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Effect of Employee Work Stress, Work Satisfaction and Work Values on Organizational Commitment

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Abstract

With an increase of 13.4% passengers occurred in 2014, the airline industry face the atmosphere of aviation safety and service satisfaction, often appear so airline personnel work stress emotions, resulting in reduced efficiency and even affecting flight safety. As airline employees carry important transportation mission, therefore aviation staff awareness of the work values. In this study, we explore the effect among airline staff facing job satisfaction, work values and commitment by looking at different departments. Our research findings show that job satisfaction, work values, and organizational commitment in varying job classifications, staffs have a different perception. Employees working achievements and challenges of higher self-satisfied person, or can feel their expertise when the work value of the employees will have stronger organizational commitment. Further to the intrinsic values of employee self-affirmation, promotion and remuneration of extrinsic values, both have a positive impact on organizational commitment. Especially pilots and flight attendants cognitive intrinsic values are more evident, thus higher organizational commitment. Company executives shall pay attention to the work of self-affirmation of the intrinsic values of cognition to the administrative staff.

JEL classification numbers: M10, M12
Keywords: Work stress, Work satisfaction, Work value, Organizational commitment

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1 Introduction

According to the International Civil Aviation Organization (ICAO) reports that 3.5 billion passengers buckled up for take-off in 2015, a 6.4 per cent increase over last year. And the International Air Transport Association (IATA) expects that number to jump to 3.8 billion next year, an 8.6 per cent increase over 2015.

Recently, due to the developments in economy and trade between Taiwan and Mainland-China, tourism between these two countries has increased significantly. Taiwan airline industry has boomed and its output has reached about US $10.71 billion or 2.6% Of GDP annually. In addition the aviation sector supports 122,000 jobs in Taiwan. In 2012 and 2013, number of visitors had 45.42 and 48.82 million respectively. It increased 9.7% and 7.5%, comparing with the previous year. Furthermore the visitors reached to 55.35 million with daily average 151,662 visitors. It increased 13.4%, comparing with 2014. Civil Aviation Authority predicts that by the year 2030 the traffic volume will reach to 58.9 million visitors annually according to 2012-2014 annual report on Taiwan Civil Aviation statistics.

As the fact, a success composition of airline management team must include five sectors, such as, pilots, flight attendants, ground service officers, maintenance personnel, and administrative staff. In fact, they must have specific skills, dedicate mind, and the enthusiasm for service. Some factors may lead to airline employees to have some negative emotions, such as work values. Therefore, this research is conducted through a questionnaire survey to staff from five different departments of the largest domestic airlines company in Taiwan, seeking for the influential difference of airline employee's cognitions of work stress, work satisfaction, work values, and organizational commitment. It is also to explore and understand the relationship of influential perceptions to the organizational commitment among employee from the five distinct departments, and try to provide relevant recommendations for management and decision making.

2 Literature Review and Research Hypotheses

2.1 Organizational Commitment

Organizational commitment refers to the employee's attachment to the employing organization–namely, the commitment to the entire organization as the employee perceives it [1] and the organization's support for the employee [2]. Organizational commitment is defined as "the relative strength of an individual's identification with and involvement in an organization" [3]. Porter, Steers, Mowday and Boulian (1974) argues that organizational commitment refers to the personal identification of individuals for a particular organization and relative

intensity of inputs, and via understanding of the organizational commitment to find ways to retain at work and increase employee performance method [4]. Organizational commitment refers to employee identification with, and involvement in, a particular organization [5] Higher levels of commitment are reflected in lower rates of turnover [6] [7] and are also believed to be related to enhanced productivity and better delivery of services. According to Buchanan (1974) organization commitment is the emotional connection to a particular organization, which is characterized by three major facets by the individual's attitudes towards the organization [8]. They are 1. Identification about internalization of the organization's goals and values; 2. Involvement for activity that the employee performs as part of their role; and 3. Loyalty of a sense of belonging to the employing organization. Robbins (2001) also refers to workers' identification with goals of the organization as willingness to become and to maintain a member of the organization, and further to invest effort in order to support the organization's goals [9].

Such a development might take place in order to spare the employee cognitive dissonance and to preserve a positive self-perception of controllability. According to this approach, the employee might reach a psychological state of commitment solely as a result of engaging in binding behaviors. That is, behavior which in fact turns the termination of the organizational commitment into a substantial price such as accumulation of a retirement fund, seniority. According to the attitudinal approach, commitment is perceived to be a stance or a psychological state. Employees can examine their relations with the organization, and on the other hand examine the degree to which their own values meet the organization's goals [10] [11] [12] after examining flight crew and ground service personnel of the airline industry, found out that when employees' perception of their payment is high, then their commitment of willingness to retain at work to organization will also increase.

The behavioral approach to organizational commitment holds that the employee is committed to a certain mode of action in the organization as a whole, but is not necessarily committed to any particular entity in the organization [13] [14].Tang doubts that employee with different backgrounds, such as marriage status, working experience, working position, and the company size, could also have correlation by attitude performance [15]. Besides, there are some reports about the relationship between organizational commitment or job satisfaction and employees with different background by age or gender [16]. Porter et al. (1974) noted that organizational commitment includes value, effort and retention commitments [4]. Similarly, Mowday et al.(1982) also defined three characteristics of organizational commitment as that employees believe organization's targets and the values as to identification; they are willingness to pay back to organization with efforts; they will retain within the organization [3].Therefore this study will relate to organizational commitment with three variables as identification, hard work effort, retain.

2.2 Work Stress

The elements of work stress are affected due to personal, organizational and job-related factors. French, and Kahn (1962) Considered that the work stress is due to being unable to adapt to work resulting in an unpleasant feeling [17].Being unable to adopt probably comes from the work itself, work environment or workers being unable to cooperate with each other. Stressors are defined as the "antecedent conditions within one job or the organization which require adaptive responses on the part of employees". On the other hand, job strain is a reaction or outcome resulting from the experience of stressors and maybe classified into three areas: psychological / emotional, physical, and behavioral [18]. Steers (1988) considers the work stress is coming from workers facing some threats caused by the certain characteristics of work environment [19]. Stress is the subjective feeling that work demands exceed the individual's belief in his or her capacity to cope [20][21].According to Spielberger, Gorsuch, Lushene, Vagg& Jacobs (1983),this tension is manifested as nervousness and apprehension about their work, as well as by ill health and physical symptoms[22]. Robbins (2005) said that stress can cause dissatisfaction and job-related stress can cause job-related dissatisfaction [23]. Job dissatisfaction is the simplest and most obvious psychological effect of stress. It has been found that exposure to a stressor, such as role conflict or role ambiguity, has deleterious effects on employee job performance [24] [25].Work stress is caused by workers unable to adapt to the working environment, workers directly affected causing individual physiological, psychological and behavioral changes. Sources of work stress factors are multidimensional, so research methods and objects are also not the same, resulting in different findings. Workplace stress can lead to increased health/medical costs, higher rates of absenteeism and turnover, more accidents, and worse performance. [26] [27].Elizabeth and Zakkariya (2015)stated that work stress has six main factors including workload, relationships, role conflict, family factor, environmental factor and supervisor conduct style. Based on the aforementioned literature review, in this study we use work load, family environment and interpersonal relationships for work stress [28].

Work stress has an obvious negative impact on the individual and equally deleterious effects on the organization and the economy. The costs of stress can be enormous, due to lost time, reduced production, and accidents [29] [30] [31] [32]. Lack of employee commitment to the organization is one of the negative consequences of stress. Two distinctive approaches to defining organizational commitment are found in the literature: as an employee's intention to continue employment in an organization [33] and as an attitude in the form of an attachment between the individual and the organization that is reflected in the relative strength of an employee's psychological identification and involvement with the organization [34]. The attitudinal approach is prevalent to defining organizational commitment [35] [36]. To put it simply, as Jex (1998) concluded, high stress reduces job performance. Therefore, it is hypothesized that job stress

will have direct negative effect on job performance[37]. Based on the above, hypothesis is developed as follows:

H1: Work stress has a negative impact on organizational commitment.

2.3 Work Satisfaction

The concept of work satisfaction is firstly brought up byHoppock (1935) He mentions that work satisfaction depends on employee's mental and physical state, feelings toward work environment and perception of work satisfaction itself, which is workers' subjective response to work situations[38]. Work satisfaction refers to a collection of feelings toward the job. A number of organizationally relevant behaviours are thought to be the result of job satisfaction or dissatisfaction [39] Satisfied employees would seem more likely to talk positively about the organization, help others, and go beyond the normal expectations in their job [24].Stanley (2001) argues that work satisfaction is a personal attitude towards work, and it is an important factor in workplace [40]. Locke & Lathan (1990)give a comprehensive definition of job satisfaction as pleasurable or positive emotional state resulting from the appraisal of one's job or job experience. Job satisfaction is a result of employee's perception of how well their job provides those things that are viewed as important [41]. In favour of the control of job satisfaction by factors intrinsic to the workers, some arguments are based on the idea that workers deliberately decide to find satisfaction in their jobs and perceive them as worthwhile (e.g. [42] [43]). Explaining its nature some researcher [44] 45] [46] tend to agree that job satisfaction is essentially controlled by factors described in [47]perspectives as external to the worker. From this viewpoint satisfaction on a job might be motivated by the nature of the job, its pervasive social climate and extent to which workers peculiar needs are met. Working conditions that are similar to local and international standard [48] and extent to which they resemble work conditions of other professions in the locality. Other meaningful relations to job satisfaction are the availability of power and status, gaining respect, promotion opportunities, wages and benefits', working conditions, task clarity, self-development and achievement of the use of talents [49] Age is also one of the factors affecting job satisfaction so that older workers are more satisfied. It is meaningful relationship between the job satisfaction and age, to professional experience or educational level [50] and to sex [50] [51].

According to Mitchell &Lasan (1987),it is generally recognized in the organizational behaviour field that job satisfaction is the most important and frequently studied attitude [52]. While [53] posited that job satisfaction has three important properties. First it is an emotional response to a job situation. As such it cannot be seen, it can only be inferred. At second, job satisfaction is often determined by how well outcome meet or exceed expectations. For instance, if organization participants feel that they are working much harder than others in the department but are receiving fewer rewards they will probably have a negative

attitudes towards the work, the boss and or co-workers. On the other hand, if they feel they are being treated very well and are being paid equitably, they are likely to have positive attitudes towards. The third, job satisfaction represents several important related attitudes which are a job about which people have effective response to the work itself, pay, promotion opportunities, supervision and co-workers. Hence work satisfaction is so important in that its absence often leads to lethargy and reduced organizational commitment [54].Meyer, Stanley, Herscovitch & Topolnytsky (2002)reveal that, in which high commitment was associated with high satisfaction [55]. (Mathieu &Zajac, 1990)shows the results of meta-analysis that there is strong correlation between organizational commitment and global job satisfaction, and the result shows that organizational commitment is relates to age and gender as well[17]. Lack of job satisfaction is a predictor of quitting a job[56] [57].In this study, work satisfaction includes internal satisfaction from work characteristic, external satisfaction for payment and promotion, and general satisfaction to colleague's relationship and communication. Shore &Tetrick (1991)examined the relation of perceived support with job satisfaction [58]. They found a significant positive relationship between job satisfaction and organizational support. Additional studies ([59] [60] [61] [62]) reached similar conclusions. Therefore [4] work satisfaction has a positive effect on organizational commitment. To find out whether employees' perceived satisfaction by work to commitment, the hypothesis is formulated:

H2: Work satisfaction has a positive impact on organizational commitment.

2.4 Work values

Ginzberg, (1951) is one of the earliest studies to propose the categories of work values [63]. He divides work values into three categories by intrinsic values, extrinsic values, and the concomitant values. Work values are generally defined as "the goals or rewards people seek through their work, and they are expressions of more general human values in the context of the work setting" [64].According toSuper (1970)work-related values can be divided into three dimensions including work-related activities, values coming along with work, and values related with work result[65]. The first dimension is intrinsic work value; the latter two are extrinsic work values. The intrinsic value dimension consists of altruism, stimulation of creativity, intelligence, independence, the pursuit of beauty, the feeling of accomplishment and regulatory authority. The extrinsic value dimension contains lifestyle, safety, prestige and financial rewards and the concomitant part with environment, colleagues, and relationship with superiors and variability. Adkins &Naumann (2001)argued that work values are thought to predict work behaviour and outcomes, including job performance. They demonstrated a direct relationship between the value of achievement and job performance in a service-sector field setting [66]. As Hunt (1991)suggests, work values combine with other factors (objective/perceived sociotechnical working conditions) to generate psychological and other reactions (health and well-being) among

workers, as well as work performance (e.g., productivity)[67]. Recently, a three component conception of commitment has been developed, which includes affective, continuance, and normative commitment [68] However, other studies have demonstrated that the three facets of organizational commitment and job performance are positively correlated [69] [70].

Kalleberg (1977) divides the work values into work expectations and beliefs, and expectations of work refers to the work content and the result of evaluating the significance of the various internal and external benefits [71]. Previous research on work value, academics commonly used two classifications by intrinsic and extrinsic work values [72] [73] [74][75].Key point of intrinsic work values lies in the work itself, such as autonomy and conform to personal interest. Work itself can provide a sense of personal achievement or a chance of self-accomplishment, [76]. Extrinsic work values are more emphasized with getting along with work and work related affairs such as, payment benefits, social status, interpersonal relationships [77]. On the aforementioned illustration, in this study work value dimensions are grouped as intrinsic work values and extrinsic work values.

Boyatzia and Skelly (1990)also noted that the work values will affect the wishes of people to join and to stay in the organization, but also affect the individual wishes of the efforts for the organization [78].To the relationship between intrinsic and extrinsic work values and organizational commitment, others suggest that commitment is shown through the congruence between individual and organizational goals and values [8] [5] [3] which indicate that work values and individual attitudes may play a very important role of explaining employees' affective commitment to an organization [3].Mowdayet al., (1982)Elizur (1996) and (Putti, Aryee, and Ling) (1989)indicated that the intrinsic work values are related more closely to organizational commitment than extrinsic work values [79] [80]. The higher cognitive work values causes to higher career intention [81]. [71] Meyer et al., (1991) suggested that employees will differ in work values and that a particular type of work experienceshould influence commitment only among those employees for whom it is relevant. Oliver (1990) reported significant correlations between work values and commitment [82]. Based on the above, three hypotheses are developed as follows:

H3: Work Value has a positive impact on organizational commitment.
H3a: An intrinsic value has a positive impact on organizational commitment.
H3b: An extrinsic value has a positive impact on organizational commitment.

Due to airlines employees work stress will affect flight safety and result in work environment not satisfaction. This research based on previous literatures and use domestic airlines company's five different departments' employees, to explore the difference of work stress, and work satisfaction levels and work values on organization commitment's effect, and while understanding gender, age, education, service sector, positions, and work seniority, This research framework

is shown in Figure 1.

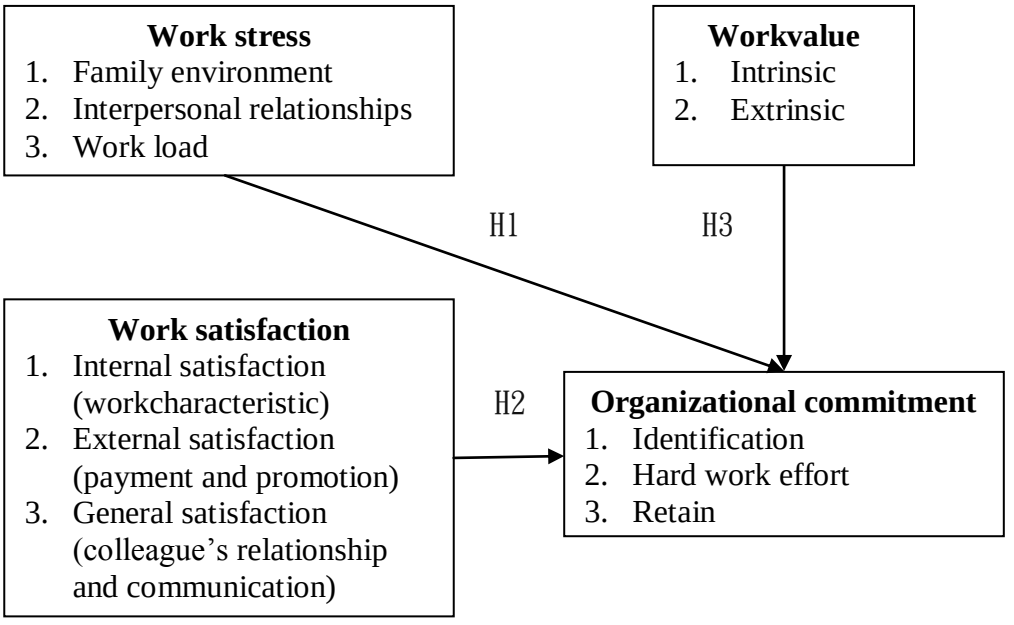

Figure 1.Research framework

3 Research method

3.1 Questionnaire and measures

In this research, appropriate evaluation of constructs was done through extensive literature review and to complete the study, a questionnaire was developed referencing various previous studies. About sources of work stress, [83] was referenced and a revised version of measure of 14 items was used. The study also referencing [84] on characteristics of airline employees, the measure with 10 items was revised to work satisfaction. The items on work values were refereed by Liang (2012) with 9 items [77]. In addition, this study also refers to Organizational Commitment Questionnaire of[4] and [3] on the tendency about "identity, willingness to stay, and effort to work", as measure of organizational commitment of 11 items. Hence this research questionnaire is divided into five constructs, a total of 44 items were included, measured by a Likert scales with 7 points of totally agree, as well as some related geographical variables.

3.2 Methods for data analysis

In this research, descriptive statistics was done mainly to understand various geographical characteristics of samples including gender, age, marital status,

education level, service department, position, work seniority, and average salary. Later, reliability analysis conducted to understand questionnaire's stability and consistency. Through ANOVA were analyses to understand the mean difference among the levels of demographical variables. Moreover, we use regression analysis to test the hypotheses about the relationship from work stress, work satisfaction, work values, to the organization commitment.

4 Analysis of study results

4.1 Sample Data

In total of 300 questionnaires was sent, from which 284 questionnaires were received and only 270 questionnaires were suitable and completed, including 58 pilots, 50 maintenance personnel, 70 flight attendants, 48 ground service officers and 44 administrative personnel. Recovery rate is 94.6%, and effective sample rate is 90%. Within the samples 55.6% were male, and 44.4% were female. Among respondents, 26-50 years of age account for 87%; where as 64.4% are married. College degree has the highest proportion with 88.1% to education level, and current position majority were ordinary employees at 85.2%. All measures including intrinsic and extrinsic facets of work values had Cronbach alphas greater than the cut-off point of 0.7 suggested by [85] and [86] Each construct or facet has its internal consistency (see Table 1).

Table 1：The reliability of constructs

Constructs	Items	Cronbach α
Organizational commitment	11	0.870
Work stress	14	0.837
Work satisfaction	10	0.810
Work values	9	0.901
Intrinsic work values	3	0.858
Extrinsic work values	6	0.865

4.2 Modal analysis

4.2.1 Correlation analysis

First we explore the correlations for job stress, job satisfaction, work values to organizational commitment in the overall or separately due to the property of work of various departments as shown in Table 2. On the overall perception of staff, in addition to work stress, work satisfaction and work values associated with organizational commitment there were a significant positive relationship, airline

employee's perception of work stress has negative but not significant on organizational commitment within all five departments. Ground service officers in the face of the working environment and interpersonal relationships, will produce a sense of workload, thereby affecting organizational commitment. Work satisfaction cognitive airline employees to organizational commitment has significant positive relationship (r= 0.73) on overall; also other five departments (0.7< r < 0.755) are significant too. This show that employees currently work departments are feeling more joyful, due to the nature of the service, and because of the high technical level of professionalism, respect to the successful completion of the work, a sense of achievement is higher.

Second, the airline employees' work values to organizational commitment has significant positive relationship (r= 0.667), similarly other five departments (0.69< r < 0.758) are significant too. Employees that the work will get job promotion, and to establish their own social prestige. Airline employees' intrinsic work values and organizational commitment has significantly positive relationship (r= 0.662), and also within all five departments too. Employees can display more emphasis on service to the community through people, in the work to achieve their ideals. Airline employees' extrinsic work values to organizational commitment in whole (r= 0.60) or in accordance with terms of five departments (0.572< r < 0.736) show significantly positive relationship too. Employees perceive that the ideal could apply to work, and can give full play to the autonomy.

4.2.2Analysis of variance of the demographics

Organizational commitment and influence of facets, variation in the levels of sex, age, and other six demographic variables analyzed, and Scheffe multiple comparisons of the post-test are shown in Table 3. Work values have mean difference between genders. Women in intrinsic work values (M= 14.22) and extrinsic work values (M= 24.72) are lower than those by men (M= 15.47, M= 26.99 respectively), compared with male employees it can be seen through the work of self-affirmation by the ideals of life and get a sense of accomplishment. In addition older Age with above 51 years of age at the intrinsic values, job satisfaction and organizational commitment cognitive younger persons with 18-30 years age is higher. Master degree in education on the work value (M= 45.16) and job satisfaction (M= 57.21) awareness is higher than staff with high school level (M= 33.69, M= 45.31 respectively). Flight pilots and flight attendants awareness at the work stress are higher than administrative staff. Flight pilots cognitive cue to the highest work values (M= 49.09) than staff at other four departments (M=39.54, M=39.47, M= 37.79, M= 37.45, respectively). Flight attendants of working satisfaction awareness and organizational commitment (M= 45.73, M= 50.50 respectively) are lower than pilots (M= 50.12, M= 56.34 respectively); To the staffs' position the cognition of intrinsic work values does not show significant difference. Job satisfaction, work values and extrinsic values have the largest for

the highest position with cadre or head titles.

According to the above ANOVA results probe, organizational commitment will be the existence of differences among the five departments, and job satisfaction and work values in different sectors there are also significant differences. Especially, flight pilots show the largest cognitive to organizational commitment and work values, as well as intrinsic and extrinsic perceptions. Therefore, we will go to further explore the various structures in the face of organizational commitment in different sectors applying multiple regression models.

Table 2：Correlations between independent factors and organizational commitment

Independent variables	Organizational commitment					
	Total	Pilots	Maintenance personnel	Flight attendants	Ground service	Administrative staff
Work stress	-0.078	-0.023	0.166	-0.04	-0.377**	-0.141
Work satisfaction	0.730***	0.729***	0.729***	0.710***	0.755***	0.700***
Work values	0.667***	0.690***	0.725***	0.758***	0.690***	0.724***
Intrinsic work values	0.662***	0.544***	0.660***	0.753***	0.728***	0.560***
Extrinsic work values	0.600***	0.612***	0.626***	0.536***	0.673***	0.705***

Note：Significant at *p<0.05, **p<0.01, ***p<0.001.

Table 3 ： Analysis of variance to the demographics and Scheffe Test

Demographics	Dependent Variable					
	Stress	Work values	Intrinsic values	Extrinsic values	Satisfaction	Organizational commitment
Gender	3.458	10.198** 2<1	10.772*** 2<1	7.912 2<1	2.721	6.661
Age	0.237	3.750** 2<8	2.421*** 1<8	4.009* 2<8	3.225**	3.436** 1<7
Education	2.310	6.570** 1<(2,3)	3.257*	7.099** 1<(2,3)	3.373* 1<3	2.005
Department	10.662*** 5<1,5<3	20.309*** (5,4,3,2)<1	11.541*** (3,5,4,2)<1	21.076*** (5,4,2,3)<1	3.646** 3<1	4.172** 3<1
Position	7.328** 3<1	6.430** (1,2)<3	2.236	7.920*** (1,2)<3	15.656*** (1,2)<3	16.196*** 1<(2,3)
Seniority	1.089	5.237**	2.312	5.897**	8.785*** 2<4	8.272*** 2<4

Note 1: Significant at * p<0.05, ** p<0.01, *** p<0.001.
Note 2: Gender: 1=male, 2=female; Age: 1=18~25, 2=26~30, 3=31~35, 4=36~40, 5=41~45, 6=46~50, 7=51~55, 8= above 56;Education: 1= high school, 2= college, 3= master; Department: 1= pilot, 2= maintenance, 3= flight attendants, 4=ground service, 5= administrative; Position: 1= ordinary staff, 2= foremen or supervise, 3= cadre or head; Seniority: 1= 1, 2= 2~9, 3= 10~20, 4= above 21 years.

4.2.3 Regression analysis

With job stress, job satisfaction and work value and intrinsic, extrinsic work values on the organizational commitment of regression analysis results are shown as model 1 and model 2 in Table 4. Then, with common independent factors of stress, job satisfaction, we follow the regression analysis by each of five departments are shown in Table 5 for model 1A with work value and model 2A with intrinsic, extrinsic work values in Table 6.

Comparing the regression results between Model 1 in Table 4 and Model 1A in Table 5 using work values as one of independent variables, working stress to organizational commitment overall is negative, but the impact is not significant, as well as to the other five departments neither. This shows that the majority of employees in the face of airline operating pressure for companies is still very high sense of identity and loyalty, and pride in being part of the company. Organizational commitment regression by job satisfaction have significantly positive impact (b= 0.506) overall and in all departments, and the impact of the ground service workers with the highest (b= 0.647) satisfaction. From model 2 in Table 4 and model 2A in Table 6, work stress is still a negatively

non-significant impact. The regression effect of job satisfaction on the organizational commitment in model 2 and model 2A are significantly positive as a whole and in terms of five departments. These results have the same perspectives as those in Model 1 or Model 1A.

Secondly, the regression analysis to overall work values on organizational commitment (b= 0.323) has significant positive effect. The order of effect among the departments is flight attendants (b= 0.514), administrative, maintenance, and flight pilots (b= 0.387); but the effect of work values from ground service workers is non-significant. This result presents that the employees from different sectors may induce some distinct perceptions due to job characteristics with challenge, successful completion of the work and cognition of accomplishment.

Table 4：Regression analysis on Organizational commitment

Model 1	Estimated Value	Standard error	Model 2	Estimated Value	Standard error
Stress	-0.049	0.031	Stress	-0.042	0.030
Satisfaction	0.506***	0.067	Satisfaction	0.513***	0.065
Work Values	0.323***	0.053	Intrinsic value	0.361***	0.149
			Extrinsic value	0.010	0.080
F	127.04***		F	109.34***	
Rsquare	0.589		R square	0.623	

Note: Significant at *p<0.1，**p<0.05，***p<0.01, N=270

Table 5：RegressionModel 1A on Organizational Commitment by Departments

Independent variables	Department				
	Pilots	Maintenance personnel	Flight attendants	Ground service	Administrative staff
Stress	-0.031 (0.096)	0.032 (0.072)	0.006 (0.059)	0.112 (0.085)	-0.024 (0.079)
Satisfaction	0.479*** (0.156)	0.415*** (0.183)	0.382*** (0.119)	0.647*** (0.196)	0.387*** (0.148)
Work Values	0.387*** (0.148)	0.409*** (0.152)	0.514*** (0.095)	0.220 (0.178)	0.450*** (0.115)
F	28.99***	23.39***	42.88***	21.76***	20.03***
Rsquare	0.617	0.604	0.661	0.597	0.600

Note 1: Significant at *p<0.1, **p<0.05, ***p<0.01, N=270.
Note 2: The standardized estimates with standard errors in parentheses.

To further understand the effects of the intrinsic or extrinsic work values on organizational commitment, the intrinsic work values regression on commitment (b= 0.361) have significant positive effect, but the extrinsic work values is non-significant (b= 0.01) in model 2. Among the characteristic of five departments,

intrinsic work values are positive and significant only for two sectors, namely flight pilots (b= 0.504) and flight attendances (b= 0.480) in model 2A. It displays flight crews of airlines who have steady income and get through the work of self-affirmation and ideal life. Organizational commitment regression analysis due to extrinsic work values has only significant positive impact on maintenance (b= 0.339) and administrative (b= 0.421) staffs. It displays maintenance and administrative employees of airlines who perceive full play to the autonomy and the initiative to learn new job skills, thus reflecting the commitment to support the organization.

However ground service officers have non-significant effect by the work values for overall and for all five departments. By the above Table 4, Table 5 and Table 6, the results of regression analysis of the study on organizational commitment hypothesis summarized in Table 7.

Table 6：Regression Model 2A on Organizational commitment by departments

Independent variables	Department				
	Pilots	Maintenance personnel	Flight attendants	Ground service	Administrative staff
Stress	-0.007 (0.085)	0.037 (0.073)	-0.029 (0.056)	0.106 (0.085)	-0.045 (0.085)
Satisfaction	0.503*** (0.138)	0.440*** (0.193)	0.414*** (0.112)	0.669*** (0.198)	0.361** (0.158)
Intrinsic value	0.504*** (0.332)	0.074 (0.425)	0.480*** (0.248)	0.179 (0.376)	0.071 (0.361)
Extrinsic value	-0.049 (0.197)	0.339** (0.209)	0.078 (0.156)	0.056 (0.249)	0.421** (0.181)
F	31.95***	17.38***	39.12***	16.46***	14.81***
R square	0.707	0.607	0.707	0.605	0.603

Note 1: Significant at *p<0.1, **p<0.05, ***p<0.01, N=270.
Note 2: The standardized estimates with standard errors in parentheses.

Table 7：Regression results of hypotheses tests

	Hypotheses on organizational commitment	Results of overall	Results of department
H1.	Work stress has a negative impact	Not support	Not support
H2.	Work satisfaction has a positive impact	Support	support
H3.	Work values has a positive impact	Support	Ground service is not support
H3a	Intrinsic work values has a positive impact	Support	Pilots & Attendants are supported
H3b	Extrinsic work values has a positive impact	Not support	Maintenance & Administrative are supported

5 Discussion and conclusions

Based on this survey sample of an airline employee's retention intention and loyalty of organizational commitment empirical results obtained following findings and important conclusions.

The organizational commitment and its related factors of employees' cognition have different perceptions among the levels of departments, education and position. Working stress facing, overall presentation and other five departments shows a non-significant influential factor; visible airline employees have their resistance to pressure at work. Overall, perceived higher job satisfaction and is to render higher organizational commitment, especially flight pilots and ground service employees have optimal cognitive on the job that does reflect loyalty to the company. Overall work value for the impact on organizational commitment, positive effect is presented except the ground service technicians, showing the airline staff think they can work through their own work, and improve the quality of life, and therefore the higher the employee involvement to the airline company.

For looking into the facets of work values, intrinsic work values cue positively on organizational commitment. Airline employees can gain ability and self-confidence through the job, but the perceived intrinsic work values within maintenance, ground service and administrative sectors are failed to reflect to the staying intention. Flight crews of airlines have steady income and get through the work of self-affirmation and ideal life. On the other hand, cognition of extrinsic work values on maintenance technicians and administrative staff will be the only two sectors who are reflected to the organizational commitment, which may be due to the resulting personnel relative lower pay and full autonomy at work, and then in support of organizational commitment relative increase.But this will not for the pilots and attendances who have higher and steady remuneration, and social prestige,

According to the above conclusions, the present study suggests that the follow-up for transport ground services can mainly play in job training in order to reduce risks in the work environment, and they will have further improvement by their work efforts to perceived better paid or the possibility of promotion. Secondly, company can encourage staffs, who are lower perceived intrinsic work values, to participate in social services and activities in order to enhance interactive ability and self-confidence. And then they can access to self-affirmation, it may enhance the company's identity and commitment.

However these valuable findings of the presented study are based on airline industry, the results may not imply to other service groups, for instance the banking service industry. This point view is similar to the result that there exists a difference between different bank in terms of work stress or satisfaction of employees. This can be the restriction and can be a further research. Overall, the employee loyalty and retention to the organization are high, chief executive

officers need provide a good and safe working environment so that employees can fully utilize their abilities and apply their knowledge, affirm ideals of self-realization, and thus reduce turnover and enhance flight safety.

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