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# **AN INVESTIGATION OF BIG FIVE INFLUENCING JOB STRAINS, JOB SATISFACTION AND JOB PERFORMANCE**

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## **ABSTRACT**

In past two decades, “Big Five” of personality typology (i.e., extraversion, agreeableness, neuroticism, conscientiousness, openness to experience) has been gradually accepted and recognized by most researchers, and a great deal of literature regarding personality has been discussed. However, those studies mostly used one or two facets of “Big Five”, and just focused on exploring one major topic, such as the relationships between conscientiousness and job performance, or neuroticism as a moderator of the relationship between stress and strain, etc. Up to the present, the five traits explored simultaneously have been relatively scant. Therefore, this study examined the impacts of the big five on job strains, job satisfaction and job performance. The study found that the positive side of the five dimensions bipolar negatively related to job strain; and positively related to job satisfaction and job performance. The theoretical and practical implications were discussed here. Hopefully, we anticipate that the findings of this study would provide useful messages for HRM professionals, and might be valuable for organizational recruit and training.

**KEYWORD:** Big five; Personality; Traits

Over the past 40 years, a line of researchers have investigated the validity of personality measures for personnel selection purposes. The overall conclusion from these researchers is that the validity of personality as a predictor of job performance is quite low. It might be these studies conducted no well-accepted taxonomy for classifying personality traits. Therefore, it was not possible to obtain consistent, meaningful relationships between particular personality constructs and performance criteria in different occupations (Barrick & Mount, 1991). However, in the past 10 to 20 years, many personality psychologists have converged toward a general conclusion regarding the structure and concepts of personality (Barrick, Stewart, & Piotrowski, 2001). Generally, they agree that there are five robust factors of personality which can serve as a meaningful typology for classifying personality attributes (Digman, 1990). Although a great deal of literature regarding personality has been discussed. Those studies mostly used one or two traits of “Big Five”, and just focused on exploring one major topic, such as the relationships between conscientiousness, motivation to learn and training effectiveness, or neuroticism as a moderator of the relationship between stress and strain, etc. Up to the present, the five traits explored simultaneously have been relatively scant. Therefore, the purposes of this study will discuss the recent literature in the first place. Secondly, the study will collect the related data and further examine individual traits- job performance relations and individual traits- job strain relations.

### **Big Five Personality Factors**

While “Big Five” of personality typology has been generally accepted and recognized by most researchers, there are still some discrepancies among researchers regarding the precise meaning of some personality factors, particularly Norman's conscientiousness and culture factors. However, there is a great deal of commonality in the traits that well enough to define each factor, even though the name attached to the factor is different. The current labels for the five factors are (1) extraversion verse intraversion or surgency, (2) agreeableness, (3) conscientiousness, (4) emotional stability verse neuroticism, (5) intellect, culture or openness to experience. The five personality traits are shown as below.

The first dimension is extraversion/intraversion or surgency. Extraversion is frequently characterized by a tendency to be self-confident, dominant, sociable, gregarious, and active. As mentioned above, Hogan (1986) interprets this dimension as consisting of two components- ambition and sociability. The second dimension has been most frequently called emotional stability or neuroticism. Emotional stability is generally characterized by a tendency to be anxious, depressed, angry, embarrassed, emotional, worried, and insecure. Extraversion and emotional stability represent the "Big Two" described by Eysenck. The third dimension is agreeableness. Agreeableness is generally characterized by a tendency to be courteous, good-natured, cooperative, forgiving, soft-hearted, and tolerant. The fourth dimension has been most frequently called conscientiousness. Conscientiousness links its relationship to a variety of educational achievement measures and its association with volition. Conscientiousness reflects self-discipline, dependability, responsibility, organized, achievement striving, and competence. The last dimension has been the most frequently to be interpreted as intellect or intellectence (Digman & Takemoto-Chock, 1981; Hogan, 1983; Peabody & Goldberg,

1989). It has also been called openness to experience (McCrae & Costa, 1985) or culture (Hakel, 1974; Norman, 1963). This dimension is generally characterized by a tendency to be imaginative, cultured, curious, broad-minded, intelligent, and artistically sensitive. In the current study, we adopted names and definitions similar to those used by Digman (1990): extraversion, emotional stability, agreeableness, conscientiousness, and openness to experience.

### **Relations among Big Five Job Strain, Job Satisfaction and Job Performance**

Within the last 30 years, researchers have reported a number of personality traits as consistently correlating with job performance and job strain. These studies have investigated relations between an isolated facet of the five dimensions of personality and job strain or an isolated facet of the five dimensions of personality and job performance, the relationship of five-factor model to job performance and job strain is much less studied. Previous research has shown that job attributes are influenced by situational, dispositional, and interactive processes. As demonstrated above, few studies have investigated their joint effects, and they included only a limited range of variables. Therefore, in the current study, we followed suggestions to refer to a comprehensive, integrated system of personality (Tokar, Fischer, & Subich, 1998), and we assessed the Big Five personality factors (i.e., emotional stability extraversion, agreeableness, conscientiousness, and openness to experience) as general dispositional to test its influences on job strain, job satisfaction, and job performance.

#### *Extraversion*

Generally, individuals with extraversion show positive emotions, higher frequency and intensity of personal interactions, and a higher need for stimulation. In addition, extraversion is associated with a tendency to be optimistic and a tendency to reappraise problems positively. Extraverts' generally optimistic temperament (e.g., Watson & Clark, 1992) may bring them to focus on the good and positive side of their experiences. In addition, extroversion tends to be associated with the use of rational, problem-solving coping strategies and with social-support seeking and positive reappraisal (Watson & Hubbard, 1996). Thus, extraverts have more friends and spend more time in social situations than do introverts and, are likely to seek interpersonal interactions more rewarding. Therefore, in the present study, we expected the following:

*Hypothesis 1a:* Extraversion will be negatively related to job strain.

*Hypothesis 1b:* Extraversion will be positively related to job satisfaction.

*Hypothesis 1c:* Extraversion will be positively related to job performance.

#### *Agreeableness*

In general, agreeableness assesses one's interpersonal orientation. Individuals high on agreeableness can be characterized as altruistic, trusting, forgiving, and caring as opposed to hostility, indifference to others, self-centeredness, and noncompliance. That is, the high end of agreeableness represents an individual who has cooperative values and a preference for positive interpersonal relationships. On the other hand, someone at the low end of agreeableness can be characterized as manipulative, self-centered, suspicious, and ruthless (Costa & McCrae, 1992; Digman, 1990). Generally, agreeableness may bring

one to be seen as trustworthy and may help one generate positive, cooperative working relationships, high levels of agreeableness may prohibit one's willingness to drive hard bargains, pursuit one's own self-interest, and influence or manipulate others for one's own benefit. Therefore, in the present study, we expected the following:

*Hypothesis 2a:* Agreeableness will be negatively related to job strain.

*Hypothesis 2b:* Agreeableness will be positively related to job satisfaction.

*Hypothesis 2c:* Agreeableness will be positively related to job performance.

#### *Low Neuroticism*

Neuroticism represents individual differences in emotional stability and adjustment. Because of their essentially negative nature, individuals high on neuroticism tend to experience more negative life events than other individuals and experience a number of negative emotions including anxiety, hostility, depression, impulsiveness, self-consciousness, and vulnerability (Costa & McCrae, 1992). People who are low on neuroticism can be characterized as self-confident, calm, even tempered, and relaxed. In general, individuals high on neuroticism tend to lead themselves into situations that foster negative affect (Emmons, Diener, & Larsen, 1985). Hence, individuals with high neuroticism would lead to diminished levels of both job satisfaction and job performance, and would further increase their strain. Therefore, in the present study, we used emotional stability to measure this dimension and expected the following:

*Hypothesis 3a:* Emotional stability will be negatively related to job strain.

*Hypothesis 3b:* Emotional stability will be positively related to job satisfaction.

*Hypothesis 3c:* Emotional stability will be positively related to job performance.

#### *Conscientiousness*

Conscientiousness represents an individual's degree of persistence, organization, hard work, and ambition in the pursuit of goal achievement. This construct have been viewed as an indicator of volition or the ability to work hard (Barrick & Mount, 1991). Generally, this dimension has been the most consistent personality predictor of job performance or job satisfaction across all types of work and occupations (Barrick, Mount, & Judge, 2001; Judge, Heller, & Mount, 2002). Some researchers consider conscientiousness as a broad personality dimension which includes two primary facets: achievement motivation and dependability (e.g., Mount & Barrick, 1995). Organ and Lingl (1991) indicated that conscientiousness should be related to job satisfaction because it shows a general work involvement tendency and leads to greater likelihood of obtaining satisfying work rewards including both formal (e.g., pay, promotions) and informal (e.g., respect, recognition of personal achievement). Hence, individuals with high conscientiousness would lead to higher levels of both job satisfaction and job performance, and would further increase their strain.. Therefore, in the present study, we expected the following:

*Hypothesis 4a:* Conscientiousness will be negatively related to job strain.

*Hypothesis 4b:* Conscientiousness will be positively related to job satisfaction.

*Hypothesis 4c:* Conscientiousness will be positively related to job performance.

#### *Openness to Experience*

Openness to experience that is related to scientific and artistic creativity (Feist, 1998), may characterize someone who is intellectually curious, and tends to seek new experiences and explore novel ideas. Someone high on openness can be characterized as creative, innovative, imaginative, divergent think, and untraditional. Someone low on openness can be described as traditional, narrow in interests, and unanalytical. Few studies state that openness seems to be closely related to job satisfaction. DeNeve and Cooper (1998) indicated that “Openness to experience is a ‘double-edged sword’ that predisposed individuals to feel both the good and the bad more deeply” (p. 199), offering its directional influence on affective reactions like subjective welfare or job satisfaction unclear (Judge, Heller, & Mount, 2002). In the present study, we didn’t expect that openness to experience will be related to job performance and job strain.

## Method

### *Participants*

Participants in this study consisted of 662 first-line employees and supervisors belonging to the service department of 126 enterprises. Participants were ensured that their responses would remain confidential. Approximately 800 surveys were distributed through the division supervisors. Of the 800, a total of 662 surveys were returned and usable. Of the 662 respondents, 242 were men (36.6%) and 420 were women (63.4%). The average age of participants was 37.5 years old (SD = 8.17).

### *Measures*

*Extraversion.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s Extraversion. Sample items included: “I feel comfortable around people,” and “I talk to a lot of different people at parties.” Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .81.

*Agreeableness.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s agreeableness. Sample items included: “I sympathize with others’ feelings,” and “I have a soft heart.” Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .73.

*Emotional stability.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s neuroticism. Sample items included: “I often worry about trivial things” (reversed), and “I get irritated easily” (reversed). Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  of this measure was 0.83.

*Conscientiousness.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s conscientiousness. Sample items included: “I am always prepared,” and “I follow a schedule.” Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .82.

*Openness to experience.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s neuroticism. Sample items included: “I have excellent ideas,” and “I have difficulty understanding abstract ideas” (reversed). Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .75.

*Job strain.* This variable includes two facets: Emotional exhaustion and Disengagement. Three items adapted from Demerouti et al. (2001) were used to assess employee's perception of emotional exhaustion. Sample items included: "After work, I regularly feel worn out," and "I often feel emotionally drained during my work." Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's  $\alpha$  of this measure was .86. Four items adapted from Demerouti et al. (2001) were used to assess employee's perception of disengagement. Sample items included: "After work, I have little interest to engage in any other activity," and "I get more and more engaged in my work" (reversed). Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's  $\alpha$  of this measure was .83.

*Job satisfaction.* Ten items adapted from Roznowski (1989) were used to assess employee's job satisfaction. Sample items included: "I satisfy my job," and "I get along with my supervisors." Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's  $\alpha$  of this measure was .81.

*Job performance.* The employees' job performances were obtained from the appraisal of their supervisors. Supervisors were asked to rate employees' effectiveness in three performance areas, which included quality of work, degree of work achievement and work attitude. A 3-point rating scale was used for these ratings with response options ranging from 1 (below expectations) to 3(exceeds expectations). The Cronbach's  $\alpha$  of this measure was .78.

## Results

The means, standard deviations, and intercorrelations of the study variables are presented in Table 1. In general, the bivariate correlations provided confidence that the measures were functioning properly.

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Results of intercorrelations of the variables from Table 1 revealed that the correlations between personality variables and independent variables suggested: (1) extraversion was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (2) agreeableness was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (3) emotional exhaustion was negatively associated with both emotional exhaustion and disengagement ( both  $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (4) conscientiousness was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (5) openness was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ). Accordingly, in addition to emotional stability, another four personality factors were not associated with emotional exhaustion. Hence, hypotheses of the current study are almost supported.

## Discussion

Past literature mainly focused on investigating the relationships between personality factors and job strain, or the relationships between personality factors and job satisfaction, or the relationships between personality factors and job performance separately. The current study contributes to the literature by examining big five-job strain relations, big five-job satisfaction relations and big five-job performance relations. The results of our study indicated that the positive polar of all five personality factors are negatively associated with job strain, and have differing impacts on both job satisfaction and job performance.

As expected, the predicted effects of job strain, job satisfaction, and job performance were found for employees with high positive traits. It is interesting that the fifth dimension-openness to experience is negatively associated with job strains and positively with both job satisfaction and job performance. Therefore, if employees are with high extraversion, or high agreeableness, or high emotional stability, or high conscientiousness, or high openness to experience might show expected job attitudes toward their work. Similarly, if employees are with low extraversion, or low agreeableness, or low emotional stability, or low conscientiousness, or low openness to experience might show unexpected job attitudes toward their work. The findings enhance the roles of individuals' differences which may decrease job strains of employees, and increase job satisfaction and job performance of employees. It is thus suggested that when organizations recruit employees, they would do better to select individuals with more expected traits. Management especially needs to pay more attention to employees who are highly neurotic or lowly agreeable, etc. in order to decrease the probability of some negative job outcomes. The current study therefore, adds to the body of literature and calls attention to carefully investigating the nature of individuals differences so that management strategies or policies (e.g., job autonomy, job controls) are related relevant to mitigate employees' negative outcomes and increase employees' expected outcomes when managers want to improve employees' work attitudes and work quality.

### *Limitations and Future Research*

There are some limitations to the current study which need to be considered. First, the design of this study mostly relied on self-reports, which may lead to a concern for a common method variance. While the data was collected from a multi-source of 126 organizations, most results of the current study were consistent with previous studies. In addition, job performance was provided by the supervisors so that the results may decrease potential bias toward main effects. Hence, we believe that the results found in this study would be credible. We also encourage future researchers to conduct a longitudinal design and include more objective measures such as expert rating, coworker rating, etc. Second, the data of this study was obtained from first-line employees and supervisors, the sample did not include higher class employees or senior supervisors. Future research may investigate individual traits-job attributes relations among different levels of employees or different industries so that the findings of the current study would be more valued and generalizable to the most industrial companies.

### *Managerial Implications*

Research has shown that employees' strains can be decreased (Grandey, 2003; Griffin, 2001; de Rijk et al., 1998). The findings of this study suggest that employees with



positive traits cope with more stressor and have more job satisfaction and more job performance. While employees with less positive traits might be with more job strain, and have less job satisfaction and less job performance. It is thus suggest that organizations should pay more attention for such employees to deal with their work, especially when they face highly job stressors. To straighten employees' stress coping ability, job satisfaction and job performance, managers should hold some training programs to increase employees' KSAs in their actual work environment. In addition to providing employees with adequate training programs concerning their task, managers should provide their employees sufficient job-related tools and equipment to increase their capability to achieve required task performance. Managers should also pay more attention to correct the negative affect of employees, especially to those who are highly neurotic or lowly agreeable (Tai & Liu, 2007). Employees with high neuroticism or low agreeableness would do better if offered adequate job help, because they would appreciate their supervisors' kindness and glad to pay more effort in their job (Tai, 2006). In this way, employees' unexpected outcomes can possibly be minimized.

### *Conclusion*

Taken as a whole, this study enhances our understanding of the nature of job job strain, job satisfaction and job performance. Results reveal that positive personality factors are negatively related to job strain, whereas negative ones are positively related to both job satisfaction and job performance. The current study particularly underscore the critical role of individual personality and job strain, which have main effects on the relationships between job satisfaction and job performance. Thus, we suggest that to mitigate employees' perceptions of strains, managers should carefully recruit job-fit employees, and adequately provide the job related training and necessary job equipment when they ask employees to achieve a required task performance. Especially, managers should pay more attention for those who are with high neuroticism, low agreeableness and low conscientiousness etc.

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Table 1.

*Means, Standard Deviations, and Correlations among Variables*

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Extraversion	2.99	.53	(.81)								
2. Agreeableness	2.42	.43	-.05	(.73)							
3. Emotion stability	2.80	.59	.27**	.07	(.83)						
4. Conscientiousness	2.32	.51	-.22**	.25**	.30**	(.82)					
5. Openness	3.63	.55	.46**	.09*	.24**	.37**	(.75)				
7. Exhaustion	3.11	.83	-.06	-.05	-.29**	-.07	.00	(.86)			
8. Disengagement	3.91	.69	-.19**	-.31	-.36**	-.40**	-.20**	.36**	(.83)		
9. Job satisfaction	2.41	.43	.21	.27**	.29**	.37**	.23**	-.27**	-.60**	(.81)	
10. Job performance	1.81	.81	.07	-.13**	.11**	.24**	-.13**	.02	.29**	.31**	(.78)

*Notes.* Values on the diagonal are Cronbach's alpha. Gender was coded: 1 = male; 2 = female

\*  $p < .05$ . \*\*  $p < .01$ .

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**KEYWORD:** Big five; Personality; Traits

Over the past 40 years, a line of researchers have investigated the validity of personality measures for personnel selection purposes. The overall conclusion from these researchers is that the validity of personality as a predictor of job performance is quite low. It might be these studies conducted no well-accepted taxonomy for classifying personality traits. Therefore, it was not possible to obtain consistent, meaningful relationships between particular personality constructs and performance criteria in different occupations (Barrick & Mount, 1991). However, in the past 10 to 20 years, many personality psychologists have converged toward a general conclusion regarding the structure and concepts of personality (Barrick, Stewart, & Piotrowski, 2001). Generally, they agree that there are five robust factors of personality which can serve as a meaningful typology for classifying personality attributes (Digman, 1990). Although a great deal of literature regarding personality has been discussed. Those studies mostly used one or two traits of “Big Five”, and just focused on exploring one major topic, such as the relationships between conscientiousness, motivation to learn and training effectiveness, or neuroticism as a moderator of the relationship between stress and strain, etc. Up to the present, the five traits explored simultaneously have been relatively scant. Therefore, the purposes of this study will discuss the recent literature in the first place. Secondly, the study will collect the related data and further examine individual traits- job performance relations and individual traits- job strain relations.

### **Big Five Personality Factors**

While “Big Five” of personality typology has been generally accepted and recognized by most researchers, there are still some discrepancies among researchers regarding the precise meaning of some personality factors, particularly Norman's conscientiousness and culture factors. However, there is a great deal of commonality in the traits that well enough to define each factor, even though the name attached to the factor is different. The current labels for the five factors are (1) extraversion verse intraversion or surgency, (2) agreeableness, (3) conscientiousness, (4) emotional stability verse neuroticism, (5) intellect, culture or openness to experience. The five personality traits are shown as below.

The first dimension is extraversion/intraversion or surgency. Extraversion is frequently characterized by a tendency to be self-confident, dominant, sociable, gregarious, and active. As mentioned above, Hogan (1986) interprets this dimension as consisting of two components- ambition and sociability. The second dimension has been most frequently called emotional stability or neuroticism. Emotional stability is generally characterized by a tendency to be anxious, depressed, angry, embarrassed, emotional, worried, and insecure. Extraversion and emotional stability represent the "Big Two" described by Eysenck. The third dimension is agreeableness. Agreeableness is generally characterized by a tendency to be courteous, good-natured, cooperative, forgiving, soft-hearted, and tolerant. The fourth dimension has been most frequently called conscientiousness. Conscientiousness links its relationship to a variety of educational achievement measures and its association with volition. Conscientiousness reflects self-discipline, dependability, responsibility, organized, achievement striving, and competence. The last dimension has been the most frequently to be interpreted as intellect or intellectence (Digman & Takemoto-Chock, 1981; Hogan, 1983; Peabody & Goldberg,

1989). It has also been called openness to experience (McCrae & Costa, 1985) or culture (Hakel, 1974; Norman, 1963). This dimension is generally characterized by a tendency to be imaginative, cultured, curious, broad-minded, intelligent, and artistically sensitive. In the current study, we adopted names and definitions similar to those used by Digman (1990): extraversion, emotional stability, agreeableness, conscientiousness, and openness to experience.

### **Relations among Big Five Job Strain, Job Satisfaction and Job Performance**

Within the last 30 years, researchers have reported a number of personality traits as consistently correlating with job performance and job strain. These studies have investigated relations between an isolated facet of the five dimensions of personality and job strain or an isolated facet of the five dimensions of personality and job performance, the relationship of five-factor model to job performance and job strain is much less studied. Previous research has shown that job attributes are influenced by situational, dispositional, and interactive processes. As demonstrated above, few studies have investigated their joint effects, and they included only a limited range of variables. Therefore, in the current study, we followed suggestions to refer to a comprehensive, integrated system of personality (Tokar, Fischer, & Subich, 1998), and we assessed the Big Five personality factors (i.e., emotional stability extraversion, agreeableness, conscientiousness, and openness to experience) as general dispositional to test its influences on job strain, job satisfaction, and job performance.

#### *Extraversion*

Generally, individuals with extraversion show positive emotions, higher frequency and intensity of personal interactions, and a higher need for stimulation. In addition, extraversion is associated with a tendency to be optimistic and a tendency to reappraise problems positively. Extraverts' generally optimistic temperament (e.g., Watson & Clark, 1992) may bring them to focus on the good and positive side of their experiences. In addition, extroversion tends to be associated with the use of rational, problem-solving coping strategies and with social-support seeking and positive reappraisal (Watson & Hubbard, 1996). Thus, extraverts have more friends and spend more time in social situations than do introverts and, are likely to seek interpersonal interactions more rewarding. Therefore, in the present study, we expected the following:

*Hypothesis 1a:* Extraversion will be negatively related to job strain.

*Hypothesis 1b:* Extraversion will be positively related to job satisfaction.

*Hypothesis 1c:* Extraversion will be positively related to job performance.

#### *Agreeableness*

In general, agreeableness assesses one's interpersonal orientation. Individuals high on agreeableness can be characterized as altruistic, trusting, forgiving, and caring as opposed to hostility, indifference to others, self-centeredness, and noncompliance. That is, the high end of agreeableness represents an individual who has cooperative values and a preference for positive interpersonal relationships. On the other hand, someone at the low end of agreeableness can be characterized as manipulative, self-centered, suspicious, and ruthless (Costa & McCrae, 1992; Digman, 1990). Generally, agreeableness may bring

one to be seen as trustworthy and may help one generate positive, cooperative working relationships, high levels of agreeableness may prohibit one's willingness to drive hard bargains, pursuit one's own self-interest, and influence or manipulate others for one's own benefit. Therefore, in the present study, we expected the following:

*Hypothesis 2a:* Agreeableness will be negatively related to job strain.

*Hypothesis 2b:* Agreeableness will be positively related to job satisfaction.

*Hypothesis 2c:* Agreeableness will be positively related to job performance.

#### *Low Neuroticism*

Neuroticism represents individual differences in emotional stability and adjustment. Because of their essentially negative nature, individuals high on neuroticism tend to experience more negative life events than other individuals and experience a number of negative emotions including anxiety, hostility, depression, impulsiveness, self-consciousness, and vulnerability (Costa & McCrae, 1992). People who are low on neuroticism can be characterized as self-confident, calm, even tempered, and relaxed. In general, individuals high on neuroticism tend to lead themselves into situations that foster negative affect (Emmons, Diener, & Larsen, 1985). Hence, individuals with high neuroticism would lead to diminished levels of both job satisfaction and job performance, and would further increase their strain. Therefore, in the present study, we used emotional stability to measure this dimension and expected the following:

*Hypothesis 3a:* Emotional stability will be negatively related to job strain.

*Hypothesis 3b:* Emotional stability will be positively related to job satisfaction.

*Hypothesis 3c:* Emotional stability will be positively related to job performance.

#### *Conscientiousness*

Conscientiousness represents an individual's degree of persistence, organization, hard work, and ambition in the pursuit of goal achievement. This construct have been viewed as an indicator of volition or the ability to work hard (Barrick & Mount, 1991). Generally, this dimension has been the most consistent personality predictor of job performance or job satisfaction across all types of work and occupations (Barrick, Mount, & Judge, 2001; Judge, Heller, & Mount, 2002). Some researchers consider conscientiousness as a broad personality dimension which includes two primary facets: achievement motivation and dependability (e.g., Mount & Barrick, 1995). Organ and Lingl (1991) indicated that conscientiousness should be related to job satisfaction because it shows a general work involvement tendency and leads to greater likelihood of obtaining satisfying work rewards including both formal (e.g., pay, promotions) and informal (e.g., respect, recognition of personal achievement). Hence, individuals with high conscientiousness would lead to higher levels of both job satisfaction and job performance, and would further increase their strain.. Therefore, in the present study, we expected the following:

*Hypothesis 4a:* Conscientiousness will be negatively related to job strain.

*Hypothesis 4b:* Conscientiousness will be positively related to job satisfaction.

*Hypothesis 4c:* Conscientiousness will be positively related to job performance.

#### *Openness to Experience*



Openness to experience that is related to scientific and artistic creativity (Feist, 1998), may characterize someone who is intellectually curious, and tends to seek new experiences and explore novel ideas. Someone high on openness can be characterized as creative, innovative, imaginative, divergent think, and untraditional. Someone low on openness can be described as traditional, narrow in interests, and unanalytical. Few studies state that openness seems to be closely related to job satisfaction. DeNeve and Cooper (1998) indicated that “Openness to experience is a ‘double-edged sword’ that predisposed individuals to feel both the good and the bad more deeply” (p. 199), offering its directional influence on affective reactions like subjective welfare or job satisfaction unclear (Judge, Heller, & Mount, 2002). In the present study, we didn’t expect that openness to experience will be related to job performance and job strain.

## Method

### *Participants*

Participants in this study consisted of 662 first-line employees and supervisors belonging to the service department of 126 enterprises. Participants were ensured that their responses would remain confidential. Approximately 800 surveys were distributed through the division supervisors. Of the 800, a total of 662 surveys were returned and usable. Of the 662 respondents, 242 were men (36.6%) and 420 were women (63.4%). The average age of participants was 37.5 years old (SD = 8.17).

### *Measures*

*Extraversion.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s Extraversion. Sample items included: “I feel comfortable around people,” and “I talk to a lot of different people at parties.” Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .81.

*Agreeableness.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s agreeableness. Sample items included: “I sympathize with others’ feelings,” and “I have a soft heart.” Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .73.

*Emotional stability.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s neuroticism. Sample items included: “I often worry about trivial things” (reversed), and “I get irritated easily” (reversed). Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  of this measure was 0.83.

*Conscientiousness.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s conscientiousness. Sample items included: “I am always prepared,” and “I follow a schedule.” Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .82.

*Openness to experience.* Ten items adapted from Goldberg (1992, 1999) were used to assess employee’s neuroticism. Sample items included: “I have excellent ideas,” and “I have difficulty understanding abstract ideas” (reversed). Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s  $\alpha$  was .75.

*Job strain.* This variable includes two facets: Emotional exhaustion and Disengagement. Three items adapted from Demerouti et al. (2001) were used to assess employee's perception of emotional exhaustion. Sample items included: "After work, I regularly feel worn out," and "I often feel emotionally drained during my work." Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's  $\alpha$  of this measure was .86. Four items adapted from Demerouti et al. (2001) were used to assess employee's perception of disengagement. Sample items included: "After work, I have little interest to engage in any other activity," and "I get more and more engaged in my work" (reversed). Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's  $\alpha$  of this measure was .83.

*Job satisfaction.* Ten items adapted from Roznowski (1989) were used to assess employee's job satisfaction. Sample items included: "I satisfy my job," and "I get along with my supervisors." Participants were asked to rate how accurately each item described them on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach's  $\alpha$  of this measure was .81.

*Job performance.* The employees' job performances were obtained from the appraisal of their supervisors. Supervisors were asked to rate employees' effectiveness in three performance areas, which included quality of work, degree of work achievement and work attitude. A 3-point rating scale was used for these ratings with response options ranging from 1 (below expectations) to 3(exceeds expectations). The Cronbach's  $\alpha$  of this measure was .78.

## Results

The means, standard deviations, and intercorrelations of the study variables are presented in Table 1. In general, the bivariate correlations provided confidence that the measures were functioning properly.

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Results of intercorrelations of the variables from Table 1 revealed that the correlations between personality variables and independent variables suggested: (1) extraversion was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (2) agreeableness was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (3) emotional exhaustion was negatively associated with both emotional exhaustion and disengagement ( both  $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (4) conscientiousness was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ); (5) openness was negatively associated with disengagement ( $p < .01$ ), and was positively associated with both job satisfaction ( $p < .01$ ) and job performance ( $p < .01$ ). Accordingly, in addition to emotional stability, another four personality factors were not associated with emotional exhaustion. Hence, hypotheses of the current study are almost supported.

## Discussion

Past literature mainly focused on investigating the relationships between personality factors and job strain, or the relationships between personality factors and job satisfaction, or the relationships between personality factors and job performance separately. The current study contributes to the literature by examining big five-job strain relations, big five-job satisfaction relations and big five-job performance relations. The results of our study indicated that the positive polar of all five personality factors are negatively associated with job strain, and have differing impacts on both job satisfaction and job performance.

As expected, the predicted effects of job strain, job satisfaction, and job performance were found for employees with high positive traits. It is interesting that the fifth dimension-openness to experience is negatively associated with job strains and positively with both job satisfaction and job performance. Therefore, if employees are with high extraversion, or high agreeableness, or high emotional stability, or high conscientiousness, or high openness to experience might show expected job attitudes toward their work. Similarly, if employees are with low extraversion, or low agreeableness, or low emotional stability, or low conscientiousness, or low openness to experience might show unexpected job attitudes toward their work. The findings enhance the roles of individuals' differences which may decrease job strains of employees, and increase job satisfaction and job performance of employees. It is thus suggested that when organizations recruit employees, they would do better to select individuals with more expected traits. Management especially needs to pay more attention to employees who are highly neurotic or lowly agreeable, etc. in order to decrease the probability of some negative job outcomes. The current study therefore, adds to the body of literature and calls attention to carefully investigating the nature of individuals differences so that management strategies or policies (e.g., job autonomy, job controls) are related relevant to mitigate employees' negative outcomes and increase employees' expected outcomes when managers want to improve employees' work attitudes and work quality.

### *Limitations and Future Research*

There are some limitations to the current study which need to be considered. First, the design of this study mostly relied on self-reports, which may lead to a concern for a common method variance. While the data was collected from a multi-source of 126 organizations, most results of the current study were consistent with previous studies. In addition, job performance was provided by the supervisors so that the results may decrease potential bias toward main effects. Hence, we believe that the results found in this study would be credible. We also encourage future researchers to conduct a longitudinal design and include more objective measures such as expert rating, coworker rating, etc. Second, the data of this study was obtained from first-line employees and supervisors, the sample did not include higher class employees or senior supervisors. Future research may investigate individual traits-job attributes relations among different levels of employees or different industries so that the findings of the current study would be more valued and generalizable to the most industrial companies.

### *Managerial Implications*

Research has shown that employees' strains can be decreased (Grandey, 2003; Griffin, 2001; de Rijk et al., 1998). The findings of this study suggest that employees with

positive traits cope with more stressor and have more job satisfaction and more job performance. While employees with less positive traits might be with more job strain, and have less job satisfaction and less job performance. It is thus suggest that organizations should pay more attention for such employees to deal with their work, especially when they face highly job stressors. To straighten employees' stress coping ability, job satisfaction and job performance, managers should hold some training programs to increase employees' KSAs in their actual work environment. In addition to providing employees with adequate training programs concerning their task, managers should provide their employees sufficient job-related tools and equipment to increase their capability to achieve required task performance. Managers should also pay more attention to correct the negative affect of employees, especially to those who are highly neurotic or lowly agreeable (Tai & Liu, 2007). Employees with high neuroticism or low agreeableness would do better if offered adequate job help, because they would appreciate their supervisors' kindness and glad to pay more effort in their job (Tai, 2006). In this way, employees' unexpected outcomes can possibly be minimized.

### *Conclusion*

Taken as a whole, this study enhances our understanding of the nature of job job strain, job satisfaction and job performance. Results reveal that positive personality factors are negatively related to job strain, whereas negative ones are positively related to both job satisfaction and job performance. The current study particularly underscore the critical role of individual personality and job strain, which have main effects on the relationships between job satisfaction and job performance. Thus, we suggest that to mitigate employees' perceptions of strains, managers should carefully recruit job-fit employees, and adequately provide the job related training and necessary job equipment when they ask employees to achieve a required task performance. Especially, managers should pay more attention for those who are with high neuroticism, low agreeableness and low conscientiousness etc.

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Table 1.

*Means, Standard Deviations, and Correlations among Variables*

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Extraversion	2.99	.53	(.81)								
2. Agreeableness	2.42	.43	-.05	(.73)							
3. Emotion stability	2.80	.59	.27**	.07	(.83)						
4. Conscientiousness	2.32	.51	-.22**	.25**	.30**	(.82)					
5. Openness	3.63	.55	.46**	.09*	.24**	.37**	(.75)				
7. Exhaustion	3.11	.83	-.06	-.05	-.29**	-.07	.00	(.86)			
8. Disengagement	3.91	.69	-.19**	-.31	-.36**	-.40**	-.20**	.36**	(.83)		
9. Job satisfaction	2.41	.43	.21	.27**	.29**	.37**	.23**	-.27**	-.60**	(.81)	
10. Job performance	1.81	.81	.07	-.13**	.11**	.24**	-.13**	.02	.29**	.31**	(.78)

*Notes.* Values on the diagonal are Cronbach's alpha. Gender was coded: 1 = male; 2 = female

\*  $p < .05$ . \*\*  $p < .01$ .