

**An Analysis of Primary Determinants in Job Satisfaction ;
Empirical Evidence from the Study on Airline Industry**

By

Shin, Dong Ki

THESIS

Submitted to

KDI school of Public Policy and Management

In partial fulfillment of the requirements

For the degree of

MASTER OF BUSINESS ADMINISTRATION

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Supervisor Lee, Seung-Joo



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Abstract

Job satisfaction has been closely linked with productivity at work and organizational commitment. Time constraints and smaller budgets would normally prevent us from covering on all the relevant reasons. A few primary issues could be regarded as the most critical factors concerning job satisfaction. My purpose in this study is an attempt to verify the primary determinants, in terms of impact.

The selected subjects were 6,783 employees in D airline. My testing methods include regression analysis, general linear model, frequency analysis, Anova test and correlation analysis applied to verify the study. The conclusion of this study revealed that there were two primary variable clusters. The first was 'work itself' and the second main variable was 'social relations.' Six chosen variables were discovered and include: 'work itself', 'reward system', 'fairness of appraisal', 'communication between management and employees', 'empowerment' and 'social relations in an organization'. The study also illustrated that individual expectancy cluster had a larger impact (by a narrow margin) on job satisfaction rather than the organizational interaction cluster.

In summary, some managerial applications, as solutions, are explored on my key findings using the 'four eyes window' approach using the significance and satisfaction level, framework for restructure of task dimension, enhancement of public recognition and celebrations.

Acknowledgment

I had a literally great time working on this thesis. Although it was much challenging in some aspects, it gave me a lot of pleasure and joy fulfilling my intellectual curiosity.

Thanks to my company's sponsorship I was able to study MBA program in prestigious business school. First of all, I do wish to record my thanks to my company and management for granting me a valuable opportunity.

But for the careful and attentive supervision my professor's offered I could not have published this work within short period of time. I would like to deliver my deep gratitude to professor Seung Joo Lee, professor Ja Eun Shin and professor Yoon Cheong Cho.

Furthermore, I'd like to mention that I was able to publish this level of work with a great deal of help which was provided by my coworkers. My highest appreciation goes to Barbara Hoefler who mainly edited my thesis draft. I'd like to also give my appreciation to my colleagues who offered advice in both theoretical and technical ways: H.D. Park, H.S. Seo, H.C. Lee, W.G. Han, G.T. Jang, K.W. Lee, J.H. Kang, C.S. Yang, M.J. Kim and all team members in HR department etc.

I am also indebted to my family who supported and cheered for me, especially to my wife and two adorable daughters. My gratitude to them is immeasurable as I could not spend time with them while I was indulged in this study.

It is my hope that this study will make some contribution to the field of human resources management.

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I. Introduction

1. Purpose of study

Job satisfaction has been a big issue in business for the last several decades. There have been a number of studies and research done that can be classified into two major categories. “One is to study job satisfaction itself and the other is to find out the relationship between job satisfaction and other factors. The latter were cases of examining the relationship with turnover rate, productivity at work, and absenteeism. The former studies the relationship between job satisfaction and antecedents or demographic variables such as gender, age, education, tenure, rank, department, salary etc.”¹

Although ‘job satisfaction’ is a subjective measurement of an employee’s emotional state in workplace it has direct impact on their productivity at work. Topolosky’s research (2002) demonstrated that “the strongest relationship that resulted from correlating a business unit employee satisfaction factor with business unit financial matrix was with shareholder value added, where $r = 0.65$ ”.² And one research found that “the relationship between job satisfaction and productivity at work is statistically significant; the R square was 0.31 ~ 0.80 field as a result of analysis of twenty researches”.³ There would be an overwhelming number of studies that could support the casual relationship between job satisfaction and productivity at work.

The existing studies and research tends to revolve around the question of ‘what are the factors affecting job satisfaction and what significance do key variables hold in terms of relationship towards job satisfaction, work performance, retention rate, etc. Nevertheless, rarely can we find an article which describes relative importance of each independent variable if many clusters come together at once.

¹ E.A Locke “The nature and Causes of job satisfaction” in Marvin D.Dunnette, ed.. Handbook of Industrial and organizational Psychology, Rand-Mcnally Publishing co.. 1976, p. 130

² Topolosky, “Linking Employee satisfaction to business results, 2000, Garland, p. 62

³ Lim Chang Hee “organization behavior’ 1998, p. 153 Hakhyunsa

In this sense, my study was conducted to detect the factors necessary to get people motivated to their job tasks. Using the presumption that job satisfaction and work productivity have a significant correlation, this study attempts to examine the most important reasons as primary determinants. This study also inquired on the characteristics of each critical factor to gain a better understanding of the key factor itself.

In the airline industry it is critical to prioritize the issue in terms of urgency and relative significance. For example, all the airlines set the price of passenger tickets according to customer demand and capacity constraints. Therefore, seats are segmented to each class zone in order to optimize the fare. Under the same concept, human resources management should establish a policy to optimize the budget constraint factor and employee's needs in job satisfaction.

In the beginning my thesis tries to answer to the following questions: Is it reasonable to assume there are several essential variables that have a simultaneous impact on job satisfaction? If so, what would be the dominant variables the company should pay attention to? Furthermore, we must figure out the relative weight of each variable. Although the overall importance is extremely high for one variable, it may not have as high a value if the given weight is extremely low. As Wanous & Lawler summarized for the measurement method of job satisfaction; "job satisfaction can be calculated by summation of overall satisfaction multiplying appropriate weight".⁴ In this way my thesis structure has been shaped by raising questions: What would be the weight the employee gives to each variable? It is my expectation that information shall help us prioritize and find the key aspects and root causes of job satisfaction or dissatisfaction.

The next step of this study deals with developing strategy to enhance the job satisfaction level of the employees. Even if an organization succeeds in capturing a few vital factors that clearly relates to job satisfaction it does not mean that the organization could automatically come up with adequate strategy to resolve the problem. Thus, the objective of the thesis is to show how we can interpret the figures and find better solutions in the real business world.

⁴ Wanous J P & F F Lawler III, Measurement and Meaning of job satisfaction, Journal of applied Psychology, Vol 56, No2, 1972, pp. 95~105

In addition, this study tries to understand how independent variable clusters interrelate with each other. Furthermore, we might explore the characteristics presented by some demographic groups that may give some key finding from this research. I chose a large scale commercial airline in which the composition of human resources is very diverse. It is my hope that the findings from this study will provide us with a good sampling of information despite the fact that the survey has been conducted in just one single corporation.

In order to align human resource activity to employee satisfaction, we need to find the answers by digging into the properties of each variable. That will hopefully lead us to a successful recruitment strategy, job assignments, training, career development and a meaningful appraisal system. This study aims to seek a strategy for reframing an organization's current views and repositioning its current strategy in order to demonstrate where we need to focus on.

2. The methodology and scope of research

The variables used to measure job satisfaction are very diverse. For instance, if we refer to "Minnesota satisfaction questionnaire"⁵ which has been popular for the measurement of job satisfaction, the questionnaire has a 100-item long version and a 20-item short form. It covers 20 facets, many of which are more specific than most other satisfaction scales.

My study began with the intention of covering as many variables as possible. However, I limited my research to some key variable clusters because of capacity constraints, short period of research. The study will cover the six variables termed as 'work itself', 'reward system', 'appraisal fairness', 'communication between manager and employees', 'empowerment' and 'social relations' in an organization.

In this study I refer to past studies, including previous thesis and research, and some statistical analysis. It was my goal to have this study be more focused on finding empirical evidence by practical application of some statistical tools and some scholar's framework.

⁵ Paul E Spector 'job satisfaction, application, assessment, causes consequences" p. 15, AT&B

Statistical analysis is satisfied based on the data gathered in the survey⁶ of one specific group of airline employees. The subjects were 6,783 employees who work in various positions such as passenger service, cargo service, catering service, maintenance service, cabin service etc. The approach I took is a combination of global approach and facet approach to measure job satisfaction.

In regards to methodology, this study has tried to apply various types of questionnaires to make it possible to statistically analyze the whole context. Aside from Likert type of questions, the survey questionnaires have been developed using rank scale, summing up scale (forced distribution method), multiple choices etc. The substantial method of statistics used are frequency analysis, variance test such as Anova test, general linear model, binary logistics regression, simple regression and multi linear regression analysis, and correlation analysis utilizing Minitab version 14.

The scope of this study is limited to three parts: first to illuminate the primary variables that affect job satisfaction, second to illustrate the relationship between variables and last to explore the foundation of strategy based on the key findings. In addition, this study also examined how well the given weight of each independent variable well reflect as key elements in measuring job satisfaction.

The current chapter presents the purpose of study and methodology. Chapter II deals with literature review including major definition of job satisfaction, measurement of job satisfaction in history, and some theoretical background. Chapter III shows how the model of this study will be developed, defines the key word as well as seven research questions which will be summarized. Chapter IV deals with the structure of the survey design, together with detailed information on the subject. In addition, seven hypotheses will be developed based on research questions. Chapter V will explain key findings of the survey based on some statistical analysis, as well as the result of the hypothesis tests. Chapter VI will be the conclusion, summary and managerial implications. Chapter VII shows the limitation of this study and suggestions for further study will be briefly mentioned. In part of annex, survey questionnaire in detail and table and bibliography (reference) will be listed.

⁶ See survey questionnaires in Annex part

II. Literature Review

1. Definitions of job satisfaction and relevant theories

Since the human relations approach was initiated in 1930, we began to recognize key factors in an organization. We realized that humans are highly complicated and interact with norms and practices in organization. Our interpretation sets the tone of an organization by interacting within the organization frame and environment. From the symbolic interpretive perspective in organization theory “organizations are continually constructed and reconstructed by their members through symbolically mediated interaction. Organizations are socially constructed realities where meanings promote and are promoted by understanding of the self and others that occurs within the organizational context”.⁷ As the importance of human factors increases, prime measurements of an employee’s emotional state, such as job satisfaction, have become a key issue.

Just like the definition of leadership, the definition of job satisfaction has been defined in thousand of words. Vroom (1964) defined job satisfaction as “an employee’s emotional state from the role they fulfill at their work place”.⁸ Bently and Remple (1970) define job satisfaction as “vocational attention and enthusiasm when individual strive to accomplish individual and organizational goals”.⁹

Spector (1997) also defined job satisfaction as “overall feelings about a job or an attitude toward to facets of the job”.¹⁰ Aside from the definitions stated there are a lot of examples to show job satisfaction is something to do with emotional state or attitude or emotional directions toward job and organization.

Maslow presented a five step ladder that represents a human being’s desire as a hierarchical model as figure 1.¹¹ He separated key clusters from physiological needs and a desire to move up in an organization.

⁷ Mary Jo Hatch, “Organization theory” 2006, Oxford university press p. 14

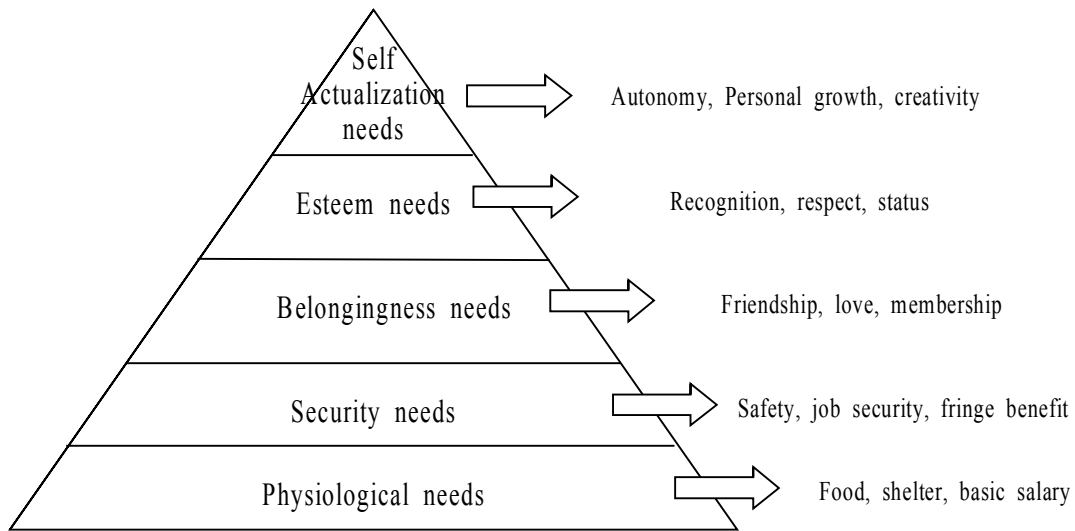
⁸ V.H Vroom. Work & motivation(N.Y; John & Willy and Sons), 1964

⁹ Ralph R Bently and Averno M Remple. Manual for the Perdue teacher Opinionnaire, Indiana Uni., 1970)

¹⁰ Spector, op, cit., 1997, p. 2

¹¹ Source: Maslow, Eupsychian management 1962

[Figure 1: Maslow’s hierarchy of needs]

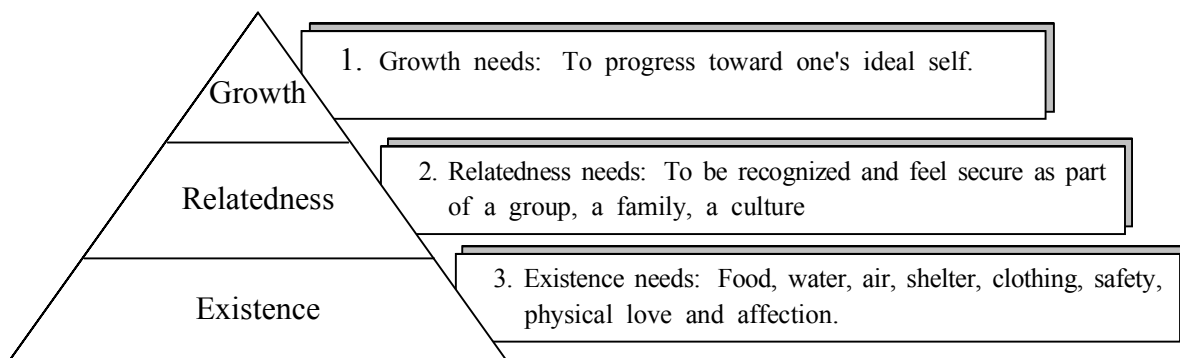


Source: Maslow, Eupsychian management 1962

Porter presented a theory of desire hierarchy which varies “from desire for security to self actualization in the final stage”.¹² This theory illustrates how human desire constitutes a perspective of hierarchical form and that the basic level of desire should be fulfilled in order to proceed to next higher level.

One more theory which, approached from an aspect of motivation, is the ERG theory established by Alderfer. (ERG is the abbreviation for Existence, Relationship, and Growth.) This theory implies that human beings try to accomplish three categories of desire as described in Figure 2 below.

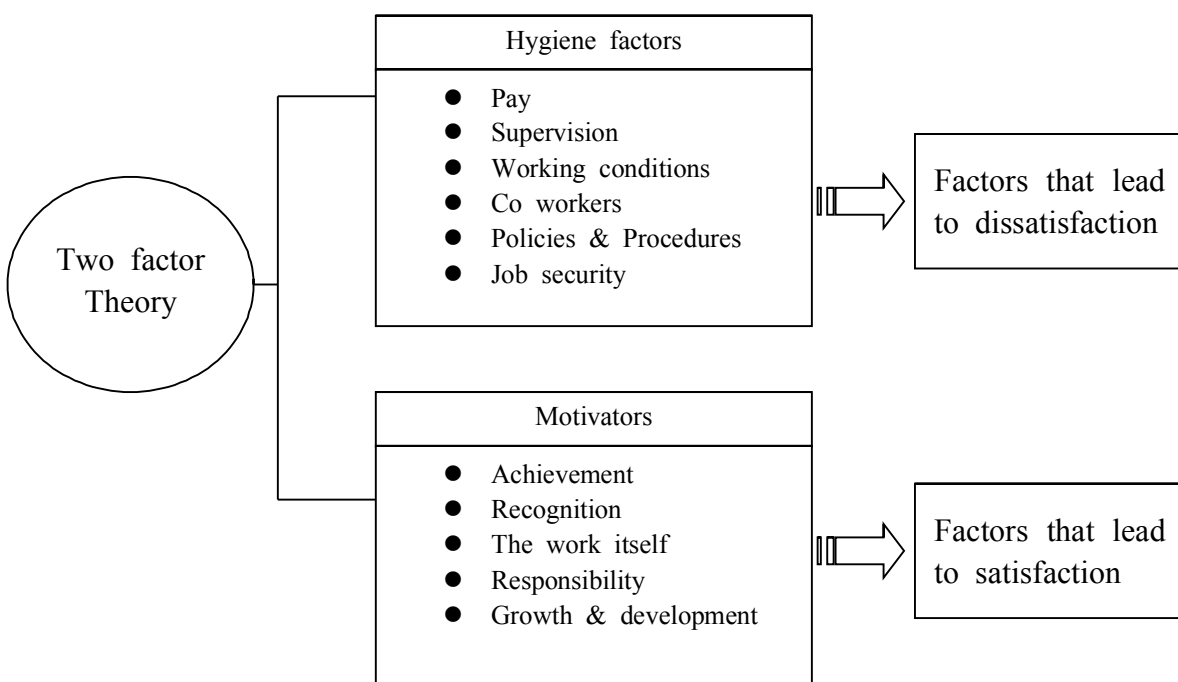
[Figure 2: Alderfer’s ERG theory]



¹² Porter I. W & Lawer E, Managerial attitude and performance, Irwin, Inc and Dorsey Press, 1968

One of the most often quoted theory for job satisfaction is Herzberg's two factor theory. He categorized key elements as a hygiene factor and a motivator factor which are two dimensions in his theory. Figure 3 demonstrates which sub elements belongs to which categories. Herzberg's theory also implies that there needs to be some sequence to fulfill one's desire, quenching desires in regards to hygiene factors and shifting to quenching desires to an aspect of desires with regards to motivators.

[Figure 3: Herzberg' Hygiene & Motivation Factors]

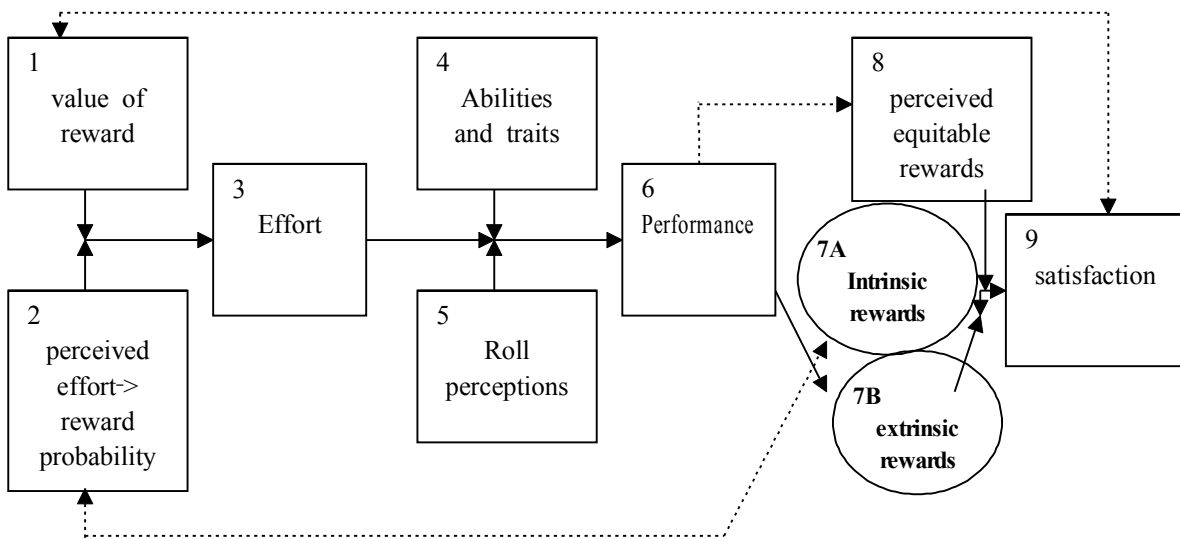


In comparison with the context centered theory, there are also process centered theories such as Vroom's Expectancy Theory, Locke's Target Theory, Adam's Equity Theory.

Vroom's theory can be summarized as follows: "the tendency to act a certain way depends on the strength of an expectancy that the act will be followed by given consequences (or outcomes) to the actor."¹³ Lyman Porter and Edward Lawler III developed an expectancy model of motivation that extended Vroom's work. The model is presented in Figure 4.

¹³ E.E Lawler III, motivation in work organizations(Belmont, CA), 1973, p. 45

[Figure 4: Porter and Lawler’s Expectancy Model]



Source : L W Porter and E Lawler III, managerial attitudes and performance(New York : McGraw-Hill/Irwin, 1968), p. 165

Adam’s Equity Theory holds that motivation is a function of fairness in social exchange. Defined in general, “Equity theory is a model of motivations that explains how people strive for fairness and justice in social exchanges or give-and take relationships, and is based on a cognitive dissonance theory”.¹⁴

Many scholars theorized their conceptual works into a specific theory which includes specific sub factors as some constituents in job satisfaction. The taxonomy is broad and diverse. Lawler categorized a job satisfaction theory into four sections; “Fulfillment Theory, Discrepancy Theory, Equity Theory, Two Factors Theory”.¹⁵ In comparison scholars like McCormick categorized the job satisfaction theory as “Comparison Theory, Instrumentality Theory, Social Influence Theory, Equity Theory and Two Factor Theory”.¹⁶

2. The factors and variables in job satisfaction

In 1920 scholars like Taylor depict the working conditions, wage etc., as major sub factors that affect job satisfaction. At the beginning of the nineteen thirties the terms

¹⁴ Robert Kreitner, ‘organization behavior’ 6th edition, 2004 Mcgraw Hill, pp. 291~292

¹⁵ Lawler E.E, Satisfaction and behavior in contemporary problems in personnel readings for Seventies, edited by W Clay Hammer and Frank L Schmidt st, Clair press 1974, p. 33

¹⁶ McCormick E Tiffin, industrial Psychology fifth edition, Prentice hall 1985, pp. 306~p309

such as democratic supervision, attentive working condition, relationship with manager became a factor which scholars began to deal with. The Hawthorne experience was the one of the examples that shows “how supervision works in an area of illuminated and less illuminated assembly line”.¹⁷

Afterwards, a number of researchers and scholars conducted their study to extract the factors that are closely related with job satisfaction. Locke presented job satisfaction facet into four groups of factors which are termed “reward, other people, nature of work and organizational context”.¹⁸ Vroom also detected six variables that affect job satisfaction, “supervision, working group, task context, salary, promotion opportunity, and work hours.”¹⁹ Minnesota research institute categorize twenty factors that extensively covers independent variables in an aspects of job satisfaction. The list of factors is shown in tabular below.²⁰

[Table 1: Minnesota Satisfaction questionnaire]

Facet from the Minnesota Satisfaction questionnaire (MSQ)
Activity, Independence, Variety, Social status, Supervision (human relations), Supervision (technical), Moral values, Security, Social service, Authority, Ability utilization, Company policies and practices, Compensation, Advancement, Responsibility, Creativity, Working conditions, Co workers, Recognition, Achievement

Source: Weiss, Dawis, Lofquist, and England (1966)

Porter & Steers categorized job satisfaction related factors into four groups: “organization factors, working environment factors, job environment factors, and personal factors”.²¹ As I mentioned earlier in this chapter, Herzberg’s theory illustrated six factors involved with hygiene factors, and eight factors are in relation to motivator factors. Some scholars such as Freeman & O Brien-Pallas (1998) suggested that opportunity, routinization etc. are significant in relation to job satisfaction.²²

¹⁷ Mary Jo Hatch, “Organization theory” 2006, Oxford Press pp. 221~223

¹⁸ Paul E Spector, “job satisfaction, application assessment, cause and consequences, 1997, p. 4

¹⁹ Vroom, V, H, work & motivation, New York, John wiley & Sons, 1964, pp. 172~190

²⁰ Paul E Spector, Job satisfaction; application, Assessment, cause & consequences, AT & B, 1997, p. 16

²¹ Porter, L. W & R. M Steers, organizational work and personal factors in employee turnover and absenteeism, psychological bulletin, vol80, 1973, pp. 151~176

²² Freeman, T & O Brien – Pallas, L, L(1998), Factors influencing job satisfaction on specially nursing unit, Canadian journal of nurse administration, 11(3), pp. 25~51

3. The method of measurement of job satisfaction

“Measuring of job satisfactions is either global satisfaction or facet satisfaction with several aspects of the job such as reward, promotion, co-worker, assigned task. Some studies have used measures of both global and specific job facet satisfaction because specific facet satisfaction measures may better reflect changes in relevant situational factors, whereas a global measure may more likely reflect individual differences than responses to specific items (Witt & Nye 1992)”.²³

“Some frequently adopted method in measurement of job satisfaction would be mentioned as examples. MSQ (Minnesota Satisfaction Questionnaire) is one of the examples. It is long form consists of 100 questions that make up 20 subscales measuring satisfaction on a 5 point Likert-type scale (Weiss, Dawis, England & Lofquist,1967)”.²⁴ The lists were listed above in previous section (Table 1).

“Global job satisfaction was developed by Warr, Cook, and Wall (1979) and uses 15 items to describe overall job satisfaction. This measure has two sub scales assessing satisfaction with extrinsic (eight items) and intrinsic (seven items) aspects of job. Responses are obtained on a 7 point Likert type scale”.²⁵

“Job satisfaction relative to expectations is the measure developed by Bacharach, Bamberger and Conley in 1991. This method assesses the degree of agreement between perceived quality of broad aspects of a job and employee expectations. The measure is particularly useful to access the extent to which job stresses, role conflicts or role ambiguities prevent job expectations from being met. Responses are obtained using a 4 –point Likert type scale”.²⁶

Overall job satisfaction developed by Judge, Boudreau, and Bretz (1994). It uses three items to assess overall job satisfaction. These include the Gallop poll question about job satisfaction (yes/no reply option). “The G.M. asks for employees to chose 1 of

²³ Dail L. Fields, Taking the measure of work, 2002, Sage publications, p. 3

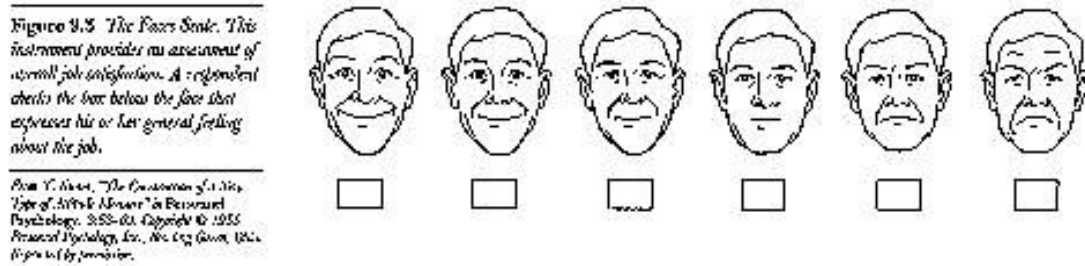
²⁴ Dail L. Fields, Taking the measure of work, 2002, Sage publications, pp. 7~8

²⁵ Dail L. Fields, Taking the measure of Work, 2002, Sage publications, p. 27

²⁶ Dail L. Fields, Taking the measure of Work, 2002, Sage publications, p. 6

11 faces that best described how they feel about their job overall, (see figure 5), and a question that asks the percentage of time respondents are satisfied with their job on average”.²⁷

[Figure 5: Examples of face look scale]



“JSS (Job satisfaction Survey, Spector 1985) assesses nine facets of job satisfaction, as well as their overall satisfaction. These facets are pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, co workers, nature of works, communication. Each scale contains 36 items and uses a summated rating scale format. This format is the most popular for job satisfaction scales. Total satisfaction scores can be computed by combining all of the items”.²⁸

Wanous & Lawler III demonstrated the method of measurement of job satisfaction in nine ways as shown in Table 2.²⁹

²⁷ Dail L. Fields, *Taking the measure of Work*, Sage publications, p. 11

²⁸ Paul E Spector, *Job satisfaction, advanced topics in organizational behavior*, p. 8

²⁹ Wanous J P & F F Lawler III, *Measurement and Meaning of job satisfaction*, *Journal of applied Psychology*, Vol. 56, No. 2, 1972, pp. 95~105

[Table 2: The method of measurement of job satisfaction]

1. $JS = \sum JFS$	The summation of facet satisfaction
2. $JS = \sum JFS \times \text{importance}$	The summation of facet satisfaction multiplying weight
3. $JS = \sum (Is\ Now)$	The reflection of how much achieved now
4. $JS = \sum (\text{Importance} \times Is\ Now)$	Number 3 multiplying weight
5. $JS = \sum (\text{Should be} - \text{now})$	Summation of Reflecting difference between how much should be achieved and how much achieve now
6. $JS = \sum (\text{Should be} - \text{now}) \times \text{Importance}$	Number 5 multiplying weight
7. $JS = \sum (\text{would be} - \text{now})$	Summation of Reflecting difference between ideal and reality
8. $JS = \sum (\text{would be} - \text{now}) \times \text{Importance}$	Number 7 multiplying weight
9. $JS = \sum (\text{Importance} \times Is\ now)$	Summation of importance multiplying perceived achievement

4. Summary of the previous studies

There have been thousands of studies in regards to job satisfaction. Some studies have examined job satisfaction, the specific dimensions of job satisfaction, and the relationship between job satisfaction and outcomes such as job performance or turnover. It was difficult to find a previous study that contains the variable clusters at a time in relation to job satisfaction like the sets of variables I explored in this thesis. For the purpose of developing the survey questionnaire and setting up the model I referred to some studies which were conducted in the field of hotel and airline business. Among those studies Young Ju Park's 'study on factor of job satisfaction and correlation of job satisfaction of male and female hotel employees'³⁰ conducted in Korea has some similarity with this thesis in a sense that the study categorized factors that affects job satisfaction, task satisfaction, reward and fringe benefit, appraisal fairness and justice, social relations and working atmosphere. I have detected some differences in critical factors that cause job satisfaction between gender and made some suggestions on upgrading the level of job satisfaction.

Here is the table which the author (Y.J. Park) describes independent variables in job satisfaction

³⁰ Park, Young Ju, 'study on factor of job satisfaction and correlation of job satisfaction of male and female hotel employees, 2002, published in Korean

[Table 3: Y.J. Park's taxonomy in job satisfaction factors]

Variable cluster	Sub variable	Variable cluster	Sub variable	Variable cluster	Sub variable
work	Appropriateness	appraisal	Work environment	Personal relation in an organization & working atmosphere	Recognition from supervisor
	Interest		Personal status		leadership
	Achievement		evaluation		Supervisor's Knowledge
	Pride		Promotion opportunity		Relationship with supervisor
	empowerment		Fairness in promotion		Coworker's knowledge
	Self development		Prospect of company		Communication method
Salary & fringe benefit	Salary level		Rank and post		kindness
	Method of Salary determination		Supervisors fairness		Belonging to organization
	Relative salary level with other company		Supervisor's artful listening		Acknowledgement towards coworkers
	In comparison with workload		Validity of appraisal		atmosphere
	Facility for welfare		Communication		
	Vacation		Integrity		

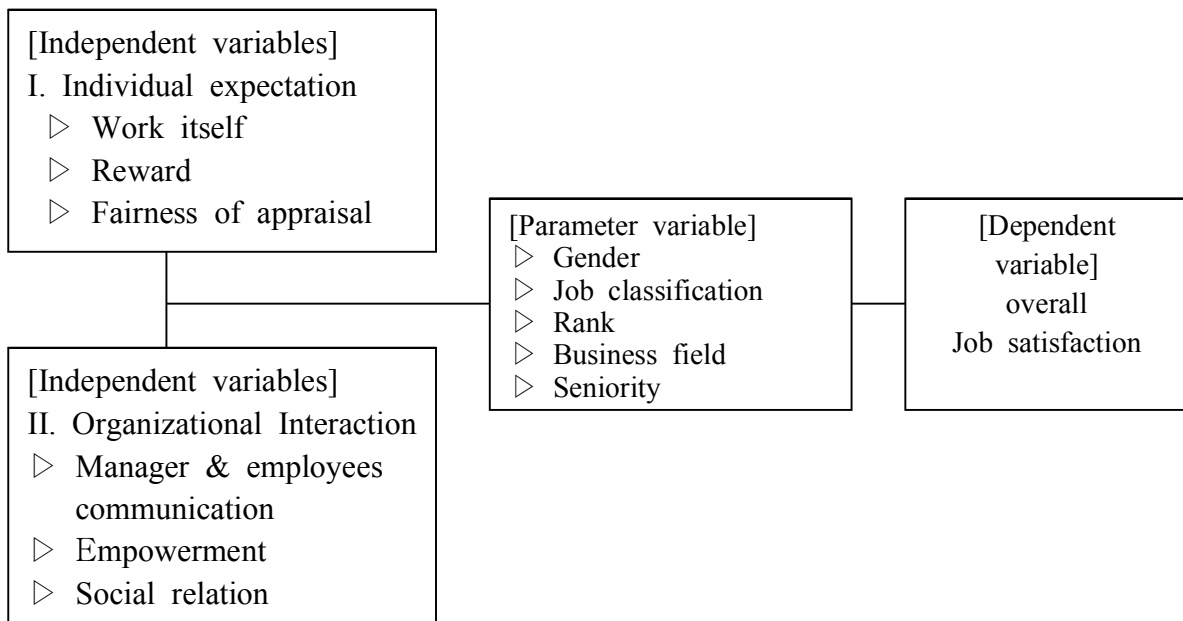
III. The model, hypothesis and variables of study

1. The model of study

Factors that affect job satisfaction are so broad that it is not easy to summarize it in a few dominant clusters. I have attempted to identify some of the more important concerns, from a business organization perspective, and using my own discretion. To discuss these issues I have relied on literature review, as explained in chapter II, plus personal insight from my experience in human resource management, demographic criteria was also taken into account. In setting up the model I established variables that seem significant according to this study that were also frequently presented in previous studies as parameter variables. Among the elements linked with job satisfaction I selected six other elements and combined them into two categories. One is related with individual expectation fulfillment and the other one is related with organizational interaction. As for individual expectancy fulfillment variables, I have chosen three elements often dealt with in studies: work itself, reward structure, appraisal system. The gaps between one's expectation and the result given to individual bring about the perception of satisfaction or dissatisfaction.

Job satisfaction is also believed to be related with work environment, supervisors and co-workers. For the purpose of this study I have chosen three elements which are frequently picked as research topics: communication between managers and employees, empowerment, and social relations within an organization. Interaction with managers and co-workers can create a perception of satisfaction or dissatisfaction. The same is true for empowerment which can come from one's boss, job description, or norms and policy in an organization. However, the level of empowerment is not determined at a certain point, but rather reinforced in a person's daily life by shaping some sort of pattern. I have attempted to make six independent variable clusters which consist of distinguished factors in order to explore this theory. In addition, I have put some variable functioning as a parameter in the middle to complete the diagram which shows the cause and effect in job satisfaction. Figure 6 illustrates the model of this study briefly.

[Figure 6: SDK Model of job satisfaction]



The context of this model implies the overall impact as well as relative impact of each variable and conceivable variable clusters. Furthermore, I tried to capture additional findings from the relationship between independent variables. By deliberately pairing groups on the survey such as leadership style of the immediate supervisors, the nature of task etc., hoping to comprehend the root causes in relation to job satisfaction.

2. Research questions

There were seven research questions used for the survey. I based these questions on literature review and an assumption that is frequently raised in business sector. As I stated earlier, under limited budget and time constraints an organization could not afford to deal with all the variables at once. To single out which ones we can address effectively we first need to understand the relative importance, weight and level of relationship with each dependent variable. In a similar sense, we also need to find the dominant factor that affects job satisfaction in an organization.

The research questions are as follows:

- 1) How much is the overall and relative impact of each independent variable related to job satisfaction?

- 2) What are the two dominant independent variable clusters that affect job satisfaction and their impact on job satisfaction?
- 3) What is the least important variable, in general, that affects job satisfaction within a small portion in a specific organization?
- 4) Which category is more significant in terms of job satisfaction, employee’s individual expectation related factors or organizational interaction related factors?
- 5) How would it be different in relation to job satisfaction by gender, job classification, business area and seniority?
- 6) Is there any correlation between independent variables? If positive relation is detected, which pair has the strongest relationship?
- 7) What would be the strategy or tactics to improve employee’s job satisfaction in respective field or segments?

3. Development of Hypothesis

Based on our 7 research questions a hypothesis was formed to grasp the key findings.

#1 Hypothesis	The relationship between dependent variables and six independent variables respectively showed strong positive relationship. The same goes between independent variables.
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We will make the assumption that there is no remarkable reason for each independent variable to have a negative impact on overall job satisfaction. In my research I was unable to find a negative relationship between them in previous studies. Overall, the six variables were proven to have a significant relationship to job satisfaction by showing a positive relationship in other research studies dealing with similar topics. I found that all six variables are, to some extent, interrelated. For instance, one is likely to have a higher level of satisfaction from a reward system if they feel that the appraisal system is fair. Likewise, all variables are expected to have subsequent effects each other more or less.

#2 Hypothesis	Two factors that most affect job satisfaction would be an equitable reward system and fairness of an appraisal system.
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These two variables seem strongly connected with inequity issues in an organization. “Much of an individual’s satisfaction is based on comparison. Employees compare their input - what they bring and give to the job, with their output - the mix of award they receive. They then compare their own input/output ratio to the ratio of other workers.”³¹ Since employees are very keen to their well being, they tend to take this comparison of their status with others very seriously. For this reason, employees are apt to think rewards and appraisals as the same thing.

#3 Hypothesis	The least significant variable that affects job satisfaction would be the actual work performed (work itself).
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Some airline employees are knowledgeable about their job responsibilities before they enter the company, especially in case of maintenance engineers, mechanics or cabin attendants. Employees may regard their current work as a stepping stone for their next career move. They may look for an opportunity to be assigned to another work area in order to develop a new career program sooner or later. So, the work itself may be the last variable that affects their job satisfaction.

#4 Hypothesis	Organizational interaction related factors (communication between management and employees, empowerment, personal relations) will have more impact on job satisfaction rather than individual expectancy fulfillment related factors.
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It would be expected that we could assume that the impact of interaction related factors would be stronger than individual expectancy related factors. There might be a variation in feelings that affect job satisfaction as the communication channels increase. In this sense organizational interaction factors are likely to present more impact.

#5 Hypothesis	Significant difference should exist in job satisfaction among the group such as gender, job classification, business field, job rank and seniority.
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The least significant factor among these differences should be seniority. Numerous previous studies show cases the difference in levels of job satisfaction by demographic group such as gender etc. The reason I picked seniority as the last variable to show

³¹ Michael Beer, & Bert A Spector, Reward system, 1981, Harvard business review, p. 5

a statistical difference is that a compensation package and positional authority does not automatically increase by that variable.

#6 Hypothesis	The overall satisfaction for one specific variable goes hand in hand with the overall satisfaction for ones job and company.
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Overall satisfaction for one variable does not directly link it to the level of overall job satisfaction since it may be a small portion of the total job satisfaction. Bearing in mind this fact, we could assume that the value of overall satisfaction for one specific variable cluster multiplying weight goes shows a strong relationship.

#7 Hypothesis	Where teamwork is needed, the supervisor should possess a democratic style of leadership and build intimate relationships with employees to achieve a higher level of job satisfaction.
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Teamwork has been described as an important factor that affects product and service in many research studies. Employees who work under democratic or visionary leadership normally have more affection towards co-workers and hold a strong sense of unity.

4. Definition and use of variables in overall job satisfaction

Overall job satisfaction could be defined as a subjective measurement. Each individual employee was required to fill out his/her own satisfaction level over all six independent variables. The definition for each variable was an overall measurement based on a percentage of satisfaction by each subject. Such variables reflect the degree of subjective feeling of job satisfaction with each facet of independent variable.

1. Satisfaction for the work itself - the degree of self - fulfillment through task and achievement level, etc.
2. Satisfaction of the reward system - the degree of satisfaction concerning the level of payment, fringe benefits, training and career development opportunities compared to competing companies in the same industry.

3. Satisfaction of fair appraisal - the degree of individual employee satisfaction on the perception of equity on achievement, and evaluation process.
4. Satisfaction for communication between supervisors and employees - the level of satisfaction on how on individual feels about the degree of mutual affection, loyalty, and respect towards their supervisor's professionalism.
5. Satisfaction for empowerment - the degree of satisfaction towards an individual employee's participation in the decision making process, task, and their influence on an organization.
6. Satisfaction of personal relations - the degree of satisfaction regarding how the employee feels towards the organization, and their co-workers.

Definition of terminologies mentioned in these sections were adjusted during the survey process to help the subjects understand concepts in a more comprehensive manner.

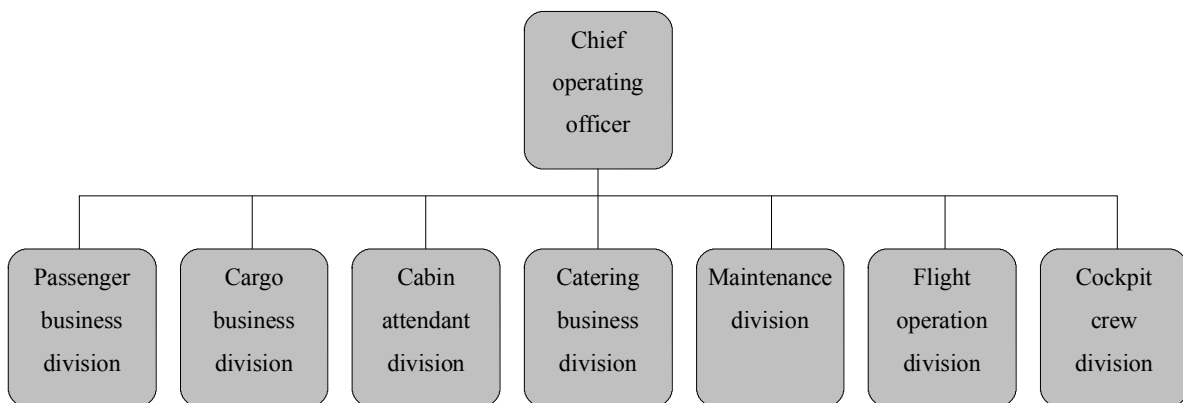
In my attempt to use the variables as a tool of measurement, I used a two measurement scale. One is ratio scale for the measurement of overall satisfaction in both a global aspect and individual facet aspect of each variable. This ratio is shown as a percentage and was the expression of each individual's subjective perception. The other measurement of the variable was the 7-Likert scale, the point selected as a number between 1 to 7(no decimal) which was expression also from individual's subjective perception. The percentage-measured outcomes were placed into statistical software without calculation being used as an index itself. The satisfaction levels measured by the Likert scale were converted to a calculated average (summation of scores in eight sub-question and divided by number of sub-questions) to make an index before going into a statistical analysis. Data was used mainly to detect the relationship between variables, and the calculated average was used to compare the satisfaction level of each variables or sub properties and to draw a diagram in the comparison of their importance(weight).

IV. Survey development

1. Characteristics of subjects

A typical organization chart illustrates the divisions of a company functioning respectively. Each division also plays a part in the matrix structure for on-going projects. An example of this would be a flight providing international passenger and cargo service. For a successful flight to take place requires close cooperation of sales, passenger and cargo traffic, ticketing, catering (for in-flight meal service), cabin attendant, flight crews, etc. Figure 7 shows the organizational structure of said airline.

[Figure 7: main organization chart of D airline]



My survey covered most divisions of D airline shown above with the exception of the cockpit crew which I did not include in the testing process. I chose a single corporate organization to survey, this could be viewed as a limitation of study, but on the other hand it allowed me to interpret the key findings more constructively. The limits I placed on the subject group include: worked for more than 1 year at the company, and those who have just returned from a leave of absence (more than three months) were also eliminated. I also excluded those employees who transferred recently (within three months) from one department to another department, because I felt that they may feel a sense of confusion due to sudden environmental changes and or new organizational culture.

2. Structure of the survey

This thesis used a survey method which was designed using literature review, and a theory for the measurement of job satisfaction. However, there were some modifications used in order to apply various types of questionnaires to measure job satisfaction. The structure of this survey is shown in Table 4. A total of 78 questions were chosen to measure six independent variables and one dependent variable. In each individual section there are also questions asking overall satisfaction for independent variables in addition to the eight sub-questions.

[Table 4: Survey structure of this study]

Variables	Sub category	Source & remarks
1. Work itself	1. Characteristics of assigned work: 1-1 / nominal scale 2. Functions of assigned work: 2-1 / nominal scale 3. Appropriateness of task: 3-1, 3-2 / Likert scale 4. Interest bearing on task: 3-3, 3-4 / Likert scale 5. Feeling of achievement: 3-5, 3-6 / Likert scale 6. Feeling of pride: 3-7, 3-8 / Likert scale 7. Overall satisfaction for work itself: 4-1 / ratio scale	Borrowed criteria partly from Y. J. Park's thesis(2002) ³²
2. Reward system	1. Preference on remuneration: 1-1 / rank method 2. Level of salary: 2-1, 2-2 / Likert scale 3. Salary level in same industry: 2-3, 2-4 / Likert scale 4. Training & career development opportunity: 2-5, 2-6 / Likert scale 5. Fringe benefit: 2-7 / Likert scale 6. Work environment: 2-8 / Likert scale 7. Overall satisfaction for reward system: 3-1 / ratio scale	Borrowed partly Hyun Woo ³³

Variables	Sub category	Source & remarks
3. Fairness of Appraisal	1. Self-evaluation about competency: 1-1 / nominal scale 2. Evaluation results history: 2-1 / nominal scale 3. Elimination of prejudice: 3-1, 3-2 / Likert scale 4. Consistency: 3-3 / Likert scale 5. Accuracy: 3-4 / Likert scale 6. Credibility: 3-5 / Likert scale 7. Distributional justice: 3-6, 3-7 / Likert scale 8. Procedural justice: 3-8 / Likert scale 9. Overall satisfaction for fairness of appraisal: 4-1 / ratio scale	Borrowed criteria partly Pung Un Na's (1998) ³⁴ , with some adjustments and created the questions (2005) and made some adjustment to create the questions thesis and made some adjustment and created the questions.
4. Communication between management and employees	1. Leadership style: 1-1 / nominal scale 2. Leadership style of supervisors: 2-1 / nominal scale 3. Mutual affection: 3-1 / Likert scale 4. Loyalty: 3-2, 3-3, 3-4 / Likert scale 5. Contribution to projects: 3-5 / Likert scale 6. Respect for the leader: 3-6, 3-7 / Likert scale 7. Supervisor's listening attitude: 3-8 / Likert scale 8. Overall satisfaction for communication: 4-1 / ratio scale	Leadership style by Goleman ³⁵ , R.C Lidden J.M Maslyn 'multi-dimensionality of communication between management and employees
5. Empowerment	1. Degree of empowerment in industry: 1-1 / nominal scale 2. Meaningfulness of empowerment: 2-1, 2-2 / Likert scale 3. Capability to taking the role: 2-3, 2-4 / Likert scale 4. Self determination: 2-5, 2-6 / Likert scale 5. Self influence: 2-7, 2-8 / Likert scale 6. Overall satisfaction for empowerment: 3-1 / ratio scale	Spitzer G.M 'Psychological empowerment in work place'

Variables	Sub category	Source & remarks
6. Social relations in an organization	1. Counseling counterpart: 1-1 / nominal scale 2. Respect to co-workers: 2-1 / Likert scale 3. Belongings to organization: 2-2, 2-3, 2-4 / Likert scale 4. Feeling of recognition: 2-5, 2-6 / Likert scale 5. Intimacy with co-workers: 2-7, 2-8 / Likert scale 6. Overall satisfaction for social relations: 4-1 / ratio scale	Borrowed criteria partly Y. J. Park's thesis(2002) ³⁶
7. Overall job satisfaction	1. Key variables for overall satisfaction: 1-1 / rank method 2. Key variables for overall satisfaction: 2-1 / forced distribution method 3. Overall job satisfaction(dependent variables): ratio scale	
8. Demographic data	Sex, rank, seniority, job classification, type of business etc.	

Type of questionnaires used included several types including nominal scale, rank method, forced distribution method, ratio scale as well as the Likert scale. Questions for overall satisfaction for each independent variable will be used as independent variable cluster as well as for dependent variable so as to measure overall satisfaction for one specific cluster how much variation can be explained by the independent variables.

3. Statistical treatment of Data (Data cleansing)

Data from the surveys were entered into Mintab 14.0 version. Before the data was placed into a statistical package some data was removed. The number of initial subjects

³² Park, Young Ju, 'study on factor of job satisfaction and correlation of job satisfaction of male and female hotel employees, 2002, thesis for master degree, Kyunggi University, Korea

³³ Woo, Hyun Woo, 'a study on the effects of job insecurity on organizational commitment'; Moderating effects of justice of personnel performance appraisal system and reward satisfaction, 2005, thesis for master degree, Hanyang university, Korea

³⁴ Na, Pung Un, 'an empirical study on the effects of perceived organizational justice on organizational commitment and job satisfaction, 1998, thesis for master degree, Yonsei university, Korea.

³⁵ Goleman, 'leadership that gets results, HBR March-April 2000

³⁶ Park, Young Ju, 'study on factor of job satisfaction and correlation of job satisfaction of male and female hotel employees', 2002, thesis for master degree, Kyunggi University, Korea

was 12,242. The response rate was about 97.0 % (n= 11,875) then the number of subjects was reduced to 6,783 after the data cleansing process. Data was discarded if a subject put more than five points in one of the columns of questions where the subjects were supposed to allocate ten points to each independent variable. I also deleted data sets where the answers in those columns filled with a zero value. (Keeping in mind that zero values would give extraordinary impact on the outcome this could lead us to some misinterpretations, especially when we conduct a regression analysis.) Other data sets were excluded if consistency was questionable by looking at the pattern of subjects answers. Some subjects were given more than 90 (ninety) percent on the column of overall satisfaction for each independent variables or dependent variables. However, the score they gave in each survey questionnaire in detail measuring by Likert scales is below two points out of seven points or vice versa. The author extracts those data sets whose discrepancy surpass the limit (i.e. 50 %) when the scale is converted into ratio scale. These responses are presumed to have made without sincerity or lack contemplation. In addition, there was some data set which violates the validation rules. For instance, the subjects were supposed to pick two lists but only picked one.

V. Key findings from survey

1. Demographic statistics for the subjects

[Table 5: Demographical statistics]

Category	Sub category	# of employee	Portion
Gender	Male	4,639	68%
	Female	2,144	32%
Age	25 and below	355	5%
	Between 26 and 30	1,136	17%
	Between 31 and 35	1,410	21%
	Between 36 and 40	1,376	20%
	Between 41 and 50	1,986	29%
	51 and above 55	790	12%
Seniority	3 years and below	355	5%
	Between 4 and 8 yrs.	1,698	25%
	Between 9 and 12 yrs.	994	15%
	Between 13 and 16 yrs.	1,240	18%
	Between 17 and 20 yrs.	1,056	16%
	21 years and above	1,440	21%
Rank	General Manager	520	8%
	Deputy General Mgr.	1,105	16%
	Manager	1,804	26%
	Asst. Manager	1,533	23%
	Employee (No title)	1,821	27%
Job classification	Ground staff	2,118	31%
	Engineer/mechanics	2,855	43%
	Cabin attendant	1,576	23%
	Others	234	3%

*based on self-report data

As we see in the table above the sample size is large enough to represent whole population. Almost 57% of respondent's responses were put into analysis even after the process of data cleansing process. (about 97% of responses rated were shown on the website survey on which anonymity was guaranteed.)

Taking the diversity of employees in the airline industry into account, I tried to select subjects that were representative so as to reveal the characteristics of this business organization with high validity. Instead of using a sampling method to compose a ratio

of the entire company the survey was distributed to almost all employees (excluding cockpit crew). My goal was to make the respondent rate higher by setting the default rule which does not allow them to skip the survey in order to proceed to the compulsory performance in-house evaluation process. As a result, the group definitely represented all employees in terms of gender, job classification, seniority, job title or rank, location and business field. Therefore, all the characteristics of subjects are well reflected in these statistics.

2. Result of Hypothesis test

The result of the seven hypothesis test helped us to understand the characteristics of employee’s satisfaction in D airline. On one hand there are some aspects which revealed what my hypothesis’ assumed, and on the other hand there are other results which indicated contradictory aspects. In preparing my outline I tried to apply several statistical tools to one hypothesis in order to rule out the validity. Here are the results of hypothesis test where each one was tested and some graphical tools depicted the specific characteristics.

#1 Hypothesis	The relationship between dependent variables and six independent variables respectively showed strong positive relationship. The same goes between independent variables.	Result
		Hold

Through correlation analysis we are able to detect that all independent variables more or less have a strong impact on dependent variables (overall job satisfaction). Table 6 simply shows that the Pearson’s correlation coefficients were from the minimum 0.438 (Manager-Employee communication) to 0.633 (work itself). The correlation between independent variables also show positive relation from 0.284(Reward vs M-E comm.) to 0.559(Reward vs Appraisal).

However, correlation did not measure relative impact on dependent variable. Rather, it just showed individual relations without any influence of other independent variables.

[Table 6: Correlation Coefficients]

	Work itself	Reward	Appraisal	M-E communication	Empowerment	Social relations
Reward	0.384					
Appraisal	0.325	0.559				
M-E communication	0.326	0.284	0.351			
empowerment	0.456	0.374	0.374	0.414		
Social relations	0.446	0.315	0.352	0.461	0.515	
Overall job satisfaction	0.633	0.465	0.451	0.438	0.550	0.582

*P values for all columns are less than 0.05(all pairs showed 0.00)

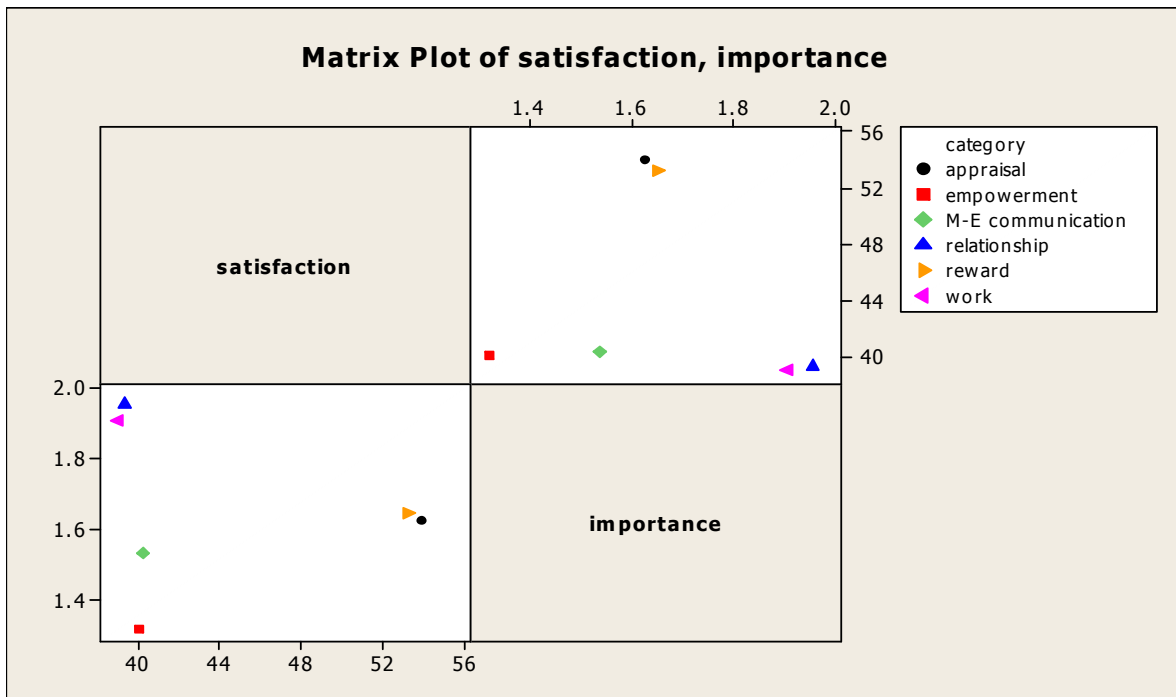
Another way of looking at this hypothesis was using a multi-linear regression method. The results showed that the independent variables, as a whole set, explained the variations in the dependent variables to a higher level of degree (R square; 58.1%, F: 1565.63, $p = 0.00$). By running a simple linear regression it also revealed that all independent variable clusters explained the variations of dependent variable to some degree; work itself (r square: 40.1%) reward system (21.6 %), fairness of appraisal (20.4%), manager – member communication (19.2%), empowerment (30.2%), social relations (33.8%).

As a result, we could conclude that six independent variables have strong positive relationships with dependent variable, respectively, or as one pair each other. So we held the hypothesis number 1.

#2 Hypothesis	Two factors that most affect job satisfaction would be an equitable reward system and fairness of an appraisal system.	Result
		Reject

In order to depict a correlation between each factor and overall job satisfaction a diagram was drawn up to show its relative importance and overall satisfaction for each independent variable. Figure 8 shows that relationship.

[Figure 8: Satisfaction vs. relative importance of each independent variable]



This figure implies that the work itself and social relations in an organization are two of the most important factors in its relative importance as a cluster. The overall degree of satisfaction is relatively quite low in comparison with their importance. So, those two factors are the ones the organization should focus.

Another way of proving the key variable of work itself plus personal relations is through the best subset test in multi linear regression which the Minitab software provided. The table 7 demonstrates which set of independent variables will be greatly affected. Two independent variable clusters (work itself plus social relation) would demonstrate the highest relatedness (R square: 51.3%).

[Table 7: Best subset in multi linear regression analysis]

# of variable	R square	R square (adj)	C-p	S	Work itself	Reward	Appraisal	M-E communication	Empowerment	Social relations
1	40.1	40.1	2906.1	6.789	x					
1	33.8	33.8	3920.6	7.136						x
2	51.3	51.2	1103.9	6.125	x					x
2	48.7	48.7	1515.5	6.283	x				x	
3	54.7	54.7	551.1	5.906	x	x				x
3	54.6	54.6	562.0	5.910	x		x			x

As a result we may conclude that the set of combination that affects dependent variables is work itself and social relations in an organization, so we rejected the hypothesis number 2.

#3 Hypothesis	The least significant variable that affects job satisfaction would be the 'work itself'(actual work performed).	Result
		Reject

As we have seen with the result of Hypothesis #2, work itself and social relations in an organization have a very high impact on job satisfaction as a key factor. Looking back to the analysis for verification we might conclude that the candidate for least significant variable is empowerment or communication between management and employees.. Employees put a small score on those two factors and the satisfaction level for two variables was not very high. The satisfaction level for empowerment is slightly lower than communication between management and employees, however, the simple linear regression analysis showed empowerment has accounted for much the variation in dependent variable than communication did (R square: 30.2% > 19.2%). Along with these figures, the set of five independent variables as empowerment was included, while communication between management and employees was excluded from the set.

All in all we are able to conclude that empowerment or communication between management and employees would be the least independent variables. So, hypothesis number three (#3) was rejected.

#4 Hypothesis	Organizational interaction related factors (communication between management and employees, empowerment, personal relations) will have more impact on job satisfaction rather than individual expectancy fulfillment related factors.	Result
		Reject

I used multi-linear regression to test this hypothesis. The three independent variables were combined as a set of one multi-clusters. The R square, after running regression, revealed that the individual expectancy related variable cluster shows a slightly higher number (R square 48.5%) than organizational interaction related factors (R square 44.0%). We could interpret the gap between individual expectations and perception. In reality, this has a greater effect on job satisfaction, rather than the perception acquired by organizational interaction. So, hypothesis four (#4) was rejected.

#5 Hypothesis	Significant difference should exist in job satisfaction among the group such as gender, job classification, business field, job rank and seniority.	Result
		Reject

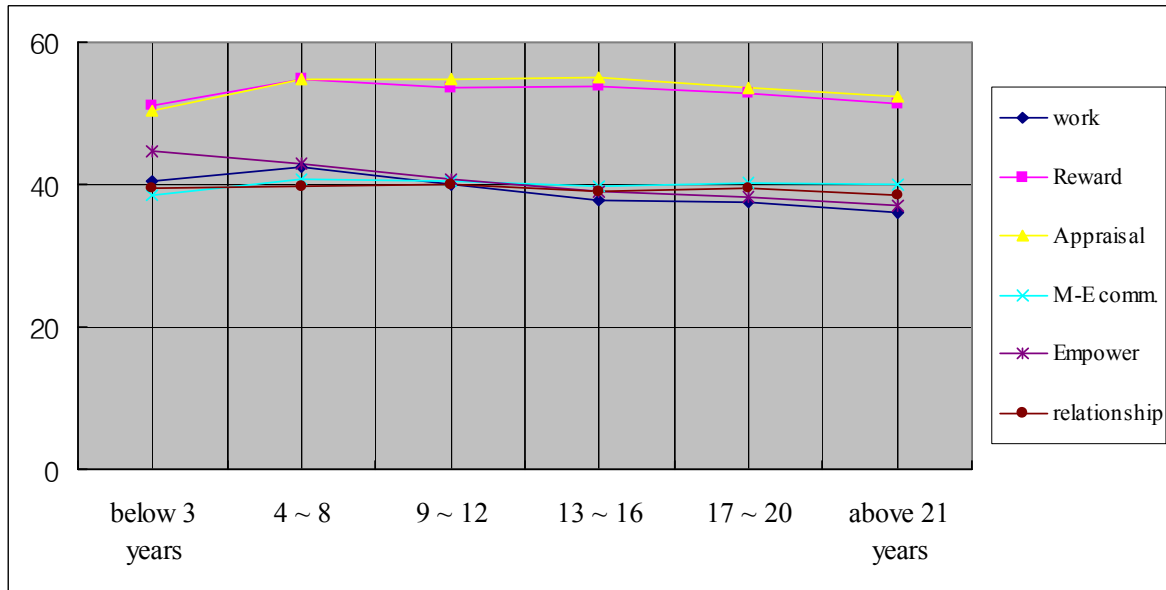
To review which demographic variables had a stronger impact on job satisfactions I applied a general linear model tool. The influence of the independent variable - seniority (tenure) was depicted as one of the most influential factor. Table 8 was the result of GLM test.

[Table 8: Result of GLM test by parameter variables]

	df	Seq SS	Adj SS	Adj MS	F	P
Task	1	209318.6	41876.5	41876.5	1032.88	0.000
Reward	1	30160.4	4649.2	4649.2	144.65	0.000
Appraisal	1	13553.9	3446.6	3446.6	107.23	0.000
M-E Comm.	1	15833.2	2501.6	2501.6	77.83	0.000
Empowerment	1	16677.3	6781.8	6781.8	211.00	0.000
Social relations	1	17676.2	17173.3	17173.3	534.30	0.000
Gender	1	0.7	62.1	62.1	1.93	0.165
Age	5	154.2	288.0	57.6	1.79	0.111
Tenure	5	690.5	552.1	110.4	3.44	0.004
Rank	4	158.6	139.4	34.9	1.08	0.362
Job classification	3	501.2	127.7	42.6	1.32	0.264
Business sector	14	453.4	453.4	32.4	1.01	0.442
S = 5.669 r square = 58.47% , r square adj = 58.24%						

The variable p value for tenure shows the lowest p value (0.004) on job satisfaction, which could be a very controversial finding. We need to verify this finding by measuring the level of satisfaction for each variable by the group in detail. The ANOVA test ran on the group reveals that all groups differ in terms of mean and variation (F value 21.96, P value 0.00). Nevertheless, the sum as explained by the total variation comes down to just 1.52% which means that their relevance seems to be very low. Along with the low level of R square for overall job satisfaction, the mean of the score for each independent variable cluster does not significantly increase or decrease by seniority. Figure 9 depicts such a phenomenon.

[Figure 9: Satisfaction level for each variable by seniority]



The statistics we saw have led us to reject the hypothesis #5 since no distinctive difference was found.

#6 Hypothesis	The overall satisfaction for one specific variable goes hand in hand with the overall satisfaction for ones job and company.	Result
		Hold

In an effort to test this hypothesis, the scores for each variable were recalculated by multiplying the weight. The weight was given a calculated average by dividing the sum of allocated points in each independent variable by the number of subjects. The converted number of each independent variable functioned as new value of independent variable in multi-linear regression. The results were shown as R square 54.0%, F=1327.27, p value = 0.00. It indicated that the weighted value of each independent variable could explain the variations in the dependent variable which was overall job satisfaction. However, in comparison with the independent variable set, as it was (r square 58.1%), the strength of the relationship is not expected to be strong enough by making a judgment using the R square values.

The estimation predicted that hypothesis number six (#6) would hold.

#7 Hypothesis	Where teamwork is needed, the supervisor should possess a democratic style of leadership, and build intimate relationships with employees to achieve a higher level of job satisfaction.	Result
		Hold

As a result of an average calculation and frequency analysis I was able to depict the strongest link that showed high level of satisfaction for independent variable cluster. The tabular 9 below illustrates this point.

[Table 9: Strongest link]

Category	Work Itself	Appraisal Results	Leadership Style	Empowerment	Social Relations
High level of satisfaction	Teamwork, customer service emphasized	Evaluated upper 5%	Visionary + affiliate style	High level of empowerment	Good relations with fellow employees

Criteria used: those assigned a job where teamwork and customer service are stressed;
 evaluated in the upper 5% of all employees;
 immediate boss has supervisor style of visionary and affiliate;
 organization demonstrated high level of empowerment;
 have good relations with fellow employees;

My theory was that employees who meet this criteria have a much higher probability of expressing a high level of job satisfaction.

[Table 10: Weakest link]

Category	Work Itself	Appraisal Results	Leadership Style	Empowerment	Social Relations
Low level of satisfaction	Physical strength, stamina, teamwork emphasized	Evaluated lower 5%	Commander + pacesetter style	Low level of empowerment	Poor relations with fellow employees

Criteria used: those assigned a job where physical strength or stamina are required;
 building human network is primary his/her task;
 are evaluated lower 5% among all employees;
 immediate boss has leadership style of commander and pace-setting;
 whose organization demonstrated low level of empowerment;
 have poor relationships with their fellow employees;

My theory was that employees who meet this criteria number have a much higher probability of expressing low level of job satisfaction. As a result, hypothesis #7 has been verified.

Apart from these hypothesis tests there are some other key findings which are noteworthy. For instance, when we delve into leadership types, overall satisfaction levels is pretty high or low in accordance with the style used. Table 11 explains the results.

[Table 11 : Satisfaction level concerning leadership style]

Combination of Type	Satisfaction Level	Rank	Portion
Visionary + affiliate	83.1	1	6.1 %
Affiliate + democratic	82.2	2	19.8 %
Visionary + coaching	82.2	3	3.0 %
Affiliate + coaching	82.1	4	5.7 %
Commander + democratic	74.2	13	1.6 %
Pacesetting + coaching	73.8	14	4.7 %
Commander + pacesetting	72.1	15	18.7 %

If the employee's ideal type of leader in an organization matches the current supervisor (match up rate: 21.5%), the satisfaction level is much higher. Through further investigation of each independent variable many phenomena could be explained. We found that the feeling of achievement and sense of pride have a relatively low score. Feelings of recognition and levels of intimacy with coworkers also recorded a relatively low score. Table 12 illustrates the average score by property of the two variable clusters.

[Table 12: Scores in sub properties of 'Work Itself' & 'Social Relations']

* converted score from 7 Likert scale

Work itself	Appropriateness of task	Interesting aspects	Feeling of achievement	Sense of pride
Avg.	44.6	42.3	35.7	33.5

Social relations	Respect of coworkers	Belonging	Feeling of being recognized	Intimacy with coworkers
Avg.	42.1	40.5	38.0	36.6

As we consider the issue of fair appraisal and reward systems, we could conclude that most aspects recorded a relatively high score. Fair appraisal, elimination of favoritism, consistency, accuracy & credibility marked a high score. 62.6% of subjects rated that

they feel their competence is fairly evaluated or even overrated. With regards to reward systems, the properties in relation to salary level, training & career development and work environment had a higher score. Table 13 illustrates the average score by the those two variable clusters.

[Table 13 : Score in sub properties of ‘Appraisal Fairness’ & ‘Reward system’]

Appraisal fairness	Elimination of favoritism	Consistency	Accuracy & credibility	Distributional justice	Knowledge about process
Avg.	54.7	57.4	54.7	54.7	50.5
Reward system	Salary level	Salary level compared to competitors	Training & career development	Fringe benefit	Work Environment
Avg	50.5	55.2	54.6	50.0	55.4

The statistical data on properties of communication between management and employees and empowerment largely presented relatively low scores. The fact that the level of importance subjects give to this variable is also low, indicates that this variable has a loose relationship with job satisfaction and employee motivation. Therefore, this study will not further investigate the properties of the variables.

VI. Conclusion

1. Summary and managerial implication

The conclusions which can be drawn from this study are as follows:

- 1) Primary variable clusters consisted of ‘work itself’ and ‘social relations’ were shown to have a relatively significant impact on job satisfaction. The noticeable properties of those variables are a sense of achievement and pride concerning the ‘work itself’. Feeling of recognition and intimacy with co-workers are reviewed in terms of ‘social relations’
- 2) The individual expectation related factors that affect job satisfaction were slightly higher than organizational interaction related factors.
- 3) An employee’s perception of reward structure and fairness of appraisal was shown to have a relatively positive result.
- 4) Among demographic variables there were no significant parameters that affect job satisfaction when all variables were in effect simultaneously.
- 5) The study also indicated that employees who are assigned to the job where teamwork and customer service are primarily stressed, and are working under an affiliate and democratic leader, and who have no conflict in personal relations in an organization, have a demonstrated high level of job satisfaction.

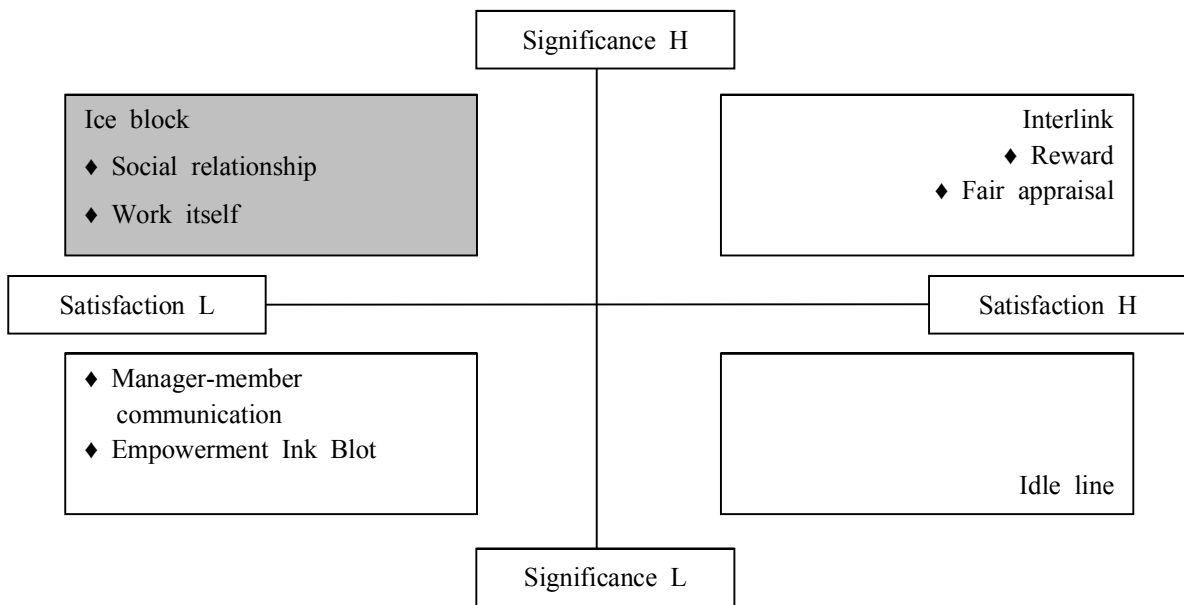
Having reached these conclusions our next task is to research the managerial implications with suggestions to improve the level of job satisfaction. The result showed that work itself and social relations within an organization are the dominant variables. To depict this feature, we need to draw a diagram once more as described in Figure 10.

If we apply a theory of a Japanese scholar’s publication “Motivation Company”³⁷, we

³⁷ Ojasa yoshihisa, ‘Motivation company’, 2003, trans. Korean, p. 114

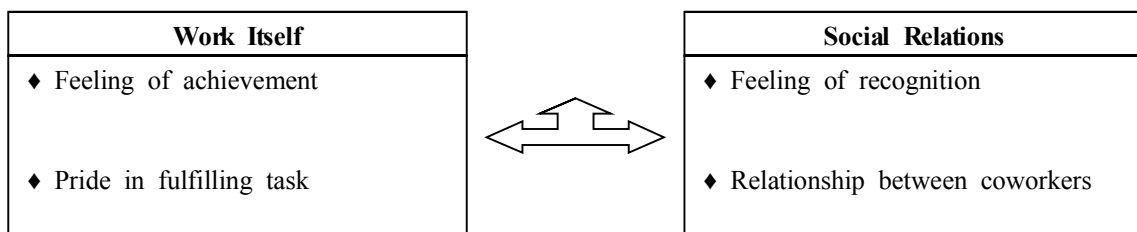
are able to apply our survey result in two by two diagrams. The figure indicates the target region that needs further improvement. The left column and high section termed as ‘Ice block’ are the section we should focus with the most attention. Once the vulnerable region has been acknowledged the prioritized variable clusters for improvement need to be shifted to the interlinked area.

[Figure 10: Four eye approach, by significance & satisfaction]



In order to improve the job satisfaction level, we should analyze the relatively weakest aspects for these variables by looking at the points of each questionnaire with respect to properties of these variables. The figure 11 shows once again that the prioritized target for job satisfaction is ‘work itself’ and ‘social relations’. The result of this analysis indicates which segments need prior attention.

[Figure 11: The prioritized target areas]



Employees at the subject company rated higher points to ‘appropriateness of job task’ and ‘interest bearing on task’. Subsequently, they gave lower points to ‘feelings of achievement’ and pride in ‘work itself’. We will interpret these facts to show that the company should strive to raise the difficulty of work and reduce the ambiguity of the task.

The existing theory in the organizational behavior area gives us a hint that motivation through job designs, job rotation and job enrichment³⁸ are the key in reorganizing the assignment of tasks to employees. It would be necessary to set criteria for the ‘work itself’ and give a higher ranking to make sure that employees are assigned adequate tasks. The key findings in regards to ‘work itself’ also indicate that the job design and career development path should be clearly communicated to employees so they will understand their future development more easily. In other words, the company needs to draw a career development path in conjunction with required knowledge and skills.

Tom D. Taber; George M. Alliger made a point about job design by setting up ‘task importance, task complexity, level of supervision on task, level of concentration required on the task, time and task enjoyment’.³⁹ Those are key dimensions we should consider concerning job design, enlargement and enrichment. Several of the employee satisfaction variables that demonstrated a moderate to strong relationship with the financial variables were related to the job itself, the ability to use one’s skills and abilities on the job, the need to be recognized for those skills and abilities and the opportunities to improve job skills. Ludeman (1989) describes these characteristics as an employee’s need for self-fulfillment and directly linked them to a person’s self-esteem. The research suggests that managers should seek out ways to make the work more interesting and less routine.⁴⁰

Likewise we could detect that employees in the company we studied gave higher point values to respect of co-workers and sense of belonging to the organization while giving

³⁸ Robert Kreitner, Angelo Kinicki, Organization behavior, McGraw Hill, 6th edition 2004, p. 270

³⁹ Tom D. Taber; George M. Alliger, A Task-Level Assessment of Job Satisfaction
Journal of Organizational Behavior, Vol. 16, No. 2. (Mar., 1995), pp. 101~121

⁴⁰ Topolosky, ‘Linking employee satisfaction to business results’, 2000, Garland, p. 63

lower points to being recognized and a sense of intimacy with coworkers. Evidently, being a dominant player in an organization is a common goal for any employee, however, people are apt to lose confidence if they are not recognized by management. Also, they are likely to have greater difficulty in maintaining good relationships with their coworkers if they can not develop and maintain teamwork in their departments.

Southwest Airlines is known for recognition of its employees. In an effort to build teamwork among their employees, the organization looks for innovative ways to recognize and celebrate them. Table 14 compares the way Southwest Airlines against other Airlines in this issue.⁴¹

[Table 14: Difference in recognitions and celebrations for Southwest airlines]

	Typical company	Southwest airlines
Type of event	Major anniversaries and holidays	Multiple celebrations for employee accomplishments
Number of celebration	Dozens annually	Hundreds annually
Sponsorship	Human resource department	Line managers and employees themselves
Employee reaction	“Ho-hum, do we have to do this again”	“Wow! This is really fun”
Funding	Company funded only, typically on company time	Often funded by employees themselves, typically on their own time

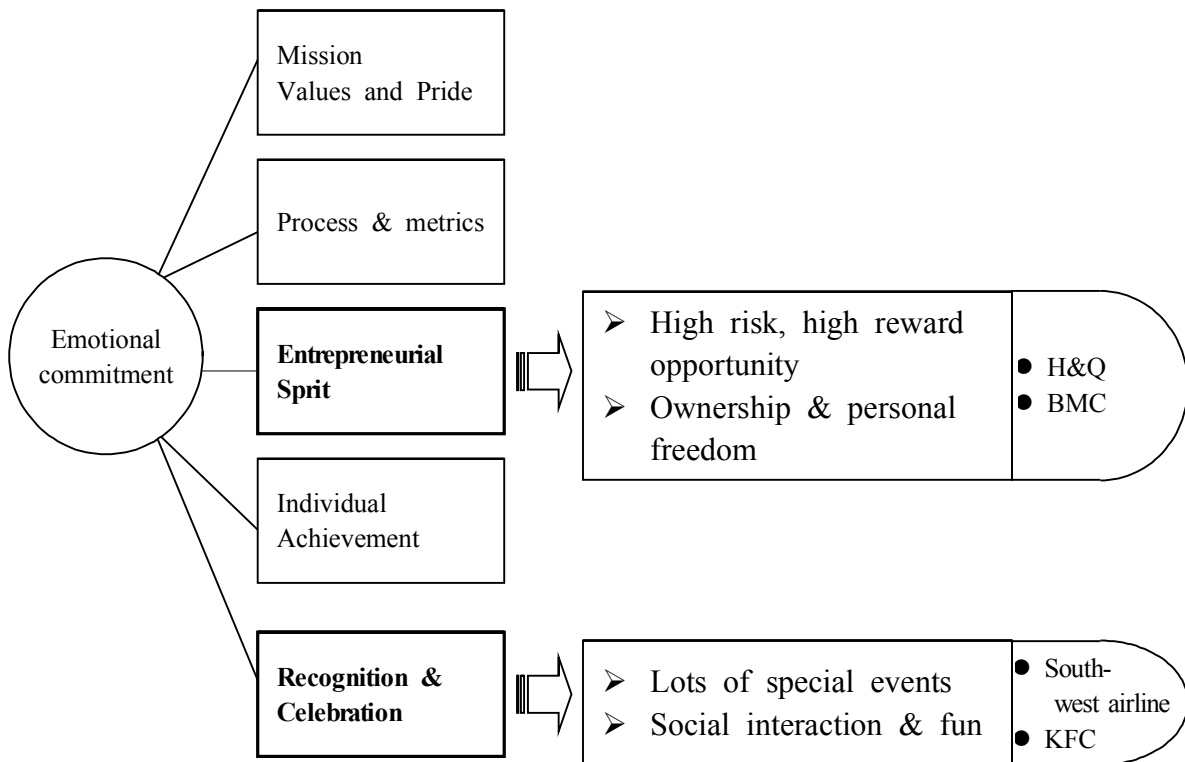
Like Southwest Airline’s self-proclaimed motto ‘the fun and wacky company’ the organization needed to develop its own company culture and create a brand name that would be highly recognized by the public. We need to also take a more systematic approach concerning a job design & career development plan, and increase the level of recognition and celebration within an organization to improve overall job satisfaction. Recommendations made in this report are similar to the solution for emotional commitment that Katzenbach once suggested.⁴² Work itself should be revised in a way that will also boost company spirit. Furthermore, authority and responsibility should be distributed according to the rank and position of the employees in order to improve job satisfaction.

⁴¹ Katzenbach, Peak performance, HBS Press, 2000

⁴² Katzenbach, Peak performance, HBS Press 2000

Providing opportunities for special events and social interaction would enhance employee recognition.

[Figure 12: Katzenbach's Emotional commitment]



What stands out in this study is the fact that the subjects under visionary, affiliate and democratic leadership style are likely to have a higher level of satisfaction. From a managerial aspect, this organization definitely needs to educate their leaders so they will possess the desired leadership styles we have discussed through training courses.

In addition, we were able to find the relatively small impact of reward and appraisal on job satisfaction from this study. One of the accepted formulas for enhancement of employee job satisfaction was feedback with rewards such as promotions, merit payments and fringe benefits based on a fair appraisal system. However, that formula did not demonstrate a strong impact based on research that was available to us. If we borrow Herzberg's theory (1957) asserting that he classified pay as a 'dis-satisfier' indicating that motivation is not a direct result⁴³, reward based on a fair appraisal system would

⁴³ Topolosky, "Linking employee satisfaction to business results, 2000, Garland, p. 64

not play a big role affecting job satisfaction, rather, presumably, it would play a significant role in job dissatisfaction. This study suggestively illustrated an employee's needs become diverse and reward factors become less significant. Employees like to have more fun in the work place as well as build stronger feelings of teamwork with their co-workers. Management needs to formulate major variables to optimize job satisfaction. The social trend so called 'downshift' might accelerate the diversification in employee's needs. It is highly recommended that the corporate organization endeavor to keep redefining employee needs in terms of job satisfaction and strive to reframe its view in accordance with these changing needs and trends.

VII. Limitations of this study and further study

1. Limitation of this study and discussion

Despite the numerous findings, a few limitations were observed in this study. First, the study deals with an outcome at a specific period of time and does not provide us with a comparison based on foregoing research. This is because the method used in this approach is unprecedented and the questionnaires are newly developed for this specific study. Consequently, further research should be directed at determining how the outcome could differ from this study according to periodical research. Second, the limitation of this study is the sampling problem. Certainly, there are no problems in the sample size itself as it fully covered the population and was distinct from other studies done on this topic. But, despite the size of the sample itself, the study was limited to a single company, which could be insufficient to represent the entire airline industry. It is highly recommended that the next research should encompass other industries in order to capture the characteristics of each industry. Third, the study is limited and targeted only the Korean employees of the subject company. In order to obtain a complete picture of this company the subject group should be expanded on a global scale. In doing so, various cultural aspects among the region can be reflected in the study.

The principle component analysis and factor analysis were selected to test the validity of my findings. Some questions (5 out of the 56 questions asked in Likert scale) should have been eliminated from the analysis for improvement of accuracy, however, this study did not exclude those questions. My reasoning for this was the possibility that this was caused by a misinterpretation due to the language barrier. The forthcoming study should consider the elimination of those questions or modifications. An additional limitation was made with regards to the weighted average of job satisfaction based on its relative importance. My study depicts characteristics based on the relative importance of each independent variable, however, it fails to formulate or set up the weighted satisfaction as a dependent variable. It is not appropriate to run a regression analysis by adding or multiplying the value in an independent variable column. Another question that merits

further discussion is the respondent's different responses for individual questions. Some questions, such as the Likert scale, did not match the overall satisfaction in ratio scale for independent variable clusters. This could cause discrepancy in statistical analysis and its interpretation to some extent. My study could have had more consistent result if the same measurement scale is used.

2. Further study

Future study should follow to prove that the approach used for this study is valid enough to measure job satisfaction and prioritize the primary variables. By expanding the study to a global level, we may find more clues to capture the uniqueness and limitation in this type of research in a more constructive manner. And, we may extend this research periodically on a regular basis to detect the trends and changes of the satisfaction level of an organization to look for the root causes that affect job satisfaction. The factors that were not included in this study such as job security, organization culture, self-efficacy etc., could be significant factors in the future studies.

Despite the limitation of this study, it could serve as a cornerstone to measure job satisfaction and a prioritization of variables to enhance the level of job satisfaction in a complex business environment.

[ANNEX I : Survey questions]

This survey is designed to measure employees' job satisfaction and to use the findings as a basis for future human resources management in general. Your response will be a great help for more systematic and scientific HR management.

Please feel free to express your honest opinions. All information will be treated anonymous and strictly confidential. Part of the survey result will be available to you in the near future.

For any questions regarding the survey, send an e-mail to dk-shin@xxxxxx.com.

From now on, you will answer various determinants of job satisfaction by section.

Part I

A. Work Itself

1. What are the requisite qualifications to carry out your duty? Choose two most relevant factors.

a. Creativity/planning ability	b. Teamwork
c. Security mindset/Observance of rules & regulations	
d. Customer service mindset	e. Tolerance to stress
f. Physical fitness/Stamina	g. building internal/external relations

2. What category best describes your job?
 - a. Staff (administration/support function)
 - b. Front-line services (operation function)
 - c. Staff related 1/2 + front-line services related 1/2
 - d. Staff related 2/3 + front-line services related 1/3
 - e. Staff related 1/3 + front-line services related 2/3

3. Please indicate your level of agreement with each of the following statements about your job. Click the appropriate answer.
 - 3-1. My current job fully utilizes my professional strengths and passion.

(Strongly Disagree)	1	2	3	4	5	6	7	(Strongly Agree)
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- 3-2. The amount of work I am asked to do is reasonable.
(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
- 3-3. Doing my job well gives me an intelligent stimulus and satisfaction.
(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
- 3-4. I feel interested and fulfillment in my current job.
(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
- 3-5. My current job will be a big stepping stone to carry out a higher level of responsibility in the future.
(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
- 3-6. My job greatly contributes to the organization and the Company.
(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
- 3-7. My job is unique in that a great deal of know-how and special skill is needed to perform my job duties.
(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
- 3-8. I take confidence and pride in my current job.
(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

4. What is your OVERALL level of satisfaction with your current work assigned?
(Answer in percentage terms with a multiple of 5)
() %

B. Reward System

1. In case the Company intends to invest a limited budget, which is the most compelling factor that needs to be increased? Choose only two and indicate first and second preference.
- a. Salary, bonuses and etc. () rank
 - b. Support of ticket, school expenses, nursery fee, and etc. () rank
 - c. Expansion of employee convenience facility (lounge, nursery, etc.) () rank
 - d. Access to company-sponsored internal and external professional development () rank
 - e. Improvement in work-related equipment and working environment () rank

f. Support of club and hobby activities () rank

g. Other () rank

2. Please indicate your level of agreement with each of the following statements about your monetary and non-monetary rewards. Click the appropriate answer.

2-1. My salary and bonuses fully reflect my contribution.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-2. I have no complaint on compensation-determining components (including salary, bonus and incentive program etc)

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-3. My salary is competitive with similar jobs.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-4. My promotion/pay raise/salary has truly reflected my contribution.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-5. I receive enough training and education I need to do my job well.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-6. I am provided with enough career development opportunities to do my job.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-7. My fringe benefits (including holidays, tickets, and school expenses) are fair and reflect my contribution.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-8. The necessary facility and equipment is in place and accessible for me to get my job done.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3. What is your OVERALL level of satisfaction with your compensation package?

(Answer in percentage terms with a multiple of 5.)

() %

C. Performance Appraisal System (Fairness)

1. How do you objectively rate your performance and competitiveness within the

3-7. An appropriate appraisal is undertaken with due consideration to my work performance.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-8. I have a good understanding of the Company's appraisal procedure and policy.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

4. What is your OVERALL level of satisfaction with the Company's personnel/work performance appraisal? (Answer in percentage terms with a multiple of 5.)

() %

D. Leadership style & Communication between manager and employees

1. What style of leadership do you think works best for your team/group? Choose two of the following styles.

- a. Commanding: Rather coercive and authoritarian but makes efficient decision making. (Demands immediate compliance)
- b. Visionary: A good goal setter, in line with mid-and longer term objectives (move people toward a new vision)
- c. Affiliate: Creates a good team work with rapport-building skills and sets a good example. (Creates harmony and teamwork)
- d. Democratic: Acknowledges and respects group members' personalities and their opinions. (Build consensus through participation)
- e. Pacesetting: Focuses on achievements about specific objectives. (Sets high standards and meet challenging goals)
- f. Coaching: Helps group members grow by mentoring at work. (Develop people for the future)

2. Whereas with regard to No.1, what style of leadership do you think your team/group's supervisor utilize? Click two of the following styles.

- a. Commanding: Rather coercive and authoritarian but makes efficient decision making.(Demands immediate compliance)
- b. Visionary: A good goal setter, in line with mid-and longer term objectives (move people toward a new vision)

- c. Affiliate: Creates a good team work with rapport-building skills and sets a good example. (Creates harmony and teamwork)
- d. Democratic: Acknowledges and respects group members' personalities and their opinions. (Build consensus through participation)
- e. Pacesetting: Focuses on achievements about specific objectives. (Sets high standards and meet challenging goals)
- f. Coaching: Helps group members grow by mentoring at work. (Develop people for the future)

3. Please indicate your level of agreement with each of the following statements about your immediate supervisor's communication & leadership style for the recent three years (appraiser I). Click the most appropriate answer.

3-1. It is fun to work with my immediate supervisor, and I like him or her personally.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-2. My immediate supervisor has confidence that I am fully capable of fulfilling my job requirements.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-3. My immediate supervisor tries to protect me when I come under blame or logical attack by others.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-4. My immediate supervisor tries to defend me if my mistake was not intentional.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-5. My immediate supervisor gladly makes extra efforts to achieve set goals and objectives.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-6. My immediate supervisor's knowledge and skills are much worth respecting.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-7. My immediate supervisor has a special ability to find out what should be a priority.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-8. My immediate supervisor encourages me to offer more opinions and ideas for improvement.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

4. What is your OVERALL level of satisfaction with your immediate supervisor's leadership style? (Answer in percentage terms with a multiple of 5)

E. Empowerment/Autonomy

1. What is (Company name) level of empowerment to working-level compared to the competitors or other comparable corporations in Korea?

a. Very high b. High c. Average d. low e. Very low

2. What is your team/group's level of empowerment and autonomy compared to other comparable teams/groups in terms of size and work performed?

a. Very high b. High c. Average d. low e. Very low

3. Please indicate your level of agreement with each of the following statements about your team/group's empowerment. Click the most appropriate answer.

3-1. I think it is important to obtain necessary information from supervisors to get my job done.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-2. I find it meaningful to participate in decision making process during work.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-3. I have confidence in my ability to carry out my job responsibilities.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-4. I have fully acquired skills required for my job.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-5. I am allowed much autonomy at the stage of planning my work.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-6. I think many decisions are at my discretion during the process of carrying out my duties.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-7. My impact on the team/group's work activities is considerable.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3-8. My control on the team/group's work activities is significant.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

4. What is your OVERALL level of satisfaction with empowerment or autonomy within [Company name]? (Answer in percentage terms with a multiple of 5)

() %

F. Social relations in an organization & Work atmosphere

1. Do you have anyone in your team/group with whom you can open up and talk about your concerns?

a. I have very many and all the superiors, peers and subordinates are among them.

b. I have many but some superiors, peers, and subordinates are among them.

c. I have one or two and they are confined to a few peers and subordinates only.

d. I have none in my team/group but consult with others in other teams/groups.

2. Please indicate your level of agreement with each of the following statements about human relations in your organization. Click the most appropriate answer.

2-1. There are relatively many outstanding persons in my team/group and I am proud to work with them.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-2. My team/group communicates well compared to other teams/groups.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-3. My team/group members have relatively a good teamwork compared to other teams/groups.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-4. My team/group members cooperate well with each other compared to other teams/groups.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-5. I feel valued in this organization.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-6. I feel recognized for my work and contribution by the team/group members.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-7. I maintain a very comfortable interpersonal relations with my supervisors.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

2-8. I maintain a very comfortable interpersonal relations with my peers and subordinates.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

3. What is your OVERALL level of satisfaction with human relations and work environment within your organization? (Answer in percentage terms with a multiple of 5)

() %

Part II

1. What do you think is the most important among the above six factors affecting job satisfaction? Choose two most relevant factors.

- a. Work itself
- b. Reward system
- c. Performance appraisal fairness
- d. Leadership style & L-M Communication
- e. Empowerment & autonomy
- f. Human relations & working environment

2. What do you think is the most important among the above six factors affecting job satisfaction? Rate each factor on a scale of 1 to 10. (The total score should be 10.)

- a. Work itself [score]
- b. Reward system [score]
- c. Performance appraisal fairness [score]
- d. Leadership style & Manager – employee communication [score]
- e. Empowerment & autonomy [score]
- f. Human relations & working environment [score]

3. When considering all the above six factors, what is your OVERALL level of job satisfaction? (Answer in percentage terms with a multiple of 5.)

() %

Part III

[About yourself]

1. What is your gender?
 - a. Male
 - b. Female

2. What is your age?
 - a. Under 25
 - b. 26 ~ 30
 - c. 31 ~ 35
 - d. 36 ~ 40
 - e. 41 ~ 50
 - f. 51 or over

3. How long have you worked for the company?
 - a. Less than 3 years
 - b. 4 ~ 8 years
 - c. 9 ~ 12 years
 - d. 13 ~ 16 years
 - e. 17 ~ 20 years
 - f. More than 21 years

4. What is your title?
 - a. Executive
 - b. General Manager
 - c. Deputy General Manager
 - d. Manager
 - e. Assistant Manager
 - f. Employee

5. What is your job class?
 - a. General
 - b. Technical
 - c. Cabin Crew
 - d. Others

6. What division do you work in?
 - a. Passenger Business Division
 - b. Cargo Business Division
 - c. Maintenance & Engineering Division
 - d. Cabin Service Division
 - e. Catering Business Division
 - f. Flight Operations Division
 - g. Overseas regional offices (regional headquarters)
 - h. independent department in corporate headquarters
 - i. others

THANK YOU FOR YOUR TIME AND EFFORT!

[ANNEX II: References]

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