



Technostress as an Antecedent of Low Commitment to Change: The Moderating Role of Internal Communication

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The prime objective of the current study is the examination of technostress as an antecedent of low commitment to change. In addition to that the moderating role of internal communication in the relationship between technostress and affective commitment to change is also examined. The findings of this study argue that to implement change, an organization needs total commitment from employees to the change and serious attention must be paid to this issue by the relevant organization as change may cause difficulties if employees are not prepared. Based on these findings, all hypotheses were supported. The study employed a survey-based methodology and the response rate was 57 percent. The study employed the PLS-SEM to achieve research objectives. This study will be helpful for policymakers and researchers in examining the link technostress, internal communication and commitment have to change in Indonesia Educational organization. To the author's knowledge, this study pioneers this type of research. Finally, this study provides hypotheses discussion based on regression analysis results and limitations and recommendations are noted for further study.

Key words: *Commitment to Change, Internal communication, Technostress.*



Background

Change is a common concern of business life. In line with today's globalization most organizations are faced with new development in their business operation. As stated by Nafei, (2014) change is a natural phenomenon which cannot be controlled by people. The words change, renovation, restructuring, innovation or transformation describe the situation where organizations experience change over time. According to Cummings and Worley (2014) organizations must adapt to new business transformation if they want to be successful and sustainable in the long run, for instance, the pace of change in the organization must be continuous to enhance and upgrade the facilities, administration, productivity and development of the organizations in line with vision and mission.

However, in order to implement organisational change there must be total commitment from employees to commit to change and the organization must also take seriously this issue because it may cause difficulties to the organization to implement change when employees are not ready. As stated in the existing, limited research, the success of change is not only based on the decrease of resistance, but commonly depends on how individuals support and put their commitment to change (Singh, Kalyal, Kaur & Arora, 2009; Sriyakul, Singasa, Sutduean, & Jermittiparsert, 2019). Basically, employees are interested to commit to restructuring when they have been informed about the full story of change; however, employees who tend to resist change usually are not able to see the rationale of the implementing the new changes in organizations.

Changes occur across industry globally; education is one of the sectors that is implementing change continuously in order to be competitive in the international education system (Jermittiparsert & Sommanawat, 2019). In line with today's globalization, the Indonesian ministry of Education have made several transformations in order to improve and enhance the education system, as aligned with the world education system. In 2013, there was a major transformation, developed by the Ministry of Higher Education which is the Indonesian Education Blueprint 2015-2025 (Higher Education) or the MEB (HE). According to the ministry, the purpose of developing the MEB is to create the education system that ranks among the world's leading education system that enables the Indonesian to compete in the global economy (Ahmad, Farley & Naidoo, 2012). Besides, according to (Ahmad et al., 2012) the success of MEB is relying on 10 shifts that have been created by the Ministry of Higher Education (MoHE).

The empowerment of governance and global prominence are among the ten shifts that have been highlighted in this study. This is because, in order to achieve the success of transformation of the education system, the institution itself not only needs to depend on the academic staff, but also the non-academic staff. The role of non-academic staff in an institution is very crucial



in order to ensure the strategic planning of transformation progressing with efficient and effective in order to achieve the target that had been highlighted by the Ministry of Education.

The empowerment of governance is important for the efficient function of any organizations and for building great institutions (Doppelt, 2017). In order to achieve the transformation of the education system, the empowered governance is crucial to each of the institutions to have their own portfolio as a fully autonomous or semi-autonomous HLIs based on their readiness and capacity for decision-making. In achieving the empowered governance outcomes, the Ministry of Education should focus on the policymaker, regulator, also give a greater decision-power and accountability to the HLIs in order to lead the institutions.

Hence, non-academic staff in each institution who gain the fully or semi-autonomous should be well prepared to face with new changes and innovation that implemented by the institutions. In addition, focusing on the global prominence will generally enhance Indonesia's higher education to become as an international education hub with a difference, providing the value-driven which is relevant to the global education, recognized by students for its balance of quality and affordability, good quality of life, and rich cultural experiences. Moreover, based on the global prominence, Indonesian's target is to reach new markets through more innovative programs and partnerships. In order to achieve the requirement of the goals targeted, the transformation needs to be implemented in each of the institutions. So, the non-academic staff is directly affected by this transformation because they need to adapt to a new environment, where they need to face changes in their job tasks.

Hypotheses Development

Commitment to Change

According to Burnes (2004), a change can be both persistent and pervasive or normality. The word "change" is a continuing process to improve the productivity, as well as enhancing the organization and employees. Nowadays, change seems to be very crucial to all organizations. Besides, the word of the "organization" is very comprehensive, and it can be described in many ways. As stated by (Abbas & Asghar, 2010), traditionally an organization has been developed with social unit which basically comprises with a group or team of people that work together in order to achieve the benefits of an organization and continuously work to get the organizational goals and targets. (Robbins & Judge, 2013) describe an organization as a place that is coordinated with social unit and consists of two or more people to do its relatively continuous duties in order to achieve the targeted mission and vision or goals. Likewise, (Jones, Firth, Hannibal & Ogunseyin, 2019) define organization as a combination of group, people and individuals who are trying to affect others in order to achieve the specific objectives by using different ways such as processes and technologies as a structured way.



Whilst, according to Georgalis, Samaratunge, Kimberley & Lu, (2015) organizational change is defined as the transformation that occurs in the workplace in term of the shift of the industry structure, market competitive force and growth. In the same manner, (Gomez-Mejia et al., 2014) organizational change is about the changing of the nature of workforce, technology, economic shocks, competition, social trends and world politics. Organizational change is an essential issue that always takes part in every organization in order to develop, improve and enhance the business performance and services. Likewise (Graetz & Smith, 2010; Mahmood et al., 2016) a change in an organization occurs because of the unstable and incompetent management, economic issues, regulatory, political and technological advancement that lead to pressure among the employees who face it. Even though, organizational change can be viewed in multiple contexts, this study defined organizational change as the continuous basis of development of new information technology, change in policy and procedure, the new restructuring of work task, budgets cuts, newcomers, and the introduction of new ideologies in management in order to achieve the mission and vision of the organization.

In order to reach the success of organizational change, first of all, employees need to change their attitude, behaviour and ideology regarding a change in order to fulfil the demand of changes (Raksnys, Valickas & Pilkauskaitė Valickienė, 2015). Organization members should view the change in a positive perspective, and they must commit to the change without prejudices. This is because, once the employees have good views regarding change, they will be more motivated to cope to change at the workplace. According to Kalyani and Sahoo (2011) and Fok-Yew, Ahmad and Baharin, (2013) describes that, the achievement of an organizational change basically depends on how the management handles it. In addition, due to the acceleration of the ever-increasing change, it is crucial for the organization to learn about change and adapt it in order to survive. (Graetz & Smith, 2010) states that, typically the goals of change in the organizations are to make improvement to the workplace environment as rapidly as possible and a change also commonly leads to the increment of organizational effectiveness. It is crucial to choose the most appropriate change approach in order to achieve the success of change that is being undertaken.

Technostress and employee commitment to change

Technological momentum has broadly increased far beyond user expectation. Technology is changing from time to time. People need to be alert with every single change regarding the information and communication technology (ICT) in organization by putting their full commitment on that. According to (Laspinas, 2015) the revolution of the technology does not only improve the efficiency and productivity of the organization, but also assists to lessen the predicament of tediousness in the workplace. This is because, advancement of technology help employees to be faster and more efficient in doing their duties. In addition, the rapid pace of the newest technology innovation has caused trouble to the businesses, industries, and



government in order to initiate the employees toward the reorganized and rationalized (Laspinas, 2015). Besides, according to (Amin, Ismail, Arshad, Yap & Kamarudin, 2009) the technology change has brought a lot of changes in the workplace nowadays.

Study by (Ahmad, Amin & Ismail, 2012) stated that there is a negative relationship between technostress and commitment. On the other hand, other studies such as (Meyer & Allen, 1991) asserted a negative is associated between technostress and commitment. This is because, the previous study such (Ahmad et al., 2012) only focused on the relationship between technostress and commitment without considering each of the dimensions of commitment to change with the technostress. Mostly, the researchers from the previous studies specifically focused on organizational commitment and job stress (Dale & Fox, 2008). Next, (Omolara, 2008) employees who possess a lower level of stress in the workplace are commonly more committed to get along to achieve the goals and vision of the organization. This means that, the employees who are not influenced by technostress commonly will show high levels of commitment toward the new technology advancement in the organization in order to accomplish the goals of the organization, (Blankenship, 2010) employees with a high level of affective commitment, normative commitment and continuance commitment to change are commonly committed and tend to perform well to accept new environment. Employees who successfully adapt these three dimensions of commitment to change tend to accept it because they “want to”, “ought to” and “have to do so” in order to achieve the organizational mission and vision.

In addition, technology advancement has the capability to increase the pace of duties among the employees and needs them to produce more outputs within the shortest time (Amin et al., 2009). This situation leads the employees to stressing that it might affect their work behaviour and attitude in order in terms of commitment to change that has been implemented in the organization. On the other hand, technology also leads the employees to be faced with work overload where they need to work faster in order to finish all the assigned tasks which is known as techno-overload (Ragu-Nathan, Tarafdar, Ragu-Nathan & Tu, 2008). Techno-invasion means employees can connect to technology at anywhere and anytime and that will lead the employees to feel uncertainty in their social lives (Ragu-Nathan et al., 2008). This is because they need to sacrifice their social lives with their family and personal time to spend more time for their work even outside of the organization. Next, the advancement of the technology in the organization also leads to the techno-insecurity where the employees feel insecure with others who are more knowledgeable in technological innovation (Melchionda, 2007).

In addition, there are also the techno-uncertainty and techno-complexity that lead the employee to the work stress. Techno-complexity commonly forces the employees to upgrade their knowledge, skill and abilities (KSAs) in order to adapt to new information and communication technology (ICT) in the organization. Next, techno-uncertainty always makes employees to put their effort and cope with the new application. According to the (Amin et al., 2009) stress might



inversely impact on the employees' commitment to change, so, they concluded that there is a negative correlation between technostress and employee's commitment to change. Thus, based on the empirical evidence, the proposed hypotheses for this study are:

H1: There is negative relationship between techno-overload and employee's commitment to change.

H1a: There is negative relationship between techno-overload (TO) and employee's affective commitment (AC) to change.

H1b: There is negative relationship between techno-overload (TO) and employee's normative commitment (NC) to change.

H1c: There is negative relationship between techno-overload (TO) and employee's continuance commitment (CC) to change.

H2: There is negative relationship between techno-invasion and employee's commitment to change.

H2a: There is negative relationship between techno-invasion (TI) and employee's affective commitment (AC) to change.

H2b: There is negative relationship between techno-invasion (TI) and employee's normative commitment (NC) to change.

H2c: There is negative relationship between techno-invasion (TI) and employee's continuance commitment (CC) to change.

H3: There is negative relationship between techno-complexity and employee's commitment to change.

H3a: There is negative relationship between techno-complexity (TC) and employee's affective commitment (AC) to change.

H3b: There is negative relationship between techno-complexity and employee's normative commitment (NC) to change.

H3c: There is negative relationship between techno-complexity and employee's Continuance commitment (CC) to change.

The Moderating Effect of Internal Communication on relationship between Technostress and Employee Affective Commitment to Change

The advancement of the information and technology communication (ICT) in today's globalization has affected organization and employees. Work is also changing due to the new technologies (cell phones, laptops, electronic mails, video call, wireless connection and etc.) which have become smaller, cheaper, and generally is easy to access and suitable to use for all types of business. According to the previous researchers (Wang, Shu & Tu, 2008) stress and internal communication are interrelated to each other. This means that, internal communication can reduce work conflict that relates to technostress (techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno-uncertainty) faced by the employees in the

organization. Internal communication can be used as a medium for both employer and employees to spread the information in the workplace. (Kitchen & Daly, 2002) stated that, internal communication is a key factor that leads to the success of change in the organization.

Generally, successful leaders should have excellent communication skills in order to interact with employees through change and maintain constant communication about the new initiatives with employees. Ahmad et al., (2012) indicate that there is a significant relationship between technostress and commitment to change. Based on that, technology innovation can create stress to the employee in the workplace, but at the same time it can enhance the employee's commitment to changes when there is a better and clearer communication regarding change from the organization. Further, (Ahmad et al., 2012) technology is a tool that is provided in the workplace in order to achieve the organizational effectiveness and efficiency, which will be meaningless if there have no employee to put their commitment and effort to adapt it. Employees who face the pressure or strain due to the technology can use communication medium in order to inform to top management about conflict they are facing. For instance, the employee can ask about a matter that they are not clear about or find ambiguous to their immediate supervisor so that there has a solution for the arisen problems.

The positive feedback from the top management can enhance employee commitment to change since they understood the vision and mission of change in organizations. Accordingly, (Namhata & Patnaik, 2019) in order to influence employees to cope with new technology innovation, the organization can use four directions of the communication flow (vertical communication, horizontal communication, lateral communication and informal communication) to enhance the employee's commitment and to reduce conflict of technostress in their work. New technology innovation can cause stress due to employee inability to cope with the information and communication technology (ICT). The organization should take initiative in order to convince and influence employees to cope with new technology through communication, so that, employees can get clearer information and explanations from the organization. Thus, the proposed hypotheses for this study are: H4a: Internal communication moderate the relationship on employee's affective commitment to change and techno-overload. H4b: Internal communication moderate the relationship on employee's affective commitment to change and techno-invasion. H4c: Internal communication moderate the relationship on employee's affective commitment to change and techno-complexity. H4d: Internal communication moderate the relationship on employee's affective commitment to change and techno-insecurity. H4e: Internal communication moderate the relationship on employee's affective commitment to change and techno-uncertainty.

H4: internal communication moderates the relationship between techno-overload and employee's affective commitment to change.

H5: internal communication moderates' relationship between techno-invasion and employee's affective commitment to change.

H6: internal communication moderates' relationship between techno-complexity and employee's affective commitment to change.

Methodology

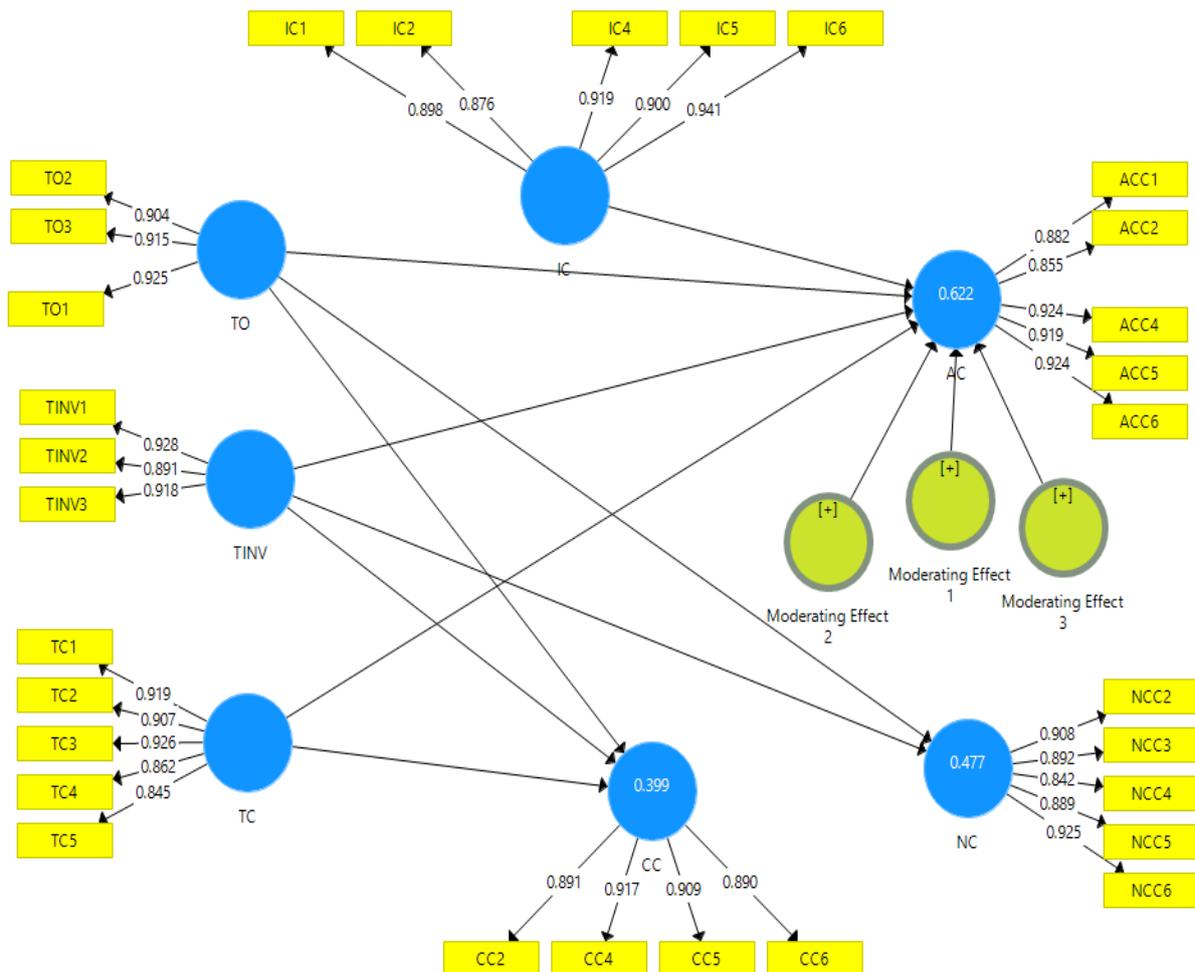
The study has employed survey-based methodology. The 500 questionnaires were distributed to employees working in the universities of Indonesia. Survey based methodology is one of the most appropriate methodology in the current study (Dillman, 2000; Porter, 2004; Silva, Smith & Bammer, 2002; Traina, MacLean, Park & Kahn, 2005). Hence, these attempts yielded 395 returned questionnaires, out of 500 questionnaires that were distributed to the target respondents. Ninety questionnaires out of 345 were unusable because the participants did not complete a significant part of those questionnaires; and the remaining 305 were used for further analysis. This accounted for the 69 percent valid response rate. Therefore, the response rate of 69 percent is adequately considered in the analysis in this study. As suggested by (Sekaran, 2003) for the sufficient response rate for surveys, 30 percent would be deemed enough. The dependent variable which is employee commitment to change involved of three dimensions which are affective commitment to change (6 items), continuance commitment to change (6 items) and normative commitment to change (6 items) measurement with five-point Likert scale. All the instruments adapted from (Hannon et al., 2017; Ele, 2018) The independent variable which is technostress with consisted of five dimensions which are techno-overload (4 items), techno-invasion (4 items), techno-complexity (5 items), s measured using five-point Likert scale is presented in Table 3.3. All the instruments of the technostress adapted from (Tarafdar, Tu, Ragu-Nathan & Ragu-Nathan, 2007). The moderating variable which is internal communication consisted of six items is measured using five-point Likert Scale. All the instruments adapted from (Bouckenooghe, Devos & Van den Broeck, 2009)

Results

PLS was found by most of the scholars. When the basic purpose of structural modelling is to make prediction and construct exploration, PLS is very useful approach (Hair, Sarstedt, Matthews & Ringle, 2016). In consideration of these facts, this research made use of PLS-SEM. This approach is flexible in natural and can deal with complex structural models with minimal sample size demand. Moreover, this research study is based on formative and reflective constructs model. One of the purposes of this research is to make predictions. (Hair et al., 2016; Hafeez et al., 2018) supported the use of PLS (Partial Least Square) for the analysis of data. There are two steps involved in SEM-PLS. The first is the assessment of measurement model and the second step is the structural model assessment. When the model measurement is done, all the items are changed. The high correlation among the indicators shows that they

together form the construct. The validity of the measurement model is done through CFA (Confirmatory Factor analysis) through studying the relation among the indicators and construct. The first and second order constructs are evaluated in CFA. Based on the quality aspect, individual evaluation of the model is done such as formative measurement, structural and reflective measurement. The measurement model of the current study is shown in Figure 1 below.

Figure 1. Measurement Model



Under PLS path model, internal consistency reliability is determined through composite reliability test. The value of Cronbach alpha represents the internal consistency. In other words, the value for composite reliability must be 0.7 or above. Composite reliability values for each variable are presented in the Table.1. The values are ranging between 0.844- 0.985, which are higher than the benchmark level. Convergent validity is the degree to which same variable is measured by multiple items (Ramayah, Samat & Lo, 2011; Hameed et al., 2018). Average variance extracted (AVE) has been observed in this study to assess the convergent validity as

recommended by (Fornell & Larcker, 1981). To become sufficient, the value for AVE must be 0.5 or above. Afterwards, in order to improve the value of AVE, the items having lowest loadings have been removed. Cronbach alpha coefficient is one of the common estimates for measuring the scale reliability. It shows the internal consistency of the model. The Cronbach alpha result for present study indicate above 80 % values for each construct, which are in line with the previous researches. Thus, no reliability problem exists in this study. Afterwards, multiple regression analysis was employed for testing of hypotheses and results are presented in Table 1 below.

Table 1: Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
AC	0.942	0.945	0.956	0.812
CC	0.924	0.928	0.946	0.813
IC	0.946	0.949	0.959	0.823
NC	0.935	0.938	0.951	0.796
TC	0.936	0.937	0.951	0.796
TINV	0.899	0.902	0.937	0.833
TO	0.902	0.903	0.939	0.837

The interrelationship between the reflective variable and its indicators is measured in the discriminate validity measurement. The operationalization is estimated for the set of variables that are linked or not with the case. Fornell-Larcker introduced a measure that is used widely. It is the discriminate validity measure. This has been used as base value for the determination of discriminate validity. The reliability index term should be greater than .70. The values of cross-loadings were similar with the outer loadings. The correlation is compared through cross loadings. Table 2 below shows the assessment values for discriminate value for this research study.

Table2: discriminate validity

	AC	CC	IC	NC	TC	TINV	TO
AC	0.901						
CC	0.673	0.902					
IC	0.733	0.901	0.907				
NC	0.905	0.632	0.701	0.892			
TC	0.717	0.610	0.697	0.703	0.892		

TINV	0.702	0.627	0.703	0.691	0.926	0.912	
TO	0.648	0.573	0.662	0.637	0.872	0.912	0.915

Factor analysis, a commonly used test for construct validity, which is performed to summarize or minimize data in order to improve its straightforwardness, visibility, and manageability, thus highlighting the suitable items for each of the dimension. Two important issues i.e. interconnectedness between the items, and sample size must be considered while performing the factor analysis. Therefore, an adequate sample size i.e. above 150 must be used to perform factor analysis. Bartlett's Sphericity test is also performed to assess the interconnectedness among the items. The value for sphericity test must be significant at $p < 0.5$. However, the threshold value was set at 0.7 and deleted the items having loading less than 0.7, see Table 3 below.

Table 3: Outer loadings

	AC	CC	IC	NC	TC	TINV	TO
ACC1	0.882						
ACC2	0.855						
ACC4	0.924						
ACC5	0.919						
ACC6	0.924						
CC2		0.891					
CC4		0.917					
CC5		0.909					
CC6		0.890					
IC1			0.898				
IC2			0.876				
IC4			0.919				
IC5			0.900				
IC6			0.941				
NCC2				0.908			
NCC3				0.892			
NCC4				0.842			
NCC5				0.889			
NCC6				0.925			
TC1					0.919		
TC2					0.907		
TC3					0.926		
TC4					0.862		
TC5					0.845		

TINV1						0.928	
TINV2						0.891	
TINV3						0.918	
TO2							0.904
TO3							0.915
TO1							0.925

The next step was to assess the structural relation of the variables after assessing the reliability. SEM-PLS is effective in the sense that it analyzes the relationships simultaneously. However, other techniques do not assess it properly. The direct and indirect effects are analyzed in the structural equation model and this is depicted in Figure 2 below.

Figure 2. Structural model

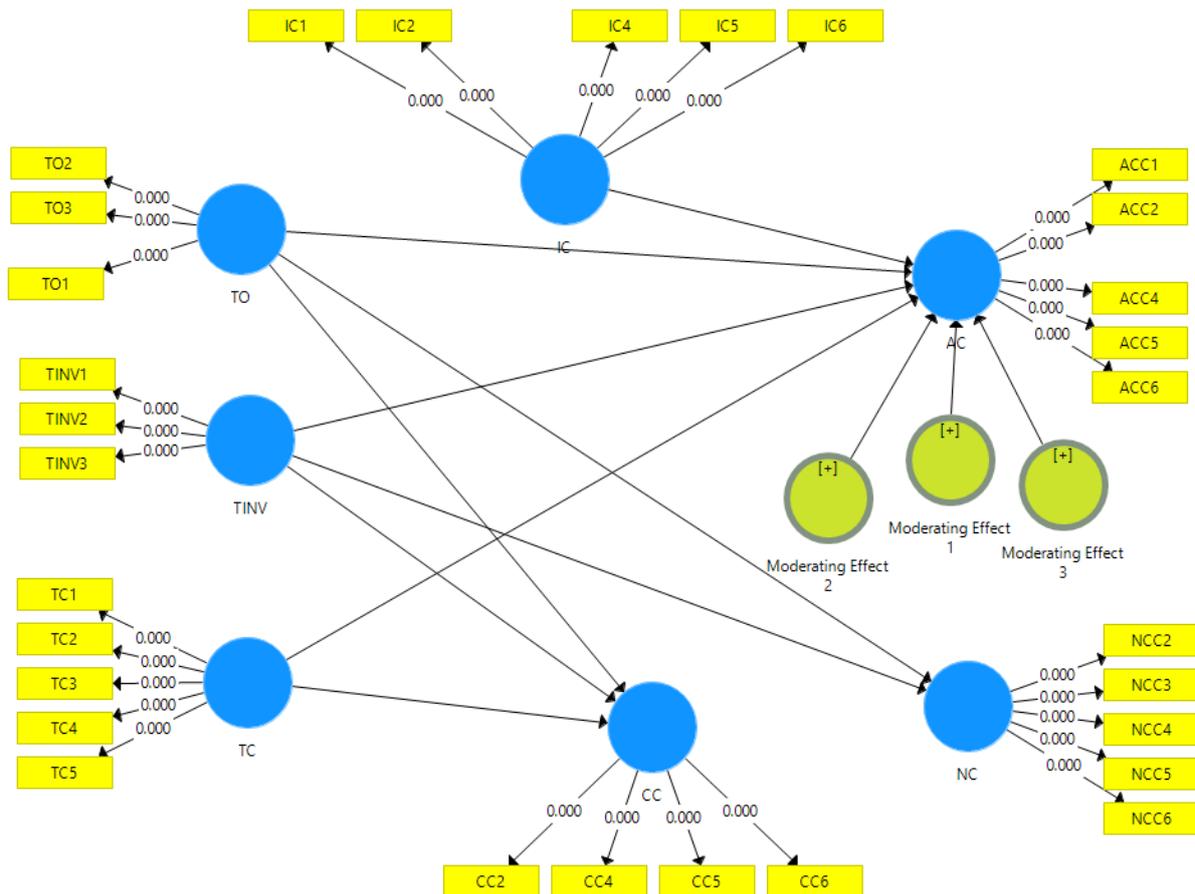


Table 4: Direct results (H1-H3)

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
IC -> AC	-0.445	0.445	0.110	4.036	0.000
TC -> AC	-0.338	0.333	0.121	3.798	0.005
TC -> CC	-0.215	0.226	0.142	3.508	0.005
TINV -> AC	-0.141	0.151	0.131	3.075	0.003
TINV -> CC	-0.451	0.445	0.155	3.903	0.004
TINV -> NC	-0.655	0.663	0.098	6.679	0.000
TO -> AC	-0.081	-0.073	0.111	3.727	0.005
TO -> CC	-0.025	-0.027	0.121	3.205	0.007
TO -> NC	-0.039	0.034	0.118	3.333	0.009

For analyzing the indirect effect, the moderation level is assessed. At 1000 observations, the bootstrapping process has been used. The p-value has been used in this research. The level of significance has been set at 0.05 for p-value. It has been analyzed that all the research hypotheses except H4,H5, and H6 have p-value less than 0.05. The moderating effect IC have been highlighted in Table 5 below the t-value comes out to be above 1.96 for the moderation hypothesis and the p-value is less than 0.05.

Table 5: Moderation effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Moderating Effect 1 -> AC	0.004	0.003	0.228	3.018	0.005
Moderating Effect 2 -> AC	0.018	-0.076	0.224	3.080	0.006
Moderating Effect 3 -> AC	0.002	0.050	0.227	3.007	0.004

Through R2 value, the predictive power can be analyzed for the endogenous variables. The variables near to 0 are considered non-significant. High predictive accuracy is reflected by the value of R2 in the range of 0-1. The values of R2 such as 0.75, 0.50 and 0.25 are considered considerable, fair and weak respectively. In this research study, the value of R2 comes out to be 0.190, which reflects that almost 62.2 percent variation in AC, 39.9 percent in CC and 47.7 percent in NC is defined, by the independent variables.

Table 6: R-Square

	R Square
AC	0.622
CC	0.399
NC	0.477

Conclusion

This study provides both theoretical and practical implications. Specifically, this study validated the Social Exchange Theory, Lewin's Three-Steps Change Model and Schein's Three-Stage Model equally influence the employee commitment to change. Furthermore, it has been evidenced that internal communication was as the most essential main factor of determinants the employee commitment to change, which can contribute the theoretical foundation in the area of the change management. The findings of the relationship of internal communication and employee commitment to change could add to the related literature and hence compensate for this identified weaknesses in previous studies.

In addition, no previous studies have empirically tested the moderating effect of internal communication on the relationship between work stressors and technostress on employee commitment to change. In terms of practical implication, the results of this study provide some suggestions and recommendations to the universities in Indonesia regarding how to confront employees when implementing change at the workplace. This study also provides some insights to 142 the universities in developing policies accordingly by considering the fact that work stressors and technostress were found to be the determining factors that affect employee commitment to change as well as the internal communication as a medium that can be used by top management of universities to spread and communicate information regarding change.

In order to achieve the transformation of the education system, the empowered governance is crucial to each of the institutions to have their own portfolio as a fully autonomous or semi-autonomous HLIs based on their readiness and capacity for decision-making. In achieving the empowered governance outcomes, the Ministry of Education should focus on the policymaker, regulator, also give a greater decision-power and accountability to the HLIs in order to lead the institutions. Hence, non-academic staffs in each institution who gain the fully or semi-autonomous should be well prepared to face with new changes and innovation that implemented by the institutions. In addition, focusing on the global prominence will generally enhance the Indonesia's higher education to become as an international education hub with a difference, providing the value-driven which is relevant to the global education, recognized by students for its balance of quality and affordability, good quality of life, and rich cultural experiences. Moreover, based on the global prominence, Indonesian's target is to reach new markets through more innovative programs and partnerships. In order to achieve the



requirement of the goals targeted, the transformation needs to be implemented in each of the institutions. The non-academic staff will be directly affected by this transformation because they need to adapt to a new environment where they need to face changes in their job tasks.

The current study has broached an argument that today, the rapid pace of technological innovation and globalization have affected organizational productivity and performance. There are a lot of things that have been changed in order to achieve the organization vision. In line with the information communication technology (ICT) innovation and the new globalization in today's business challenges, the restructuring of organizational strategic planning such as a new procedure, new policies and new circular will improve business activities in order to achieve the organization vision and mission. Employees who are not ready for organizational transformation might face adversities in adapting to changes in the workplace and this will also lead to employee stress. In this study "workplace" is defined as a place where employees complete their job based on specified vision and mission. This study also defines stress as an employee's reaction to a certain matter that affects their behaviour and psychology. Workplace stress may cause a serious impact to both organization and employee. Employees who are suffering stress could experience consequent effect on work productivity and performance, and at the same time the organization productivity and performance could be influenced by lack of commitment capable for assigned work. Work stress is a common phenomenon that occurs in today's organizations which can affect employee behaviour such as dissatisfaction, demotivation, absenteeism, reduced productivity and so forth.

According to this study's findings, the boom of the technology advancement in the past two decade has attracted researcher to study this issue deeply. The term of technology can be referred as a system advancement such as software, hardware, and other applications that are related to the technological systems and it has transformed the way of work and this technology increase shows no sign of abating. However, it is not easy to get along with the updated technology, because from time to time, it is rapidly upgraded in line with the globalization changes. This may cause some complexities for those who are not capable of coping with the new ICT and this situation will lead them to experience technostress.

The study took the view that technostress is about the pressure or strain that faced by the individuals due to the sophistication of information communication technology (ICT). Based on the previous studies, pressure or strain that is caused by the technology can be called as technostress. Yet, technostress can be identified as any negative effects that influence someone's behaviour, thought, attitude and psychology as a result of using the computer-based ICTs. Based on other studies, technostress is defined as a modern disease that is experienced by the employees because of the inability to commit with the new technologies in a healthy manner. Technology rapidly changes. Therefore, people need to be updated according to the current situation in order to adapt to the new updated technologies. An individual's inability to



adapt to ICTs can be considered as technostress. Moreover, individuals who possess poor knowledge, skill and abilities about the technology innovation, might be led to negative behaviours such as lack of motivation, satisfaction and performance. Individuals get into these circumstances because they face a high level of pressure or strain about technology in the workplace.

According to the findings of this study, techno-overload encompasses information technology that exceeds the usual level requirement which might cause individuals to experience strain and stress when dealing with the crowded information communication technologies (ICTs) platform. This circumstance might affect strain (e.g., eye strain, backaches, headaches, neck pain, joint pains and so forth) to the employees when they stay too long in front of the computer in order to handle the workload technology crowding as a phenomenon that arises when a marginal addition of new information technology has exceeded the point of diminishing marginal returns. The excess of technology marginal points is referred to as the system feature of overload and is expressed as communication overload and information overload that arise in the organizations. Therefore, in the context of this study, the techno overload as a situation or phenomenon that affects employee behaviour, attitude, physical and emotional being due to the excess of the optimal level of information technology in the workplace, was explored.

The results reveal the fact that techno-invasion is an invasive effect of ICTs that basically creates the situation which the individual can reach at any time. He or she needs to be constantly connected to technology, and at the same time faces the blurring between both individual work-related and personal contexts. This means that employees who are in this situation commonly will be faced with pressure or strain because they are constantly connected to the technology which directly affect their personal social lives. Thus, this study refers to techno-invasion as a situation where employees are conquered by the technology as they need to constantly stay connected with technology such that they can be reached at any time according to the situation and this may consequently disturb their social lives.

The study concludes that the continuous upgrading and changes to ICTs according to the speed of innovation in the globalization age can mean that change is defined as techno-uncertainty. The updated technology in an organization might impact employees due to the requirement to upgrade their knowledge about the new technology. The current study has described techno-uncertainty as a situation that arises when technology is upgraded or updated with new information, applications or functions in order to enhance the ICTs system. In addition, the change of technology or the upgrade in the organization boosts requirements on employees who face the continual need to upskill which might lead them to experience pressure at the workplace. Thus, both organizations and employees should be alert and always keep updated about current technology innovation and its implications on the workforce.



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