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A Thesis for Degree of Master

Enhancing Integrated Media Communications

by uses and gratification theory

**-Focused on University Students' Recruitment media
communications**

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Yokohama, Japan

2010

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1. Introduction

1.1 Research Background

Many kinds of media are showing up in these days. Moreover media method are converging together to get a media synergy effects to meet the users' needs for ubiquitous interface. Compared to past, owing to development of information technology, the power of media is obviously getting stronger to every part of our life. There are, however, plenty of skeptical views if this media integration is really able to enhance people's media satisfaction. Therefore, in this research paper, Media synergy effects validation to enhancing user's satisfaction and willingness to accept various media together will be found out first.

After looking into validation of media synergy effect, focus of research will go to "recruitment media" only. The reason why researching recruitment media is that getting a job is a serious decision for college students, also result of the employment rate is an important part of the education because it is directly connected to awareness and reputation of the college. In fact, employment rate accounted for over 30 percents¹ in the University assessment criteria. In addition to individual and school part, young people's entering to labor market should be significant issue in every country's economy. Hence, there are no other opinions that recruitment becomes more and more important than before.

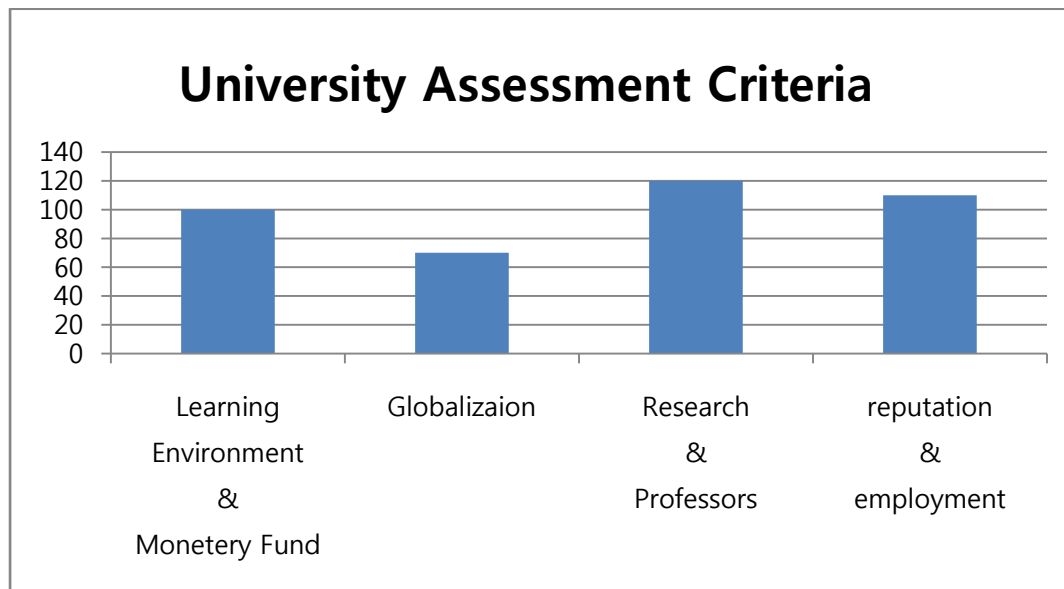


Fig1. University Assessment criteria

Not only educational and management field but also policy part, Government cares about recruitment of college

¹ <http://cafe.naver.com/azitu/425>

students since government has to think entire situation of jobs market for boosting social welfare and quality of citizen's life up. For instance, Ministry of Education, Science, and Technology² allocates over 500 million of dollars of budget for Reinforcement of the Education Capability in Korea and a large parts of this budget is used to support increasing employment rate at each colleges. Also, since 2006, Ministry of Labor has conducted policy of the Supporting College Recruitment Capability (Enhancing Supportive Program for University Career Development system) in every each year. For details of this policy, Ministry of Labor³ allocates about 15 million of dollars of budget to support college student especially because college students' employment is the biggest part of the entire employment in job market. In Japan, Ministry of Health, Labour, and welfare and Ministry of Education, Culture, Sports, Science and Technology are trying to increase employment rate of the college students. Ministry of Health, Labour, and welfare has online job-support site to encourage college students' job finding.

Especially, in this third wave of ubiquitous generation, recruitment process and patterns of searching and using job information has been changing a lot. Job seekers are asked to be positive and active for searching various media efficiently because information is power of people's job hunting and affect hugely final employment.

For these reasons above, job information market has big potential in media field. Even it should be attractive for job seekers, recruiters, media providers, educational service people and government policy makers all. For example, in Korea, people who had experience of using online job sites such as JobKorea, Incruit, and so on are 74.5 percentages of the internet users from 20 ~50 ages. Chi-up Bbo-gae-gi is the biggest job SNS(social network site) in Korea, and it has over millions people as a member, and over one thousand articles are being posted per one day.



Fig.2 Chi-up Bbo-Gae-gi main page

² <http://www.mest.go.kr>

³ <http://www.molab.go.kr>

Japan, Job sites like RikuNabi are connected some companies and portals, so they can inform resource about recruiting and skills for getting a job consequently to offering applying service. RikuNabi has related to about 9 thousand companies and succeeded integration with magazine, web, and mobile. Rikunabi is the one of great case of integration recruitment media.



Magazine



web, mobile

Fig3.Rikunabi magazine

Fig4.Rikunabi web, mobile

In the Unites of States, they have a lot of Job Fairs, and Job Fairs in the U.S. is internally exclusive than job fairs in Korea and Japan thanks to their large space of land. As average, one job fair has 300 companies usually. However, recent trend is changing in the America too. American young job seekers are also trying to use mobile and web service such as www.usajobs.gov, www.jobbankusa.com, www.jobsearchusa.com, and www.monster.com.



Fig5 www.usajobs.gov

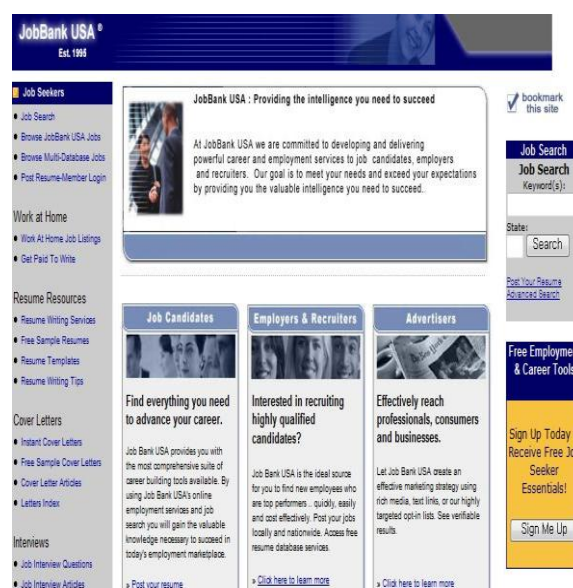


Fig6 www.jobbankusa.com

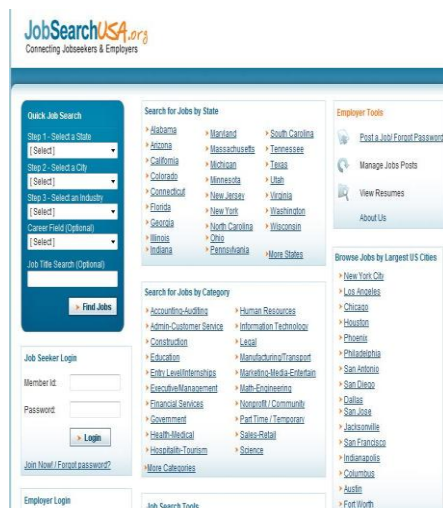


Fig7. www.jobsearchusa.org



Fig8. www.monster.com

as well as participating in job fair. Like this, recruiting service field is energizing by new media and integrated media. So it is time to recognize recruitment media's assessment and users' media usage and satisfaction to provide more effective media service from service providers, educators, policy makers to students and recruiters.

To sum up, this paper is separated into two part of purpose. One is "investigating validation of media synergy effect nowadays." Second is "Recruitment media's media definition and assessment to know each media's satisfaction and way to make the best media synergy effect synario".

1.2 research question, objectives and scope

Even though various recruitment media flat forms are appearing and getting popular over and over, research about investigation to effectiveness of each various media flat form is not conducted yet compare to abundant research about employment supportive program or refine strategy for employment website. To add, Social integrated media marketing communications such as employment or education has not been popular research topic in Integrated Media field which has plenty of papers about Advertising or business marketing. Hence, this paper intend to investigate to value evaluation and satisfaction about many kinds of media which undergraduate levels of job seekers use. By doing so, the most effective way to use integrated recruitment media mix with synergy effect can be seen. To conduct precise research, 20th ages of job seekers behavior were targeted only which means job transfer market was not considered in this paper.

For providing recruitment media investigation's background, Media Synergy Effect's validation will be provided because job seekers are also included in media users. Moreover, it is time to realize users' willingness to accept

media synergy effect nowadays. This background research has 1 research questions which will be realized by Media Experiment in Okinawa, Japan.

Background Research Question 1. By mixing many media together, can users' attitude to media and willingness to use be enhanced?

Based on the background Research Question about media synergy effect, two research questions will be answered through recruitment media assessment.

Research Question 1. What values of various recruitment media communications channels exist?

Research Question 2. What does each value affect for satisfaction about recruitment media communications?

Through beforehand FGI(Focus Group Interview) and literature review RQ1(Existing channel and value) will be identified. After identifying channels and value characteristic, RQ2 will be figured out by Job Camp Experiments and User Survey.

2. Back ground Research about Media Synergy Effect

2.1 Media Synergy Effect literature review

It also is necessary to make clear what media synergy effect is. Synergy is defined as “the interaction of two or more agencies or forces so that their combined effect is greater than the sum of their individual effect” (American Heritage College Dictionary 1997). This synergy is the fundamental concept of integrated marketing communications (IMC) and can be achieved through any of four hierarchical levels (unified image, consistent voice, good listener and world-class citizen (Duncan 1993). Petty and Cacioppo(1986) supported that the number of sources could serve more than a simple peripheral cue that would lead to a conformity effect. Recently, Yuhmin Chang and Esther Thorson figured out the idea of television-Web synergy which produces an effect that is superior to the repetitive ad condition. Especially the television-Web synergy let to higher attention, higher perceived message credibility and a greater number of total and positive thoughts.

2.2. Real Media Synergy Effect Validation

Many papers gave inspiration that media synergy effect has been acting between various channels. It is still, however, lack of knowing about users' attitude and needs about integration media communications because there is controversial view that diverse media can make people confused more than before. In Japan, Oct.2009, Media experiment was conducted in 3 days which was called ICT (Information Communication Technology) experiment. Part of experiment could give proof which can show media synergy affects definitely and positively to media users attitude toward media integration.

2.2.1 Okinawa Media Experiment (belongs to ICT Project) Setting

To identify how users think and have willingness to accept media mix situation, this paper assumed that each media has different characteristics and strengths. Therefore, people can utilize media channels more effectively in media convergence world by choosing the most appropriate media which they need. So with intention to research about media value can boost people's satisfaction more in media mix scenario, ICT project conducted the Media Experiment from 10th Oct.2009 to 12th Oct.2009. First ICT project gave people chance to experience many media together (Digital Signage, One-seg broadcasting (spot area casting), SNS , Felica(Out Of Home media) etc.) in Na-Ha festival. Second, we controlled media value as the independent variable to figure out if people could get higher willingness level. Every media method except Felica(OOH media) was provided in the first day of festival. In 11th, second day, Felica was added to put convenient access in the experiment. The last day, people could write and send their message to Digital Signage which means Interaction had been enhanced more in third day of festival. Through this experiment setting, ICT project tried to see added media value can appeal more to media users in media convergence situation and can enhance users' gratification consequently.

| | Independent variables | Dependent Variables |
|-------------------|---|---|
| First Day | Basic Setting | Willingness and needs to use this media mix situation |
| Second Day | Put Felica(OOH Media) for easier access to Local SNS/One-seg casting window. To get Higher Convenience | Willingness and needs to use this media mix situation |
| Third Day | Put connection between Digital Signage and Mobile Device by messaging system | Willingness and needs to use this media mix situation |

Table1.Okinawa ICT Experiment Setting

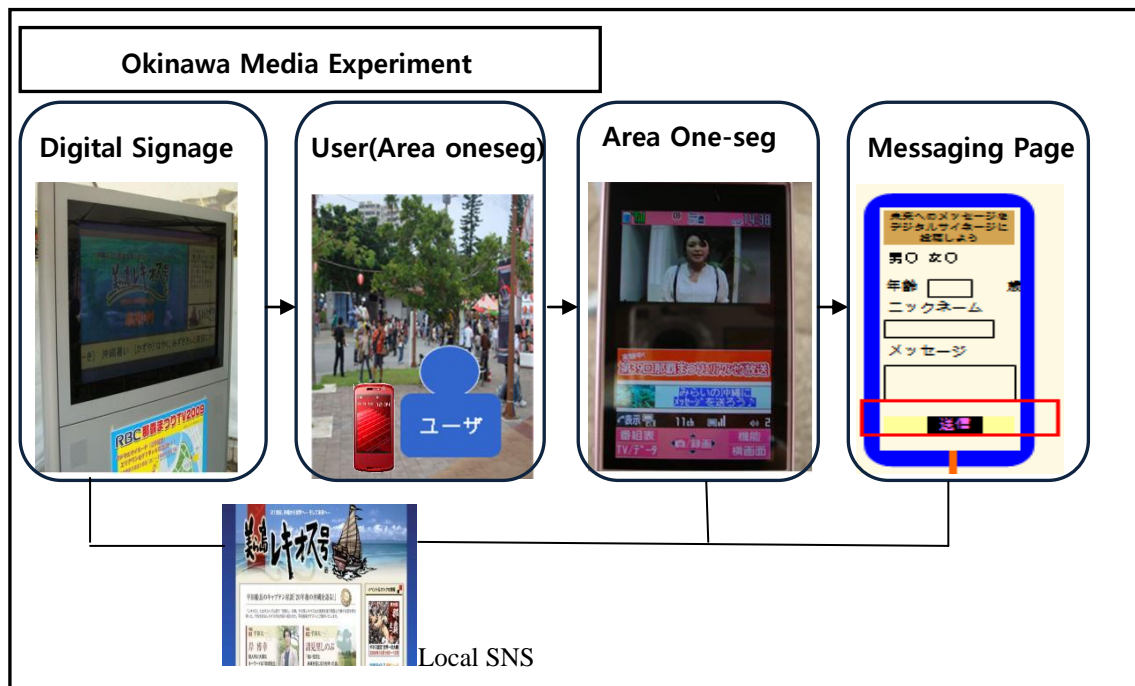


Fig.9 First day Experiment Program (low convenience, low interaction)

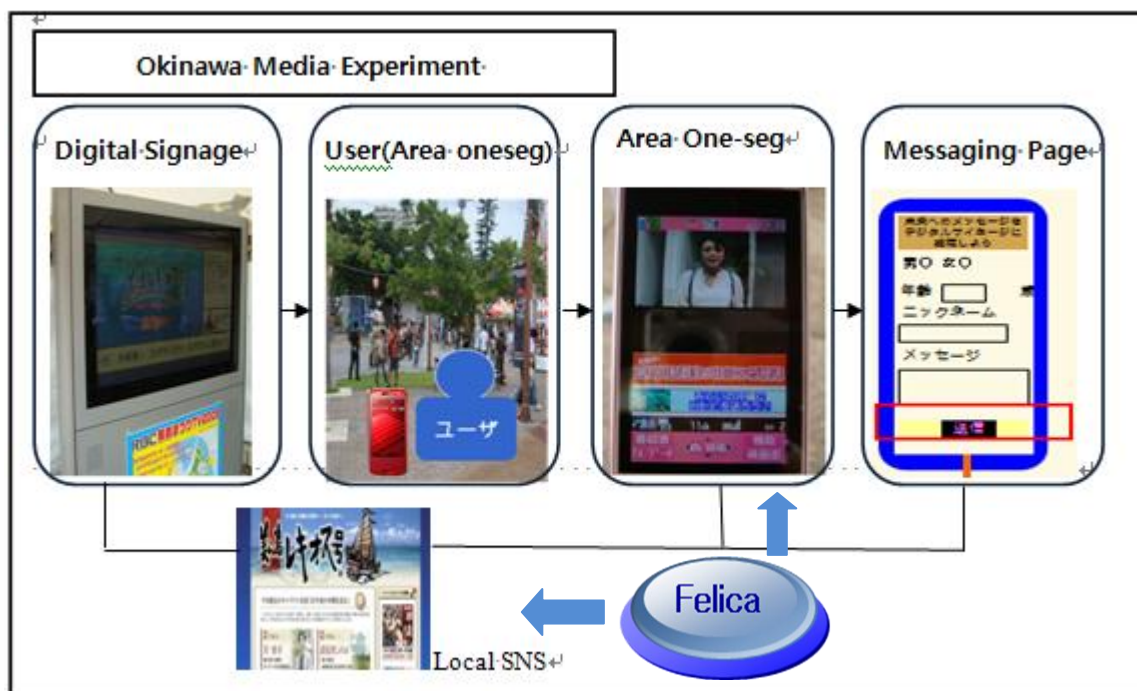


Fig.10. Second day Experiment Program (put higher convenience (with Felica), low interaction)

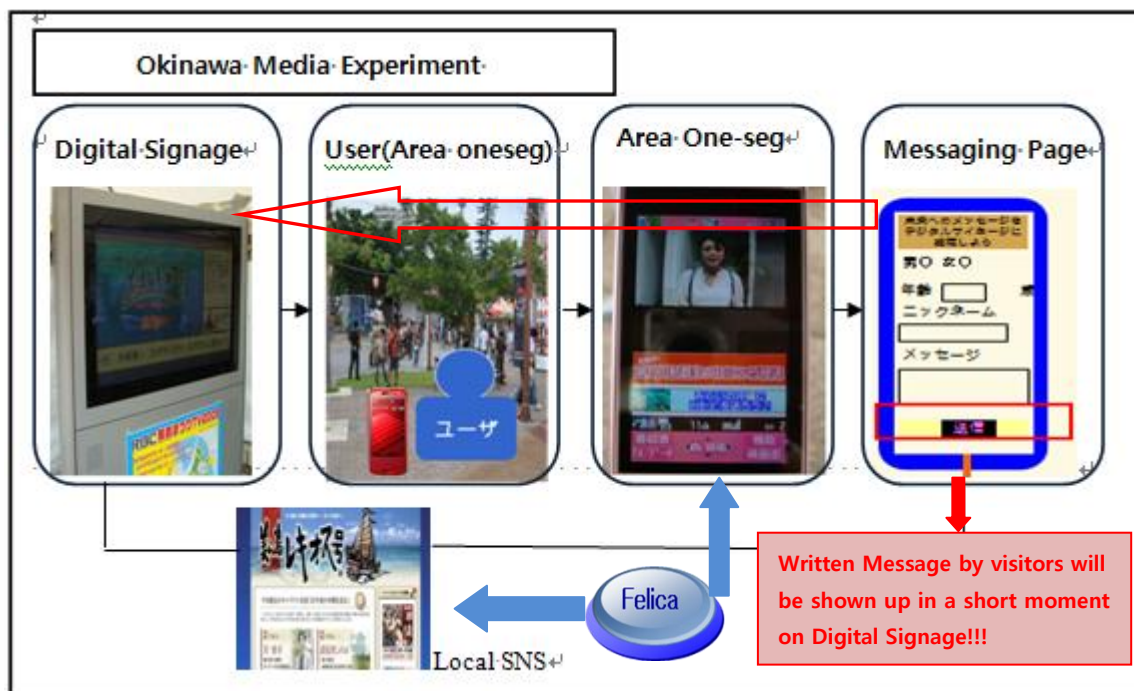


Fig.11 Third day Experiment Program

(Higher convenience (with Felica), higher interaction between messaging page and Digital Signage)

2.2.2. Result from Okinawa Media Experiment (ICT project)

2.2.2-1 Change in Needs and wants level when media value had been added one by one

After controlling independent variables (convenience, interaction) in media mix situation, research on users attitude toward scenario of various media functions was run by measuring users needs. 1 is the highest level of needs and wants and 5 is the lowest level of needs and wants. The lower score is, the higher needs level is.

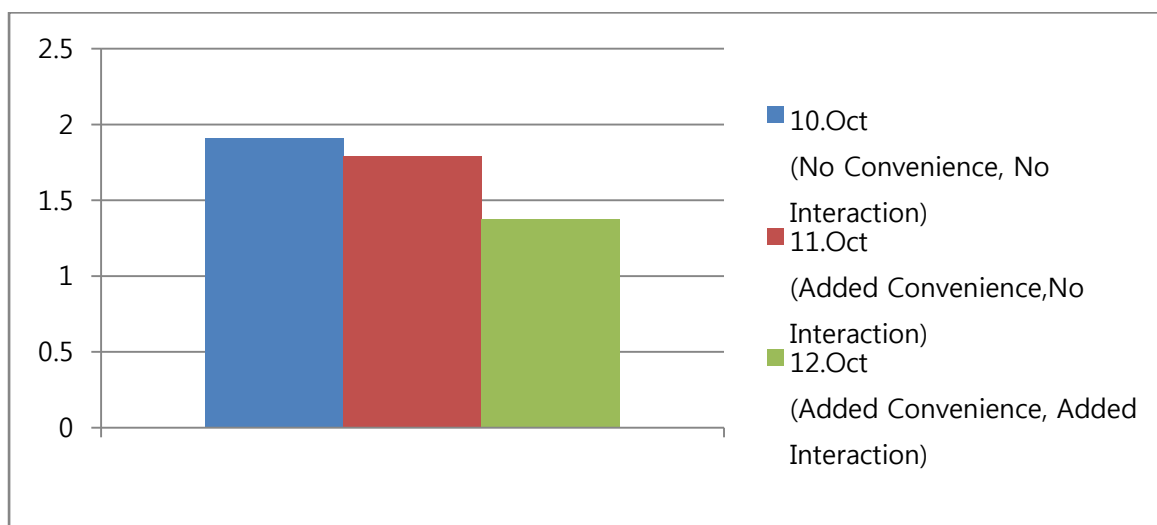


Fig.12 Users' willingness and needs

2.2.2-2 Implication

- (1) Media Users willingness to accept various media mix situation is getting higher when each media value had been added one by one
- (2) By using and converging many media together, Media Synergy Effect to users gratification can be enhanced.
- (3) Interaction appealed relatively more than convenience because changed span shown bigger between 11th .Oct and 12th .Oct than between 10th .Oct and 11th Oct.

2.2.3 Conclusion of background research

Through former paper reading about media synergy effect and Okinawa Media Experiment, this paper could support that integration and convergence media communication can make synergy effect to enhance users' satisfaction and positive attitude to accept. For giving management suggestion, it is recommendable that making users participate more by interaction between media will obtain people's positive attitude. This can transfer to user's brand attitudes. Because of knowing that media synergy effect is valid, it is certain that recruitment media has to be on the purpose of making media synergy effect by integration and convergence between various media. So from now on, this paper will inspect more about recruitment media communications to make best media synergy scenario by assessing each recruitment media channels' value and effectiveness.

3. User Study for Various Recruitment media communications

3.1 The Result of beforehand FGI(Focus Group Interview)

Job Security is playing hard to get in this world of at-will employment, outsourcing and economic upheaval. So, while layoffs in this recession have touched just about every occupation. (usnews) Thus job seekers are trying to use every media that they can access to get better career for their job security. High Quality Information, however, is playing hard to obtain in this flood of media channels and information. Before make set of research, Focus Group Interview (FGI) was conducted to know undergraduate levels of job seekers media usage behavior. FGI interviewee was organized 8 students of 20s' ages who have ever tried job hunting. The list below is the fact which comes from beforehand Focus Group Interview (FGI).

- About getting job information

Internet site, SNS related to Job, books to find job, a career center of school, acquaintance, Tv

‘Job seekers get specific information from SNS, and they frequently check the qualification for application and job offers’

Security is, however, playing hard to get in this world of at-will employment, outsourcing, and economic upheaval. So, while layoffs in this recession have touched just about every occupation, here are seven jobs that may offer a bit more stability:

- Evaluation for each media

It is revealed that information from internet has a merit of speed and broadness, but also has a weakness of reliability and judgment. For the example of Job finding SNS or study group for job finding, they are expected good for sharing information but lack of reliability was the problem.

Even though ‘Books for getting job’ have both of basic qualified information, it is a problem that the information is old. Getting information from acquaintance was regarded good for reliability and high percentage of getting job, but people can only get information of narrow field. A career center of school can give specialized information, but it is hard to have the latest information or information which is exclusive.

‘In spite of internet’s low reliability, it is a good source for job seekers because they can freely find the company or job they want’

‘Job finding board of internet and a job advertisement site are good for checking qualifications of application of various companies. But they are used only for checking job offer because there is lots of false information.’

‘Career center of University can offer the actual field’s HR manager’s mentoring opportunities but they still give very rough information which is not really helpful and efficient’

- Important Factors when using media for finding job

Most of students required a reliability of information, and next specification of information. Also, they answered that quick updated information is important. Besides, information of job and interactive

communication between job seeker and job giver have been issued.

‘I should find rare information quickly, and variety of job is important.

‘I think that it is important to find quick and accurate information, and information should be organized to find easily.’

From FGI results above, rough thought about recruitment media could be recognized. Moreover, It is known that young job seekers have confusions when they are using recruitment media and still wants the appearing of better recruitment service media source. So research the value evaluation and percentage of satisfaction when students find a job is very valuable right this time. To make specific and precise research, classifying and summing up media channel and defining the characteristics value of each media will be conducted.

3.2. Media Definition and Characteristics

3.2.1 Recruitment media

| Off-Line | On-line |
|--|---|
| Face to Face Relationship Peer group Professors Senior | Internet SNS(Social Network Site) Homepage E-mail |
| Paper Materials Books Leaflet Notice on the board Newspaper | Mobile SMS(Short Message Services), Phone call Digital Signage(outdoor AD) TV(Broadcasting) |

Table2. Recruitment media

3.2.2 Characteristics of each media communications

Wiedermann analyzed characteristics of the various communication media in his paper. In these characteristics,

it is a interesting to connect Radio and TV with entertainment. Through this, we can know that job information is difficult to be related to media that is like TV, Entertain. Also, it is found out that the strong point of recruitment site in the internet such as recruitment social network can be interactivity which is occurred by reactions between users.

| Characteristic | Instance | | | | | | | |
|----------------------------|--------------|------------------------|---------------|-------------------|----------|-------------|-----------------------|-------|
| initiation | Push | | | | Pull | | | |
| medium | Print | Outdoor Advertising | Radio | TV | Internet | On- pack | Mobile Device | Other |
| Added Value | Information | | Entertainment | | Raffle | | Monetary incentive | |
| Cost | Premium Rate | | | Transmission Cost | | | None | |
| Opt-in | Conventional | | Electronic | | Mobile | | None | |
| Degree of Interactivity | Dialogue | | | Reaction | | | No Interactivity | |

Table3. Characteristics of each media by Key Pousttchi, Deitmar G. Wiedermann

Besides, Patrick J. Fathy said media can be divided up into Print and Text, Still Graphics and Static Displays, Sound and Music, Video and Animation, Multimedia, The internet, and analyzed character of media by these divisions. If recruiting information, know-how acquisition are interpreted from a 'career learning' angle, his analysis could help understanding characters of the employment communication media.

| | |
|------------------------------------|--|
| Print and Text | <ul style="list-style-type: none"> . Accessible, comparatively low in cost . Online text is easy to produce and translate well across to various media platforms. . Text Messaging is cost effective way |
| Still Graphics and Static Displays | <ul style="list-style-type: none"> . Graphics can increase the motivation of users to attend, prompt perception, aid recall. . Still graphics combine high information content with relatively low production and distribution cost. |

| | |
|---------------------|--|
| | <p>. There is the best expression way to show the graphics such as colors, sizes etc...</p> |
| Sound and Music | <p>. Audio may be more motivating than print alone, and together with print may form a powerful alternative and audio to reading alone (Newby et al.,2000)</p> <p>. Audio conferencing is the relative importance of relationship building VS information exchange.</p> <p>.There are few or no apparent significant immediate recall effects between text-only and text plus audio presentation. Except that sometimes audio may lengthen the time required to complete instruction(Mayer,2001)</p> |
| Video and Animation | <p>.provides quality learning opportunities(as good as or better than those offered by other methods and technologies)</p> <p>.Group-based learning activities may be more attractive and feasible with video technology support.</p> |
| Multimedia | <p>. The term of multimedia has been adopted by the computer industry and re-defined to mean ‘the integration of video, audio, graphics and data within a single computer workstation’(Dates, Harrington, Gilmore&van Soest 1992,p.6)</p> <p>. While multimedia applications offer advantages and benefits, these do not come without costs, awareness of which may help users to make informed decisions about the true advantages of the medium (Grabe & Grabe, 1996, 243-247).</p> |
| The Internet | <p>.The advantages arise from the internet’s enormous capacity to link participants with information and with each other(Haughey & Anderson, 1998)</p> <p>. The Internet is potentially a powerful linking and communication vehicle. Heinich, Molenda, Russell, and Smaldino(1996,P.263) suggest that the Internet’s power lies in its capacity for experiences, suited to individual needs.</p> |

| | |
|--|---|
| | <p>. .the Web's inherent lack of structure may result in some users getting unintentionally "lost in cyberspace" or making poor use of time(surfing," or exploring interesting but irrelevant minutiae)</p> <p>.Two related Internet-based media show particular instructional promise for those with the skill and discipline to use them well, especially in relation to organization and sequencing challenges presented by the Internet : hypermedia and hypertext.</p> <p>. Non print multimedia-based technologies could come to be regarded especially in cultures or industries where high levels of literacy cannot be assumed or there the costs of reading inefficiencies are high. Development such as instant text messaging and e-paper could reverse this trend, giving print and print-based materials new life, at least until e-paper-based multimedia evolve to make text less important once more</p> |
|--|---|

Table4. Each media's Characteristics by Besides, Patrick J.

To sum up, it is good and important to put the right media in the right time and place for different character of the media. Even though it is very effective to use various media, such that using Audio and Text at the same time is better to motivate than using Audio only, it is not effective not to use media right, and also it spends more time that using media right

With these backgrounds above, This paper will conduct research seven media which are used comparably more than others (1)Online Portal Site (3) Face to Face communication(Career Forum, Professors etc..) (4) SNS(Social Network Site) (5) printed media (6) Mobile Services(SMS, Phone Call) (7) E-mail service and as this research, it is expected to get to know what kind of the job media is the most significant media to get synergy effect.

4. Literature Review and Theoretical Framework

Uses and Gratification Theory

Even though Uses and Gratification theory(U&G) developed in research on the effectiveness of the radio medium

in the 1940s and oriented from mass communication field, it is still powerful theoretical frame to know psychological behavior of media users. U&G approach was developed to study the gratifications that attract and hold audiences to the kinds of media and the types of content that satisfy their social and psychological needs (Cantril, 1942).

There could be some mass communications scholars who contended that uses and gratifications is not a rigorous social science theory. But Thomas E. Ruggiero (2000) assured that the future direction of mass communication theory must include the uses and gratification approach. It is not only applied to mass communication but also computer-mediated communication (e.g. Internet).

In 2002, Xueming Luo used the Uses and Gratifications theory to make Structural Equation Modeling(SEM) on E-consumers behavior. He showed the U&G theory still give cutting-edge approach to media related study in the modern society either. So with users and gratification theoretical framework, the first Hypothesis was set.

H1. Media which can make higher gratification can get users' media usage and preference more

Proving H1 can give many recruitment media service providers and policy makers the tips how to make better media source to obtain media users' preference by making higher satisfaction ratio.

Informative, Convenience and Personalization

Kyong-Hee Jeong and Hyong-Rae Kim proposed that the quality of job information site be determined by users' satisfaction. Furthermore, the Factors which impact to users' satisfaction are Quality of information (richness, details, credibility, variety), delivery (searching convenience, accuracy, membership, posting convenience, good manual, personalization) and environment (shifting speed of page, well-organized menu, design). Fig. shows the structure of importance and satisfaction for job seekers.

H2. Informative (Quality of Information) is positively affect to undergraduate level of job seekers' media satisfaction

H3. Convenience (Updating Speed, User Interface) is valuable factors for undergraduate level of job seekers when they use recruitment media communications

H4. Personalization is the key factor which makes higher user satisfaction with recruitment media communications

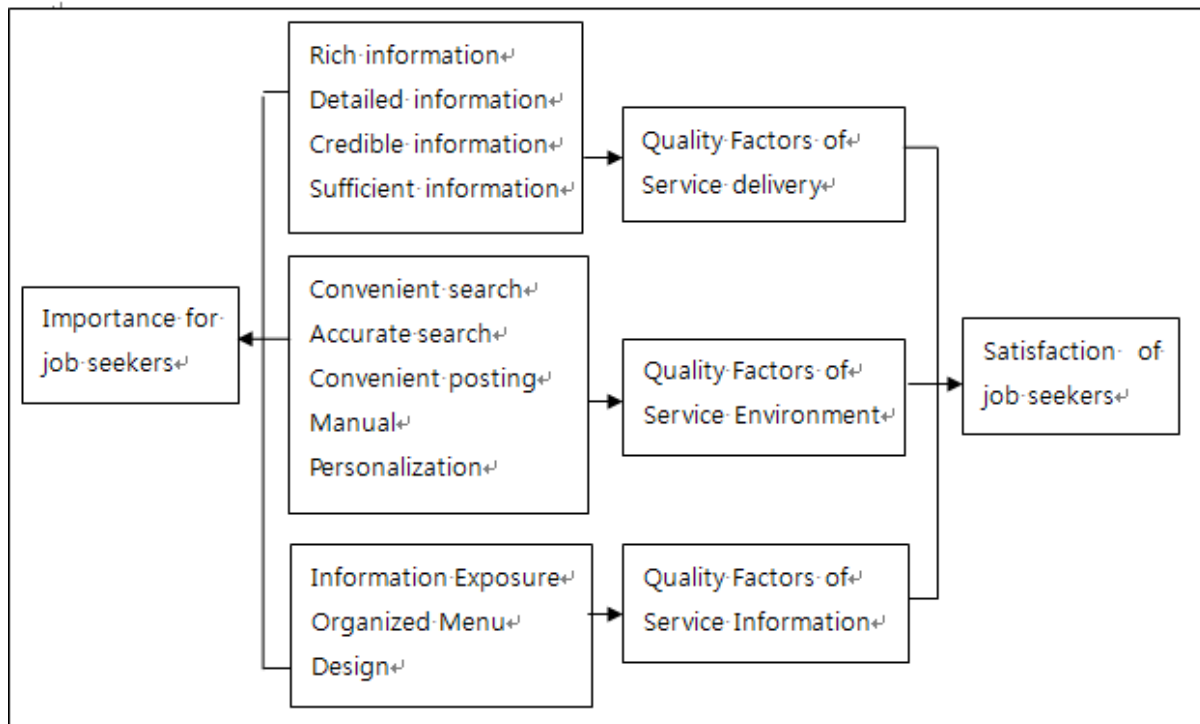


Fig13. Importance and satisfaction for job seekers

Thomas F. Stafford and Marla Royne Stafford and Lawrence L. Schkade(2004) found out that 3 dimensions of consumer Internet user and usage gratifications among customers of a prominent Internet Service Provider(ISP) are Process, gratification as previously found in studies of television and social gratification that is unique in internet world. This social gratification will be related to interactivity of online contents which job seekers use to share recruiting information together.

H5. Interactivity (social gratification) is important factor to make undergraduate level of job seeks be satisfied

Dominant theory about communicating equivocal messages is the media richness theory (Daft & Lengel, 1984; Dafe, Lengel & Trevino, 1987) which includes media richness appears to be significant in the recruitment context because (a) it specified the essential attributes that differentiate communication media and (b) richer media (e.g. face-to-face interactions) makes more effect than leaner media(e.g. brochures) at transferring equivocal

information.

H6. Media richness positively affects to undergraduate level of job seekers' media satisfaction.

But media richness theory does not incorporate the issue of believability of a medium based on the information source. Credibility is an important factors to consider when predicting how an information source affects an audience (e.g., Breaugo&Starke,2000; Cook 1979:Johnson & Kaye. 1998; Meyer, 1988) This credibility is also valuable attribute for job seekers because recruiters can be regarded as job sellers(Fisher, Ilgen & Hoyer, 1979) Thus richness and credibility perceptions may be important in predicting communication effectiveness. Even Allen et al.(2004) pointed out that perceived credibility was related to several media attributes(e.g., two-way communication, personal focus).

In 2006, Daniel M. Cable and Kang Yang Trevor Yu reinterpreted the richness theory and credibility to adjust to Job seekers media usage behavior related to Organizational beliefs. This paper showed that different types of media represent different levels of richness and credibility to job seekers and perceived richness and credibility bring their effectiveness.

H7. Media Credibility is the positive attribute to undergraduate level of job seekers' gratification

Therefore, this paper will test 6 of hypothesis applied to each of 7 channels [Online Portal Site (3) Face to Face communication (Career Forum, Professors etc..) (4) SNS(Social Network Site) (5) printed media (6) Mobile Services(SMS, Phone Call) (7) E-mail service]. Then it is expected to figure out the significant satisfaction factor of each channel and what value should be mixed to grab job seekers media usage more.

5. Research Methodology

5.1 User survey about satisfaction rate for each media channel and value

138 people in Japan, Korea and the U.S joined user survey about satisfaction rate for each media channel and value. In survey, Each Media Values was evaluated according to 5 levels of evaluation criteria (5(high)-1(low)).

Also, Users gave their preference ranking to 7 media channels (Portal, Community, E-mail, Paper Media,

Mobile Messaging Services, Phone Call, Face to Face Communications). Through Frequency Analysis (SPSS) about ranking's descriptive statistics, this study could know job seekers media preference. It is necessary, however, to know each of media's value and satisfaction rate to make clear which media value affect to users satisfaction more and preference. Therefore, the survey got user's attitude average about 6 media values (Informative, Convenience, Personalization, Interactivity, Media Richness and Credibility) to 7 media channel. After all steps completed, regression was run to know relationship between media value and satisfaction.

It is expected that the best Media Mix which makes the most effective Synergy among various integrated media mix in this convergence world will be known through this survey. Fig Below will be show the whole factor analysis flow and conceptual maps

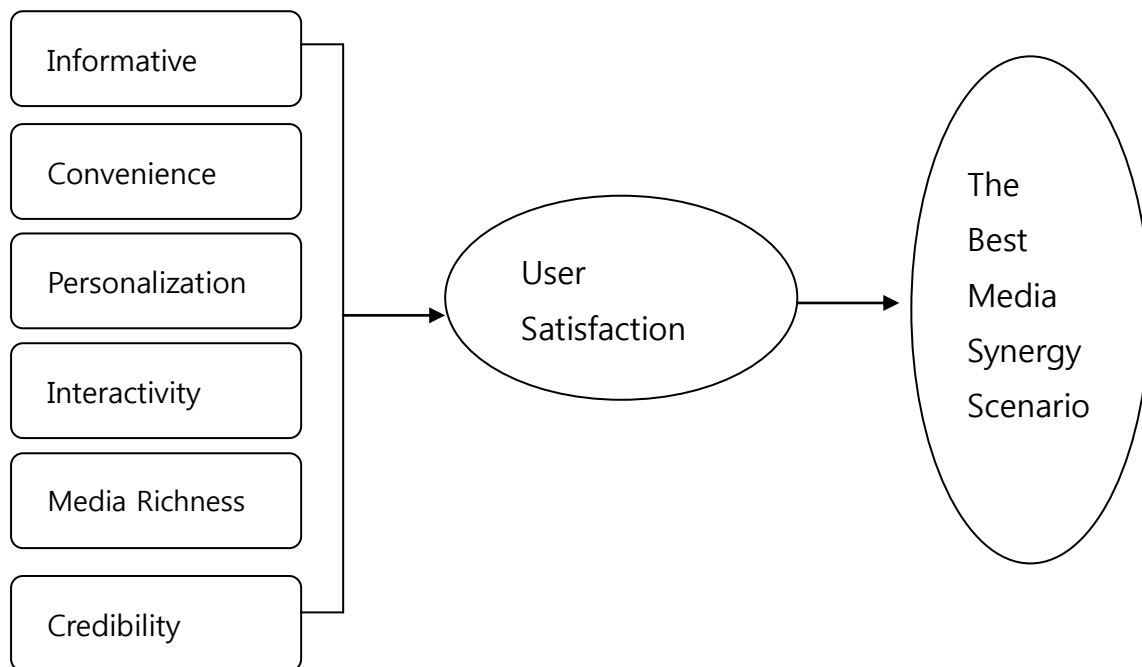


Fig14. Whole factor analysis flow and conceptual maps

5.2 Job Camp Registration Experiment in Seoul, Korea

To see the undergraduate levels of job seekers real behavior, Experiment was conducted 2009 Nov 16 to Dec 16. Over 8000 undergraduate level of Korean students got job camp information from various media communications in this period. Among them 100 students give their willing to participate in job camp. After Camp, Satisfaction survey was run. Registration for camp is available only through university career center's webpage. Information's context was same but length of information was different. The promotion period of each media is arranged arbitrarily but basically broad media source used first then had been changing to narrow to personal

media. Assumed Media Value Rate was from the result of 1st research methodology of user survey. The reason why we assumed media value rate in this part would be same from the result of media user survey was that similar target group (20th, young job seekers) was set through over the research.

Media 1. Internet Webpage

(University announcement board/Career Center announcement board and pop-up window)

(1) Exposure period: 2009.11.16~2009.11.19

(2) Form : HTML Text

(3) Assumed Media Value Rate

Informative (Quality of Information) : medium - high

Convenience : medium - high

Personalization : medium

Interactivity (Social Gratification) : medium

Media richness : medium-high

Credibility : medium

Media 2. Mobile SMS

(Sending to over 1000 students regularly)

(1) Exposure period : 2009.11.16~2009.11.19 regularly

(2) Form : Short Message Service/Text

(3) Media Value Rate

Informative (Quality of Information) : Medium-low

Convenience : Medium

Personalization : Medium

Interactivity (Social Gratification) : Medium-low

Media richness : medium-low

Credibility : medium

Media 3. Mobile Phone Call

(Call to over 70 students)

(1) Exposure Period : Dec.4/Dec.14

(2) Form : Voice

(3) Media Value Rate

Informative (Quality of Information) : med-low

Convenience : medium

Personalization : medium

Interactivity (Social Gratification) : medium-high

Media richness : med-low

Credibility : medium-low

Media 4 E-mail

(Send to over 8000 Students)

(1) Exposure Period : Dec.3/Dec.11

(2) Form : HTML Text

(3) Expected Media Value

Informative (Quality of Information) : medium

Convenience : Medium

Personalization : Medium

Interactivity (Social Gratification) : Med-Low

Media richness : Medium-Low

Credibility : Medium

Media 5 Digital signage in the university

(Internet Based Digital Signage in front of Elevator in the most crowded building)

(1) Exposure Period : Nov.30 ~Dec.5

(2) Form : PowerPoint File

(3) Expected Media Value

Informative (Quality of Information) : Medium-low

Convenience : Medium-High

Personalization : Low

Interactivity (Social Gratification) : Low

Media richness : medium

Credibility : low

Media 6 Brochure (A sheet of papers to 1000 students in the University)

(1) Exposure period : Nov25/ Nov26/ little bit over the whole period

(2) Form : Pictures and Texts

(3) Media Value Rate

Informative (Quality of Information) : Medium-high

Convenience : Medium

Personalization : Medium-low

Interactivity (Social Gratification) : Low

Media richness : medium

Credibility : Medium-high

Media 7 Face to Face communication (Professors, Friends etc)

(Professors mentioned, Administration officer recommended)

(1) Exposure period : Dec2/Dec3

(2) Form : Video with PPT Materials

(3) Media Value Rate

Informative (Quality of Information) : Medium-High

Convenience : medium

Personalization : Medium-high

Interactivity (Social Gratification) : Medium

Media richness : Medium

Credibility : High

6. Result

6.1. Result from User survey

6.1.1 Evaluated Media Value and Satisfaction for 7 Media channels through User survey

138 people give their scores about 6 media values which affects to satisfaction to 7 media channel each. In this part of the survey, 5 means highly satisfied, 1 means lowly satisfied. Also, Entire satisfaction rate was answered by same 138 people. Table4 shows the average of scores. For your easier comparing, Graphs(Figure14) will be provided after the Table4.

| Value | Portal | MMS | Tele | Email | community | Press | Face |
|-----------------|--------|------|------|-------|-----------|-------|------|
| Information | 3.87 | 2.51 | 2.54 | 3.33 | 4.09 | 3.45 | 3.92 |
| Convenience | 3.87 | 2.98 | 2.69 | 3.36 | 4.01 | 3.2 | 3.33 |
| Personalization | 3.44 | 2.72 | 2.76 | 3.12 | 3.69 | 3.01 | 3.96 |
| Interactivity | 3.21 | 2.43 | 3.07 | 2.83 | 3.83 | 2.69 | 4.14 |
| Richness | 3.7 | 2.4 | 2.51 | 2.95 | 3.79 | 3.12 | 3.52 |
| Credibility | 3.24 | 2.62 | 2.78 | 2.99 | 3.28 | 3.63 | 4.16 |
| Satisfaction | 3.59 | 2.54 | 2.58 | 3.04 | 3.77 | 3.25 | 3.82 |

Table5. Average score of media values and satisfaction rate

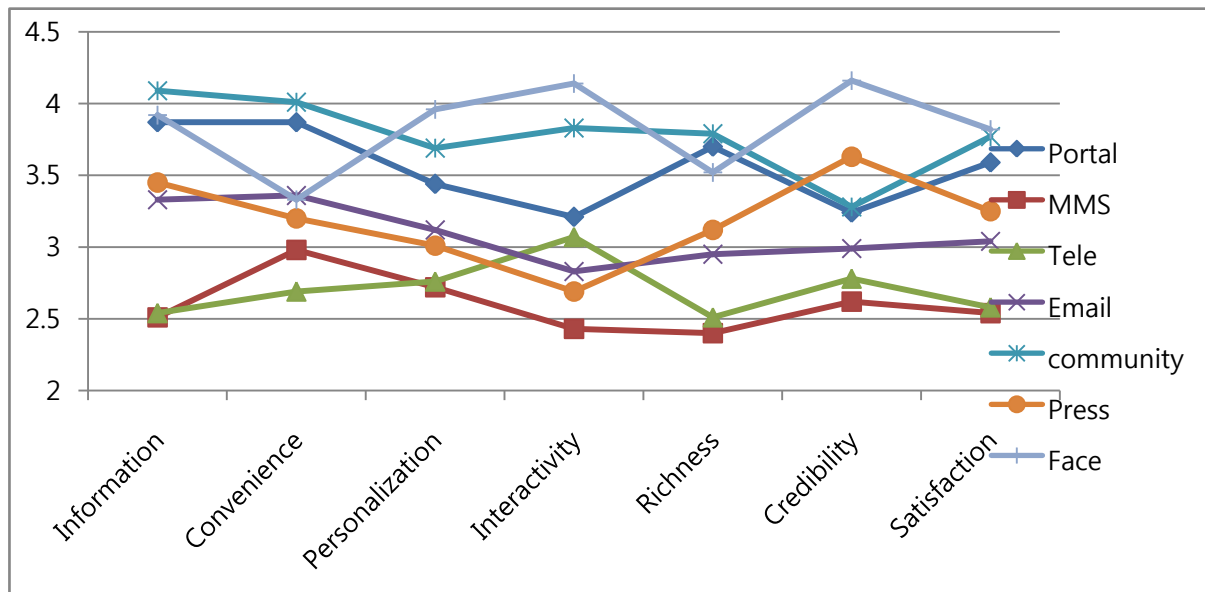


Fig15. Graphs between average score of media values and satisfaction rate

6.1.2 Users media Preference

In addition to assessing media value, 138 people made the rank their media preference between 7 media (Portal, MMS, Telephone calling, E-mail, Community site, Press (paper media), Face to Face communication). 1 shown the most favorite media on the opposite side, 7 means the least favorite media. Frequency analysis was used to figure out the ranking.

Frequency Analysis about media Preference

| | Portal | Community | E-mail | Mobile | Press | Face | Telephone |
|---------|--------|-----------|--------|--------|-------|------|-----------|
| N Valid | 138 | 138 | 138 | 138 | 138 | 138 | 138 |
| Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Average | 2.10 | 2.42 | 4.30 | 5.38 | 4.30 | 3.80 | 5.68 |

Table6. Media preference

According to lowest average, **Portal > Community > Face to Face communications > E-mail = Press > Mobile Messaging Service > Telephone calling** is the ranking about media preference.

6.1.1 and 6.1.2 showed that H1 which is “Media which can make higher gratification can get users’ media usage and preference more” was not supported. People have more satisfaction to face to face communication and community because its credibility, interaction and personalization are high. In spite of that, people prefer Portal more because its convenience and quantity of information is high. This can give many implications to managers of service provider. Even though they are offering convenient services online, it is still need to back up face to face communications strength for meeting media users’ wants and needs. Smart Phone and Virtual systems can be supplementation. This suggestion will be given more specifically later on.

6.1.3 Regression analysis to draw satisfaction model for each media

To figure out significant factors that influence satisfaction, multi regression analysis was applied to user survey data. It is founded out that. Each of 7 media have different contribution model for enhancing users’ gratification. Also, Hypothesis 2 to 7 has been tested toward each of media channel. Some hypothesis was supported and others were not supported. Through this fact, business people and policy makers can recognize which value has to be put together to make better recruitment media services. This study choose the best model when P-value shown up from 0.01~0.05.

Media1. Portal

Yi(overall satisfaction)

$$= 0.739 + 0.133X_{\text{personalization}} + 0.265X_{\text{trust}} + 0.223X_{\text{convenience}} + 0.183X_{\text{richness}}$$

Model Summary

| Model | R | R*R | Standard Error |
|-------|-------|------|----------------|
| 1 | .506a | .256 | .550 |
| 2 | .633b | .401 | .495 |
| 3 | .696c | .484 | .461 |
| 4 | .735d | .540 | .437 |
| 5 | .749e | .561 | .429 |

a. estimated value : p-p

b. estimated value : p-p, p-t

c. estimated value : p-p, p-t, p-c

d. estimated value : p-p, p-t, p-c, p-r

e. estimated value : p-p, p-t, p-c, p-r, p-i

Model 4 mixed with **Personalization, Credibility(Trust), Convenience, Richness** supports the best gratification scenario with 73% of reliability. About hypothesis investigation, H3(convenience), H4(Personalization), H6(richness), H7(credibility) were supported. But H2(informative), H5(Interactivity) were not supported.

Media 2. Mobile Messaging Service

$$Y_m(\text{overall Satisfaction}) = 0.329 + 0.333X_{\text{trust}} + 0.276X_{\text{interaction}} + 0.267X_{\text{informative}}$$

Model Summary

| Model | R | R*R | Standard Error |
|-------|-------|------|----------------|
| 1 | .757a | .573 | .532 |
| 2 | .825b | .680 | .462 |
| 3 | .849c | .720 | .434 |
| 4 | .856d | .733 | .426 |

a. Estimated value : m-t

b. Estimated value : m-t, m-ia

c. Estimated value : m-t, m-ia, m-i

d. Estimated value : m-t, m-ia, m-i, m-c

Model 3 mixed with **Credibility(Trust), Interaction, Informative** supports the best gratification scenario with 72% of reliability. Mobile Messaging Service test, H2(informative), H5(interactivity), H7(Credibility) were supported. But H3(convenience), H4(Personalization), H6(Richness) were not supported.

Media 3. Telephone Calling

$$Y_t(\text{Overall Satisfaction}) = 0.313 + 0.230X_{\text{personalization}} + 0.343X_{\text{richness}} + 0.251X_{\text{interaction}}$$

Model Summary

| Model | R | R*R | Standard Error |
|-------|-------|------|----------------|
| 1 | .786a | .617 | .540 |
| 2 | .843b | .710 | .472 |
| 3 | .865c | .748 | .442 |
| 4 | .877d | .770 | .423 |

a. Estimated value : t-p

b. Estimated value : t-p, t-r

c. Estimated value : t-p, t-r, t-ia

d. Estimated value : t-p, t-r, t-ia, t-i

Model3 mixed with **Personalization, Richness, Interaction** supports the best gratification scenario with 75% of reliability. Therefore H4(personalization), H6(Richness), H5(interaction) was supported by telephone calling user survey. On the opposite, H2(informative), H3(Convenience), H7(Media Credibility) was not supported.

Media 4. E-mail

$$Y_e(\text{Overall Satisfaction}) = 0.510 + 0.411X_{\text{interaction}} + 0.411X_{\text{informative}}$$

Model Summary

| Model | R | R*R | Standard Error |
|-------|-------|------|----------------|
| 1 | .699a | .489 | .561 |
| 2 | .789b | .623 | .484 |
| 3 | .810c | .657 | .463 |
| 4 | .819d | .671 | .455 |
| 5 | .826e | .682 | .449 |

a. Estimated value : e-ia

b. Estimated value : e-ia, e-i

c. Estimated value : e-ia, e-i, e-r

d. Estimated value : e-ia, e-i, e-r, e-t

e. Estimated value : e-ia, e-i, e-r, e-t, e-c

Model2 mixed with, **Interaction, Information** supports the best gratification scenario with 79% of reliability. In this part, H5(Interaction), H2(informative) were only supported and other 5 Hypothesis(H3-convenience ,H4-personalization,H6-richness,H7-credibility) were not supported.

Media5. SNS Site(Community)

$$Y_c(\text{overall satisfaction}) = 0.6 + 0.208 X_{\text{personalization}} + 0.284 X_{\text{trust}} + 0.203 X_{\text{richness}}$$

Model Summary

| Model | R | R*R | Standard Error |
|-------|-------|------|----------------|
| 1 | .649a | .421 | .556 |
| 2 | .747b | .558 | .488 |
| 3 | .783c | .612 | .458 |
| 4 | .802d | .643 | .442 |

a. Estimated value : c-p

b. Estimated value : c-p, c-t

c. Estimated value : c-p, c-t, c-ia

d. Estimated value : c-p, c-t, c-ia, c-r

Model4 mixed with **Personalization, Credibility(Trust), Interaction, Richness** supports the best gratification scenario with 80% of reliability. SNS supported H4(Personalization), H7(credibility), H5(interaction), H6(richness) but did not supported H2(informative), H3(convenience).

Media6. Paper Media(press)

$$Y_p(\text{overall satisfaction}) = 0.468 + 0.282 X_{\text{informative}} + 0.306 X_{\text{personalization}} + 0.244 X_{\text{trust}}$$

Model Summary

| Model | R | R*R | Standard Error |
|-------|-------|------|----------------|
| 1 | .594a | .353 | .559 |
| 2 | .690b | .476 | .505 |
| 3 | .740c | .547 | .471 |
| 4 | .753d | .567 | .462 |

a. Estimated value : p-i

b. Estimated value : p-i, n-p

c. Estimated value : p-i, n-p, n-t

d. Estimated value : p-i, n-p, n-t, n-c

Model 3 mixed with **Informative , Personalization, Credibility(Trust)** supports the best gratification scenario with 74% of reliability. Very traditional media, paper media, was supported by H2(informative),

H4(Personalization), H7(Credibility) but was not supported by H3(convenience), H5(interactivity).

Media7. Face to Face Communication

$$Yf(\text{Overall satisfaction}) = 1.223 + 0.624X_{\text{trust}}$$

Model Summary

| Model | R | R*R | Standard Error |
|-------|-------|------|----------------|
| 1 | .591a | .350 | .613 |
| 2 | .727b | .528 | .524 |
| 3 | .755c | .571 | .501 |
| 4 | .773d | .598 | .487 |
| 5 | .786e | .618 | .477 |
| 6 | .793f | .629 | .471 |

a. Estimated Value : f-t

b. Estimated Value : f-t, f-c

c. Estimated Value : f-t, f-c, f-i

d. Estimated Value : f-t, f-c, f-i, f-ia

e. Estimated Value : f-t, f-c, f-i, f-ia, f-r

f. Estimated Value : f-t, f-c, f-i, f-ia, f-r, f-p

Model 1 only including **trust** supports the best gratification scenario with 59% of reliability. Amazingly interesting result is only H7(credibility) was supported by face to face communication usage. Other 5 Hypothesis(H2-informative, H3-convenience, H4-personalization, H5-interactivity, H6-richness) were not been supported.

To sum up and show how to make synergy effect when various media mixed, Table^{^^} arrange the result above. By making all part of media value filled, media provider can develop their service better. Also, Table^{^^} show the Key successful factor of recruitment media is “**Credibility (5 filled) > Interactivity(4 filled)= Personalization(4 filled)**”. Therefore, Strengthening 3 of key successful factors is recommendable to be focused for who wants to recruitment media innovator.

Example of Media Synergy Effect Function

Mobile Messaging Service = Informative + Interactivity + Credibility

Mobile Messaging Service + SNS = Informative + Interactivity + Credibility + Personalization + Richness

So, it can be proved,

⇒ **Mobile SNS Service** including portal information (enhancing convenience) must be effective to job seekers.(High Demand)

Media Synergy Effect Key Successful Factor

| | Informative | Convenience | Personalization | Interactivity | Richness | Credibility |
|-------------------|-------------|-------------|-----------------|---------------|----------|-------------|
| Portal | | | | | | |
| Mobile Messaging | | | | | | |
| Telephone Calling | | | | | | |
| E-mail | | | | | | |
| SNS | | | | | | |
| Paper | | | | | | |
| Face to Face | | | | | | |

Table7. Media Synergy Effect Key Successful Factor

6.1.4 Implication through user survey

- (1) Satisfaction of each 7 media has different composition of media value. So that, for developing media mix scenario, it has to be considered each significant media value which affect to users gratification.
- (2) Beyond our expectation, Preference and Satisfaction ranking is found out to be different
- (3) Preference is dependent on Convenience more.
- (4) Satisfaction is dependent on Personalization, Interaction more.

6.1.5 Management & Technology implication and suggestion

For recruitment service provider, it will be very effective if they will offer more personalized and interactive recruitment communication more through IT services. Despite of face to face communication's high satisfaction rate, going back to past and emphasizing direct communication media is truly out of date. Therefore, new paradigm of recruitment media has to be developed by utilizing new, emerging media. Smart phone such as i-phone(apple), android should be used to enhance personalized, interactive communication. Users can always check the employment information which they are interested in and sharing immediately through the smart phone. Also, these 3 generation and 4 generation phone is offering services of video call. People can use this more for virtual face to face communication.



i-phone



Android phone

Fig.16. i-phone

Fig.17. Android phone

In addition to service provider, human resource managers in plenty of company can make HRM strategy through new media. One good example can be “virtual job fair”. Job Seekers may prefer to use online communication even though they want to get personalized and credible information through direct communication. Virtual Job Fair and Career Forum can meet these two different needs. Moreover, globalization make HRM department do global recruiting. To get global human resources who can handle very up-to-date media well, virtual job fair and career forum must be effective way for the multinational company. It is already started in the U.S, Japan, Korea. As for the future research, effectiveness of this alternative recruitment media has to be conducted.

Japan

*WITHNAVI / Virtual United Job Fair(connected to Rikunabi)⁴



Fig.18withnavi


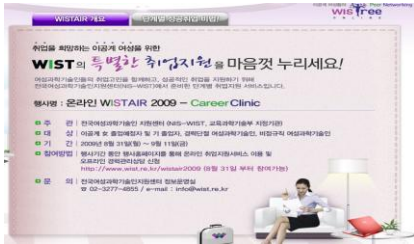


*Posical island/First virtual Job Fair in Japan⁵



Fig19.posical island

⁴ <http://job.withnavi.org/2011/virtual/index.html>

⁵ <http://island.posical.com/kiyaku.html>

| | |
|-----------------------|--|
| <p>Korea</p> | <p>*GS Caltex Online Job Fair/ First Online Interactive Job Fair in Korea(Sep.15.09)⁶</p>  <p>Fig20.GS Caltex online Job Fair</p> <p>*NIS WIST Online Career Clinic for woman (Aug.31.09 ~ Sep.11.09)⁷</p>  <p>Fig21. NIS WIST Online Career Clinic</p> |
| <p>America</p> | <p>*Virtual Job Fair hosted by TMP Worldwide /May,2007⁸</p> <ul style="list-style-type: none"> - Participant: Microsoft co, Hewlett-Packard Co, Verizon Communications Inc and Sodexho Alliance SA, a food and facilities-management services company.  <p>TMP Worldwide Fig22.TMP worldwide Virtual Job Fair</p> <p>*Virtual Career Expo.com/offering 3D services as well⁹</p>  <p>Fig23.Virtual Career Expo.com</p> |

⁶ <http://yumemiruyo.tistory.com/385>

⁷ <http://www.wist.re.kr/wistair2009/index.htm>

⁸ <http://www.wist.re.kr/wistair2009/index.htm>

⁹ <http://www.virtualcareersexpo.com/>

Although management strategy be set, it cannot be possible unless technological support. Therefore, technology development which makes people feel real in virtual world needs to put up with business field together. As more needs of new type of recruitment media comes out, more technological demands and development comes out too.

6.2. Result from Job Camp registration Experiment in Seoul, Korea

6.2.1 E-mail sending result

| Sending Date | Number of Sended E-mail | Received E-mail |
|--------------|-------------------------|-----------------|
| Dec.03 | 7913 mails | 473 mails(5.9%) |
| Dec.11 | 7915 mails | 287 mails(3.6%) |

Table8. E-mail Sending Report

6.2.2 Whole Period Registration Flow

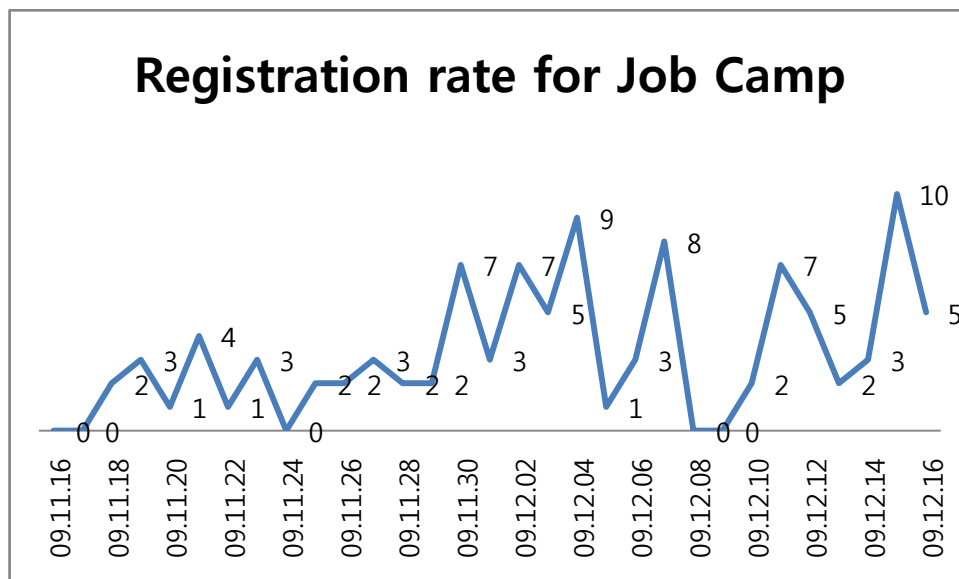


Fig24. Registration Flow for Job Camp

6.2.3 Implication through Job Camp registration experiment in Seoul, Korea

(1) Digital Signage was effective in 2~3 days

(University Student is likely to adopt New Method easily than others)

(2) Phone Calling got an instance response

(3) Student ID E-mail was not effective because student does not check it frequently. However, as we saw at user survey, E-mail was 4th preference and 4th Satisfaction media. This means Students are likely to use

their personal account from internet service provider because it is more convenient and one-stop services.

(4) Professors recommend affected positively because credibility of information was high. This can connected to user survey's result as well. Face to Face communication was the most satisfactory media because of higher trust.

6.2.4 Design and Policy implication and Suggestion

Job Camp is the supportive program to enhance young students' getting a job. It can also be with the government policy program. As 20th job seeker's attitude towards new media is getting higher, policy maker need to consider offer various media together for boosting job seeker's welfare. Also, quality of information exchange should affect whole labor market by making smooth connecting between job seekers and recruiters from company.

In this case of management, policy and technology development, contents and user interface design has to go together. Designers can make better user interface to help people find more personalized and credible information for their selves in media integration scenario.

7. Conclusion

Media in General

As for the basis for this paper, media synergy effect in the situation of integrated various media was identified because it was necessary to figure out users real attitude and wiliness to accept media mix scenario in these days. To do this base research, Okinawa ICT Project experiment was conducted. In Okinawa ICT experiment, Digital Signage, One-seg, local SNS was prepared in 1st day for the basic setting. In 2nd day, independent variable of convenience through felica which is OOH media making quick automatic access was added. In 3rd day of experiment, another independent variable of interaction through connection between digital signage and one-seg was put. This experiment setting shows users willingness and attitude (dependent variable) changes. Therefore, the basis of this paper, media synergy effect's validation, was identified.

There will be controversial view about how can Japanese case apply to other situation? In spite of limited area, globalization makes world's media users' behavior get more similar. For example, twitter, i-phone are making bit hit all over the worlds and global citizens are communicating every day in the internet just like there is no geographical restriction. Hence, it can be available to other cases either.

Media in specific, recruitment media

This paper focused on recruitment media only because Getting a job, Hiring great person, Supporting labor Market are the serious problem for young job seekers, companies and government. With this view, plenty of media's missions should be enhancing users' media usage and satisfaction according to uses and gratification theory that is still effective in media study field. So, [Research Question 1] What values of various recruitment media communications channels exist? [Research Question 2] What does each value affect for satisfaction about recruitment media communications? were questioned through the research.

FGI and Literature reviews gave answer for RQ1 that "6 media value characteristic (Informative, Convenience, Personalization, Interactivity, Media Richness, Media Credibility) are existing in 7 media types(Portal, Mobile, Telephone calling, E-mail, SNS, Paper media, Face to Face communication)."

Later on, for figuring out [Research Question 2] what does each value affect for satisfaction about recruitment media communications?, user survey with 138 people in Japan, Korea, Beijing, America and Job Camp registration experiment were carried out. User survey tested 7 Hypothesis. H1(relationship between gratification and preference) was not strongly supported. Young job seekers prefer convenience media such as portal more although they are satisfied more with face to face communication which is high personalized, trustful media. "Portal > Community> Face to Face communications> E-mail = Press> Mobile Messaging Service > Telephone calling" was the preference ranking. "Face to Face communications>community>Portal>E-mail>Telephone calling=Mobile Message Service" was the satisfactory ranking.

SPSS, regression analysis shows evaluation to each media value about every single media. So Media Synergy Effect Key Successful Factors to make high users' gratification rate(dependent variable) were identified.

| | Informative (H2) | Convenience (H3) | Personalization (H4) | Interactivity (H5) | Richness (H6) | Credibility (H7) |
|--------------------------|-----------------------------|-----------------------------|---------------------------------|-------------------------------|--------------------------|-----------------------------|
| Portal | Not Supported | S | S | NS | S | S |
| Mobile Messaging | Supported | NS | NS | S | NS | S |
| Telephone Calling | NS | NS | S | S | S | NS |
| E-mail | S | NS | NS | S | NS | S |
| SNS | NS | NS | S | S | S | |
| Paper | S | NS | S | NS | NS | S |
| Face to Face | NS | NS | NS | NS | NS | S |

Table9. Media Synergy Effect Key Successful Factor (Hypothesis tested)

This provides the recruitment media synergy effect function to enhance 20th age of job seekers satisfaction with media usage. Moreover, “Credibility, Interactivity, Personalization” appears to be Key Successful Factors that affects recruitment media’s gratification. Job Camp Registration Experiment also discover that same fact that credibility and personalization was very significant value for young job seekers on the evidence of face to face communication’s effectiveness.

One more finding from Job Camp Registration Experiments was that 20th job seekers are likely to adapt new type of emerging media such as digital signage more easily. Therefore, it is essential for all people, media service providers, HRM managers, policy makers, technician, media designer. As suggestions for 4 field of media industry (Management, Policy, Technology, Design), Development of new media which is strongly trustful, interactive, personalized characteristic is recommended. Even though, user wants more personalized and credible information from face to face communication, they prefer portal owing to its convenience. So it is time to think about how we can solve the gap. Recruitment media is still evolving and HRM strategy through smart phone(i-phone, android) or virtual job fair are showing up recently. Microsoft, Verizon in the U.S, GS Caltex in Korea already started their interactive virtual job fair already. Japan also did second life job fair to make up traditional face to face communication’s strength. Demands for better recruitment media resource is certainly getting higher by HRM recruiters in plenty of companies and job seekers. To meet these demands, Technical and political support has to be followed. Surely, offering improved media is granted to be the mission and role of media service providers.

In last, the meaningful finding of this study is that media synergy effect or integrated communication is also able to be applied to social part as well as business part. Thanks to media’s spreading out to every field of our life, media in education, media in society has to be studied more from now on.

8. Limitations and Future research

Owing to time restriction, this study focused on measuring gratification rate with each media value. For the advanced research, the best Media Mix Scenario for integrated recruitment media communication must give inspiration to job seekers and researchers in media study or communication study.

In addition, we investigate only to recruitment media communications as one of educational media. But there are other media in educational field. It can be also recommended to study about other educational media’s media synergy effect with the view of uses and gratification theory. Understanding media communication in educational

and social field as well as marketing and business field would be very the critical to provide better media use tips to users, firms and society alike. Many studies in this field are expected to be conducted.

As mentioned above, new recruitment media trial has just started recently. Identifying these services's effectiveness is great material for media researchers and then they can suggest innovative way to society.

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Appendix

1. Okinawa Media Experiment

| 10/10~12 Okinawa Media Experience | | | | | | | | |
|-----------------------------------|-----|------|--------|-----|------|--------|-----|------|
| total | | | | | | | | |
| 129(Female : 83 Male :46 | | | | | | | | |
| age/5~65) | | | | | | | | |
| gender | age | p-10 | gender | age | p-11 | gender | age | p-12 |
| f | 17 | 2 | f | 12 | 4 | f | 23 | 2 |
| m | 33 | 1 | f | 13 | 1 | f | 6 | 1 |
| f | 40 | 2 | m | 51 | 1 | f | 34 | 2 |
| m | 12 | 2 | m | 40 | 1 | f | 64 | 1 |
| m | 49 | 1 | f | 11 | 2 | f | 75 | 1 |
| m | 12 | 2 | f | 35 | 1 | f | 31 | 2 |
| f | 13 | 2 | m | 22 | 1 | m | 48 | 1 |
| f | 14 | 1 | m | 22 | 1 | m | 31 | 2 |
| f | 13 | 2 | m | 27 | 1 | m | 36 | 1 |
| m | 24 | 2 | f | 13 | 3 | m | 29 | 1 |
| f | 13 | 1 | f | 14 | 1 | f | 19 | 2 |
| f | 13 | 1 | f | 13 | 1 | f | 20 | 1 |
| f | 18 | 1 | m | 41 | 3 | f | 14 | 1 |
| f | 27 | 1 | m | 46 | 2 | m | 19 | 1 |
| f | 27 | 2 | m | 32 | 1 | f | 35 | 1 |
| f | 14 | 3 | f | 44 | 3 | f | 13 | 1 |
| f | 14 | 1 | m | 42 | 1 | f | 12 | 1 |
| m | 12 | 1 | m | 38 | 2 | f | 13 | 2 |
| m | 13 | 2 | f | 12 | 1 | f | 14 | 1 |
| m | 12 | 3 | f | 13 | 2 | f | 15 | 1 |
| m | 38 | 1 | f | 13 | 1 | f | 14 | 1 |
| f | 33 | 2 | f | 30 | 1 | f | 13 | 1 |
| f | 11 | 1 | f | 17 | 1 | f | 13 | 1 |
| m | 13 | 1 | f | 18 | 1 | f | 13 | 2 |
| f | 20 | 2 | m | 19 | 5 | f | 13 | 1 |
| m | 43 | 2 | f | 18 | 3 | f | 13 | 1 |

| | | | | | | | |
|----------|----|----------|----------|-----|----------|----------|----------|
| f | 12 | 3 m | 15 | 1 f | 13 | 2 | |
| m | 60 | 1 m | 16 | 2 f | 13 | 2 | |
| m | 13 | 1 f | 49 | 1 f | 15 | 1 | |
| m | 14 | 2 f | 47 | 1 f | 12 | 2 | |
| m | 13 | 3 m | 15 | 1 f | 10 | 2 | |
| m | 13 | 3 m | 47 | 3 f | 14 | 1 | |
| m | 14 | 3 f | 16 | 2 f | 15 | 1 | |
| f | 13 | 3 m | 14 | 3 f | 24 | 1 | |
| f | 32 | 1 m | 14 | 3 f | 12 | 2 | |
| f | 31 | 2 m | 17 | 5 f | 12 | 2 | |
| m | 36 | 1 m | 51 | 1 f | 13 | 2 | |
| f | 36 | 2 f | 43 | 2 f | 34 | 1 | |
| m | 12 | 3 f | 44 | 1 f | 54 | 1 | |
| f | 16 | 2 f | 42 | 1 f | 22 | 2 | |
| f | 13 | 3 m | 32 | 1 m | 31 | 2 | |
| f | 14 | 2 m | 46 | 1 m | 40 | 1 | |
| f | 11 | 5 f | 39 | 3 f | 17 | 1 | |
| 10th Oct | | 1.906977 | 11th Oct | | 1.790698 | 12th Oct | 1.372093 |

2. User Survey Questionnaire result

2-1 Ranking Data(for Frequency Analysis)

Frequency table

| Ranking: Internet Portal Site | | | | | |
|-------------------------------|---|---------------|-------------|------------------|---------------|
| | | Frequen cy | Perc ent | Valid percent | C- percent |
| Valid | 1 | 70 | 50.7 | 50.7 | 50.7 |
| | 2 | 32 | 23.2 | 23.2 | 73.9 |
| | 3 | 16 | 11.6 | 11.6 | 85.5 |
| | 4 | 5 | 3.6 | 3.6 | 89.1 |
| | 5 | 6 | 4.3 | 4.3 | 93.5 |
| | 6 | 5 | 3.6 | 3.6 | 97.1 |
| | 7 | 4 | 2.9 | 2.9 | 100.0 |

| Ranking: Internet Portal Site | | | | | |
|-------------------------------|---|-----------|---------|---------------|-----------|
| | | Frequency | Percent | Valid Percent | C-percent |
| Valid | 1 | 70 | 50.7 | 50.7 | 50.7 |
| | 2 | 32 | 23.2 | 23.2 | 73.9 |
| | 3 | 16 | 11.6 | 11.6 | 85.5 |
| | 4 | 5 | 3.6 | 3.6 | 89.1 |
| | 5 | 6 | 4.3 | 4.3 | 93.5 |
| | 6 | 5 | 3.6 | 3.6 | 97.1 |
| | 7 | 4 | 2.9 | 2.9 | 100.0 |
| Total | | 138 | 100.0 | 100.0 | |

| Ranking: Internet Community | | | | | |
|-----------------------------|---|-----------|---------|---------------|-----------|
| | | Frequency | Percent | Valid Percent | C-percent |
| Valid | 1 | 29 | 21.0 | 21.0 | 21.0 |
| | 2 | 58 | 42.0 | 42.0 | 63.0 |
| | 3 | 27 | 19.6 | 19.6 | 82.6 |
| | 4 | 17 | 12.3 | 12.3 | 94.9 |
| | 5 | 4 | 2.9 | 2.9 | 97.8 |
| | 6 | 1 | .7 | .7 | 98.6 |
| | 7 | 2 | 1.4 | 1.4 | 100.0 |
| Total | | 138 | 100.0 | 100.0 | |

| Ranking: E-mail | | | | | |
|-----------------|---|-----------|---------|---------------|-----------|
| | | Frequency | Percent | Valid Percent | C-Percent |
| Valid | 1 | 4 | 2.9 | 2.9 | 2.9 |
| | 2 | 11 | 8.0 | 8.0 | 10.9 |
| | 3 | 25 | 18.1 | 18.1 | 29.0 |
| | 4 | 24 | 17.4 | 17.4 | 46.4 |
| | 5 | 52 | 37.7 | 37.7 | 84.1 |
| | 6 | 17 | 12.3 | 12.3 | 96.4 |
| | 7 | 5 | 3.6 | 3.6 | 100.0 |

| Ranking: E-mail | | | | | |
|-----------------|---|-----------|---------|---------------|-----------|
| | | Frequency | Percent | Valid Percent | C-Percent |
| Valid | 1 | 4 | 2.9 | 2.9 | 2.9 |
| | 2 | 11 | 8.0 | 8.0 | 10.9 |
| | 3 | 25 | 18.1 | 18.1 | 29.0 |
| | 4 | 24 | 17.4 | 17.4 | 46.4 |
| | 5 | 52 | 37.7 | 37.7 | 84.1 |
| | 6 | 17 | 12.3 | 12.3 | 96.4 |
| | 7 | 5 | 3.6 | 3.6 | 100.0 |
| Total | | 138 | 100.0 | 100.0 | |

| Ranking: Mobile Messaging Service | | | | | |
|-----------------------------------|---|-----------|---------|---------------|-----------|
| | | Frequency | Percent | Valid percent | C-percent |
| Valid | 1 | 3 | 2.2 | 2.2 | 2.2 |
| | 2 | 7 | 5.1 | 5.1 | 7.2 |
| | 3 | 12 | 8.7 | 8.7 | 15.9 |
| | 4 | 16 | 11.6 | 11.6 | 27.5 |
| | 5 | 18 | 13.0 | 13.0 | 40.6 |
| | 6 | 38 | 27.5 | 27.5 | 68.1 |
| | 7 | 44 | 31.9 | 31.9 | 100.0 |
| Total | | 138 | 100.0 | 100.0 | |

| Ranking: Press media | | | | | |
|----------------------|---|-----------|---------|---------------|-----------|
| | | Frequency | percent | Valid Percent | C-percent |
| Valid | 1 | 3 | 2.2 | 2.2 | 2.2 |
| | 2 | 9 | 6.5 | 6.5 | 8.7 |
| | 3 | 30 | 21.7 | 21.7 | 30.4 |
| | 4 | 44 | 31.9 | 31.9 | 62.3 |
| | 5 | 16 | 11.6 | 11.6 | 73.9 |
| | 6 | 26 | 18.8 | 18.8 | 92.8 |
| | 7 | 10 | 7.2 | 7.2 | 100.0 |

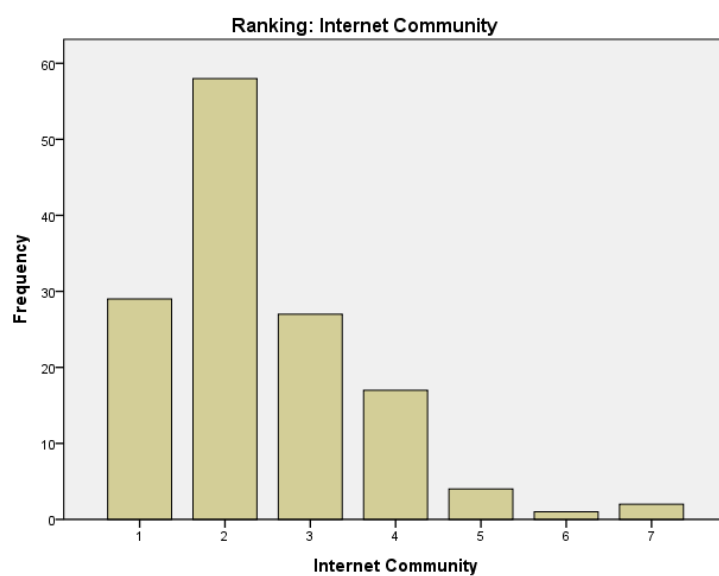
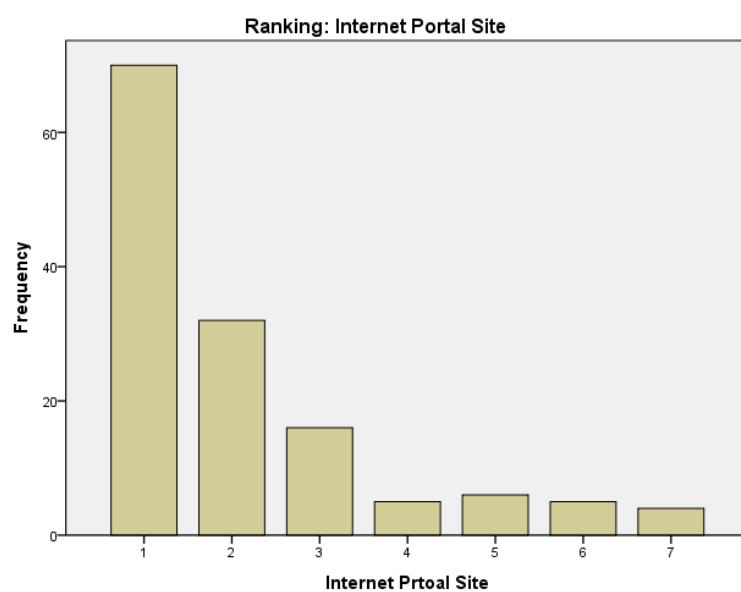
| Ranking: Press media | | | | | |
|----------------------|-----|--------|---------|---------|-----------|
| | | Freque | | Valid | |
| | | ncy | percent | Percent | C-percent |
| Valid | 1 | 3 | 2.2 | 2.2 | 2.2 |
| | 2 | 9 | 6.5 | 6.5 | 8.7 |
| | 3 | 30 | 21.7 | 21.7 | 30.4 |
| | 4 | 44 | 31.9 | 31.9 | 62.3 |
| | 5 | 16 | 11.6 | 11.6 | 73.9 |
| | 6 | 26 | 18.8 | 18.8 | 92.8 |
| | 7 | 10 | 7.2 | 7.2 | 100.0 |
| al | Tot | 138 | 100.0 | 100.0 | |

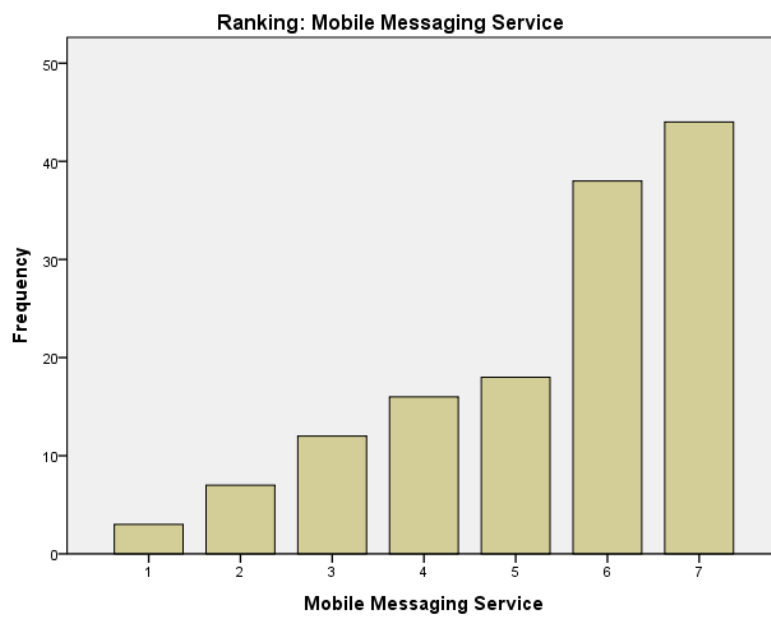
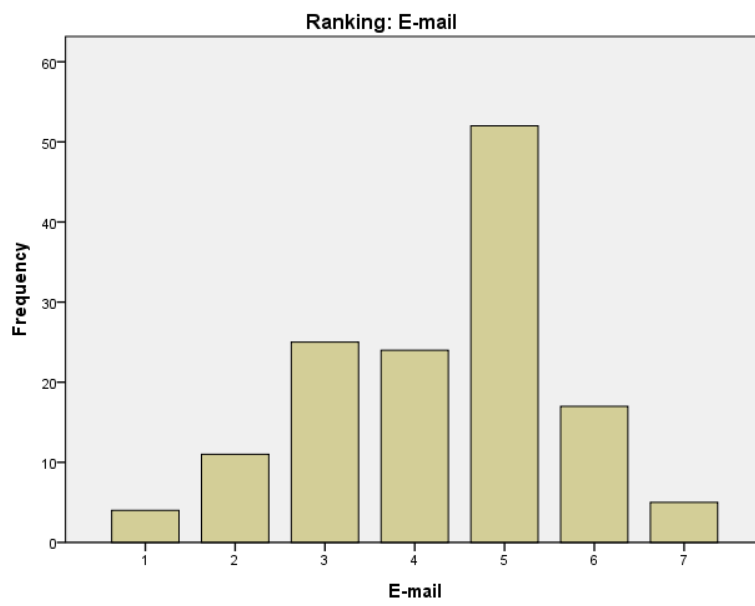
| Ranking: Face to Face Communication | | | | | |
|-------------------------------------|------|--------|--------|---------|-----------|
| | | Freque | percen | Valid | |
| | | ncy | t | percent | c-percent |
| Valid | Va 1 | 24 | 17.4 | 17.4 | 17.4 |
| | 2 | 17 | 12.3 | 12.3 | 29.7 |
| | 3 | 21 | 15.2 | 15.2 | 44.9 |
| | 4 | 25 | 18.1 | 18.1 | 63.0 |
| | 5 | 22 | 15.9 | 15.9 | 79.0 |
| | 6 | 9 | 6.5 | 6.5 | 85.5 |
| | 7 | 20 | 14.5 | 14.5 | 100.0 |
| total | To | 138 | 100.0 | 100.0 | |

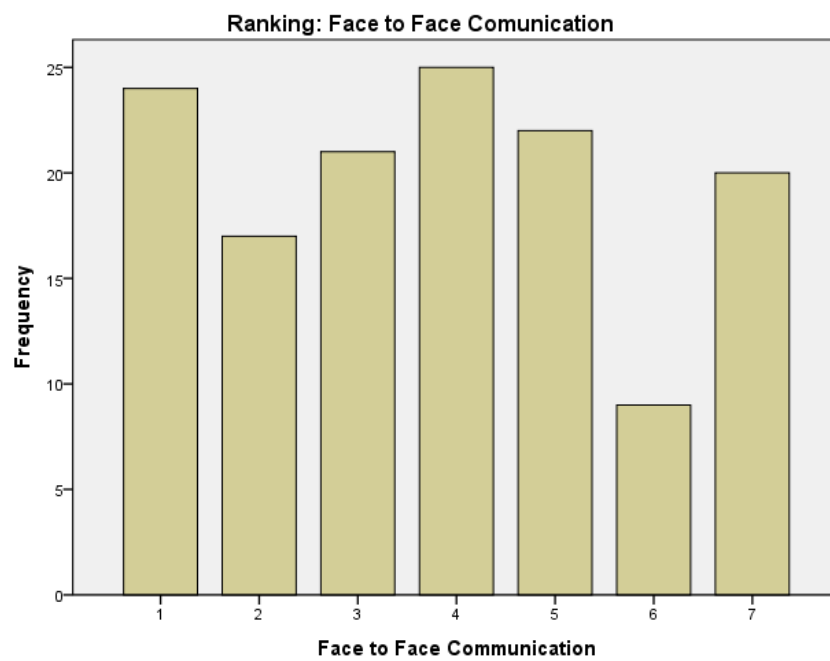
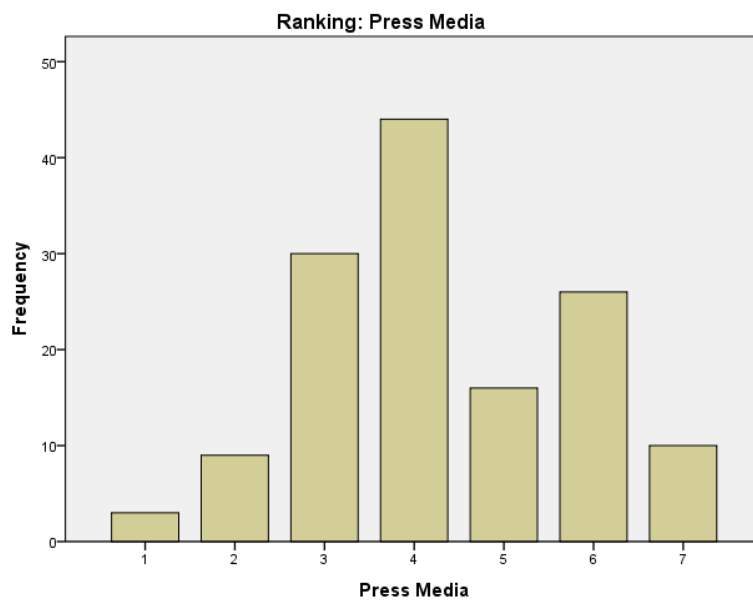
| Ranking: Telephone | | | | | |
|--------------------|--------|--------|---------|---------|-----------|
| | | freque | | Valid | |
| | | ncy | percent | percent | c-percent |
| d | Vali 1 | 5 | 3.6 | 3.6 | 3.6 |
| | 2 | 4 | 2.9 | 2.9 | 6.5 |
| | 3 | 8 | 5.8 | 5.8 | 12.3 |
| | 4 | 6 | 4.3 | 4.3 | 16.7 |
| | 5 | 20 | 14.5 | 14.5 | 31.2 |

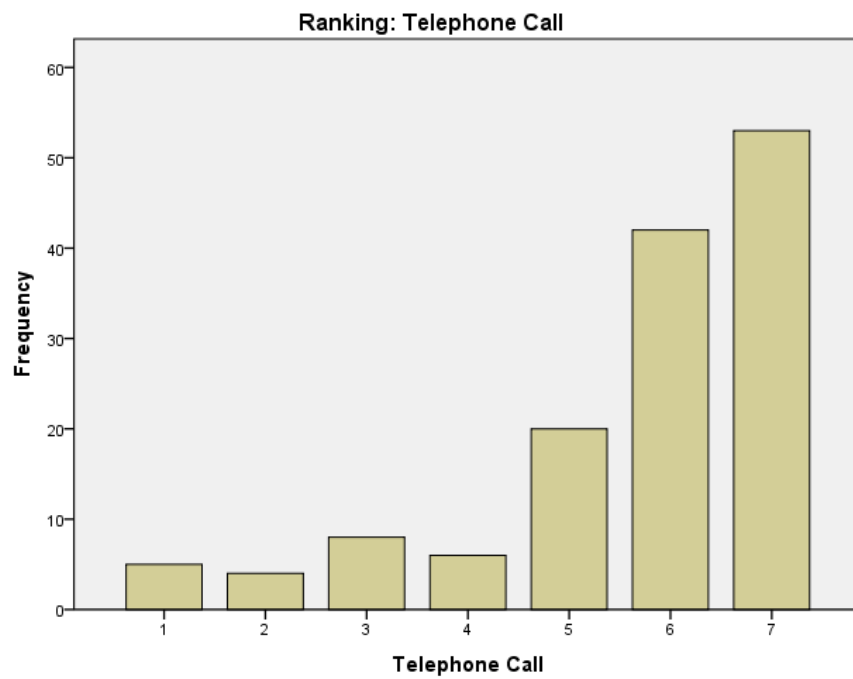
| | | | | |
|-------|-----|-------|-------|-------|
| 6 | 42 | 30.4 | 30.4 | 61.6 |
| 7 | 53 | 38.4 | 38.4 | 100.0 |
| Total | 138 | 100.0 | 100.0 | |

Bar Graph









2.2 Media Value Evaluation Data(Excel file, attached separately)

2.3 Questionnaire in Japanese, Korean(Attached only to printed version)