job analysis, position analysis survey, and capability requirement scales are used universally [7]. Furthermore, several analysis methods are identified, such as the initial analysis method, the confirmation comparison method, and the group debate method [8]. Job analysis methods are divided into work-oriented methods, worker-oriented methods, and hybrid methods, which are a combination of two or more methods. Hong Ku Kang and Hyun Sook Yoon (2005) recognized the self-fill-in method, interview method, observation method, survey method, and the DACUM (Developing A Curriculum) method as job analysis methods. It was found that the DACUM method was most frequently used in many job analysis studies [9][10][11].

The origin of the DACUM method dates back to 1966, as a way of developing training processes at the Iowa Job Corp. The DACUM method, the abbreviation of which is "Developing A Curriculum," was originally devised for developing systematic job analysis and training programs. Norton not only systematized the DACUM method in a more sophisticated way, but also contributed significantly to the development and distribution by training specialists of related fields through DACUM facilitator process workshops. The DACUM technique refers to the three main elements, which are job analysis workshop, job verification process, and job analysis process, which is the first of five stages of the SCID (Systematic Curriculum & Instructional Development) analysis. The DACUM technique aims to derive duties and work required in the curriculum for performing a specific job, and to analyze the necessary knowledge, skills, attitude and future trends [12][13][14][15].

3. Research method

In this research, academic papers related to job analysis published from 2000 to 2015 were analyzed to investigate the job analysis research trend.

Among the papers archived in the National Assembly Library Information Resource, when a search was performed by "job analysis" as the title and keyword, a total of 304 papers were found.

A total of 194 papers were found among the searched papers whose original articles were archived. By analyzing the contents of those whose original articles were archived, a total of 62 papers were selected for this study, excluding ones which only covered the concept of job analysis and ones in which the methods and the results of analysis were not identified.

To enhance the validity of the local job analysis trend, the research was conducted in support from and advised by specialists of the field, including one university professor, one researcher from an institute, and one doctor. The research analyzed the year of research, type of degree, affiliated university, and research method as in [Table 1].

Table 1. Criteria for analyzing job analysis related theses in Korea

Criteria	Contents
Year of research	2000 ~2015
Type of degree	Master's degree, doctoral degree
Affiliated university	Catholic University and 32 others
Research method	Analytic Hierarchy Process, Developing A Curriculum, Functional Analysis, Focus Group Interview, Job Analysis at the Speed of Reality, Knowledge Abilities Skills and Other characteristics, Technical Conference, Observation, Interview, Literature review, Brainstorming, Survey, Fill-in, Expert council, Fieldwork

The study identified academic papers submitted to the National Assembly Library from 2000 to 2015, and the type of degree was analyzed by master's degree and doctoral degree. In terms of affiliated university, the university at which the academic paper was presented was given. The research methods, according to job analysis methods used in the papers, were categorized as AHP (Analytic Hierarchy Process), DACUM(Developing A Curriculum), FA(Functional Analysis), FGI(Focus Group Interview), JASR(Job Analysis at the Speed of Reality), KASO(Knowledge Abilities Skills and Other characteristics), TC(Technical Conference), etc.

4. Results

The number of job analysis-related academic papers in Korean universities was highest 2014, at 9 papers (14.5%) Following was 2013, when 8 papers were published (12.9%) In 2005, there were no papers presented.

Table 2. Frequency and ratio of academic theses by year

Year	Frequency (N)	Ratio (%)
2000	1	1.6
2001	3	4.8
2002	4	6.5
2003	5	8.1
2004	1	1.6
2005	0	0.0
2006	5	8.1
2007	3	4.8
2008	6	9.7
2009	7	11.3

2010	2	3.2
2011	4	6.5
2012	1	1.6
2013	8	12.9
2014	9	14.5
2015	3	4.8
Total	62	100

By academic papers observed by type of degree, the number of papers published during a master's degree was 48 (77.4%) and 14 during a doctoral degree (22.6%) Although the number is not very high in doctoral cases, it was steadily on the rise as of late.

By affiliated universities, 33 universities had job analysis related theses published. The university with the largest number of published theses was identified as JoongAng University (10 papers, 16.1%), followed by Ewha Womans University (7 papers, 11.3%)

By research method, it was found that 15 job analysis methods including AHP, DACUM, FA, FGI were used and that in many of the papers the combination of two or more methods was applied in the research. The survey method was the most frequently used method, at 31 papers (27.2%), but was excluded since this method was only used for validity and is not appropriate for practical job analysis. The number of papers in which the DACUM method was used was 24 (21.1%), followed by the interview method (18 papers, 15.8%), FGI and observation (6 papers, 5.3%)

Table 3. The frequency and ratio of theses by research method used

Method of research	Frequency (N)	Ratio (%)
Survey	31	27.2
DACUM	24	21.1
Interview	18	15.8
Literature review	18	15.8
FGI	6	5.3
Observation	6	5.3
Expert council	3	2.6
AHP	1	0.9
Brainstorming	1	0.9
FA	1	0.9
Fieldwork	1	0.9
Fill-in	1	0.9
JASR	1	0.9
KASO	1	0.9
TC	1	0.9
Total	114	100

5. Conclusion

At present, job analysis is being utilized in a variety of areas ranging from job training to human resource development in levels of Korean government, and the value of job analysis is high. Therefore, in this study, academic theses were analyzed to understand the nature of job analysis research in Korean universities. The results of the analysis are as follows.

First, 2014 saw the largest number of theses in job analysis by released year, at 9 papers (14.5%) The second largest number was 8 papers (12.9%), published in 2013. This implies that currently, related studies propelled by the Korean government's national agenda under the theme of "constructing a capability-based society" are actively taking place. Secondly, the number of job analysis theses by universities released was the highest at JoongAng University, at 10 papers (16.1%), followed by Ewha Womans University, at 7 papers (11.3%) Thirdly, the most frequently used job analysis method in the theses was the DACUM method, which was used in 24 papers (21.1%) After analyzing the methods of job analysis, it was identified that 15 methods were used and that most of the studies used two or more methods. It was also found that the reason for which two or more job analysis methods was, by doing so, the shortcomings of each method can be compensated.

Several recommendations, as follow, can be made based on the results and conclusions drawn from this study. First, it is necessary to understand the importance of job analysis and to carry on the efforts and awareness for it. Secondly, many research projects should be given a systematic analysis for each job rather than being focused only on the dimension of the job analysis. Thirdly, in accordance with our rapidly changing society, the method of job analysis should be more systematic and immediate. Finally, to get the most optimized result for job analysis required from a variety of fields, it is necessary that the specialists for each field actively take part in job analysis to provide substantial knowledge, skills, and information related to the field.

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