

# The Moderating Effects of Perceived Organizational Support on the Relationship Between Technostress Creators and Organizational Commitment Among School Teachers

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**Abstract:** *The objectives of this study were to investigate the moderating effects of perceived organizational support on the relationship between the technostress creators and organizational commitment among school teachers. This study was conducted at six selected schools in Selangor involving 173 school teachers. Data were analyzed using the Pearson correlation coefficient and multiple regression analyses. The findings revealed that technostress creators had positive and significant relationships with organizational commitment. It shows that certain amount of technostress can enhance the level of commitment. The results of regression analysis found that techno-uncertainty was the most influential factors towards organizational commitment followed by techno-insecurity. As for the moderating effect, it was found that perceived organizational support did act as moderator in the relationship between technostress creators and organizational commitment. It can be concluded that if the teachers perceived high organizational support, it can increase their level of commitment.*

**Keywords:** *technostress creators, organizational support, organizational commitment, school teachers.*

## 1. INTRODUCTION

Employees' organizational commitment is important to ensure their effectiveness and overall work performance. Highly committed employees can be valuable assets for the organization. Ungku Norulkamar, Salmiah & Wan Khairuzzaman (2014) reported that committed employees have higher loyalty, higher work performance, lesser work-related stress and are more willing to accept organizational

change. Besides, Chan, Lau, Lim and Hogan (2008) stated that lessened absenteeism, higher job satisfaction, better organizational citizenship behavior and lower turnover rate are among those positive outcomes contributed by organizational commitment of employees.

Lei, Nordian and Ramayah (2014) reported that a similar scenario also occurs in the educational settings particularly in schools. Lei et al., (2014) also reported that school is viewed to have an asset when it has devoted teachers and the so-called school effectiveness, teacher retention and satisfaction are said to be the influential effects of that teachers' commitment. However, due to the advancement in technology, technostress has become a critical issue in many schools especially among "baby-boomers" generation which can impact on organizational commitment. The advancement in technology also means that teachers will have to change their work habits where technology replaces the old working style where information was retrieved manually. Most "older" generation teachers will have to keep abreast with technology that may cause them to be stressful both at work and home.

Many factors are reported to influence employees' organizational commitment. Perceived organizational support is a condition where employees perceive that their organization wants to support and give attention to employees in variety of ways, including the system of compensation, a fair division of labour, supervision, even assisting employees in the completion of the job when they face difficulty to finalize it (Rhoades & Eisenberger, 2002).

Ranihusna, Wulansari and Witiastuti (2015) presented that perceived organizational support is able to reduce the high risk of employees' psychological state of mind against technostress. This support is in the form of leadership role to emphasize the sufficient management mechanisms to reduce technostress. Shu and Wang (2008) in their research found that technostress effects on employees can be minimized by increasing the role of organizational support, both on employees as individuals and work performed by employees. When organization is able to support employees in mastery IT and also work supervision, it will reduce technostress in the form of both role engagement and overload struggle for employees.

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Other than that, professed organizational support may also contribute to organizational commitment. According to Gündüz (2014), completely maintained staffs can be beneficial towards the organizations in terms of knowledge and skills. These staffs also stand a chance to contribute to organizational commitment as committed staffs are more responsible for their tasks, performance and roles as compared to those who are not.

This study will be expecting the moderating effects of perceived organizational support on the relationship between technostress creators and school teachers' organizational commitment as perceived organizational support may lessen the effects of technostress and may increase the organizational commitment. Furthermore, there have been only few all-inclusive studies that were conducted to determine the association between technostress creators and organizational commitment. Meanwhile, proofs on the relationship between technostress and Malaysian teachers' commitment are less extensive.

## **2. LITERATURE REVIEW**

### *2.1 Perceived Organizational Support*

Perceived organizational support (POS) refers to perception of employees on how much their contributions were valued, and their welfares were cared by the organization (Eisenberger, Huntington, Hutchison & Sowa, 1986). Perceived organizational support has been found to have significant penalties on employees' performance and well-being. Employees need organizational support because supported staff will use their skills and knowledge at the highest level which will be advantageous for the organization that they work for (Gündüz, 2014). Besides, as long as their prospects are met in the organizations, employees tend to perform better to meet organizational objectives (Rhoades & Eisenberger, 2002). Perceived organizational support and organizational commitment had positive relationships and being conceptualized using social exchange perspective (Panaccio & Vandenberghe, 2009). It can be concluded that perceived organizational support can potentially predict the organizational commitment in all three respective variable's dimensions which are normative commitment, affective commitment and continuance commitment.

### *2.2 Technostress Creators*

According to Ragu-Nathan et al. (2008), technostress can be described as a problem in adapting new technology due to an employee's incapability to cope with or being used to technology. According to Weil and Rosen (1997) technostress is defined as any negative effect on attitudes, thoughts, behaviors, or physiology caused by technology either directly or indirectly.

As revealed by Tarafdar, Tu, Ragu-Nathan and Ragu-Nathan (2007), technostress creators can be demonstrated into five areas which are techno-complexity, techno-uncertainty, techno-overload, techno-insecurity and techno-invasion. The five technostress was described by Ungku Norul kamar et al. (2014) as: "(a) Techno-complexity: A problem due to the technology complexity, making the users of the technology to feel inadequacy in their skills; (b) Techno-uncertainty: A problem of feeling unsettled and

uncertain among the users of technology due to the continuously changed of technology; (c) Techno-overload: A problem when users of technology are required to work longer and faster; (d) Techno-insecurity: A problem of feeling insecure among the users of technology that they will be substituted by those with better skills in technology or by the new technology itself; and (e) Techno-invasion: A problem where there is a feeling of constant connection to work-related affairs among the users of technology.

### *2.3 Organizational Commitment*

Organizational commitment can be referred as that demonstrated the employee-organization relationship which will influence the decision of continuity of organizational membership (Meyer & Allen, 1991). They further described three distinct forms of commitment. The first dimension introduced was affective commitment that was defined as the positive feelings of employees towards the organization in terms of their identification, attachment and involvement. The second dimension was dubbed as continuance commitment and it was further described as the degree of commitment that staffs feel towards their organizations. Lastly, the third dimension was normative commitment which is defined as the extent of obligations for the employees to stay with the organizations they work for.

### *2.4 Research Questions*

1. What is the relationship between technostress creators and organizational commitment among school teachers?
2. What are the effects of elements in technostress creators towards school teachers' organizational commitment?
3. To what extent does perceived organizational support moderate the relationship between technostress creators and organizational commitment among school teachers?

## **3. METHODOLOGY**

### *3.1 Research Design*

This study used correlation research design in order to explore the relationship between and among variables. The sampling frame for this study was the school teachers from six conveniently selected schools in Selangor. Census survey was the sampling technique applied for this study as the whole population was used as respondents for this study. 173 school teachers from the six selected schools participated in this study. Data from this study were analyzed by using SPSS version 23. Reliability analysis, descriptive analysis, correlational analysis and multiple regression analysis were used to analyze the data in order to answer this study's objectives.

### *3.2 Research Instrument*

The instrument for this study was questionnaire consisted of four sections and measurement of items in Section 2, Section 3 and Section 4. Items from these three sections were constructed in six-point Likert scales ranging from 1=Strongly Disagree till 6=Strongly Agree. The first section consisted of respondents' profiles which were on respondents' gender, age, marital status and working



experience. The second section consisted of five technostress creator’s dimensions which included techno-complexity, techno-uncertainty, techno-overload, techno-insecurity and techno-invasion. This study adapted technostress creators scale by Tarafdar et al. (2007) which comprised of 23 items. Survey of Perceived Organizational Support (SPOS) developed by Eisenberger et al., (1986) was adapted for the third section and it consisted of 16 items. Finally, the last section which focused on organizational commitment, specifically elaborated on its three dimensions which were affective, continuance and normative commitment. This section comprised of 24 items, was measured using Organizational Commitment scale developed by Allen and Meyer’s (1990)

4. FINDINGS AND DISCUSSION

Table 4.1: Respondents’ Profile

| Variables          | Description            | Frequencies | Percentages |
|--------------------|------------------------|-------------|-------------|
| Gender             | Male                   | 44          | 25.4%       |
|                    | Female                 | 129         | 74.6%       |
| Age                | 20–30 years old        | 53          | 30.6%       |
|                    | 31–40 years old        | 73          | 42.2%       |
|                    | 41–50 years old        | 38          | 22.0%       |
|                    | 51 years old and above | 9           | 5.2%        |
| Marital Status     | Single                 | 45          | 26.0%       |
|                    | Married                | 127         | 73.4%       |
|                    | Other                  | 1           | 0.6%        |
| Working Experience | 1-2 years              | 21          | 12.1%       |
|                    | 3-4 years              | 26          | 15.0%       |
|                    | 5-6 years              | 14          | 8.1%        |
|                    | 7-8 years              | 19          | 11.0%       |
|                    | Above 9 years          | 93          | 53.8%       |

The total number of respondents involved in this study was 173 school teachers from six selected schools in the state of Selangor, Malaysia. The majority of respondents were female (n=129, 74.6%). In terms of age group, it was found that the majority was from the age group of 31-40 years old (n=73, 42.2%). It was found that majority of the respondents were married (n=127, 73.4%) and most of the respondents had working experience above 9 years (n=93, 53.8%).

Research question 1: What is the relationship between technostress creators and organizational commitment among school teachers?

Table 4.2: Correlation between Technostress Creators and Organizational Commitment

| Items                 | Technostress Creators | Organizational Commitment |
|-----------------------|-----------------------|---------------------------|
| Technostress Creators | Pearson Correlation   | .306**                    |
|                       | Sig. (2-tailed)       | .000                      |
|                       | N                     | 173                       |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4.2 shows that there was a significant, positive and medium relationship between technostress creators and organizational commitment based on Cohen (1988) interpretation (r=.306, p<.01). From the finding, it was clear that the higher the overall technostress creators among teachers (techno complexity, uncertainty, overload, insecurity and invasion), the higher the commitment of teachers. This was supported by Ahmad, Amin and Ismail (2012) who stated that none of the technostress creators was inversely correlated with organizational commitment. The positive relationship between technostress creators and organizational commitment attested that not all stress can be associated as bad. Lazarus and Folkman (1984) suggested that cognitive response to stressors can also be a positive one based on the individual’s resources and ability to cope. The school teachers tend to react to stressors with positive emotions. Therefore, the study verifies that stress created by the usage of technology may not necessarily lower the level of teachers’ commitment. A study by Umar and Hassan (2015) revealed that teachers perceived the implementation of ICT brings positive impact on teaching although time constraint might hinder to use it.

Research question 2: What are the effects of the elements in technostress creators towards school teachers’ organizational commitment?

Table 4.3: Influence of Technostress Creators towards Organizational Commitment

| Independent Variables  | Standardized Coefficients Beta | t     | Sig.  | Collinearity Statistics |       |
|------------------------|--------------------------------|-------|-------|-------------------------|-------|
|                        |                                |       |       | Tolerance               | VIF   |
| Techno-complexity      | -.058                          | -.683 | .496  | .660                    | 1.514 |
| Techno-uncertainty     | <b>.356</b>                    | 4.730 | .000  | .827                    | 1.209 |
| Techno-overload        | .107                           | 1.305 | .194  | .694                    | 1.441 |
| Techno-insecurity      | <b>.199</b>                    | 2.478 | .014  | .727                    | 1.375 |
| Techno-invasion        | -.067                          | -.794 | .429  | .653                    | 1.530 |
| <b>R Square</b>        |                                |       | .217  |                         |       |
| <b>F</b>               |                                |       | 9.280 |                         |       |
| <b>Sig. of F value</b> |                                |       | .000  |                         |       |
| <b>Durbin Watson</b>   |                                |       | 1.675 |                         |       |



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Table 4.3 shows the multiple regression analysis between elements in technostress creators and organizational commitment. The result indicated that  $R^2$  is .217, in which all independent variables such as techno-complexity, techno-uncertainty, techno-overload, techno-insecurity and techno-invasion explained 21.7% of the variance in organizational commitment, with Significant of F value of 0.000. Besides, the value for Durbin Watson was 1.675 which is in the acceptable range of 1.5 to 2.0, as one of the assumptions for bivariate and multivariate correlation analysis.

From the result of this analysis, it was found that techno-uncertainty was the most influential factor (or the greatest predictor) with the highest beta value of ( $\beta=.356, p<.05$ ), followed by techno-insecurity ( $\beta=.199, p<.05$ ). This finding is in line with the study conducted by Ahmad et al. (2012) who found that techno-uncertainty was the strongest single contribution in explaining the variance in organizational commitment among academic librarians. In our study, it is interpreted that the school teachers felt that although there were rapid changes in technology and it may cause difficulties to them, it will not however, reduce their level of commitment in both teaching and school. They felt motivated in undergoing more training in the use of technology and believed the implementation of technology can bring positive impact in education (Nikian, Nor & Aziz, 2013).

Research question 3: To what extent does perceived organizational support moderate the relationship between technostress creators and organizational commitment among school teachers?

**Table 4.4: The Results of the Regression Analysis on the Moderating Effects of Perceived Organizational Support on the Relationship between Technostress Creators and Organizational Commitment**

|                                  | Model 1 | Model 2 | Model 3 |
|----------------------------------|---------|---------|---------|
| <b>Independent Variables</b>     |         |         |         |
| Techno-complexity                | -.058   | -.082   | -.335   |
| Techno-uncertainty               | .356    | .260    | .234    |
| Techno-overload                  | .107    | .052    | .018    |
| Techno-insecurity                | .199    | .105    | -.515   |
| Techno-invasion                  | -.067   | .082    | .152    |
| <b>Moderator</b>                 |         |         |         |
| Perceived Organizational Support |         | .445    | -.171*  |
| <b>Interaction Terms</b>         |         |         |         |
| Techno-complexityXPOS            |         |         | .419    |
| Techno-uncertaintyXPOS           |         |         | -.019   |
| Techno-overloadXPOS              |         |         | .086    |
| Techno-insecurityXPOS            |         |         | .877    |
| Techno-invasionXPOS              |         |         | -.169   |
| <b>R Square</b>                  | .217    | .375    | .413    |
| <b>R Square Change</b>           | .217    | .158    | .038    |
| <b>F Change</b>                  | 9.280   | 41.988  | 2.071   |
| <b>Sig. F Change</b>             | .000    | .000    | .000    |
| <b>Durbin Watson</b>             |         |         | 1.838   |

1. \*significant with the p-value < .05

Table 4.4 shows the hierarchical regression model which explains the moderating roles of perceived organizational

support on the relationship between technostress creators and organizational commitment. Model one explained 21.7% of the variance. Model two explained 37.5% of the variance with 15.8% increment and model three explained 41.3% of the variance with 3.8% of increment in the total variance explained. The Durbin Watson's value was 1.838 which was in the acceptable range of the assumptions of multivariate analysis. In addition, it was found that there was a significant influence of perceived organizational support on the relationship between technostress creators and organizational commitment ( $\beta=-.171, p<.05$ ). Even though the increment with the presence of moderating variables was only 3.8%, the difference was significant. Nevertheless, it was found that there is no interaction term that significantly strengthen the relationship between the independent and dependent variables.

Jais and Mohamad (2013) found that perceived organizational support was positively related to teachers' commitment. It indicates that teachers' commitment can be enriched by nurturing the quality of support they received. When the schools provide strong support, address teachers need and care their well-being, it helps to encourage teacher's emotional attachment to their schools (Jais & Mohamad, 2013). Similarly, Nayir (2012) found that teachers' perception of organizational support is best predictor towards organizational commitment. This designates that teachers require support from school management, co-workers, students and students' parents to enhance their contribution and commitment to the school. As a matter of fact, this study revealed that the relationship between technostress creators and organizational commitment is positive and solid when there is high level of perceived organizational support.

## 5. 5CONCLUSION

This study was conducted to examine the influence of technostress creators on organizational commitment, looking at the role of perceived organizational support as the moderator among school teachers. In the context of the technostress creators and organizational commitment, the results revealed that there was a positive, significant medium relationship between technostress elements and organizational commitment. This shows that certain amount of technostress can enhance the level of commitment among school teachers. Therefore, this study verified that stress created by the usage of technology may not necessarily be negatively associated with organizational commitment. Other than that, it was found that only two factors of technostress creators predict teachers' organizational commitment with techno-uncertainty as the most influential factor followed by techno-insecurity factor. This indicates that despite having high techno-uncertainty, the level of commitment did not decrease. In addition, teachers who are having high level of techno-uncertainty or techno-insecurity may hold high level of organizational commitment. Rapid changes in technology makes the teachers seem to be more motivated to explore and learn the tools in technology as

they believed that it would bring positive impact to their teaching profession and overall experience and educational enhancement. The result of the study also discovered that there was a moderating effect of perceived organizational support on the relationship between technostress creators and organizational commitment. Hence, it can be summarized that if the teachers received high organizational support, it can somehow influence their level of commitment towards the school, aside the significant influence of technostress creators.

It is recommended that for future researchers should focus on cross-sectional studies by comparing between urban and rural schools to identify the differences of teachers' level of technostress and commitment. An interesting study might look at difference in geographical factors that can influence technostress and organizational commitment. Other than that, the differences between primary and secondary schools can also be studied. Other than that, future studies may consider to increase the sample size to enhance the generalizability of the findings. As this study only focused on teachers in selected schools in the state of Selangor, the results cannot be generalized to all school teachers in Malaysia due to different geographical background. Bigger sample size and wider scope of study can improve the generalizability of the findings. Future researchers might also be interested to investigate similar studies by using other elements of technostress creators such as physical and physiological factors (Harahap & Effiyanti, 2015) and also other elements of teachers' commitment such as commitment to school, commitment to teaching, commitment to student and commitment to profession (Thien et al., 2014). It is also recommended for future studies to use other variables as moderators such as technostress inhibitors; literacy facilitation, technical support and involvement facilitation (Ungku Norulkamar et al., 2014).

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