International Journal of Engineering & Technology, 7 (3.24) (2018) 225-231

International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET

Research paper

AHP Analysis to Set a Direction for Rural Convergence Industry Startup Education

I. B. Song[1], M. S. Park[2*]

[1]*Department of Entrepreneurship, Gyeongnam National University of Science and Technology, Jinju-si, Gyeongsangnam-do, Korea*
[2]*Department of, Education, Chungnam National University, Yuseong-gu, Daejeon, Korea*
[*]*Corresponding author E-Mail:parkms0335@cnu.ac.kr*

Abstract

Background/Objectives: This study 34 subjects consisting of experts in the Gyeongnam region, scholars, entrepreneurs and those wishing to become entrepreneurs to conduct an analysis on the relative importance of factors in rural convergence industry startup education to set a direction for such education programs.
Methods/Statistical analysis: This study, we analyzed using AHP(Analytic Hierarchy Process).
Findings: The relative importance or priority of areas in rural convergence industry startup education were in descending order, 'foundation of startup', 'startup preparation and environment analysis', 'entrepreneurship', 'startup management strategy', 'startup specialized program' and 'startup practice'. The ranking for factors were in descending order, startup, environment analysis, startup item, entrepreneurship, startup trend, startup plan, marketing, startup financing and M&A, culture and organizational growth management, agriculture venture, creativity, finance accounting and startup finance, legal affairs and system consulting, startup management strategy, agriculture products marketing, field practice, innovative thinking, consulting, business model, agriculture venture related laws, technology commercialization, agriculture corporation, agriculture venture case, business plan, 6th industry and smart farm.
Improvements/Applications: This study may be used in decision-making regarding where to place the relative importance and priority in rural convergence industry startup education as it sought to conclude implications for the future direction of lifelong education and rural convergence industry startup education programs.

Keywords: *Rural convergence industry, Startup education, lifelong education, agriculture venture, sixth industry, entrepreneurship, specialized program*

1. Introduction

The agriculture industry in contemporary society is more than a first tier industry and aims to become a so-called 6 tier industry where production, manufacturing, distribution and services are combined. But most countries have seen the economy in rural communities worsen due to the opening of markets, heated competition, an aging population in rural communities and inferior conditions in rural life and working conditions[1]. To overcome such issues, Korea has been viewing the agricultural industry as an agent of business management and been implementing various entrepreneurship programs to encourage the establishment of cooperatives, social corporations and village corporations, in addition to startups. In particular, with the increase in jobless rates among the youth, 'projects to promote entrepreneurship in agricultural industries by the youth' and a 'direct payment system for young farmers' have been conceived to lure the younger population into taking the lead in driving the agricultural industry. Entrepreneurship training programs related to lifelong education have also been increased to foster the younger population that are increasingly returning to their home towns[2]. Entrepreneurship training in Korea started in 2003 with the founding of entrepreneurship graduate schools in five regions as part of the project sponsored by the Ministry of Small and Medium-Sized Venture Corporations. Since then, the government announced a five year plan for entrepreneurship training in 2013 and expanded its reach to include teenagers, university students and regular adults. As of 2018, entrepreneurship education has seen notable quantitative growth, including credited or non-credited courses being established at 10 universities with entrepreneurship graduate schools. However, despite such quantitative growth, the programs have not met the needs for entrepreneurship education and lack programs catering to specific students' needs. This has led to a mismatch between supply and demand [3]. This is due to the education programs being designed based on the human resources that each educational institution has who are not necessarily experts in entrepreneurship, but also because they simply followed the program by the Ministry that emphasized technological startups or imitated foreign educational programs. But entrepreneurship programs in advanced countries are catered to offer specialities in each region. A good example is the program at Stanford University where the link with Silicon Valley is highly valued. University of Iowa has an entrepreneurship program similar to that of other universities, but also differentiates itself with its association with Silicon Prairie in the Midwest of U.S.A.[4]. When agriculture is seen from a business perspective, the manager needs to have a multidisciplinary mindset, creative planning abilities and an ability to generate added value. In this sense, given that the concept of agricultural venture or the 6th industry in agriculture can be helpful, a more general entrepreneurship program is also expected to be beneficial in agriculture. Because of this, many entrepreneurship programs are being developed for farmers by local universities and local governments. But such training programs are not specialized for the consumers who are farmers or those wishing to become entrepreneurs in the agricultural industry. Nor are they

differentiated enough to have tangible benefit. As such, there is an urgent need for a more differentiated education program needed for agricultural startups.

Thus far, there was a study that reviewed using AHP the importance of evaluation factors in how certain subjects at entrepreneurship graduate schools are preferred[5], a study on the development of a curriculum for rural convergence industry startup education[6], a study on the comprehensive review of programs at Korean entrepreneurship graduate schools[7], a study on the development tasks for entrepreneurship education[8], a study on the education programs at entrepreneurship graduate schools[9], a study on identifying entrepreneurial opportunities by combining produce business and ICT[1], a study on efficient design and practice measures for entrepreneurship education[10], a study on entrepreneurship education as a new challenge in vocational training[11], and a study on the current status and characteristics of entrepreneurship programs at international universities[12]. But these studies are lacking in reviewing the priority or relative importance of various factors when setting the direction for rural convergence industry startup education. As such, this study seeks to apply AHP(Analytic Hierarchy Process) analysis to entrepreneurial education programs to determine the priority and importance of the programs for different audiences including entrepreneurship specialists, academics, established entrepreneurs and those who seek to become an entrepreneur. This study can be used in decision-making on where the relative importance and priority lie in rural convergence industry startup education as it presents implications for the future direction of such programs. The following study question was set to achieve the study goal. What is the relative importance and priority level of entrepreneurship education programs for rural convergence industry startup education?

Rural convergence industry startups were first defined by the government in 2015 when the 'Law on the Fostering and Support for Rural Convergence Industry Startups' took effect. These industries are often referred to as 6 tier industries as they use tangible or intangible resources in rural areas to provide goods and services associated with processing, distribution or tourism, thereby generating economic value added. They represent a convergence strategy that combines the production side of rural areas with the food manufacturing businesses, wholesale and retail sale, information and tourism infrastructure of cities to organize these areas by regional units, thus promoting business development and creation of jobs in rural areas[13]. Therefore, in the field of rural convergence industry startup education, the need for various entrepreneurship programs where the basis is on agricultural production but development of regional specialities, processing of produce and association with distribution or tourism through experience or healing programs where farmers take the lead has risen. Entrepreneurship education in the narrow sense can be defined as the education of knowledge, function, aptitude and attitude necessary for a successful planning and operation of business[11]. Such entrepreneurship education focuses on providing knowledge and information related to starting a business and promote the skills and entrepreneurship necessary to make the business successful[14]. In a broader sense, entrepreneurship education can be defined as educating potential entrepreneurs on business management even if they are not preparing to start a company nor are currently running one[15]. Therefore, the content and teaching method of such programs may vary depending on the target audience, the stage of startup in which participants are in, and the business planned[16]. From the individual's perspective, entrepreneurship education is associated with capability development including an entrepreneurial attitude and knowledge. From the country's perspective, it has the purpose of driving the national economy by creating jobs and fostering a number of innovative entrepreneurs. Therefore, the content of general entrepreneurship education must consist of startup activities through the development of products or ideas and the use of business opportunities, as well as innovation and improvement of the products, technologies, manufacturing process and organizational structure within the company for sustainable growth after its establishment[10]. That is, entrepreneurship education needs to have a curriculum to establish, run and grow a company. Entrepreneurship education needs to link the market economy with the entrepreneur, teach the necessary knowledge, technology and attitude to sustain the business and foster entrepreneurship in the student. Therefore, entrepreneurship education needs to be a program fit for the market in which the entrepreneur is in and meet the needs of the students. Therefore, entrepreneurship education should not be a variation of general business management education but a specialized program with specific subjects to effectively deliver knowledge necessary to entrepreneurs in their respective field. When designing the program, various specialized education programs must be included to improve the possibility of success in startups[10]. In particular, in the field of rural convergence industry startup education, knowledge required goes beyond that of agricultural production to include distribution and tourism but most entrepreneurs in the filed lack understanding or experience in the field as they have returned to their rural home towns after a hiatus or have just been handed down the family business. This has led to an increase in entrepreneurship education at undergraduate or graduate levels for these specific group of audiences, led by local governments and institutions specializing in the education of farmers. However, these programs rarely set themselves apart from the more general entrepreneurship education programs[17]. Rural convergence industry startups require knowledge on farming land development, agricultural produce and food, agriculture ventures and various government approvals but financial restraints often keep the startups from hiring experts in the fields, leading to the entrepreneur himself playing multiple roles. As such, in entrepreneurship education programs, specialized programs on agricultural ventures, produce marketing, smart farms, confectionary or baking techniques, agricultural corporations, land development and approvals required for agricultural and food products must be included. These specialized programs must be designed to seamlessly integrate with more general topics on startups such as the basis of starting a company, preparation and environmental analysis, entrepreneurship and strategy[18]. First and foremost in rural convergence industry startup education, education on general matters concerning startups is necessary. The concept of startups, trend analysis and design thinking for developing ideas must be taught to broaden the horizon for students. Then environmental analysis should be taught to help them understand their customers and competitors. Lastly, it is essential to foster entrepreneurial capabilities on startup items, entrepreneurship and strategy. In particular, specialized programs must address marketing of agricultural produce, agricultural ventures, agricultural corporations and cooperatives, laws on farming land and development activities, and government approvals. These are subjects that are difficult to cover in the more general entrepreneurship education programs. Various practice programs must also be implemented in parallel. Practice on smart farming, confectionary and baking technologies, as well as site visits to benchmark best practices improve the execution ability and therefore must be included in the curriculum. Startup opportunities in agricultural business tend to rely heavily on changes in government policies, technology or law on the one hand, and on the other on experience in the field. As such, there is a need to design specialized entrepreneurship education programs catering to entrepreneurs interested in rural convergence industry startups[6].

2. Materials and Methods

2.1. Classification of Rural Convergence Industry Startup Education Programs

Since this study seeks to identify the degree of importance and priority in entrepreneurship education programs in rural communities, classification of entrepreneurship education programs is necessary. To that end, entrepreneurship education programs presented by academics were presented as Figure 1. The first tier factors of entrepreneurship education programs in rural communities were established as the 6 areas as follows: Foundation of startup, Startup preparation and environmental analysis, Entrepreneurship, Startup management strategy, Startup specialized program and Startup practice. The 26 second tier factors and study model were defined as follows as seen in Figure 1: 1) Startup 2) Startup trend 3) Creativity 4) Environment analysis 5) Startup item, 6) Startup plan 7) Startup financing and M&A 8) Legal affairs and system consulting 9) Consulting 10) Entrepreneurship 11) Culture and organizational growth management 12) Innovative thinking 13) Marketing 14) Finance, accounting and startup finance 15) Startup management strategy 16) Business model 17) Technology commercialization 18) Business plan 19) Agriculture venture 20) Agriculture products marketing 21) Agriculture venture related laws 22) Agricultural corporation 23) The 6th industry startup 24) Field practice 25) Agriculture venture case 26) Smart farm.

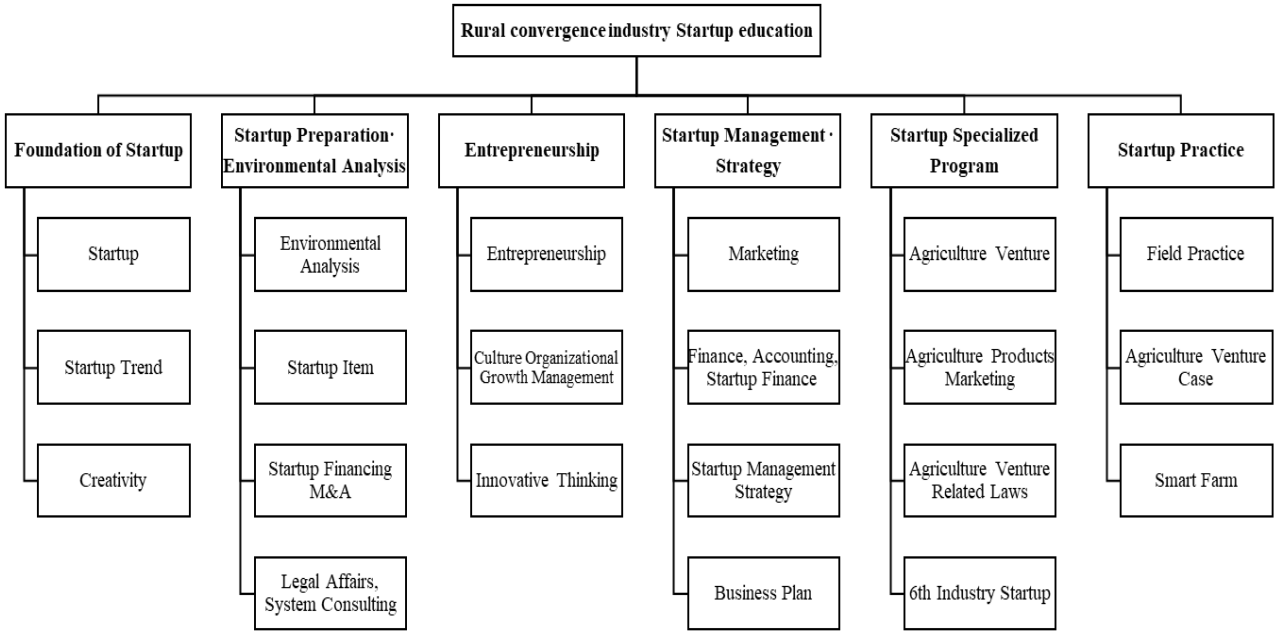

Figure 1: Study model for the verification of the model for rural convergence industry startup education

2.2. Study Subjects

AHP method uses a small number of experts to conclude their expert judgment on a matter. This study which seeks to identify the degree of importance and priority in rural convergence industry startup education used 40 subjects for the questionnaire, consisting of experts in startup education in the Gyeongnam region(10 subjects), entrepreneurs in the field of agriculture(10 subjects) and those preparing for startups(10 subjects). They were deemed to be capable of giving expert opinion as they study or carry out startup education themselves. A total of 40 copies of the questionnaire was recuperated, but the consistency ratio was evaluated to secure reliability of the responses. Questionnaires with a consistency ration of 0.2 or higher were excluded and the remaining 34 copies were used for analysis.

2.3. Analysis Method

The priority in rural convergence industry startup education was analyzed using AHP(Analytic Hierarchy Process). This method conducts pairwise comparison between factors of the hierarchy structure in decision-making to capture the knowledge, experience and intuition of the subject. The collected questionnaires were statistically processed through coding. Those with a low consistency ratio(of 0.2 or higher) were excluded, with the remaining analyzed for relative importance using the 'Expert Choice 2000' program. Sensitivity analysis was then conducted to analyze to which degree changes in each variable within a certain range leads to a difference from the initial results. When changes in factors do not lead to big difference from initial analysis results, the analysis is said to be robust. While there is no uniform standard for the range of acceptance in sensitivity analysis, in AHP analysis usually the variables are changed within a 10% range positive or negative. If the range of change in priorities are within 3 or 4, it is generally acceptable. Among the four modules for sensitivity analysis in 'Expert Choice 2000', the Dynamic Sensitivity module was used.

3. Results and Discussion

3.1. Comparison of Areas in Rural Convergence Industry Startup Education

Table 1 shows the relative degree of importance and priority of each area in rural convergence industry startup education. Foundation of startup was given 0.182, Startup preparation and environmental analysis was given 0.179, entrepreneurship was given 0.172, startup management strategy was given 0.162, startup specialized program was given 0.156 and startup practice was given 0.149. That is, in terms of the relative importance and priority, the ranking from high to low was foundation of startup, startup preparation and environmental analysis, entrepreneurship, startup management strategy, startup specialized program and startup practice. The above Table 1 can be shown as Figure 2.

Table 1: Relative degree of importance(priority) of each area in rural convergence industry startup education

Division		Importance	
		Relative importance	Priority
Rural convergence industry Startup Education (The First Layer)	Foundation of Startup	0.182	1
	Startup Start-up preparation ·Environmental analysis	0.179	2
	Entrepreneurship	0.172	3
	Startup Management·Strategy	0.162	4
	Startup Specialized Program	0.156	5
	Startup Practice	0.149	6

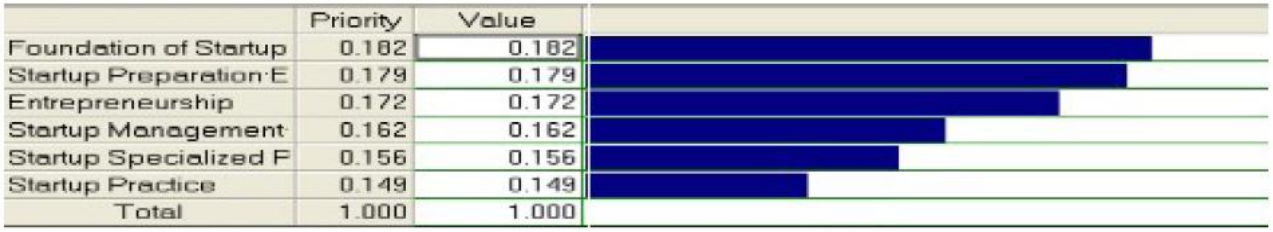

Figure 2. The relative importance(priority) of each of the 6 areas in rural convergence industry startup education

3.2. Comparison of Factors in Rural Convergence Industry Startup Education

Table 2: Relative importance(priority) of factors in rural convergence industry startup education(within each area)

Rural convergence industry Startup Education Domain (The First Layer)	Rural convergence industry Startup Education Urea (The Second Layer)	Importance	
		Relative importance	Priority
Foundation of Startup	· Startup	0.046	1
	· Startup Trend	0.043	2
	· Creativity	0.039	3
Startup Preparation Environmental Analysis	· Environmental Analysis	0.045	1
	· Startup Item	0.044	2
	· Startup Plan	0.042	3
	· Startup Financing & M&A	0.040	4
	· Legal affairs & System Consulting	0.038	5
	· Consulting	0.036	6
Entrepreneurship	· Entrepreneurship	0.044	1
	· Culture·Organizational Growth Management	0.040	2
	· Innovative Thinking	0.037	3
Startup Management·Strategy	· Marketing	0.041	1
	· Finance·Accounting·Startup Finance	0.039	2
	· Startup Management Strategy	0.038	3
	· Business Model	0.036	4
	· Technology Commercialization	0.034	5
	· Business Plan	0.033	6
Startup Specialized Program	· Agriculture Venture	0.040	1
	· Agriculture Products Marketing	0.038	2
	· Agriculture Venture Related Laws	0.036	3
	· Agricultural Corporation	0.034	4
	· Sixth Industry Startup	0.033	5
Startup Practice	· Field Practice	0.038	1
	· Agriculture Venture Case	0.034	2
	· Smart Farm	0.031	3

Table 2 shows an analysis of the relative importance and priority of factors in rural convergence industry startup education. In the area of 'foundation of startup', startup was given 0.046, startup trend was given 0.043 and creativity was given 0.039. In the area of 'startup preparation and environment analysis', environment analysis was given 0.045, startup item was given 0.044, startup plan was given 0.042, startup financing and M&A was given 0.040, legal affairs and system consulting was given 0.038 and consulting was given 0.036. In the area of 'entrepreneurship', entrepreneurship was given 0.044, culture and organizational growth management was given 0.040 and innovative thinking was given 0.037. In the area of 'startup management strategy', marketing was given 0.041, finance, accounting, startup finance was given 0.039, startup management strategy was given 0.038, business model was given 0.036, technology commercialization was given 0.034 and business plan was given 0.033. In the area of 'startup specialized program', agriculture venture was given 0.040, agriculture products marketing was given 0.038, agriculture

venture related laws was given 0.036, agriculture corporation was given 0.034 and sixth industry startup was given 0.033. In the area of 'startup practice', field practice was given 0.038, agriculture venture case was given 0.034 and smart farm was given 0.031.

Table 3: Relative importance(priority) of factors in rural convergence industry startup education(compiled)

Rural convergence industry Startup Education Domain (The First Layer)	Rural convergence industry Startup Education Urea (The Second Layer)	Importance	
		Relative importance	Priority
Foundation of Startup	· Startup	0.046	1
	· Startup Trend	0.043	5
	· Creativity	0.039	11
Startup Preparation·Environmental Analysis	· Environmental Analysis	0.045	2
	· Startup Item	0.044	3
	· Startup Plan	0.042	6
	· Startup Financing & M&A	0.040	8
	· Legal affairs & System Consulting	0.038	13
	· Consulting	0.036	18
Entrepreneurship	· Entrepreneurship	0.044	4
	· Culture·Organizational Growth Management	0.040	9
	· Innovative Thinking	0.037	17
Startup Management ·Strategy	· Marketing	0.041	7
	· Finance·Accounting·Startup Finance	0.039	12
	· Startup Management Strategy	0.038	14
	· Business Model	0.036	19
	· Technology Commercialization	0.034	21
	· Business Plan	0.033	24
Startup Specialized Program	· Agriculture Venture	0.040	10
	· Agriculture Products Marketing	0.038	15
	· Agriculture Venture Related Laws	0.036	20
	· Agricultural Corporation	0.034	22
	· Sixth Industry Startup	0.033	25
Startup Practice(Field Practice)	· Field Practice	0.038	16
	· Agriculture Venture Case	0.034	23
	· Smart Farm	0.031	26

Table 3 shows the analysis of relative importance and priority of factors of rural convergence industry startup education when compiled. Among the 26 factors, startup in the 'foundation of startup' ranked 1st, environment analysis in the area of 'startup preparation and environment analysis' ranked 2nd, 'startup item' ranked 3rd, entrepreneurship in the area of 'entrepreneurship' ranked 4th, startup trend in the area of 'foundation of startup' ranked 5th, startup plan in the area of 'startup preparation and environment analysis' ranked 6th, marketing in the area of 'startup management strategy' ranked 7th, startup financing and M&A ranked 8th, culture and organizational growth management in the area of 'entrepreneurship' ranked 9th and agriculture venture ranked 10th. Table 3 can be shown as in Figure3.

Figure 3: Relative importance of the 26 factors in rural convergence industry startup education

3.3. Sensitivity analysis

Table 4: Findings from the sensitivity analysis

Division	Relative Importance Analysis					
	Foundation of Startup (0.182)	Startup Preparation· Environmental Analysis (0.179)	Entrepreneurship (0.172)	Startup Management ·Strategy	Startup Specialized Program	Startup Practice(Field Practice)

					(0.162)	(0.156)	(0.149)
Foundation of Startup	+10%	0.202	0.174	0.168	0.158	0.152	0.145
	–10%	0.165	0.183	0.176	0.166	0.160	0.152
Startup Preparation· Environmental Analysis	+10%	0.178	0.198	0.168	0.158	0.152	0.145
	–10%	0.186	0.161	0.176	0.166	0.160	0.152
Entrepreneurship	+10%	0.179	0.176	0.187	0.159	0.153	0.146
	–10%	0.186	0.183	0.153	0.166	0.160	0.152
Startup Management ·Strategy	+10%	0.179	0.176	0.169	0.176	0.154	0.146
	–10%	0.192	0.189	0.182	0.116	0.165	0.157
Startup Specialized Program	+10%	0.178	0.175	0.168	0.158	0.176	0.145
	–10%	0.185	0.182	0.175	0.165	0.142	0.151
Startup Practice(Field Practice)	+10%	0.179	0.176	0.170	0.160	0.154	0.160
	-10%	0.185	0.182	0.175	0.165	0.159	0.134

It was reviewed whether the relative importance changed in ranking when the area value for each factor of rural convergence industry startup education was changed from what was concluded in this study. The findings from the sensitivity analysis are as seen in Table 4. Figure4. represents the initial value of relative importance when the initial settings were not changed. When 0.202 which is an addition of 10% of 0.182 which is a relative importance value of the area 'foundation of startup' was applied, the area 'startup preparation and environment analysis' changed to 0.174, the area 'entrepreneurship' changed to 0.168, the area 'startup management strategy' changed to 0.158, the area 'startup specialized program' changed to 0.152 and the area 'startup practice' changed to 0.145. As a result, the ranking hardly changed indicating a low sensitivity. Table 4 shows the analysis results using this method. Figure 5 shows that the ranking hardly changes for the factors of whether the relative importance changed in ranking when a sensitivity analysis with an addition of 10% to the weight in the area of 'foundation of startup' was applied. The sensitivity analysis shows that the range of changes in priority in accordance with changes in the weight given to each area of the 6 areas of rural convergence industry startup education was not broad and was within the acceptable range of 3 or 4. As such, the model was found to be robust.

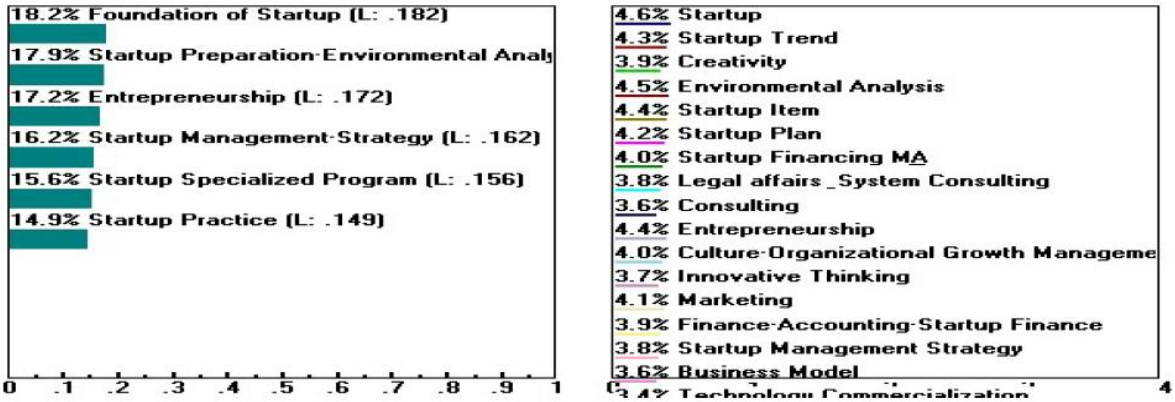

Figure 4: Relative importance 'before sensitivity analysis'

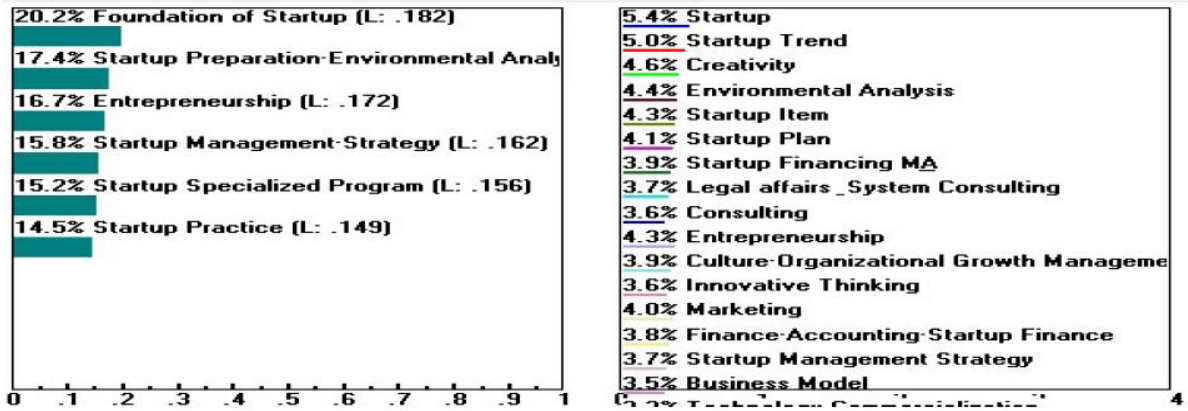

Figure5: Relative importance when 10% was added to the area 'foundation of star

4. Conclusion

This study used AHP(Analytic Hierarchy Process)on 34 subjects consisting of experts in the Gyeongnam region, scholars, entrepreneurs and those wishing to become entrepreneurs to conduct an analysis on the relative importance of factors in rural convergence industry startup education to set a direction for such education programs. The relative importance or priority of areas in rural convergence industry startup education were in descending order, 'foundation of startup', 'startup preparation and environment analysis', 'entrepreneurship', 'startup management strategy', 'startup specialized program' and 'startup practice'. The

ranking for factors were in descending order, startup, environment analysis, startup item, entrepreneurship, startup trend, startup plan, marketing, startup financing and M&A, culture and organizational growth management, agriculture venture, creativity, finance accounting and startup finance, legal affairs and system consulting, startup management strategy, agriculture products marketing, field practice, innovative thinking, consulting, business model, agriculture venture related laws, technology commercialization, agriculture corporation, agriculture venture case, business plan, 6th industry and smart farm. Such findings indicate that although the importance of factors in rural convergence industry startup education is associated with mostly 'foundation of startup', existing education programs are not implemented systematically or efficiently. This shows that expertise of the instructor in the area of 'foundation of startups' must be applied. In particular, factors that rank high in importance, namely, startup, environment analysis, startup item, entrepreneurship, startup trend, startup plan, marketing, startup financing and M&A, culture and organizational growth management and agriculture venture must be taken into account in rural convergence industry startup education programs. The following is suggested for setting an appropriate direction for rural convergence industry startup education based on these findings. First, since those who participate in rural convergence industry startup education programs have had a relatively low exposure to startups, there is a high desire for learning about 'foundation of startup'. As such, the curriculum must be designed to reinforce such basic subjects. Second, in terms of startup preparation and environment analysis, there is a relatively high interest in how to analyze startup trends in the rural convergence industry, how to identify startup items and how to draft startup plans. Such interest must be taken into account when designing education programs. Third, in terms of startup management strategy programs, the relative importance of marketing, finance, accounting and startup finance, startup financing and M&A and business model was ranked high. As such, these subjects must be given priority when designing education programs. Fourth, participants in rural convergence industry startup education programs have a high interest in agriculture venture, agricultural products marketing and field practice programs in particular. As such, such subjects must be incorporated in the design of the education programs. This study may be used in decision-making regarding where to place the relative importance and priority in rural convergence industry startup education as it sought to conclude implications for the future direction of lifelong education and rural convergence industry startup education programs.

References

[1] Sung TK, Lee JS, Kim DS. Identifying the Entrepreneurial Opportunities inthe Process of the Convergence between ICT and Agricultural Foods. Journal of Industrial Economics and Business. 2016, Jun;29(3);1089-1113.

[2] Kostat. go.kr. 2016.

[3] HaKS, Yeo KE. A Study on the Improving Training Program for Entrepreneurship Educators. Asia-Pacific Journal of Business Venturing and Entrepreneurship. 2016, Jun; 11(3):221-231.

[4] Lee TH, Kim HT, Kim YK. An Analysis of Entrepreneurship Programs at U.S. College and Universities: Focusing on Implications for Entrepreneurship Ecosystem of Korean Universities. Asia-Pacific Journal of Business Venturing and Entrepreneurship. 2015, Feb; 10(1):175-185.

[5] Lee IH, Kim HS. A Study on the Entrepreneurship Curriculum Development Model to Systemize Entrepreneurship Education in Entrepreneurial Graduate School. Asia-Pacific Journal of Business Venturing and Entrepreneurship. 2016,Dec; 11(6):131-142.

[6] Lee IH. A Comprehensive Study on Graduate School Education Programs in Korea. Conference of Korea Customs Service. 2015, Feb; 2015:297-307.

[7] Kim HS. A Study on the Convergence Entrepreneurship Curriculum Development. Journal of Digital Convergence. 2015, Mar; 13(3):79-88.

[8] Choi JI, Yang YS. Program Development for Entrepreneurship Education. Asia-Pacific Journal of Business Venturing and Entrepreneurship. 2011, Mar; 7(1):125-134.

[9] Park JH, Kim YT. A Study on the Educational Program Improvement of Graduate School of Entrepreneurial Management. Journal of Management. 2009, Jun; 22(3):1777-1801.

[10] Jeong HB. A Study on the Efficient Design & Practices for the Start-up Education. 2017, Mar; 12(1):23-132.

[11] Jeong TH. As a Now Challenge of Vocational education, entrepreneurship education. Journal of Industrial Skill Education. 1996, Jun; 77:21-41.

[12] Lee WJ, Kim YT, Hwang BY. A Study on the Features of Entrepreneurship Education in Overseas Universities : Case of Five Universities in the United States. Asia-Pacific Journal of Business Venturing and Entrepreneurship. 2013, Mar; 8(1):99-110.

[13] Kang KS. A Study on the Application of Dietary Life Education Programs for Activation of the Rural Convergence Industry. Journal of Digital Convergence. 2017, Jan; 15(1):461-469.

[14] Park YH. Tasks for the Promotion of Entrepreneurship Education in Vocational High Schools. Journal of Vocational Education Research. 2004, Sep; 23(3):83-110.

[15] Lee YS. A Study on Startup Education Programs in Design Junior Colleges Centering around Startup Associations. Journal of the Korean Entrepreneurship. 2017, May; 12(2):335-357.

[16] Mok YD, Choi MG. A Study on the Entrepreneurship Curriculum Development Model to Systemize Entrepreneurship Education in Undergraduate School. Korea Journal of Business Administration. 2012, Apr; 25(2):833-857.

[17] Kwon SY. A Study on the Effect of Agri-Food Potential Entrepreneurs' Personal and Environmental Characteristics on Entrepreneurial Intention. Graduate School of Global Entrepreneurship, Kookmin University. 2016: 67-72.

[18] KREI, Method of startup and Directions for Rural Tourism Development for the Sixth Industry. Jinhan M&B. 2015: 33-42.