Positive affect predicting worker psychological response to cyber-bullying in the high-tech industry in Northern Taiwan

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A B S T R A C T

Online cyber-bullying has become a frequent occurrence in organizations. To understand individual dispositions and the organizational factors that effect online cyber-bullying, the present study investigates the relationship among positive affect, the perceived organizational innovation climate, and psychological responses to cyber-bullying. The research samples for this study are staff members from the high-tech manufacturing industry in Northern Taiwan. A total of 396 responses were validated for confirmatory factor analyses, correlation coefficient, and structural equation modeling (SEM). The research results revealed that a positive affect (PA) has a positive influence on perceived organizational innovation climate. Moreover, the perceived organizational innovation climate has a negative influence on psychological responses to cyber-bullying. Finally, the experience of cyber-bullying was positively correlated to the psychological response of being cyber-bullied, i.e., the more an individual had experienced cyber-bullying, the higher psychological response. The results further indicated an interesting finding for the mediating role of perceived organizational innovation climate between positive affect and psychological responses to cyber-bullying. Therefore, organizations can enhance the positive affect for employees and foster an effective organization innovation climate, so those workers are better adaptable to cope with cyber-bullying.

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1. Introduction

Cyber-bullying has become another form of workplace bullying and has become an issue for workplace competition (Slonje, Smith, & Frisén, 2013). Cyber-bullying involves the use of information, communication devices, and services to bully, harass, or intimidate individuals or groups (Bryce, 2008). Unlike traditional bullying, the traumatized victims of cyber-bullying are incapable of contending the bullying because they do not know the identities of the perpetrators. As a result, victims who suffer from cyber-bullying may have negative effects that may include violent behavior when they are under pressure. In this context, the reasons behind cyber-bullying deserve further exploration. A previous study indicated that most victims are subjected to cyber-bullying in the workplace because of personality traits (Ragozzino & O’Brien, 2009). Positive psychology arises from the need to add a positive side to the predominant historical focus on pathology in psychology (Kanis, Brinkman, & Perry, 2009). Positive affect have been shown to be related to many positive outcomes, such as extraversion, physical well-being, and adaptive coping (Lyubomirsky, King, & Diener, 2005). Therefore, the positive affect influence psychological responses to cyber-bullying is worthy of exploration.

Heyman (2008) argued that people with a strong work ethic in a competitive work environment, such as the high-tech industry, become the targets of jealousy, and may experience intense bullying. Therefore, the emotional effects (i.e., psychological responses) of people with different levels of organizational innovation climate perception may be interplayed when confronted with bullying. It is plausible that meditation promotes psychological health because it facilitates individual insight into their self-feelings and lead to a more congruent self-evaluation (Vallacher & Nowak, 1994). In cases of positive self-esteem, this is not surprising. In fact, a positive self-evaluation may be perceived as acknowledging one’s strengths. In contrast, expressing a negative self-evaluation may seem maladaptive (Robins & Trzesniewski, 2005). Low self-esteem relates to a high level of emotional effects from cyber-bullying, as examined in this study. Research has revealed that when people are bullied in the workplace for an extended period, they often experience negative effects (Liefooghe, 2004; Mikkelsen & Einarson, 2002). Thus, it would be helpful to know whether depressed individuals engage in the positive affect with the intention of reducing the intensity of being the recipient of cyber-bullying and the psychological effects post cyber-bullying along with those high-tech employees in Taiwan.
2. Literature review

In this study, the focus on the self and non-judgmental awareness, such as positive psychology, may prove to be particularly useful for the study of cyber-bullying. Would positive affect for organizational innovation reflect individual response to cyber-bullying? This study answers this question and requires a careful consideration of the underlying factors of cyber-bullying.

2.1. Cyber-bullying

Cyber-bullying is different from bullying in the physical world in several ways: the perpetrators of cyber-bullying are hidden; the number of bullied individuals is greater; and the speed of information sharing is faster (Belsey, 2006). Cyber-bullying occurs via deliberate acts such as sending threatening and aggressive emails, text messages, and/or instant messages to hurt or embarrass another person (Willard, 2007). Therefore, cyber-bullying is further defined as using information and communication technologies (such as email and cell phones text messages, instant messaging, defamatory personal websites, and online personal polling websites) to support deliberate, repeated, and hostile behavior by an individual or group with the intention to harm (Belsey, 2006; Slonje & Smith, 2008; Smith, Mahdavi, Carvallo, & Trippett, 2006). Mishna, Saini, and Solomon (2009) indicated that cyber-bullying behavior is more serious than general bullying because cyber-bullies are usually anonymous (i.e. virtual identities) to spread rumors or video clips.

2.2. Psychological response to cyber-bullying

Cyber-bullying is called an “invisible fist.” Most researchers believe that if a person is the object of negative behavior in the workplace, a majority of them will react emotionally (Saunders, Huynh, & Delahunty, 2007). Psychological research into the consequences of being the recipient of bullying has mainly focused on affective disorders and psychological constructs (Mills, Guerin, Lynch, Daly, & Fitzpatrick, 2004). After being bullied, victims usually have physiological and psychological symptoms, such as stress, anxiety, tension, fear, depression, loss of confidence, low job satisfaction, and decreased commitment to the organization (Ayoko, Callan, & Hartel, 2003; Mika, Marko, & Jussi, 2000). According to Ybarra and Mitchell (2004), although cyber-bullying does not actually cause physiological pain, showed that 33% of the recipients of bullying felt depressed. Smith et al. (2006), and Slonje and Smith (2008) have shown that 38% of the recipients of bullying felt physically and mentally distraught. Victims of cyber-bullying may be at a higher risk of suicide more than victims of traditional bullying (Hinduja & Patchin, 2010). A majority of the cyber-bullied victims opt not to confront their bully, i.e. the aggressor. De Wet (2010) also found that victims of workplace bullying were reluctant to confront their bully, but some do try to act assertively. Workplace bullying ultimately causes distress in the work environment and even increased employee risk of illness (Nelson & Simmons, 2003).

2.3. Cyber-bullying experience

Mishna et al. (2009) found that there are several types of cyber-bullying: posting, coercing, backstabbing, and masquerading. The research participants from Mishna et al. (2009) believed that aggressors concealed their identity in order to bully and to increase their power. They described several stealthy acts that are regular occurrences on the Internet, e.g., email, MSN, social networking sites, and gaming sites. Ybarra, Diener-West, and Leaf (2007) indicated that cyber-bullying behavior have no regional restrictions; that cyber-bullying perpetrators do not have a concrete identity, appearance, or any co-sharing elements. Monks and Smith (2006) have stated that cyber-bullying is performed indirectly, such as spreading false rumors, relational bullying, social communication bullying, or by requesting companions to not share information with an individual. For example, Willard (2006, 2007) divided the purposes of cyber-bullying into several types: (1) online fights, such as flaming, which refers to the arbitrary spreading of offensive language and information with the purpose of making the person who sees the message feel awkward; (2) slandering, which refers to the distribution of photographs or false rumors about an individual to destroy the reputation and social relationships of that person; (3) intrusion into an individual’s web account to distribute false information to defame the victim or to send out information to cut off the victim’s friendship with another person; (4) spreading an individual’s secret or dispatching a message to embarrass him or her; (5) usage of social groups on the Internet to exclude an individual; and (6) repeated transmissions of the same message to paralyze an individual’s mailbox.

Experience in this study referred to exposure, meaning that the target does not consciously have to be aware of the experience of cyber-bullying. In some cases, workplace cyber-bullying could be seen as a psychosocial hazard, a hazard that emanates from the cyber world. The victims consider themselves mistreated and have been found to suffer significant psychological harm like soothing, embarrassment, anger, upset, stressed, worried, afraid, alone, defenseless, depressed, threatened, and distressed (Kwan & Skoric, 2013; Slonje et al., 2013). In this sense, our first hypothesis is:

H1: Cyber-bullying experience is significantly correlated to the psychological responses of being the recipient of cyber-bullying.

2.4. Organization innovative climate

Organizational Climate is defined as “the shared perceptions of employees concerning the practices, procedures, and types of behaviors that are rewarded and supported in a particular setting” (Schneider, Salvaggio, & Subirats, 2002). According to Ekvall (1994), the climate is shaped by the interaction between the organization and its members. The organization offers opportunities, as well as boundaries, for the possible interaction and climate that has developed. Within the organization, its structures and processes affect individuals, personalities, attitudes, knowledge, and experience (Scott & Bruce, 1994). Organizational climate has an impact on creativity and may prevent innovation from developing (Ekvall, 1994). Organizational climate research also considers whether the climate should be regarded holistically or as different sub-climates (Arvidsson, Johansson, Ek, & Akselsson, 2006). Workplace bullying has been linked to a lack of social support from colleagues and rivalry between colleagues (Schat & Kelloway, 2003). This focus allows us to consider the social context factors, such as mutual trust, interdependence, openness to others, and allowance of the realization via worker perceptions and empirical information. This study has moved beyond organizational climate to an innovation climate. However, conflict can easily be the source of bullying with the behavior as deliberative and purposeful (Strandmark & Hallberg, 2007) and influenced perceptions of organizational innovative climate in relation to the attitude of being the recipient of bullying (Vartia, 1996) results in significant long-term physical and emotional effects (Maclintosh, Wuest, Gray, & Aldous, 2010). Our next hypothesis:

H2: Perceived organizational innovation climate is significantly correlated to the psychological responses to cyber-bullying.
Because much of workplace bullying represents the bully’s hidden intentions to gain power and cause harm through repeated and controlled communication acts (Quine, 2003). Workplace bullying influenced decreased in productivity when it occurred (Baillien & DeWitte, 2009; Einarsen, Hoel, Zapf, & Cooper, 2011). However, bullies failure to appreciate in the good work of others (Randle, 2003), which is, extended to the bullying effect to decrease organizational innovation climates; in terms of trust, openness, realization, and interdependence, as the baseline for the bullying experience. Our next hypothesis is:

H3: Perceived organizational innovation climate is significantly correlated to the cyber-bullying experience.

2.5. Positive affect

PAs reflect individual levels of pleasurable engagement with the environment and characterized by feelings of enthusiasm, high energy, and attentiveness (Finch, Baranik, Liu, & West, 2012). It has been used to measure states and traits (Watson, Clark, & Tellegen, 1988). Gross (1998) pointed out that emotional regulation refers to the processes used by an individual to influence how their emotions are experienced and expressed (Gross, 1998). That is, the PAs are considered as state reactions and leads to faster recovery from negative emotional states, attenuation of negative responses, and improved ability to repair and undo lingering adverse physiological effects (Fredrickson & Joiner, 2002). According to the self-enhancement model, self-concept is a determinant of PAs and the consequences of the goals achieved. Bullying victimization is related to a lower level of PA (Huitsing, Veenstra, Sainio, & Salmivalli, 2010). Sheldon, Ryan, Deci, and Kasser (2004) argued that PA is a fundamental need and blends with goals. Card (2003) showed that across longitudinal studies, victimization has been found to lead to both internalizing and externalizing problems, decreases in prosaic behavior, and lowered social self-concepts in relation to low expectations to organizational practice. In this context of organizational behavior, a critical issue that needs to be explored is whether individuals state a PA as a self-regulatory cognitive strategy when they experience adversity (Werner-Seidler, Banks, Dunn, & Moulds, 2013) to serve as the antecedents to predict psychological responses. PAs have been found to be important in the workplace (Werner-Seidler et al., 2013). Therefore, the PAs are tested using the magnitude of cross-lagged relations to determine the potential causal predominance of cyber-bullying.

Employees humanize organizations in accordance with the way in which the organization treats its employees (Rhoades & Eisenberger, 2002). In organizational development, an obstructive characteristic is that employees do not want to be bullied into a cooperative climate and to maintain an open relationship (Rayner, Hoel, & Cooper, 2002). As such, different personal moods will have many attitudes towards the perception of organizational innovative climate. Thus, our next hypothesis is:

H4: Positive affect is significantly correlated to organizational innovation climate.

According to Peyton (2003), workplace bullying is recognized as a matter of concern in the world of work because it leads to behavior that imitates misplaced good character. Everyone perceives the concept of workplace bullying differently and, thus, it is difficult for everyone in an organization to understand what behavior is acceptable (Saunders et al., 2007). Employees who have a high level of affective commitment will experience a more productive environment as they become more engaged. Their positive affective commitment towards a competitive organization leads to less perception for experiencing workplace bullying (Pfeffer, 2005; Strandmark & Hallberg, 2007). Our next hypotheses:

H5: Positive affect is significantly correlated to cyber-bullying experiences.

2.6. Research model

Industrial and organizational psychology is an important factor to motivate individual to work in certain occupations. Research in the field of workplace cyber-bullying has mainly focused on the psychological and behavioral perspectives (Saunders et al., 2007). All forms of bullying have a negative impact on the victim and the relative impact of cyber-bullying may be further affected by differences in organizational climate. Some factors, such as the frequency of bullying, particularly contribute to its negative impact. (e.g., Slonje & Smith, 2008; Slonje et al., 2013; Wang, Nansel, & Inanotti, 2011), The causes to what kind of People react psychologically to the different causes to bullying by their exposure to different organizational climates, such as stress or work efficacy, that have been explored and connected (Berry, Gillespie, Gates, & Schafer, 2012; Einarsen, Hoel, Zapf, & Cooper, 2003), The self-evaluation theory developed by Judge, Bono, Erez, Locke, and Thoresen (2002), we propose our research model to explore our research questions (Fig. 1).

3. Research methods

At the beginning of the questionnaire, subjects were asked if they were confronted with cyber-bullying. If the answer was “no,” then there was no need for the participant to complete the questionnaire. The content of this questionnaire was developed according to the literature review and contained four dimensions including PAs, perceived organizational innovation climate (POIC), experience of being the recipient of cyber-bullying and psychological responses to cyber-bullying.

3.1. Research procedure

Our study examines the interrelatedness among these following constructs: PAs, perceived organizational innovation climate, cyber-bullying experiences, and psychological responses to cyber-bullying. Vogt (2007) confirmed that convenience and purposive sampling, which are the most common forms of sampling, are relevant in contemporary social science research. Accordingly, the present study adopted the purposive sampling method based on workers who had experienced cyber-bullying and were willing to fill out the questionnaire. Therefore, this research selected employees from 10 high-tech manufacturing companies in Northern Taiwan and used the questionnaire to obtain preliminary information. In total, 1000 questionnaires were distributed and collected within a period of three weeks via e-mail. With respect to ethical issues, participants were informed that they were not obliged to participate in this research project. The commitment to maintain the confidentiality of personal information for participants was stressed in our introductory statements.

3.2. Research instruments

We developed two major constructs to survey the experience of being the recipient of cyber-bullying and the psychological responses to bullying in relation to PAs and POIC. The questionnaire was designed with a 5-point Likert-type scale for each construct and each construct is introduced as follows:
3.2.1. Experiences of being the recipient of cyber-bullying (CBE)

Akbulut, Şahin, and Erishti (2010) developed a one-dimensional scale including questions about harming others, spreading rumors, slandering, excluding, pretending, and falsification. Ayas and Horzum (2011) offer another means to measure cyber-bullying. This scale intends to determine the levels of practice of and exposure to cyber-bullying. The distribution of items in the scale is determined as follows: the bully and victim in sexual matters, the bully, and victim with regard to frustration and hurt, the bully and victim in spreading rumors in cyberspace. This research adapted these measurements and encompassed the experience of being the recipient of cyber-bullying in two categories: “forms of bullying” and “purposes of bullying.”

3.2.2. Psychological response to being the recipient of cyber-bullying (PRBCB)

All forms of bullying have a negative impact on its victims. Ortega, Elipe, Mora-Merchan, Calmaestra, and Vega (2009) compared the different emotions victims feel if they experience traditional bullying (direct, indirect) or cyber-bullying (mobile, internet). The emotions of the recipients of bullying reported that they were not bothered, embarrassed, angry, upset, stressed, worried, afraid, alone, defenseless, or depressed. More negative emotions were reported from traditional bullying. This study adapted its contents in relation to depressed responses as the instrument of psychological response to being bullied.

3.2.3. Positive affects (PA)

Effects can be conceptualized as temporary states or as trait PAs. Trait PAs are defined as an enduring disposition to experience positive, energized emotions across various situations (Watson, 2000). On the other hand, state PAs refer to the cognitive control process to monitor activities to detect errors and effective responses to errors (Olvet, Klein, & Hajcak, 2010). In this study, we conceptualize state positive affect as effective response to the research instrument.

3.2.4. Perceived organizational innovation climate (POIC)

In regards to organizational innovation climate, most authors agree that it is a complex and multidimensional phenomenon, derived from employee perceptions of experiences from within an organization and widely shared within organizational units (Koys & DeCotis, 1991; Schulte, Ostroff, Shmulyian, & Kinicki, 2006). In our study, we will focus on organizational climate, which refers to employee shared perceptions of the types of behavior and actions that are rewarded and supported by organizational policies, practices, and procedures (Schneider et al., 2002). Specifically, this study adapted Gibb’s (1978) TORI (trust, openness, realization, and interdependence) to measure the constructs of innovational climate. Gibb argued that an individual enjoys responsibility and accountability for their role because there is more trust, openness, realization, and interdependence built between them and leaders or colleagues. When the TORI acceptance and membership overcomes internal issues, the individuals will then progress together with a stronger bond (Katzenbach & Smith, 2003). As TORI outlined, members finally began to feel more comfortable with the group and, therefore, did not hold aggression toward the team, which is important in creating a concord organizational atmosphere.

3.3. Research participants

In total, 1000 questionnaires were delivered with 414 returned. After 18 questionnaires were eliminated because they were incomplete, 396 were validated. We conducted descriptive statistical analyses on the valid questionnaires. According to the returned questionnaires, a major portion of the respondents were between 20 and 40 years old (82.07%), with the most common educational degree at university level (52.02%); As to the aspects of working experiences, most of the respondents distributed at 2 years and less (30.81%) or 6–10 years (28.53%) of working experiences (Table 1).

4. Research results

This study used SPSS 19 and LISREL 8.8 software to perform reliability analysis, factor analysis, structural equation modeling (SEM), and other research tests on the data from valid questionnaires.

4.1. Item analysis with composite reliability and convergent validity

Internal consistency was determined by the examination of the composite reliability (CR) of the constructs (Fornell & Larcker, 1981). All CR values in the present study ranged from .865 to .957, surpassing the suggested threshold value of .7 (Hair, Black, Babin, & Anderson, 2009; Nunnally, 1978). Model validation was discussed extensively in the literature, but most authors merely...
offer terminology instead of a methodology (Refsgaard & Henriksen, 2004). Convergent validity referred to the degree to which multiple items measure one construct. Convergent validity in the present study was evaluated by checking whether: (1) the average variance extracted (AVE) values were larger than .5 (Fornell & Larcker, 1981) and (2) the factor loadings of all items were significant and higher than .5 (Nunnally, 1978). All these conditions were met to indicate acceptable convergent validity. Additionally, all t-values were significant to show that all items were discriminative and all items were able to identify the degree of response for different samples (Table 2).

### Table 2

<table>
<thead>
<tr>
<th>Question item</th>
<th>M</th>
<th>SD</th>
<th>Loading</th>
<th>T-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive affect (PA): CR = .906; AVE = .582; ρ = .877</td>
<td>3.513</td>
<td>.884</td>
<td>.684</td>
<td>343.801</td>
</tr>
<tr>
<td>1. When someone criticizes my work report, I am not only sad but I also want to know how I can improve</td>
<td>3.477</td>
<td>.887</td>
<td>.688</td>
<td>341.927</td>
</tr>
<tr>
<td>2. When someone points out that my work is insufficient, I am grateful to him/her</td>
<td>3.942</td>
<td>.785</td>
<td>.838</td>
<td>304.801</td>
</tr>
<tr>
<td>3. If I know how something went wrong, I can improve the quality of my work</td>
<td>3.745</td>
<td>.841</td>
<td>.740</td>
<td>224.209</td>
</tr>
<tr>
<td>4. When I mess up my work, I feel that anyone can make mistakes as long as they learn from them</td>
<td>3.510</td>
<td>.761</td>
<td>.690</td>
<td>176.433</td>
</tr>
<tr>
<td>5. Whenever I have an idea, I can express it very easily</td>
<td>3.518</td>
<td>.901</td>
<td>.774</td>
<td>178.038</td>
</tr>
<tr>
<td>6. Team members are willing to share news</td>
<td>3.283</td>
<td>.971</td>
<td>.764</td>
<td>178.038</td>
</tr>
<tr>
<td>7. At work, I can use my own ideas</td>
<td>3.513</td>
<td>.907</td>
<td>.806</td>
<td>163.493</td>
</tr>
<tr>
<td>8. There is a concrete program for rewards to improve team performance</td>
<td>3.515</td>
<td>.915</td>
<td>.759</td>
<td>143.660</td>
</tr>
<tr>
<td>9. Colleagues can express mutual appreciation for others’ new ideas</td>
<td>3.669</td>
<td>.862</td>
<td>.760</td>
<td>162.704</td>
</tr>
<tr>
<td>10. When I face difficulties, each team member is willing to help me</td>
<td>3.518</td>
<td>.901</td>
<td>.774</td>
<td>178.038</td>
</tr>
<tr>
<td>11. Even if there are urgent matters, the team members can take care of my work</td>
<td>3.513</td>
<td>.907</td>
<td>.806</td>
<td>163.493</td>
</tr>
<tr>
<td>12. The team members are willing to help me at any time</td>
<td>3.245</td>
<td>.1055</td>
<td>.725</td>
<td>200.400</td>
</tr>
<tr>
<td>Psychological responses to being cyber-bullied (PRBCB): CR = .989; AVE = .899; ρ = .987</td>
<td>3.124</td>
<td>1.152</td>
<td>.664</td>
<td>30.787</td>
</tr>
<tr>
<td>1. When I am cyber-bullied, I feel very frustrated</td>
<td>2.961</td>
<td>1.221</td>
<td>.734</td>
<td>27.547</td>
</tr>
<tr>
<td>2. When I am cyber-bullied, I feel I cannot continue my work</td>
<td>3.101</td>
<td>1.316</td>
<td>.691</td>
<td>26.761</td>
</tr>
<tr>
<td>3. When I am cyber-bullied, I feel I have to do something revengeful</td>
<td>3.225</td>
<td>1.324</td>
<td>.683</td>
<td>27.658</td>
</tr>
<tr>
<td>4. When I am cyber-bullied, I feel someone to prove my innocence or to support me</td>
<td>3.240</td>
<td>1.197</td>
<td>.480</td>
<td>30.733</td>
</tr>
<tr>
<td>5. When I am cyber-bullied, I feel very nervous</td>
<td>2.023</td>
<td>1.156</td>
<td>.584</td>
<td>19.886</td>
</tr>
</tbody>
</table>

### 4.2. Internal reliability analysis

According to Wortzel (1979), if the internal consistency of Cronbach’s α value is higher than .70, then the level of reliability is rather high. PA (α = .877), POIC (α = .906), CBE (α = .980), and PRBCB (α = .987), Cronbach’s α value for the total scale of this research was higher than or equal to .954; and again, a value higher than .70 meant that the level of reliability was high. The highest of these exceeded the standard threshold value (i.e., α value higher than .70) established by Wortzel (1979). Table 3 displays the analysis of reliability for each dimension.

### 4.3. Correlation analysis

This research used the Pearson correlation coefficient analysis to examine the degree of association between the variables (Table 4). The PAPA and POIC variables displayed a positive correlation (r = .275, p < .001). POIC and PRBCB displayed a negative correlation (r = –.154, p < .01). This finding shows that the stronger the POIC value for high-tech manufacturing companies is that more moderate PRBCB mood swings become. Workplace cyber-bullying experiences and PRBCB displayed a positive correlation (r = .890, p < .001). This result shows that the higher the frequency of cyber-bullying for workers at high-tech manufacturing companies, the stronger the psychological responses of the workers became.

### 4.4. The structural model

In terms of the goodness-of-fit index of the overall structural model, the goodness-of-fit index of the chi-square divided by degrees of freedom was lower than 5.0. The goodness-of-fit index of GFI and CFI were all higher than .9 and AGFI was higher than .8.
the minimum proposed value of .9 (Byrne, 2001). Therefore, the overall structural model of this research displays a positive goodness-of-fit index measurement. The fitness of the structural equation model tested various indexes. Using the analysis of the structural equation model, it is better for there to be the less testing criteria for the chi-square test. However, the chi-square value was easily influenced by the number of samples: the bigger the amount of samples, the bigger the chi-square value. Table 5 shows the chi-square degree of freedom is lower than 5.0. The GFI, AGFI, NFI, CFI, and IFI values were all higher than .90 and RMSEA was equal to .08. In general, the sample material and model of this research is considered good. The research framework of this study is acceptable.

### 4.5. Pathway analysis

The path analysis of the PAPA and POIC reached significance level ($\beta = .213$, $p < .001$), (Fig. 2). This shows that the PAPA and POIC for workers at the high-tech manufacturing companies has a positive and significant effect. Therefore, hypothesis 2 is supported by the empirical data. The path coefficient of POIC and PRBCB reached significance level ($\beta = -.025$, $p < .001$). Thus, high-tech industry workers were inversely correlated to POIC and PRBCB and reached significance. The path coefficient of POIC and workplace internet CBE ($\beta = -.076$, $p > .05$) shows that high-tech industry workers with an opposite, but non-significant POIC and cyber-bullying experience. The path coefficient of workplace internet CBE and PRBCB reached the significance level ($\beta = .435$, $p < .001$). This finding shows that high-tech industry workers have a positive and significant effect on cyber-bullying experiences and PRBCB, which implied that the participants would have a higher level of psychological response the frequency of being the recipient of cyber-bullying is higher.

### 5. Discussion

Cyber-bullying has been identified as an important problem in the workplace. The present study covers definitional issues, types of cyber-bullying, effective perspectives of experience, and psychological impacts of cyber victimization. Two conclusions can be deduced from the results: (1) positive affect served to predict positive correlation to perceived organizational innovation climate, but not significantly associated with the experience of being the recipient of cyber-bullying and (2) psychological response to cyber-bullying in relation to perceived organizational innovation climate was negatively correlated. In terms of supporting our hypotheses, H1 was negatively supported; and H2 and H4 were positively supported.
The present study exhibits that individuals with a high sense of PA had a low psychological effects from cyber-bullying, as mediated by perceived organizational innovation climate. The victims of cyber-bullying felt emotionally depressed, lacked self-confidence in finding support systems, and failed to combat their problems in the workplace. Saunders et al. (2007) also supported this result. They suggest that most researchers think that if the chosen target or victim confronted negative behavior in the workplace, the majority would experience psychological effects. As previously noted, cyber-bullying, similar to traditional bullying, elicits psychological, emotional, and social harm (Dehue, Bolman, & Vollink, 2008).

The present study also reveals that perceived organizational innovation climate is positively associated with psychological responses to being the recipient of cyber-bullying. The result is consistent with Hinduja and Patchin (2010), Mishna et al. (2009), and Saunders et al. (2007). These authors suggested that high-tech workers with a higher level of perception of organizational innovation climate would have less psychological responses when cyber-bullied. The present study also revealed that cyber-bullying in the workplace were positively correlated to psychological responses to being cyber-bullied, i.e., those who were frequently cyber-bullied tended to feel mentally hurt. Hinduja and Patchin (2010) also supported this result and highlighted the more frequent the cyber-bullying, the higher the level of psychological responses to cyber-bullying. However, the perceived organizational innovation climate was not significantly correlated to cyber-bullying experiences, i.e., cyber-bullying would continue to happen no matter the degree of organizational change. Therefore, if individuals have a high positive affect on their social interactions, they will suffer less from cyber-bullying.

6. Conclusions

This research probed into dimensions including the positive affect, perceived organizational innovation climate, and the awareness of workplace cyber-bullying to analyze the correlation between each variable. To summarize, the probability of the occurrence of cyber-bullying incidents was not high in the high-tech industry. It seemed that the majority of respondents had experienced serious psychological and social reactions affect to their organizational climate if they felt being workplace cyber-bullied. Regardless of the type of experience of being the recipient of cyber-bullying, every bullied victim felt psychologically and mentally hurt. Individuals felt mentally hurt when the cyber-bullying was more frequent.

This research used online questionnaires for analysis and from the collected material; we discovered that this approach had a positive correlation to those individuals who were cyber-bullied. When recruiting prospective employees, we advise companies to conduct a test before hiring to understand the positive affect reactions of each prospective employee. After that, they can enhance their perception of organizational innovation climate. However, positive affect are fundamental criteria in the awareness of cyber-bullying, in this sense, this concept coincides with the speech Churchill gave on October 28, 1944 “We shape our buildings; thereafter they shape us”. It implied that when the company creates a healthy organizational innovation climate, it would thereafter promote higher levels of employee positive mood to handle this hardship if it should ever arise.

Workplace cyber bullying, in this study, is looked at from a psychological perspective caused by the organization itself, i.e., by structural and other problems within the organization. The results suggest that organizations should define what cyber bullying is and how employees should act in the case of cyber-bullying as parts that should be included in the organizations plan of action to prevent cyber-bullying. An organization is also obligated to have distinct routines on how to act if bullying exists within the organization.

This research selected employees from 10 high-tech manufacturing companies in Northern Taiwan as samples. A future study may expand the range of different industrial sectors. As shown in the study findings, cyber-bullying often occurs in the high-tech industry. If we want to understand the effects of the experience of being the recipient of cyber-bullying on other research variables, the scope of the research variables needs to be extended to individual characteristics. Calvete, Orue, Estévez, Villardón, and Padilla (2010) studied the association between cyber-bullying behavior and personality. They found that cyber-bullying had a high correlation with proactive aggression, exposure to violence, and less prosocial behavior. In this sense, researchers could explore in-depth the situations and personalities of bullied staff in order to understand cyber-bullying and its effects.

References

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