The Relative Study of Gender Roles, and Job Stress and Adversity Quotient

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ABSTRACT

In the era of gender equality, females’ work competency is praised and valued in the modern workplace, and physical gender becomes insignificant. However, does the difference of gender roles influence workers’ performance in the work environment? It is an important question. Hence, this study probed into relationship between gender roles, and job stress, and treats the Adversity Quotient as moderator to determine if and job stress of different gender roles are influenced by the Adversity Quotient and results in a moderating effect.

Based on questionnaire survey and analysis of structural equation (AMOS), this study distributed 650 questionnaires and retrieved 566 valid questionnaires. According to analytical results, the differences of gender roles influence job stress. Adversity Quotient has a moderating effect between gender roles and job stress.

Keywords: Gender Roles, Job Stress, Adversity Quotient.

INTRODUCTION

Modern society is a time of gender equality that gradually becomes the basic social norm. Currently, Chinese enterprises are turning from the patriarchal system of the past to a democratic system (Chi, 1997). According to statistics, as announced by the Directorate General of Budget, Accounting and Statistics, Executive Yuan, R.O.C. in 2013, the female labor participation rate is more than 50%, and this gap between genders’ labor participation is reduced year by year. Moreover, with regard to employment population and salaries, the gender difference becomes insignificant.

In June 26, 2013, the Supreme Court of the United States declared that the Defense of Marriage Act violated the Constitution. The judgment legalized same sex marriage in U.S. which implies that physical gender will be replaced by psychological gender. Individuals’ gender roles will demonstrate personal traits and become the principles to distinguish and identify personality and style of behavior.

Regarding workplace competency, both genders can be valuable talents and assets; however, gender discrimination negatively influences female workers. For instance, female managers have the intention of active competition and are willing to accept a challenge. However, when they perceive gender discrimination, it will result in physical and psychological stress (Huang et al., 2004). Thus, organizations should create work environments without gender discrimination and establish new managerial principles by gender roles.

In addition, ambiguity of personal roles might result in values conflict between individuals, coworkers, and even organizations. When team members focus on negative interpersonal relations, they tend to treat different views and perspectives as criticism, and thus, simple cognitive difference will cause tension and hostility within the team and increase employees’ unnecessary job stress at work (Chi et al.,
Thus, it is challenging for managers to arrange proper jobs for employees with different gender roles. In order to avoid employees’ job stress caused by interpersonal relation, this study suggests focusing on the “Adversity Quotient” (AQ).

The Adversity Quotient means to measure people’s capacity to respond to and surmount adversity (Stoltz, 1997). It decides the key factors to persist or eliminate when encountering adversity (Shen & Chang, 2009). In recent years, the Adversity Quotient becomes the criterion for business recruitment. For instance, Sinyi Realty Inc., a real estate industry in Taiwan, conducts 3Q (AQ, EQ, IQ) testing when recruiting talent. Employees with high Adversity Quotient are treated as valuable talent. Related research demonstrated that the Adversity Quotient significantly and positively influences employees’ job performance (Markman & Baron, 2003). Hence, for managers, employees’ Adversity Quotient is the decision-making indicator of talent selection and cultivation, and can be referenced to arrange proper jobs for employees of different gender roles.

Stoltz (2002) suggested that different genders have significantly different capacities in response to adversity. When encountering adversity, females tend to blame themselves and males usually focus on the result of adversity. The experiment showed that physical gender will influence the Adversity Quotient. However, in 2013, can we obtain more findings with research value by replacing gender by gender roles with the Adversity Quotient? This is one of the motives of this study.

Hence, this study aims to determine the relationships between gender roles and job stress, and treats the Adversity Quotient as moderator to review the in-depth factors of employees’ job stress. The researcher attempts to find employees’ personal factors other than work environment or interpersonal relations. Enterprises can lower job stress by improving the external work environment, as well as by arranging proper work and teams to individual employees for more efficient organizational operation.

**LITERATURE REVIEW**

Literature of gender roles, job stress, and the Adversity Quotient will be discussed in order to construct a theoretical framework and hypotheses of this study.

**Relationship between gender roles and job stress**

The meaning of gender can be categorized as sex and gender. Sex is “male or female physical sex characteristic decided by chromosomes”; gender “means individuals’ psychological identification of male or female”. It is their individual subjective perceptions of masculinization and feminization, and a kind of gender identification (Basow, 1992). Role is a term from sociology, and means the behavior, responsibility, and expectation of certain social positions (Burr, 2002). Gender role means “individuals’ views of proper male and female roles or expectation of gender behavior” (Thornton and Freedman, 1979).

Job stress is developed by “stress”, and the scholars have different views of the definition of job stress. Caplan (1975) suggested that job stress means negative feelings caused by adaptation to jobs, where causes can be work, work environment, and workers’ competency. Cooper and Marshall (1978) suggested that job stress is the direct impact of environmental factors on individuals and behavioral reactions from stress sources. Jamal (1990) redefined job stress, as follows: “individuals’ reaction when encountering the threat of work characteristics”. According to previous literature, when workers cannot adapt to work environments and deal with overloaded demands, they will have job stress.
However, proper job stress can trigger work competency. Chand (1990) suggested that appropriate job stress can enhance attention and enthusiasm to deal with highly difficult jobs. In addition, job stress leads to individuals’ satisfaction or challenge. When individuals lack stress, they will not have motivation or creativity (Compas et al., 1993), hence, proper job stress is one of the factors that enhance work competency.

In literature on gender roles, Helgeson (1994) suggested that feminine roles have more positive relations and social support. Thus, the effect of work environment on physical health is insignificant. In addition, according to many empirical studies, instrumental masculine characteristics significantly influence psychological stress (Kleinplatz et al., 1992; Stake, 2000). The above literature demonstrates the correlation between gender roles and job stress.

In Taiwan, some studies on gender roles and job stress indicate that the physicians’ gender characteristics are related to job stress (Ma, 2007). Some research shows that androgynous employees’ job stress is significantly higher than the other three categories (Shen et al., 2013); hence, job stress of different gender roles can be different.

In fact, studies that combine gender roles and work are lacking. This study intends to connect gender roles with work issues to include issues of gender roles in the workplace in order to supplement empirical theories of gender roles.

**Relationship between gender roles and Adversity Quotient**

Miller and Katerberg (2001) suggested that adversity is a kind of misfortune or anxiety, difficulty in life, sickness, financial crisis, etc. Quotient is the figure obtained by measurement. Since figures of adversity are quantified by quotient, individuals can be objectively compared. When individuals are struck by adversity, and there is a gap between outcome and expectation, there will be a psychological reaction. Hence, the Adversity Quotient consist of the figures of individuals’ psychological reaction when encountering adversity.

The theory of Adversity Quotient was proposed by Paul G. Stoltz, a psychologist in the U.S., in 1997. He reorganized numerous literatures of science, and included three kinds of scientific concepts, cognitive psychology, psychoneuroimmunology, and neurophysiology, as shown in Figure 1. After 19 years of study and 10 years of application, he demonstrated that the Adversity Quotient is considerably related to the success of people’s life and career, and people’s reactions toward adversity and quantified figures can serve as reference for researchers or enterprises. Hence, the Adversity Quotient is an indicator, second to EQ, adopted for recruitment in contemporary enterprises.
The Adversity Quotient consists of “CO2RE”, and is constructed by Stoltz, who combined the reformulated learned helplessness theory and self-control theory of Peterson et al. (1995), with responsibility. CO2RE decides the score of the Adversity Quotient. The meanings of CO2RE are as shown in Table 1.

Table 1: Four factors of the Adversity Quotient (CO2RE)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Control capability of adversity. Learning result is related to effort.</td>
</tr>
<tr>
<td>O₂ (Origin+Ownership)</td>
<td>Cause and responsibility of adversity; to undertake the responsibility of adversity instead of blaming oneself</td>
</tr>
<tr>
<td>Reach</td>
<td>Scope of effect of adversity on oneself</td>
</tr>
<tr>
<td>Endurance</td>
<td>Depth and duration of frustration caused by adversity</td>
</tr>
</tbody>
</table>

The Adversity Quotient is individuals’ capability to respond to adversity. When the score is higher, it means the capability to respond to adversity is higher. Job stress can be properly managed to become motivation. Previous research on gender roles mostly demonstrated that males have instrumental or dominant characteristics, such as leadership, problem analysis, problem solving, and active language expression. Females have expressive or sharing characteristics, such as kindness, care, and support for others (Madelin, 2001).

In other words, masculine gender roles actively control adversity. With stronger analytical capability, they can clarify responsibility. Feminine gender roles can lower the scope of effect and duration of adversity by expressing their feelings. Androgynous characteristics include the above advantages. Although these people have high job stress, they properly transform it into motivation. Hence, androgynous workers might have a high Adversity Quotient. Shen et al. (2013) indicated that the Adversity Quotient of non-differentiation is significantly lower. Androgynous people have the highest Adversity Quotient. However, androgynous job stress is higher than non-differentiation.
Based on previous literature, although gender role and Adversity Quotient are integrated, their relation to job stress is not mentioned. Therefore, this study attempts to probe into the relationships between gender roles, Adversity Quotient, and job stress in order to determine the effect on job stress.

**Relationship between Adversity Quotient and job stress**

As suggested in the section on relationship between gender roles and job stress, stress is a feeling to be suppressed, and is individuals’ subjective experience toward environmental variables (Adriaenssens et al., 2006). In addition, stress means individuals’ psychological state when they cannot adapt to or properly respond to things in life situations (Tian, 2007). Therefore, job stress is a threat to workers caused by factors in work environments.

However, job stress is a kind of dynamic process. When there is a gap between work demand, as evaluated and identified by individuals and resources, there will be job stress. Hence, job stress includes physical and psychological imbalances in work environments (Margolis et al., 1974; Caplan and Jones, 1975; Lin and Chang, 2010), as well as gaps between individuals’ competency, skills, and work (Ya and Wang, 2003).

As mentioned above, overloaded job stress influences workers’ physical health, psychological health, and work performance. The Adversity Quotient shows the attitude and capability to deal with stress sources. Therefore, there is a relation between job stress and the Adversity Quotient. When the control capability of the Adversity Quotient is higher, the perception of job stress should be lower. When dimension scores are higher, individuals’ lives will not be influenced by frustration, they will easily treat obstacles, and will not have negative association with adversity.

Thus, according to the degree of the Adversity Quotient, this study aims to determine if different gender roles will influence job stress. Moreover, this study explores the relation between the Adversity Quotient and job stress. Previous research (Shen et al., 2011; Shen and Chang, 2009) demonstrated the correlation between job stress and the Adversity Quotient. However, as suggested by Chand (1990), “proper job stress can enhance attention and enthusiasm to deal with highly difficult work”. This study indicates that the Adversity Quotient is not simply related to job stress; although the Adversity Quotient lowers job stress, it does not completely explain the correlation. The key to the Adversity Quotient is to transform adversity by CO2RE into personal motivation. Hence, this study suggests that the Adversity Quotient can have moderating effects between gender roles and job stress.

According to literature on the Adversity Quotient and job stress, there is correlation between the two, and it is effective. The Adversity Quotient can lower job stress; however, in the theory of Chand (1990), there is significant contradiction. This study treats the Adversity Quotient as moderator to determine the cause of this phenomenon.

**Relationship among gender role and job stress: with Adversity Quotient as the moderating variable**

In exploration of the relationship between dimensions, this study suggests that the Adversity Quotient can have moderating effects between gender role and job stress. The differences of gender roles influence the degree of job stress (Shen et al., 2013). According to literature, androgynous characteristics have a higher Adversity Quotient, whereas non-differentiation has the lowest. In addition, the Adversity Quotient does not simply influence job stress, but transforms job stress into motivation. Hence, this study suggests that the Adversity Quotient has a moderating effect between gender roles and job stress.

This study adopts the Adversity Quotient as the moderating variable, which is rare in previous research. The effect of the Adversity Quotient on job stress is not simply the relationship between an
independent variable and a dependent variable. In this study, the Adversity Quotient is used as moderator in order to discover more outcomes for practical application.

**RESEARCH METHOD**

This section includes the research framework, research tools, samples, and analytical methods.

**Research Structure**

The research framework is as shown in Figure 2. This study probes into the relationship between employees’ gender roles and job stress, and treats the Adversity Quotient as moderator to probe into the effect of gender roles on job stress, and attempts to determine if the relationship will change because of the Adversity Quotient.

![Figure 2: Research framework](image)

**H1:** Gender role significantly influences job stress.

**H2:** Gender role significantly influences the Adversity Quotient.

**H3:** Adversity Quotient significantly influences job stress.

**H4:** Adversity Quotient has moderating effect between gender role and job stress.

**Research Tools and Samples**

The research method was questionnaire survey. Regarding questionnaire design, the researcher constructed the hypotheses and research framework based on literature review, and then established the dimensions and items of the questionnaire. Related scholars were invited to review and revise questionnaire content in order to guarantee the content validity of the questionnaire, and ensure that the items were easily understood. A pilot test was conducted, with 50 questionnaires retrieved. The researcher first tested reliability of the items. Cronbach’s $\alpha$ of all scales are higher than 0.7, meaning that reliability of the questionnaire is acceptable (Nunnally, 1978).

The measurement was based on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Table 2 shows the operational definitions of the dimensions.

Subjects of this study were employees of eleven firms in the industrial zones of Taipei, Taoyuan, and Hsinchu in Taiwan. By mail and on site, questionnaires were distributed through the contact persons of sample units. A total of 650 questionnaires were distributed, with 592 retrieved. After eliminating 26 invalid questionnaires, the researcher obtained 566 valid questionnaires for a valid return rate of 95.6%.

**Analytical methods**

After retrieving questionnaires, this study screened, encoded, registered. SPSS for Windows 12 was used for descriptive statistics and reliability analysis. Regarding validity analysis and overall model analysis, this study conducted confirmatory factor analysis and path analysis by AMOS 17.0.

For model analysis, this study analyzed the structural equation model by AMOS 17.0. SEM analysis should be based on multiple indicators to test model fit, and there are different suggestions on the evaluation of model fit. However, the statements of Bagozzi and Yi (1988) are more complete, and
suggest that the fit between and hypothesis model and actual data should be based on three indicators: Preliminary Fit Criteria, Overall Model Fit, and Fit of Internal Structural Model.

This study adopted indicators suggested by Ko et al. (1996), including chi-square test, chi-square freedom ratio, CFI (Comparative Fit Index), GFI, RMR, and RMSEA. To measure the Overall Model Fit, this study referred to Hair et al. (1998), and validated the Overall Model Fit by AGFI and NFI to show the ideal goodness of fit.

| Table 2: Operational definitions |
|---------------------|------------------|---------------------------------|
| Names of dimensions | Variables        | Explanation of dimensions       | Sources of measurement tools |
| Job stress          | Physical stress  | Physical discomfort when        | Modified by job stress        |
|                     |                  | encountering stress.            | scales of Wu and Wu            |
|                     | Psychological    | Negative emotion and feelings   | (2010) and Lin & Chang (2010).|
|                     | stress           | when encountering stress.       |                                |
| Gender roles        | Masculinization  | Higher degree of masculine     | Based on BSRI of Bem (1974)    |
|                     |                  | characteristics, with           | and scale of gender characteristics, as developed by Li and Zhong (1981). |
|                     | Feminization     | Higher degree of feminine       |                                |
|                     |                  | characteristics, with           |                                |
|                     | Androgynous      | Higher degree of both masculine and feminine characteristics, with instrumental traits and expression of feelings. |                                |
|                     | Non-differentiation | Extremely low socialization,    |                                |
| Adversity Quotient  | C-control        | Control of adversity and work  | Based on “AQ reaction scale”, as |
|                     | capability       | result is related to personal   | developed by Stoltz (1997)      |
|                     | O2-cause and     | efforts; be responsible for     | and scale of Shen and Chang     |
|                     | responsibility   | adversity instead of blaming    | (2009)                          |
|                     | R-Scope of effect| Scope of effect of adversity.   |                                |
|                     | E-Duration       | Depth and duration of           |                                |

Source: Compiled by this study

**RESEARCH ANALYSIS RESULT**

**Descriptive statistics of samples**

Results of descriptive statistics in this study are as shown in Table 3. According to sample distribution, males are more than females by 13.3%; most subjects are 31~50 years old (49.4 %); most are “below senior high school and vocational school” and “university and college” (58.0 and 35.3%). Regarding “working years”, this study divides it into “working years in current company” and “total working years”, which are mostly 3 ~9 years. Most samples are basic employees and technicians.

| Table 3: Descriptive statistics |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|
| Demographic variables          | Frequency       | Percentage      | Working years in current company |
| Gender                         |                 |                 | Less than 3 years | 84 14.8 |
| Male                           | 297             | 52.4            | 3~6 years        | 201 35.5 |
| Female                         | 269             | 47.6            | 6~9 years        | 171 30.2 |
| Age                            |                 |                 | More than 9 years | 110 19.4 |
| Below 30 years old             | 178             | 31.5            |                  |      |
| 31~50 years old                | 229             | 40.4            |                  |      |
| Above 51 years old             | 159             | 28.1            |                  |      |
| Educational level              |                 |                 |                  |      |
| Senior high school and         | 255             | 45.1            |                  |      |
| Working years                  |                 |                 |                  |      |
| Total working years            |                 |                 |                  |      |
| Less than 3 years              | 99              | 17.5            |                  |      |
| 3~6 years                      | 200             | 35.3            |                  |      |
| 6~9 years                      | 188             | 33.2            |                  |      |

Source: Compiled by this study
Structural model analysis

Overall Model Fit means to measure the goodness of fit of the overall model and observed data. SEM should measure the goodness of fit of the model by multiple measures. The models might satisfy some indicators (Fan and Chang, 2007), but cannot be supported by other measures. This study adopted measures suggested by Hu and Bentler (1995), and Wan (2002), including CFI, GFI, RMR, RMSEA, AGFI, and NFI, in order to validate overall model fit.

Since model fit measures of the primary model in this study did not meet the standard suggested by scholars (Luarn and Lin, 2005: Kuo and Lu, 2010), this study modified the model. Some scholars suggest that, when model fit measures do not match the standard, that is to say, the theoretical model does not fit the data, the model can be modified by model modification measures (Chiou, 2003). The results of modification are as shown in Figure 3.

Table 4 shows the test results of the modified total model fit measures. After modification, the overall fit model of this study matched the standard of previous measures. Hence, SEM can be conducted on the model.

By variance analysis, the total variance of the data was divided into different parts according to factors of variance. The hypotheses were tested to determine if the factors can explain the variance of data.
Table 4: Total fit measures

<table>
<thead>
<tr>
<th>Fit criterion</th>
<th>Judgment criterion</th>
<th>Result of this study</th>
<th>Fit criterion</th>
<th>Judgment criterion</th>
<th>Research result</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF</td>
<td></td>
<td>203</td>
<td>GFI</td>
<td>&gt;0.9</td>
<td>0.961</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>&lt;3</td>
<td>2.453</td>
<td>AGFI</td>
<td>&gt;0.9</td>
<td>0.934</td>
</tr>
<tr>
<td>RMR</td>
<td>&lt;0.05</td>
<td>0.036</td>
<td>NFI</td>
<td>&gt;0.9</td>
<td>0.929</td>
</tr>
<tr>
<td>RMSEA</td>
<td>&lt;0.08</td>
<td>0.058</td>
<td>CFI</td>
<td>&gt;0.9</td>
<td>0.957</td>
</tr>
</tbody>
</table>

Source: Compiled by this study

Results of validation

By Maximum Likelihood, this study attempted to determine if hypotheses are significant. According to the analytical results, the total model is significant. The model is modified, meets the standard of measure coefficients, and is statistically supported. The validation results of the hypotheses are as shown in Table 5.

Table 5: Path coefficients of total structural model

<table>
<thead>
<tr>
<th>Structural relationship</th>
<th>Path coefficient</th>
<th>CR</th>
<th>Experimental result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender roles-&gt;job stress</td>
<td>0.21</td>
<td>5.211***</td>
<td>Significance</td>
</tr>
<tr>
<td>Gender roles-&gt;Adversity Quotient</td>
<td>0.20</td>
<td>4.529***</td>
<td>Significance</td>
</tr>
<tr>
<td>Adversity Quotient-&gt;job stress</td>
<td>-0.28</td>
<td>-6.377***</td>
<td>Significance</td>
</tr>
</tbody>
</table>

Note: *** denotes α<.001, ** denotes α<.005, * denotes α<.01, C.R.=statistics of Check Regression Weights test (wald test)

Source: Compiled by this study

According to the above research analysis, the validation results of the hypotheses are, as follows:

**H1:** Gender role significantly influences job stress. Validation result is significant. Thus, H1 is supported.

**H2:** Gender role significantly influences the Adversity Quotient. Validation result is significant. Thus, H2 is supported.

**H3:** Adversity Quotient significantly influences job stress. Validation result is significant. Thus, H3 is supported.

This study attempted to validate the moderating effect of the research model. According to Baron and Kenney (1986), the moderating variable includes the third important variable between independent variables and dependent variables to explain the relationship. The moderating effect is categorized into partial and complete moderating effects. Partial moderating effect means that after including the moderating variable, the relationship between independent variables and dependent variables becomes insignificant. The complete moderating effect means that after including moderating variables, the relationship between independent variables and dependent variables becomes insignificant. Total effect refers to the total of direct and indirect effects (Lin, 2006). This study tested total moderating effect data, as shown in Table 6. According to validation, this study found that:

“H4: Gender role indirectly influencing job stress by the Adversity Quotient” is supported. The Adversity Quotient has partial moderating effect.
CONCLUSIONS AND SUGGESTIONS

Research Results

This study probed into the relationship among gender role, job stress, and Adversity Quotient. Validation results of hypotheses proposed in this study are shown below.

“H1: gender role significantly influences job stress”. Validation result is significant. Path coefficient is 0.21 and CR is 5.211***. In other words, when the degree of gender role androgynous is higher, job stress will be higher. Job stress of undifferentiation is lower, and it is the same as the literature review of this study. Hence, when the degree of gender role (androgynous) is higher, job stress will be higher.

“H2: gender role significantly influences the Adversity Quotient”. Validation result is significant. Path coefficient is 0.20 and CR is 4.529***. The result shows that androgynous subjects have higher scores of Adversity Quotient. The Adversity Quotient of non-differentiation is lower, which matches the literature review of this study. Therefore, when the degree of gender role (androgynous) is higher, the Adversity Quotient will be higher.

“H3: Adversity Quotient significantly influences job stress” Validation result is significant. Path coefficient is -0.28 and CR is -6.377***. The result shows that when the score of the Adversity Quotient is higher, job stress will be lower. Hence, a high Adversity Quotient can effectively moderate and lower job stress.

“H4: gender role indirectly influences job stress by the Adversity Quotient”. Validation result shows partial moderating effect. After the Adversity Quotient is included in the relationship between gender roles and job stress, the effect lowers from 0.21 to 0.154. Hence, the moderating effect is supported. The relationship between gender role and job stress is influenced by the Adversity Quotient.

According to the validation results of the above hypotheses, gender role and Adversity Quotient are the key factors of job stress. The Adversity Quotient is the moderator between gender role and job stress.

Managerial implication

Managerial implication is divided by this study into academic and practical implications;

(1) This study treated gender role as an independent variable, job stress as a dependent variable, and the Adversity Quotient as a moderating variable to probe into their relationship. According to findings, they are related. The Adversity Quotient is the moderator. It is a relationship not discussed in previous research. This study is important to demonstrate gender roles in the workplace. Job stress is not caused simply by different gender roles, and it will be more complicated by the moderation of the Adversity Quotient. For instance, androgynous gender roles are willing to undertake more job stress and effectively transform job stress into drive at work. Non-differential gender roles have less job stress, and the Adversity Quotient is lower. Adversity cannot be transformed into capability; therefore,
gender roles and the Adversity Quotient are critical issues in human resources management. By
different personality traits, the Adversity Quotient is tested to enhance the theory of the Adversity
Quotient in academia.

(2) This study suggested that gender role and the Adversity Quotient help human resources management
of enterprises. Past research does not suggest the managerial advantages of job stress. Androgy nous
workers with high Adversity Quotient have better work performance. Based on the experimental
results of this study, gender roles and the Adversity Quotient influence employees’ job stress.
Enterprises can lower employees’ job stress by AQ training. AQ training is the plan to specifically
enhance overall organizational performance. Tsai et al. (2008) suggested that organizations that allow
skills learning can attract more talents. Hence, enterprises can attract talent by constructing a complete
training system. In addition, enterprises can used gender roles and AQ testing to select talent with
androgy nous characteristics or high AQ.

(3) This study found that the Adversity Quotient can effectively moderate the relationship between gender
roles and job stress. When workers with androgy nous characteristic have high AQ, their job stress will
be lower than androgy nous workers, which shows the importance of AQ. Hence, enterprises can
moderate employees’ job stress by AQ training, and is a plan to specifically enhance overall
organizational performance. Enterprises can design AQ training to lower total job stress.

(4) Organizations should equally treat employees with different gender roles and should not discriminate
because of the difference. When employees realize that the measurement of their output or
decision-making process is fair, they will return to organizations with off-role behavior (Lin, 2003).
Hence, in human resource management by gender roles, enterprises should treat different gender roles
equally, and without discrimination.

Research contributions
Research contributions are the following three points.

(1) This study treated gender role as the independent variable, job stress as the dependent variable, and the
Adversity Quotient as the moderating variable, in order to probe into their relationship. According to
the findings, they are related. Adversity Quotient is the moderator. In previous research, the Adversity
Quotient was often treated as an independent variable or a dependent variable; however, this study
found that the Adversity Quotient has moderating effect between gender roles and job stress. Thus, the
Adversity Quotient can be a moderator in work related dimensions. If previous researchers can review
their studies by this perspective, they might have additional and in-depth findings.

(2) This study found that workers with higher degrees of gender roles have a higher Adversity Quotient
and job stress. Workers with a high Adversity Quotient will have lower job stress. Thus, future
researchers can further explore other dimensions, as based on gender roles and the Adversity Quotient.

(3) At present, there are few studies on gender roles and the Adversity Quotient in Taiwan. However,
employees in different industries can have different results. With different time, space, and samples,
the Adversity Quotient particularly shows different outcomes. Organizations should investigate it, or
treat it as indicator of recruitment, in order to have effective gender roles and Adversity Quotient.

Future research
This study conducted investigation by questionnaire, and probed into the correlation among gender
roles, the Adversity Quotient, and job stress. According to research findings, the researcher proposes
future research directions and suggestions.
(1) In the questionnaire design of gender roles, subjects with androgynous characteristics perform better, as they have higher role identification. In the questionnaire design, the items are mostly related to the advantages, instead of the disadvantages, of role characteristics. When scores are higher, the performance of other dimensions will be better. Hence, it is suggested to redesign the questionnaire, including the advantages and disadvantages, in order to measure effect of role characteristics on other dimensions.

(2) In addition to gender roles and the Adversity Quotient, factors of job stress include personal factors, work environment, and organizational factors. Due to limitations of data collection, this study cannot analyze all variables. It is suggested that future researchers can include other related variables in order to enhance the base of inference.

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