A Study on the Categorisation of Basic Job Competency for Middle-Aged People in Korea

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The purpose of this study is to target middle-aged Korean people aged 40 to 64 to categorise basic job competency and to identify the connection with vocational education, job-seeking skills, and career transition status. To this end, the data from Lee SooJeong et al., (2020), targeting middle-aged people aged 40 to 64 who had the will to find a job (change jobs) was used. The quota sampling method by profession, gender, and age was used and the data collection was conducted for a month in February 2020. The collected data was used for a total of 1,224 analyses through the data cleaning process. First, the basic job competency of middle-aged people in Korea has divided into three groups. Second, a total of 579 (47.3\%) people belonged to the 'high-ranking group' of basic job competency. People perceived to be in good health in this case are incumbents, managers/experts, paid workers (regular workers), college graduates, or higher, living in a large city, and in middle-class economic conditions. Third, 496 (40.5\%) people belonged to the ‘mid-ranking group’ of basic job competency. There were many paid workers (regular workers) in other professions and they were in low-class economic conditions with normal health conditions: they had the characteristics of the moderate degree between the high-ranking and low-ranking groups. Fourth, 149 (12.2\%) people belonged to the ‘low-ranking group’ of basic job competency. There were many unemployed and temporary or daily workers, both economic and health conditions are low, and material status is also unstable, unlike other groups.

**Key words:** Basic Job Competency. Categorisation, Cluster Analysis, Key Competency, Job Seeking Skills.
Introduction

The paradigm shift in education, which means a competency-based society not with an academic background led to the introduction of the National Competency Standards, which refers to the practical performance required for a worker to successfully perform his or her work within the corresponding job. Job competency performed in a single job is divided into job performance and vocational competency (Bae, 2015).

The job performance ability consists of three areas: essential job competency, optional job competency, and industrial common job competency (Custer & Claiborne, 1992), which are necessary to perform a specific task in the field (Ju, Park & Jin, 2010). Basic job competency, due to rapid changes in the social economy, is the qualification that should be common in all roles in all career activities and is a concept (Lee, Kim & Kim, 2008) that emphasises 'know-how' rather than 'know-what' (Jin, Lee, Chae & Yoo, 2007). Therefore, basic job competency is essential for workers of all ages, and all ages need to pay attention to vocational competency as a society because low vocational competency is also a threat to social cohesion and economic development (OECD, 1995).

Basic job competency consists of a number of sub elements; there are some common elements in each country and some are discriminatory. For example, SCANS (Secretary's Commission on Archiving Necessary Skills) in the U.S. presented 7 areas of basic competencies, thinking skills, personal qualities, resource management skills, interpersonal skills, information processing capabilities, system capabilities and technology utilisation capabilities (Lee, 2009); and Carrnevale, Gainer, and Meltzer (1990) presented foundation skills, competence, communication skills, adaptability, personal management, group effectiveness, and influence. National Vocational Competency Standards of Korea presented basic job competency consisting of 10 areas (communication skills, mathematical skills, problem-solving skills, self-development skills, resource management skills, interpersonal skills, information skills, technical skills, organisational skills, vocational ethics) and 34 sub-areas in each area (NCS, 2020), and this study followed the definition of vocational competency in Korea.

However, the previous researchers (Jin et al., 2007; Ju et al., 2010; Kwon, 2007; Lee, 2008; Lee, 2015; Park, Choi & Lee, 2008) on basic job competency in Korea mainly targeted students and rookies for the study. More specifically, according to an analysis by Ryu Ji-eun (2016), vocational high school students accounted for the largest portion with 26 studies (32.9 percent), followed by 21 studies for adults (26.6 percent), 14 studies for university students (17.7 percent), 12 studies for others (15.2 percent), and 6 studies for junior college students (7.6 percent).
The reason why there is little interest in the basic job competency of middle-aged people may have been that the job performance to perform certain tasks was important for middle-aged people at a time when the concept of jobs for life was universal. However, it is necessary to consider a study that 54.8 percent of people are re-employed after retirement age or after retirement (Centre for Large and Small Business Cooperation, 2018), as it became clear that the number of people who quit their jobs in their mid-50s found it hard to live without working for the next 30 to 40 years after their retirement due to the increase in longevity. Most of all, in the case of career transition of middle-aged people, they want to move to a similar job based on their job performance in their current job, but because of the high rate of mobility to a new job or new type of job, the basic job competency that they need to have no matter what jobs they move to is also becoming an important factor in career transition (Choi, Chung & Na, 2015; Kim, Kang, Kim & Park, 2014; Kim & Song, 2017; Lee, Lee, Lee & Jang, 2013; Mun, Choi & Park, 2019; Park, Eom & Jang, 2017; Son, Song, Chung, & Shin, 2015). This is because basic job competency is essential to increasing competitiveness at the organisational level and is an important element in increasing employability at an individual level. In a study targeting graduates or in Cho (2018), the employed group scored higher in all 10 areas of vocational competency than the unemployed group. In other words, basic job competency is a core competency that increases the possibility of career transition.

Besides, as basic job competency is a core element of human capital and is the basis for organising vocational education and lifelong learning (Field & Shuller, 2000), the core issue of vocational education and training is to educate all office workers to acquire common skills that they should have (Lee, Park, Hong & Na, 2004). Job seeking skills mean the skills necessary for job seekers to find jobs. It means the individual's job-seeking ability that includes job competency as a basic ability required to successfully perform a given duty in a career and knowledge and performance of job-search techniques and job-seeking activities for effective job-hunting (Latham, 1984). As such, vocational competency and vocational education, vocational competency and job-seeking skills, and vocational competency and career transition are inextricably linked from the conceptual basis.

On the other hand, basic job competency tends to be explained mainly in relation to jobs in Korea, but in foreign countries such as Germany and the United States, the concept is extended to essential skills needed to lead a human life (Jin et al., 2007; Lim, Choi, Choi & Oh, 2004). Thus, basic job competency is the ability to cope with the rapidly and continuously changing external environment and personal job situations and will work as a core skill for such as vocational education and training, career transition, and job-seeking skills for career transition of middle-aged people, who are in the second half of their lives. However, as described earlier, there is a lack of study on the vocational competency of middle-aged people, and most of all, there is even a lack of motive to improve the basic job competency of middle-aged people who are preparing for a new life, as it has not been able to grasp the connection between vocational
competency and various variables related to the labour market transition, such as vocational education, career transition demands, and job-seeking skills.

Hence, the purpose of this study is to target middle-aged Korean people aged 40 to 64 to categorise their basic job competency and to identify the connection with vocational education, job-seeking skills, and career transition status. The reason why the categorisation of basic job competency in this study is easy to overlook the diversity of basic job competency when analysing at simple average values is that the subcomponents of vocational competency are discriminatory. Therefore, this study will provide more detailed and organised basic data to executives of lifelong vocational education and policymakers who plan customised employment connections to the demands of middle-aged people by figuring out how the basic job competency of middle-aged people in Korea is categorised, about the sociodemographic characteristics of each type, and how vocational education and training, job-seeking skills, and career transition status vary depending on the type.

Method

Data Collection Procedure

This study used the data of Lee, Yang, Song & Kim (2020), which is 'Lifelong Vocational Education and Training Plan for Employment Connections of middle-aged and older employment'. Lee et al., (2020) used the quota sampling method by profession, gender, and age for middle-aged people aged 40 to 64 who had the will to find a job (change jobs). The web survey method and the self-administered survey using the questionnaire were conducted at the same time for a month in February 2020. The collected data was used for a total of 1,224 analyses, except for questionnaires with poor responses, responses with many fallacies, and many non-response items through the data cleaning process.

Measurement

Basic job competency was measured in 16 questions in eight areas by correcting and supplementing the standards in the 2013 National Competency Standards (NCS, 2020) and utilisation package. It was measured in two questions for each area and the reliability was not measured. The status of vocational education and training was measured in three questions of experience of participation in vocational education and training, the purpose of vocational education and training, and change after participating in vocational education and training in the last five years. Job seeking skills is a measure developed by Lee (2019) based on previous studies and it had 20 questions, but reduced to nine questions that were used after the consultation meeting. The reliability of the scale is .879. The status of career transition was measured in five questions of career transition experience; the self-motivation of career
transition, career transition route, capacity utilisation of current jobs in case of career transition, and inclination of future career transition.

**Statistical Analysis**

By utilising IBM SPSS24.0, cluster analysis, crossover analysis, and one-way ANOVA were utilised.

**Results**

**Categorisation of Basic job competency for Middle-aged people in Korea**

K-means cluster analysis was conducted with eight sub-factors of basic job competency to categorise the basic job competency of middle-aged people. As the three clusters were most obvious as the result of designating three, four, and five clusters for cluster analysis, it was categorised into three clusters (Figure 1).

**Figure 1. Categorisation of Basic Job Competency**

(Total respondents, units: people, %)

As the scores of the eight sub-factors of basic job competency in ‘cluster 1’ were all 4 points or higher, it was named 'high-ranking group' and a total of 579 (47.3%) people belonged there.

As the scores of the eight sub-factors of basic job competency in ‘cluster 2’ were all in the 3 points range, it was named 'mid-ranking group' and a total of 496 (40.5%) people belonged
here. Finally, as the scores of the eight sub-factors of basic job competency in ‘cluster 3’ were all in the 2 points bracket, it was named 'low-ranking group' and a total of 149 (12.2%) people belonged here.

**Differences in Types of Basic Job Competency according to the Characteristics of Middle-aged People**

Differences in basic job competency were significant depending on academic background, marital status, health status, current work status, profession, and employment type of middle-aged people. As the differences by gender, age and residence were not significant, they were not presented in the table.

Compared to other groups, the percentage of middle-aged people who were perceived to be in good health was higher in the 'high-ranking group' of basic job competency than in the other groups; in this case they are incumbents, managers/experts, paid workers (regular workers), and college graduates or higher, and in middle-class economic conditions (Table 1).

Compared to other groups, the percentage of middle-aged people who were perceived to be in normal health was higher in the 'mid-ranking group' of basic job competency than in other groups who may be incumbents, workers of other professions (such as technical staff, device/machine assembly workers, simple labour workers, etc.), paid workers (regular workers), and in low-class economic conditions (Table 1).

Compared to other groups, the percentage of middle-aged people who were perceived to be in bad health was higher in the 'low-ranking group' of basic job competency than in other groups; they are the unemployed, workers of other professions (such as technical staff, device/machine assembly workers, simple labour workers, etc.), paid workers (temporary/daily workers), high school graduates or below, in the marital status of separated/divorced/separated by death, living in the small and medium-sized cities, and in low-class economic conditions (Table 1).
Table 1: Differences in Types of Basic Job Competency according to the Characteristics of Middle-aged People
(Total respondents, units: people, %)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>High-ranking group</th>
<th>Mid-ranking group</th>
<th>Low-ranking group</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Academic Background</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school graduates or below</td>
<td>440</td>
<td>125 (21.6)</td>
<td>223 (45.0)</td>
<td>92 (61.7)</td>
<td>112.405***</td>
</tr>
<tr>
<td>College graduates or higher</td>
<td>784</td>
<td>454 (78.4)</td>
<td>273 (55.0)</td>
<td>57 (38.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>896</td>
<td>439 (75.8)</td>
<td>354 (71.4)</td>
<td>103 (69.1)</td>
<td>9.633*</td>
</tr>
<tr>
<td>Separated/Divorced/ Separated by death</td>
<td>141</td>
<td>61 (10.5)</td>
<td>54 (10.9)</td>
<td>26 (17.4)</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>187</td>
<td>79 (13.6)</td>
<td>88 (17.7)</td>
<td>20 (13.4)</td>
<td></td>
</tr>
<tr>
<td><strong>Economic Condition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-class</td>
<td>134</td>
<td>78 (13.5)</td>
<td>40 (8.1)</td>
<td>16 (10.7)</td>
<td>31.061***</td>
</tr>
<tr>
<td>Middle-class</td>
<td>522</td>
<td>279 (48.2)</td>
<td>192 (38.7)</td>
<td>51 (34.2)</td>
<td></td>
</tr>
<tr>
<td>Low-class</td>
<td>568</td>
<td>222 (38.3)</td>
<td>264 (53.2)</td>
<td>82 (55.0)</td>
<td></td>
</tr>
<tr>
<td><strong>Health Condition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bad</td>
<td>127</td>
<td>35 (6.0)</td>
<td>64 (12.9)</td>
<td>28 (18.8)</td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>572</td>
<td>243 (42.0)</td>
<td>255 (51.4)</td>
<td>74 (49.7)</td>
<td>50.745***</td>
</tr>
<tr>
<td>Good</td>
<td>525</td>
<td>301 (52.0)</td>
<td>177 (35.7)</td>
<td>47 (31.5)</td>
<td></td>
</tr>
</tbody>
</table>
Differences in the Current Status of Vocational Education and Training by the Types of Basic Job Competency of Middle-aged People

Only the difference in 'the purpose of participation in vocational education and training' was significant, according to the types of basic job competency of middle-aged people. The experience of vocational education and training and changes after the participation in vocational education and training were not presented in the table because differences between groups were not significant.
While the high percentage of all groups said the purpose of participation in vocational education was 'career transition,' there was 23.7 percent of those in the 'high-ranking group' of vocational competency who participated in vocational education and training to acquire professional certificates (Table 2).

**Table 2:** Differences in the Current Status of Vocational Education and Training by the Types of Vocational Competency of Middle-aged People
(Total respondents, units: people, %)

<table>
<thead>
<tr>
<th>Purpose of Participation in Vocational Education and Training</th>
<th>N</th>
<th>High-ranking group</th>
<th>Mid-ranking group</th>
<th>Low-ranking group</th>
<th>(\chi^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Transition</td>
<td>131</td>
<td>55 (40.7)</td>
<td>57 (58.8)</td>
<td>19 (55.9)</td>
<td>10.520*</td>
</tr>
<tr>
<td>Improvement of work performance</td>
<td>82</td>
<td>48 (35.6)</td>
<td>22 (22.7)</td>
<td>12 (35.3)</td>
<td></td>
</tr>
<tr>
<td>Acquiring professional certificate</td>
<td>53</td>
<td>32 (23.7)</td>
<td>18 (18.6)</td>
<td>3 (8.8)</td>
<td></td>
</tr>
</tbody>
</table>

\* p<.05

_Differences in Job Seeking Skills according to the Types of Basic Job Competency of Middle-aged People_

Middle-aged people in the ‘high-ranking group’ had the highest job-seeking skills, followed by the ‘mid-ranking group’ and the ‘low-ranking group’, and middle-aged people having excellent job competency had a high level of job-seeking skills (Table 3).
**Table 3**: Differences in Job Seeking Skills according to the Types of Basic Job Competency of Middle-aged People  
(Total respondent, units: average of 5 point (point))

<table>
<thead>
<tr>
<th>Types of Vocational Competency</th>
<th>The number of cases</th>
<th>Average of 5 point</th>
<th>Standard Deviation</th>
<th>F</th>
<th>Scheffer’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-ranking group</td>
<td>705</td>
<td>3.93</td>
<td>0.527</td>
<td></td>
<td>c</td>
</tr>
<tr>
<td>Mid-ranking group</td>
<td>357</td>
<td>3.33</td>
<td>0.449</td>
<td>428.344***</td>
<td>b</td>
</tr>
<tr>
<td>Low-ranking group</td>
<td>162</td>
<td>2.69</td>
<td>0.587</td>
<td></td>
<td>a</td>
</tr>
</tbody>
</table>

***p<.001

**Differences in Status of Career Transition by the Types of Basic Job Competency of Middle-aged People**

The difference between 'career transition route' and 'capacity utilisation of current jobs in case of career transition' was significant, according to the types of basic job competency of middle-aged people. As for the differences in career transition experience, the self-motivation of career transition, and inclination of future career transition were not significant, they were not presented in the table. In the ‘high-ranking group’ of basic job competency, 56.3% of the total were the career transition cases of ’employed >employed’, and there was quite a high percentage of respondents who said their capacity in the current job would be useful, even in part or at the same level in case of career transition. In the ‘low-ranking group’ of basic job competency, the highest percentage of 37.1% of the total were the career transition cases of ‘unemployed >employed’, and 14.4% were ‘taking full charge of housework/childcare >employed’. The percentage of respondents who said their capacity in current jobs would be 'partially useful or almost useless' in transited careers was higher than in other groups (Table 4).
Table 4: Differences in Status of Career Transition by the Types of Basic Job Competency of Middle-aged People  
(Total respondents, units: people, %)

<table>
<thead>
<tr>
<th>Career Transition Route</th>
<th>N</th>
<th>High-ranking group</th>
<th>Mid-ranking group</th>
<th>Low-ranking group</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed &gt; Employed</td>
<td>407</td>
<td>227 (56.3)</td>
<td>149 (43.2)</td>
<td>31 (32.0)</td>
<td></td>
</tr>
<tr>
<td>Unemployed &gt; Employed</td>
<td>240</td>
<td>96 (23.8)</td>
<td>108 (31.3)</td>
<td>36 (37.1)</td>
<td></td>
</tr>
<tr>
<td>Education and Training &gt; Employed</td>
<td>41</td>
<td>13 (3.2)</td>
<td>21 (6.1)</td>
<td>7 (7.2)</td>
<td>29.930***</td>
</tr>
<tr>
<td>Taking full charge of housework/ childcare &gt; Employed</td>
<td>72</td>
<td>26 (6.5)</td>
<td>32 (9.3)</td>
<td>14 (14.4)</td>
<td></td>
</tr>
<tr>
<td>Retired &gt; Employed</td>
<td>85</td>
<td>41 (10.2)</td>
<td>35 (10.1)</td>
<td>9 (9.3)</td>
<td></td>
</tr>
<tr>
<td>Useful at the same level as capacity in the current job</td>
<td>419</td>
<td>247 (42.7)</td>
<td>144 (29.0)</td>
<td>28 (18.8)</td>
<td></td>
</tr>
<tr>
<td>Partially useful</td>
<td>533</td>
<td>236 (40.8)</td>
<td>236 (47.6)</td>
<td>61 (40.9)</td>
<td>61.506***</td>
</tr>
<tr>
<td>Almost useless</td>
<td>134</td>
<td>52 (9.0)</td>
<td>55 (11.1)</td>
<td>27 (18.1)</td>
<td></td>
</tr>
<tr>
<td>Never thought about it</td>
<td>138</td>
<td>44 (7.6)</td>
<td>61 (12.3)</td>
<td>33 (22.1)</td>
<td></td>
</tr>
</tbody>
</table>

***p<.001
Conclusion

The purpose of this study is to target middle-aged Korean people aged 40 to 64 to categorise the basic job competency and to identify the connection with vocational education, job-seeking skills, and career transition status. To this end, the data from Lee SooJeong et al., (2020), targeting middle-aged people aged 40 to 64 who had the will to find a job (change jobs) was used. The quota sampling method by profession, gender, and age was used and the data collection was conducted for a month in February 2020. The collected data was used for 1,224 analyses through the data cleaning process.

First, the basic job competency of middle-aged people in Korea has divided into three groups: the high-ranking group had a quite high level of basic job competency in all areas with 4 points or higher, and the low ranking had a low level of basic job competency in all areas with being in the 2 points category.

Second, a total of 579 (47.3%) people belonged to the 'high-ranking group' of basic job competency. People perceived to be in good health in this case are incumbents, managers/experts, paid workers (regular workers), college graduates, or higher, living in a large city, and in middle-class economic conditions. Currently, all the 'high-ranking group' with excellent basic job competency are making more substantial preparations such as acquiring professional certificates and improving technical skills for their current job and retirement lives through constant vocational education. In addition, career transition is expected the easiest for them because they have a high level of job-seeking skills. Therefore, it is expected that the middle-aged people in the 'high-ranking group' of basic job competency will transit to similar or higher professions based on their current capacities and abilities, and it is highly possible that they will not go through unemployment or will go through short periods of unemployment through acquiring professional certificates and developing technical skills based on their own needs and efforts.

Third, 496 (40.5%) people belonged to the ‘mid-ranking group’ of basic job competency. There were many paid workers (regular workers) in other professions and they were in low-class economic conditions with normal health conditions. They had the characteristics of the moderate degree between the high-ranking and low-ranking groups.

Fourth, 149 (12.2%) people belonged to the ‘low-ranking group’ of basic job competency. There were many unemployed and temporary or daily workers, both economic and health conditions are low, and material status is also unstable, unlike other groups. Despite participating in vocational education for career transition, job-seeking skills are low, so they are not active in finding a job. Considering that it is a ‘low-ranking group’ with low vocational competency at the same time including many unemployed and other jobs and that the
percentage of temporary or daily paid workers was high, it is expected that there is a high possibility that the middle-aged people in the group will move to different and lower-level positions than current ones. Therefore, to improve the quality of life of this group, it is necessary to provide vocational education that improves basic job competency, while at the same time an intensive and comprehensive support policy is needed to provide job development that suits their characteristics, practical training that fits their jobs, and even employment connections.
REFERENCES

Bae, G. M. (2017). The analysis of the cognitive level of basic job skills of specialised high school based on NCS. Journal of Educational Innovation Research, 27(1), 133-158.


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