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# Examining Impacts of Technostress on the Professional Salesperson's Performance

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**ABSTRACT**

This paper explores technostress in the context of the professional sales area. This area is unique in that sales professionals prefer to spend time with customers in developing interpersonal relationships, rather than on technology related tasks. At the same time, the modern sales environment requires the use of IS such as sales force automation applications. The sales role also offers increased possibility of role stress and very high expectations for technology-enabled performance, making this an ideal context to explore how technostress operates through role stress in negatively impacting technology-enabled performance. It also means that finding ways to mitigate this negative impact is of strategic importance, and a review of the sales technology literature points to self-efficacy as a potential factor to reduce the effects of technostress. Integrating literature from technostress, sales and social cognitive theory, we explore the relationships between technostress, role stress, technology self-efficacy and technology-enabled performance among business-to-business salespeople. Our findings show a positive association between technostress and role stress, and a negative one between role stress and performance. We find that technology self-efficacy can counter the decrease in performance and increase in role stress due to technostress. Theoretical and managerial implications of these findings are discussed.



**Keywords: Technostress, Sales professionals, Technology-enabled performance, Technology self-efficacy**


## INTRODUCTION

Accepted wisdom has long held that salespeople would rather spend time with customers than complete paperwork. More recently we see this same tendency seems to hold in the technology realm, as well, where we find that salespeople would rather spend time in front of customers than behind a computer screen (e.g., Rangarajan et al. 2009; Geiger & Turley 2006). "Salespeople are not comfortable with technology and resent having to type in data when they'd rather be selling (Holt 1998, p. 38)." Given this strong orientation of most salespeople toward building relationships (e.g.,Crosby et al. 1990; Morgan and Hunt 1994; Saxe and Weitz 1982), the sales force represents a particularly important area for considering the effects of stress due to the use of Information Systems (IS), that is, technostress.

Technostress is the stress caused by the use of IS in the workplace. Originally introduced in practitioner thinking (Weill and Rosen 1997), it is now, with rapid proliferation of IS use across functional areas, emerging as an important area for scholarly research in various contexts (Ennis 2005). Existing and as yet, limited research (e.g. Ragu-Nathan et al 2008, Tarafdar et al 2007) shows that it is associated with increased role stress and decreased job satisfaction and productivity. We continue scholarly development in this domain by examining effects of technostress on professional sales people.

The professional sales context represents a rich domain for examining negative cognitions due to use of IS, for a number of reasons. First, salespeople are particularly subject to role stress issues, in general (Goolsby 1992; Singh 1998) due to the boundary roles they play, multiple internal and external groups they service, and the dynamic environment in which they operate. Second, the sales literature is robust with examples of the promise of sales force automation and customer relationship management systems (e.g., Ahearne et al. 2008; Hunter and Perrault 2006; Rich 2002), as well as their strategic importance (Sarin et al. 2010). And yet failure of sales technologies seems to be the norm - 55-80% of all new sales technology implementations fail (Erffmeyer and Johnson 2001), indicating that positive expectations from sales technologies are not being realized. Third, huge investments in sales technology (Ahearne and Rapp 2010; Erffmeyer and Johnson 2001) make it imperative to investigate possible reasons for these failures.

We do know that the introduction of technologies can increase sales employee stress and turnover during the adoption

process (Speier and Venkatesh 2010) and that sales professionals can be subject to IS related technophobia (Rich 2002, p.10). However, attention to the on-going use of IS and its associated technostress has not been addressed in the sales and marketing literature. Given already high levels of role stress due to the boundary spanning nature of the sales role, and known impacts of technostress on role stress (Tarafdar et al. 2007), we suggest that it is worthwhile and promising to investigate the negative impacts of technostress on the technology-enabled performance of the sale professional and possible ways to mitigate them.

In this paper, we examine technostress and its negative impacts on the sales professional. Specifically, and as shown in Figure 1, we integrate theoretical concepts from the IS, sales/marketing and stress literatures to theoretically develop a model and hypotheses for analyzing relationships among technostress, role stress, technology self-efficacy and technology-enabled performance. We empirically test the hypotheses using survey data from 237 sales professionals from three business-to-business organizations (representing construction, glass and industrial equipment sales). Our results show that technostress is associated with increased role stress and decreased technology-enabled performance, and that technology self-efficacy represents a viable path to mitigate these negative effects.

The paper contributes to theoretical development of emerging discourse on the negative cognitions due to IS, in general, and on technostress in particular. Integrating concepts from the sales, technostress and IS-related social cognitive theory, it demonstrates that in contexts characterized by boundary-spanning and relationship-oriented activities, such as those of the sales professional, technostress can aggravate role stress and negatively affect technology-enabled performance. It further shows the importance of technology self-efficacy as a mitigation factor to these effects. In the sales literature, the paper introduces the concept of technostress, and suggests that it is a possible reason for low technology-enabled performance of sales professionals. It also identifies technology self-efficacy as a possible countering mechanism, to eliminate some of the negative effects created by techno-stress. For practice, the paper suggests that the stress of adding technology responsibilities to the sales role could lead to deteriorating performance, and suggests that increasing technology self-efficacy of the sales professionals could dampen that deterioration. It also provides an instrument to assess levels of technsotress among sales professionals.

The following section provides theoretical grounding from the IS and Sales literatures. The next section presents the hypotheses. We then describe methods, followed by contributions, implications and limitations.

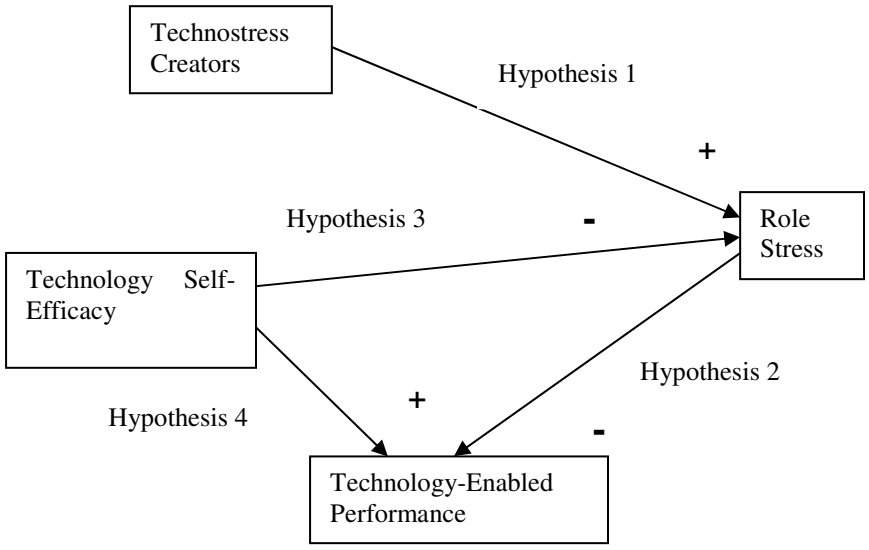


**Figure 1. Research Model**

## THEORETICAL BACKGROUND

### *Effects of IS use on Sales Professionals*

The nature of the sales job has changed dramatically over the past decade along a number of dimensions. Perhaps the most

significant changes have resulted from, and encompass, the increased use of sales force technologies, most recently sales force automation and customer relationship management technologies. As the salesperson's role becomes more strategically important to the organization, and the very nature of selling moves from consultative to co-creating, sales force technologies have kept pace as a way to facilitate these changes while increasing the salesperson's efficiency and effectiveness. Sales technologies can support the automation of the sales office, the standardization of the selling process, complete integration with the enterprise information systems, and more efficient management of the sales force (Barker et al. 2009). Greater and easier access to information adds significant value to the salesperson-customer relationship (Rich 2002).

For our purposes, we define technology as: "any type of information technology that can help enable or facilitate the performance of sales tasks (Ahearne and Rapp (2010, p.112)." As sales researchers began to see the facilitating role of IS, initial research efforts focused on understanding sales technology adoption (c.f. Ahearne, Narasimhan and Weinstein 2004). More recently, however, greater attention has been placed on *ongoing use* of IS, and its antecedents and consequences (e.g., Ahearne et al 2008; Ahearne and Rapp 2010; Ahearne et al. 2004; Rangarajan et al 2005; Rapp et al. 2008). IS use among salespeople has been shown to result in positive effects on relationship-building, administrative performance, customer service, knowledge of customers and level of effort (c.f., Ahearne and Rapp 2010). Interestingly, it has shown *negative* impacts on absenteeism, voluntary turnover, organizational commitment, and job satisfaction (c.f., Ahearne and Rapp 2010), and *inconsistent* effects on performance. In addition, Ahearne and colleagues (2004), using number of screens hit for a proxy of technology use and percentage of quota achieved as a measure of performance, found a curvilinear relationship of technology use to sales performance. These negative effects on performance have not been explained in the literature, leading to a "productivity paradox" situation at the individual level, in the context of IS use by the salesperson (Ahearne and Rapp 2010). Speier and Venkatesh (2002) did find that competency-building activities like user training could moderate the link of IS use to performance, pointing to a possible connection of technology self-efficacy in moderating negative impacts of IS use by sales people on performance

Sundaram and colleagues (2007) represent one of the few teams to consider specifically salesperson performance that is enabled by technology. Their primary objective is to look at the effects of efficient use (routinization), effective use (infusion), and technology use (frequency) on IS-enabled administrative performance and IS-enabled salesperson performance. They find that increased use leads to increased performance, but that relationship this is moderated by experience, expertise, user training, and user support. Conceptually, each of these moderators would relate to self-efficacy, which we deal with in the next section.

Though role stress has been shown to impact salesperson performance in a variety of different studies (e.g., Behrman and Perrault 1982; c.f., Singh 1998), only one study has looked at the connection of technology and role stress in this context, despite the central role the role stress constructs have been given in other aspects of understanding salesperson performance. Rangarajan and colleagues (2005), explored technology task complexity as it impacted technology-specific role ambiguity and technology-specific role conflict. They found that as task complexity increased, both role ambiguity and role conflict increased. Sales technology could thus place unreasonable demands on salespeople, increasing job demands and changing role perceptions. These results, however, were confined to one organization and a one-item measure of effort was used.

Taken in total, the current literature is ripe for the introduction of technostress and it makes sense to consider it in conjunction with role stress as the latter might mediate how technostress effects technology-enabled performance. In addition, evidence in the existing sales literature presents a possibility of self-efficacy for inhibiting negative consequences of sales technology on sales performance, and hence it could be explored as a potential path to mitigate the effect.

### *Technostress and Social Cognitive Theory*

Technostress describes the stress that users experience as a result of their use of IS, primarily in the organizational context. Conditions that create technostress are "technostress creators". They include factors such as application multitasking, constant connectivity, information overload, frequent system upgrades and consequent uncertainty, continual relearning and consequent job-related insecurities, and technical problems, associated with the organizational use of ICT. Based on the transaction theory of stress (Lazarus 1991), recent research (e.g. Tarafdar et al 2007, Ragu-Nathan et al 2008) shows that technostress creators are associated with *behavioral* strain-outcomes such as decreased productivity and *psychological* strain-outcomes such as decreased job satisfaction and commitment, and increased role stress. Factors that inhibit the effects of technostress include literacy facilitation, technology support and technology involvement. Existing research provides an academic foundation for analyzing the phenomenon of technostress at a broad level. It is clear that continuing scholarly investigation of technostress in contexts that are more particular, presents an important opportunity for more nuanced and refined understanding of this increasingly recognized phenomenon.

One of the premises of the Social Cognitive Theory (Bandura, 1987) is that an individual's belief about how well they can

perform a certain task, shape their attitudes to that task. Technology self-efficacy, particularizing this idea to the context of IS use, represents an individual's perceptions about his or her ability to use computers in the accomplishment of a task (Compeau and Higgins, 1995). There is research that demonstrates a strong link between self-efficacy and individual reactions to computing technology. Higher self-efficacy is associated with lower computer related anxiety (Compeau and Higgins, 1995), higher comfort in using computers (Compeau et al., 1999) and a positive attitude towards technology (Venkatesh and Davis, 1996).

Our study of technostress experienced by sales professionals introduces two important constructs to the technostress literature. First, we look at the negative impact of technostress creators on the technology- enabled task *performance* of the sales professional. This furthers current conceptualizations of behavioral and psychological outcomes of technostress. Second, we consider technology self-efficacy of the sales professional as a potential inhibitor of this negative impact. Our study thus contextualizes the investigation of technostress to the role of the sales professional, which, given its boundary spanning and relationship oriented characteristics is particularly subject to both stress and reluctance to use technology (Buehrer et al 2005). It thus represents a relevant and interesting context for extending current theoretical understanding of technostress.

## HYPOTHESES

The relationship between technostress and role stress has been documented in recent IS literature (Tarafdar et al 2007). Given that sales is a boundary spanning function and that role stress has already been shown to be a significant factor in salesperson performance (Behrman and Perrault 1982; Goolsby 1992), and the assumed attitudes of salespeople toward technology (Holt 1998; Rangarajan 2009), these relationships need to be considered in this specific context. In fact, it could be assumed that the relationships might actually be accentuated for salespeople. With increased resistance to technology, the negative impact of technostress created by technology use would likely have a significant negative impact on role stress, as salespeople may begin with increased anxiety related to the technology. Hence we propose Hypothesis 1:

***H1: Techno-stress is positively related to role stress.***

However, it must be recognized that the sales job is different, typically characterized by higher levels of role stress (c.f., Singh 1998). With already escalated levels of role stress, we believe that escalating levels of role stress will mean an even more significant impact on technology-enabled performance, essentially mediating the impact of technostress on technology-enabled performance. Individuals that experience anxiety toward the added responsibility of an uncomfortable role with technology will see deterioration in performance connected to the technology. Thus we propose Hypothesis 2:

***H2: Role stress is inversely related to technology-enabled performance.***

In the IS literature there is evidence that various inhibitors can help counterbalance the negative effects of technostress on job satisfaction and organizational commitment (Ragu-Nathan et al 2008). However, inhibiting mechanisms on technology-enabled performance have not been studied. In particular the role of computer self-efficacy, which is associated with increased computer use, increased liking for computer use, increased performance (Compeau and Higgins 1995a) and decreased anxiety in the context of computer use (Compeau and Higgins 1995) has not been explored. In the sales literature, there is some limited evidence of the impact of mechanisms (e.g. training, user support) that would moderate the impact of negative attitudes or perceptions of technology on performance, possibly through improved feelings of technology self-efficacy (Geiger & Turley 2006; Speier and Venkatesh 2002). These could counter the negative impact of sales technologies. There's a significant body of literature in the sales area that connects various self-efficacies to different aspects of performance and to psychological variables such as role stress (c.f., Brown et al. 2007). Fu and colleagues (2010) most recently demonstrated a compelling link between self-efficacy and new product launch performance. Extending these findings and arguments to the sales person's use of IS, we propose the following hypotheses reflecting the expected role of technology self-efficacy in countering the effects of technostress:

***H3: Technology self-efficacy is negatively related to role stress.***

***H4: Technology self-efficacy is positively related to technology-enabled performance***

## METHODOLOGY AND RESULTS

We executed this study through survey research conducted in three steps - (1) Survey design, (2) Data collection, and (3) Analysis – as described below.

### *Survey Design*

Based on the literature discussed in sections 3.1 and 3.2 we developed items for the four model constructs. Items for "Techno Stress Creators" and "Technology self-efficacy" were respectively drawn from Ragu-Nathan et al (2008) and Compeau and Higgins (1995). Items for "Role Stress" were taken from the Role Ambiguity, Role Overload and Role Conflict constructs from Rizzo et al (1970). "Technology Enabled Performance" was developed for this research, to capture the performance areas that are proposed in the literature to be most affected by sales technology. These areas are expected to include the automation of the sales office, the standardization of the selling process, integration with the enterprise information systems, and more efficient management of the sales force (Barker et al. 2009), as well as customer service and relationship building (Ahearne and Rapp 2010). The items for the first three constructs were modified as appropriate for the context of the study. All items were measured on a five point Likert scale: 1 – strongly disagree to 5 – strongly agree. A sixth option of "Not Applicable" or "I do not know" was also provided.

### *Data Collection*

The respondents for this study included sales professionals from three business-to-business organizations. A total of 237 questionnaires were returned out of 500, giving us a response rate of 47%. In terms of sample demographics, about 66% of the respondents were male and 34% were female, more than 70% had a Bachelor's degree and above, and their ages were evenly spread in 10 year ranges between 26 and 56 years. In terms of professional sales experience, 65 % had an experience of less than 10 years, 23% between 10 and 20 years and 12% greater than 30 years.

### *Model Testing*

We used SmartPLS to conduct our analysis. We named the model variables thus: TSE (Technology Self-Efficacy), TSC (Technostress Creators), RS (Role Stress), and TEP (Technology Enabled Performance). Table 1 shows the construct items and reliabilities.

For testing the hypotheses, TSC and RS were considered as first order constructs with items TSC_1, TSC_2, TSC_3, TSC_4, and RS_1, RS_2, RS_3 respectively. Each of these, as shown in Table 2, was the mean of the corresponding items from Table 1. Table 2 shows the factors loadings for each construct (loadings of the items to the intended constructs are shown in bold) and Table 3 the inter-construct correlations. Table 4 shows the average variance extracted (AVE), composite reliability, communality, redundancy, Cronbach alpha and R-square values. All the AVE's are greater than the recommended value of 0.5 (Fornell and Larcker 1981) and all Cronbach alpha coefficients are higher than the recommended value of 0.7 (Nunnally 1978). The composite reliabilities of the items are also quite high, greater than or close to 0.80. The square root of the AVE value for each construct is higher than its correlation with all other constructs. These results support good convergent and discriminant validity of the constructs (Wetzels et al 2009).

The Partial Least Square method was used for analyzing the structural equation models to test our hypotheses. The t-statistics of the model coefficients were obtained by bootstrapping, generated by two hundred samples, which is the default re-sampling option, to provide reasonable standard error estimates. Figure 2 shows the path model for testing hypotheses 1, 2, 3, and 4, along with the factor loadings for each construct. T-values and path coefficients of each path are given in Table 5. All the paths are significant, indicating support for all hypotheses. We conducted tests (Barron and Kenny 1986)to examine full mediation of RS, on the relationship between TSC and TEP. Results showed that the full mediation effect was valid, that is, there was no direct relationship between TSC and TEP.

## CONTRIBUTIONS, IMPLICATIONS AND LIMITATIONS

The paper contributes to theoretical development of the emerging domain on technostress in the IS literature. It demonstrates that in contexts characterized by boundary-spanning and relationship-oriented activities, such as those of the sales professional, technostress can aggravate role stress and negatively affect technology-enabled performance. In looking at technology-enabled performance as the dependent variable, the study extends current literature that reports behavioral and psychological outcomes of technostress. In considering the professional sales domain, it demonstrates the external validity of emerging technostress findings in the IS literature. Additionally, integrating insights from Social Cognitive Theory, it further shows the importance of technology self-efficacy as a mitigation factor to these effects. As further development in the area

continues, this paper helps to substantiate the robustness of the "technostress creators" construct, as well as the importance of identifying inhibitors to offset negative effects of technostress. Future research on technostress might look at the moderating role of self-efficacy, as well as identify additional inhibiting factors, both in the sales context, as well as more broadly.

In the sales literature, the paper introduces the concept of technostress, and suggests that it is a possible reason for low technology-enabled performance of sales professionals. It also identifies one particular promising inhibitor, technology self-efficacy, to explore whether it is possible to eliminate some of the negative effects created by technostress. Given existing mixed findings regarding the impact of technology use on sales performance, technostress represents a promising domain for further exploration. Specific attention should be given in future research, to its possible relationships with other constructs of interest in the area such as adaptability, innovativeness, experience and effort.

There are some limitations to our study. The study was conducted in a limited setting of only three firms, all in the business-to-business product domain. Further cross-sectional research can show the robustness of findings across service sales settings, consumer sales and so forth. In addition, subjective, self-report measures of performance were used. Additional work is needed to verify that the effects would hold with objective performance measures.

For practice, the paper suggests that adding technology responsibilities to the sales role could be associated with technostress and lead to deteriorating performance. Increasing technology self- efficacy of the sales professionals through training and help desk support could, for example, dampen that deterioration. This could be critical considering the high investment and high failure rates of sales technology (Erffmeyer and Johnson 2001), coupled with high, strategically important expectations (Sarin et al. 2010). Any mechanism which is available to help maximize the adoption and use of IS by sales professionals in a low-stress, productive manner, offers significant potential value to sales managers. Finally, the paper also provides an instrument to assess levels of technostress among sales professionals.

| | **Item Number** | **Item Description** |
|---|---|---|
| TSC-Overload (0.90) | TSC_O_1 | I am forced by this technology to work much faster |
| | TSC_O_2 | I am forced by this technology to do more work than I can handle |
| | TSC_O_3 | I am forced by this technology to work with very tight time schedules |
| | TSC_O_4 | I am forced to change my work habits to adapt to new technologies |
| | TSC_O_5 | I have higher workload because of increased technology complexity |
| TSC-Invasion (0.91) | TSC_I_2 | I spend less time with my family due to technology |
| | TSC_I_3 | I have to be in touch with my work even during my vacation due to this technology |
| | TSC_I_4 | I have to sacrifice my vacation and weekend time to keep current on new technologies |
| | TSC_I_5 | I feel my personal life being invaded due to this technology |
| TSC-Complexity (0.92) | TSC_C_1 | I do not know enough about this technology to handle my job satisfactorily |
| | TSC_C_2 | I need a long time to understand and use new technologies |
| | TSC_C_3 | I do not find enough time to study and upgrade my technology skills |
| | TSC_C_4 | I find new recruits to this organization know more about computer technology than I do |
| | TSC_C_5 | I often find it more complex for me to understand and use new technologies |
| TSC-Insecurity (0.90) | TSC_IN_1 | I feel constant threat to my job security due to new technologies |
| | TSC_IN_2 | I have to constantly upgrade my skills to avoid being replaced |
| | TSC_IN_3 | I am threatened by co-workers with newer technology skills |
| | TSC_IN_4 | I do not share my knowledge with co-workers for fear of being replaced |
| | TSC_IN_5 | I feel there is less sharing of knowledge among co-workers for fear of being replaced |
| Technology Self Efficacy (.89) | TSE_1 | ***I could complete this job using the software package more easily:*** if I had seen someone else using it before trying it myself |
| (Reverse Coded) | TSE_2 | if I could call someone for help if I got stuck |
| | TSE_3 | if someone else had helped me get started |
| | TSE_4 | if I had a lot of time to complete the job for which the software was provided |
| | TSE_5 | if someone showed me how to do it first |
| | TSE_6 | if I had used similar packages before this one to do the same job |
| Role Ambiguity (.94) | RS_A_1 | My job duties and work objectives are unclear to me |
| | RS_A_2 | I am unclear about whom I report to and/or who reports to me |
| | RS_A_3 | My assigned tasks are sometimes too difficult and/or complex |
| | RS_A_4 | I lack the authority to carry out my job responsibilities |
| | RS_A_5 | Tasks seem to be getting more and more complex |
| | RS_A_6 | I do not fully understand what is expected of me |
| | RS_A_7 | The organization expects more of me than my skills and/or abilities provide |
| | RS_A_8 | I do not understand the part my job plays in meeting overall organizational objectives |
| | RS_A_9 | I have insufficient training and/or experience to discharge my duties properly |
| Role Conflict (.87) | RS_B_1 | I work on unnecessary tasks or projects |
| | RS_B_2 | I get caught in the middle between my supervisors and subordinates |
| | RS_B_3 | The formal chain of command is not adhered to |
| | RS_B_4 | I do things on the job that are accepted by one person and not by others |

| | | |
|---|---|---|
| | RS_B_5 | I receive conflicting requests from two or more people |
| Role Overload (.88) | RS_C_1 | I have to take work home in the evenings or on weekends to stay caught up |
| | RS_C_2 | The demands for work quality made upon me are unreasonable |
| | RS_C_3 | I spend too much time in unimportant meetings that take me away from my work |
| | RS_C_4 | I am responsible for almost unmanageable number of projects or assignments at the same time |
| | RS_C_5 | I simply have more work to do than can be done in an ordinary day |
| | RS_C_6 | I feel that I just do not have time to take an occasional break |
| Technology Enabled Performance (0.86) | TEP_1 | I need to use more technology to do my job better |
| | TEP_2 | Using technology results in improved customer satisfaction |
| | TEP_3 | Using technology results in more time to meet with customers |
| | TEP_4 | Using technology helps me make my time with customers more productive |
| | TEP_5 | Using technology helps me communicate better with customers |
| | TEP_6 | Using technology helps improve my overall professionalism with customers |

**Note: "This technology" refers to sales force automation and CRM applications used by the respondents**

**Table 1: Item Descriptions and Reliabilities**

| | Role Stress (RS) | Techno-stress Creators (TSC) | Technology Enabled Performance (TEP) | Technology Self-efficacy (TSE) |
|---|---|---|---|---|
| RS_1 (Mean of RS_A_1 through RS_A_9, from Table 1) | **0.9187** | 0.3892 | -0.2557 | -0.2966 |
| RS_2 (Mean of RS_B_1 through RS_B_5, from Table 1) | **0.9253** | 0.4587 | -0.2893 | -0.1998 |
| RS_3(Mean of RS_C_1 through RS_C_4, from Table 1) | **0.8546** | 0.3880 | -0.1736 | -0.1074 |
| TEP_1 | -0.1605 | 0.1246 | **0.7237** | 0.1428 |
| TEP_2 | -0.0697 | -0.1274 | **0.7193** | 0.2154 |
| TEP_3 | -0.2613 | -0.1897 | **0.7866** | 0.1892 |
| TEP_4 | -0.2295 | -0.1050 | **0.8565** | 0.2212 |
| TEP_5 | -0.2718 | -0.0554 | **0.7783** | 0.1301 |
| TEP_6 | -0.2186 | -0.1201 | **0.8293** | 0.1505 |
| TSC_1 (Mean of TS_O_1 through TS_O_5, from Table 1) | 0.2624 | **0.6880** | -0.0124 | 0.0057 |
| TSC_2 (Mean of TS_I_2 through TS_I_5, from Table 1) | 0.3085 | **0.7770** | -0.0409 | -0.0111 |
| TSC_3 (Mean of TS_C_1 through TS_C_5, from Table 1) | 0.3968 | **0.7414** | -0.1541 | -0.3408 |
| TSC_4 (Mean of TS_IN_1 through TS_IN_5, from Table 1) | 0.3926 | **0.8178** | -0.0950 | -0.0286 |
| TSE_1 | -0.0455 | -0.0675 | 0.1232 | **0.6457** |
| TSE_2 | -0.2281 | -0.0738 | 0.1648 | **0.8221** |
| TSE_3 | -0.2233 | -0.0487 | 0.2291 | **0.8651** |
| TSE_4 | -0.1057 | -0.0905 | 0.1149 | **0.7782** |
| TSE_5 | -0.1917 | -0.1883 | 0.1949 | **0.8878** |
| TSE_6 | -0.2065 | -0.2038 | 0.1879 | **0.7748** |

**Table 2: Construct Item Loadings**

| | Role Stress (RS) | Techno-stress Creators (TSC) | Technology Enabled Performance (TEP) | Technology Self-efficacy (TSE) |
|---|---|---|---|---|
| Role Stress (RS) | 1.0000 | | | |
| Techno-stress Creators (TSC) | 0.4593* | 1.0000 | | |
| Technology Enabled Performance (TEP) | -0.2715 | -0.1104 | 1.0000 | |
| Technology Self-efficacy (TSE) | -0.2296 | -0.1433 | 0.2214 | 1.0000 |

**Table 3: Construct Correlations**

| | AVE | Composite Reliability | R Square | Cronbachs Alpha | Communality | Redundancy |
|---|---|---|---|---|---|---|
| Role Stress (RS) | 0.8102 | 0.9275 | 0.2383 | 0.8832 | 0.8102 | 0.1696 |
| Techno-stress Creators (TSC) | 0.5739 | 0.8429 | 0.0000 | 0.7553 | 0.5739 | 0.0000 |
| Technology Enabled Performance (TEP) | 0.6145 | 0.9050 | 0.1004 | 0.8752 | 0.6145 | 0.0413 |
| Technology Self-efficacy (TSE) | 0.6392 | 0.9132 | 0.0000 | 0.8872 | 0.6392 | 0.0000 |

**Table 4: AVE, Reliability and R-Square**

| | Path Coefficients | T-Values (significant at 0.05 level) | Hypothesis |
|---|---|---|---|
| Techno-stress Creators (TSC) to Role Stress (RS) | 0.435 | 6.35 | **H1: Supported** |
| Role Stress (RS) to Technology Enabled Performance (TEP) | -0.233 | 3.38 | **H2: Supported** |
| Technology Self-efficacy (TSE) to Role Stress (RS) | -0.167 | 2.85 | **H3: Supported** |
| Technology Self-efficacy (TSE) to Technology Enabled Performance (TEP) | 0.168 | 2.029 | **H4: Supported** |

**Table 5: Path Coefficients and T-values**

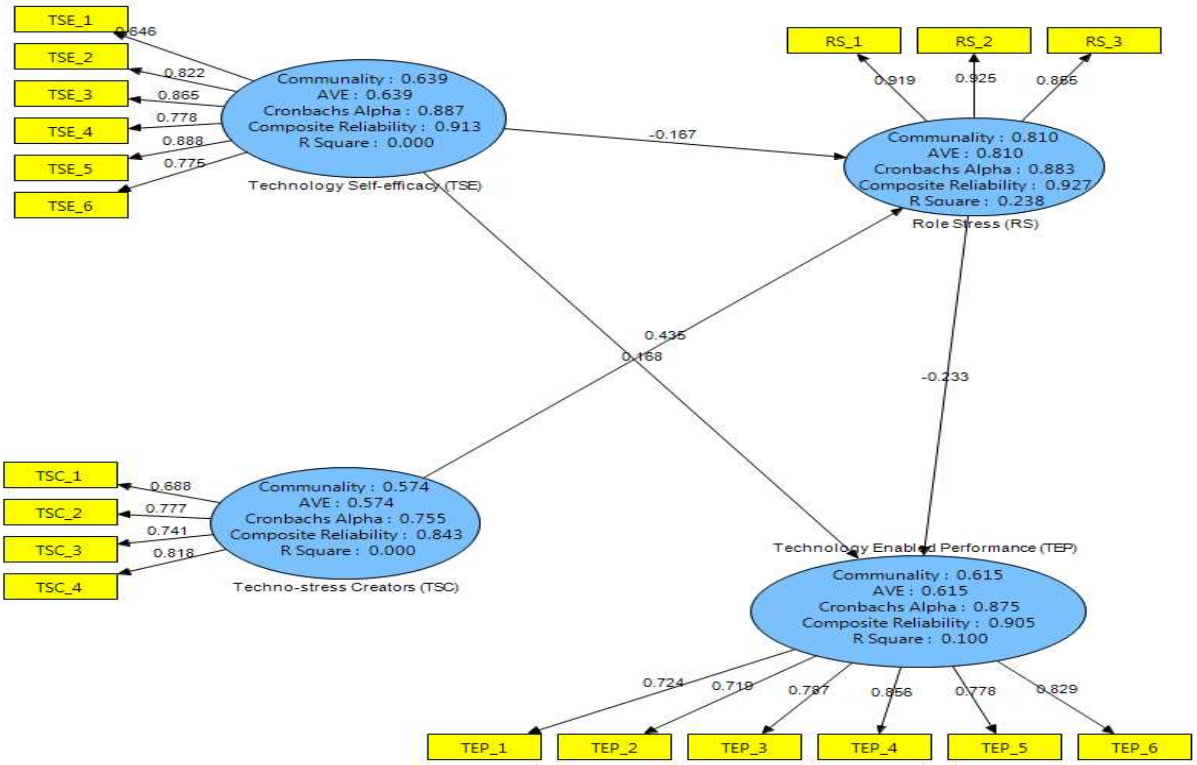


**Figure 2: PLS Path Model**

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