



UNIVERSITY OF LEEDS

This is a repository copy of *Managing Foreign Subsidiaries Remotely: The Role of Culture in Techno-Stress Appraisal and Well-Being*.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/186786/>

Version: Accepted Version

Article:

Adeniji, J and Igarashi, R (2022) Managing Foreign Subsidiaries Remotely: The Role of Culture in Techno-Stress Appraisal and Well-Being. *Journal of International Marketing*, 30 (3). pp. 83-89. ISSN 1069-031X

<https://doi.org/10.1177/1069031X22110384>

© American Marketing Association 2022. This is an author produced version of an article published in *Journal of International Marketing*. Uploaded in accordance with the publisher's self-archiving policy.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

**Managing Foreign Subsidiaries Remotely: The Role of
Culture in Technostress Appraisal and Well-being**

Journal:	<i>Journal of International Marketing</i>
Manuscript ID	JIM.20.0203.R4
Manuscript Type:	Special Issue Revised Submission
Keywords:	Conceptual/Theoretical < Methods, Cultural Dimensions < Topics, Global Strategy < Topics, Headquarters–Subsidiary Relations < Topics

SCHOLARONE™
Manuscripts

Managing Foreign Subsidiaries Remotely: The Role of Culture in Technostress

Appraisal and Engagement

Multinational enterprises' increased dependence on work-enabling technologies to manage global operations may contribute to foreign subsidiary employees' technostress – stress from interacting with technology. However, technostress may either have a positive or negative effect on employee and customer engagement, depending on the employee's appraisal of the techno-stressors. Based on transactional stress theory, the authors provide a conceptual model and research propositions to introduce the concept of technostress to international marketing scholars. The authors explore the role of the information systems environment and culture in employees' appraisal of techno-stressors and its ultimate effects on their wellbeing and performance. These propositions aim to encourage research that provides a fuller context of the technology-related challenges that multinationals may face in building employee and customer engagement across their subsidiary networks.

Keywords: technostress, transactional stress theory, remote work, culture, employee engagement, customer engagement.

Technology is crucial to managing international marketing teams, with global IT spending to support remote work expected to grow 5% to more than \$330bn in 2021 (Gartner 2021). The international marketing (IM) literature has many examples of how technology aids multinational enterprises' (MNE) global operations such as in facilitating knowledge transfer and collaboration amongst marketing teams across MNEs' subsidiary networks (e.g., Lee, Chen, and Lu 2009, Griffith and Lee 2016). Importantly, technology also helps marketing teams drive customer outcomes. Organizations that invest to improve customer-facing technology can increase customer satisfaction by 15-20% and reduce costs by up to 40% (McKinsey 2020a). However, despite the benefits of technology to marketing teams, its use may also have a dark side, which has been well-documented in the information systems and organizational behavior literatures (e.g., Tarafdar, Cooper, and Stich 2019; Pirkkalainen et al. 2019) but less so in IM. To fully explore the relationship between technology use, employee engagement, and marketing outcomes, we define engagement as “the attitude, behavior, [and] the level of connectedness” between employees and customers (Kumar and Pansari 2016, p. 498), which can drive important firm level outcomes like new product development via customer participation or cocreation (Griffith and Lee 2016; Leung, Tse, and Yim 2020). Therefore, to effectively meet their customers' needs, MNEs need to understand how employees' reliance on technology impacts engagement at work, and its ultimate effect on customer engagement, as a greater proportion of customer interactions occur virtually (McKinsey 2020b).

A key concept of growing significance that describes a potential downside of technology use is technostress – the stress from using work-enabling technologies (Tarafdar, Cooper, and Stich 2019); comprising hardware (e.g., mobiles, laptops) and the software that enable virtual collaboration (e.g., Zoom, Teams, Slack). Foreign subsidiary employees (FSEs) are tasked with exploiting the MNE's resources (like technological capacity) in

complex international markets (Meyer, Li, and Schotter 2020), and are thus critical in implementing the MNE's global strategy. However, HQ managers also need to be aware that country-level differences in the information systems (IS) environment and FSEs' cultural orientations will influence how they experience technostress, which has consequences for engagement. Given the recent shift in work structures that favor a greater reliance on technology for customer interaction, this article aims to encourage IM research that helps scholars and HQ managers better understand how culture influences their FSEs' appraisal of techno-stressors, and subsequent impact on engagement; an important variable in driving global marketing performance.

TRANSACTIONAL STRESS THEORY AND TECHNOSTRESS

Based on Lazarus and Folkman's (1984) transactional stress theory (TST), Tarafdar, Cooper and Stich (2019) conceptualized technostress as a multi-step process involving (1) an interaction with technology which exposes individuals to techno-stressors, prompting the individual to (2) appraise the techno-stressors as either challenging (positive appraisal) or threatening (negative appraisal); (3) and decide on a coping strategy; (4) which finally results in psychological, physical, or behavioral outcomes.

Tarafdar, Cooper and Stich (2019) identified five techno-stressors defined in Figure 1. Stressors are neither positive nor negative by nature (Hobfoll et al. 2018). Rather, individuals engage in a cognitive exercise to assess whether the perceived techno-stressors create opportunities for growth (challenging appraisal), or the potential to thwart the achievement of personal goals (threat appraisal) (Tarafdar, Cooper and Stich 2019). We make a distinction

between the perception of techno-stressors, being a physiological experience of environmental stimuli; and appraisal, being the psychological processing that occurs after perceiving the techno-stressors. TST adequately addresses this ‘open-to-interpretation’ nature of stressors and proposes that the appraisal of stressors will be influenced by individual differences (Lazarus and Folkman 1984). Despite the inherently negative connotation of technostress, TST proposes that individual differences are responsible for why some employees appraise techno-stressors as challenging (positive), rather than threatening (negative) (LePine, Podsakoff, and LePine 2005). For instance, self-efficacious individuals tend to appraise stressors as challenging; leading to greater creative performance, while the same stressors appraised as threatening by less self-efficacious individuals thwart creativity (Li, Chen, and Lai 2018).

Given the importance of individual differences in technostress appraisal, the literature would benefit from more theoretical investigation into boundary conditions that differentiate the appraisal of techno-stressors (Tarafdar, Cooper and Stich 2019). Based on our conceptual model (Figure 2), we develop propositions for research to enhance our understanding of how technostress affects employee engagement and subsequently, customer engagement. We discuss how characteristics of the IS environment influence FSEs’ perception of techno-stressors, and the moderating role of culture in technostress appraisal. Our discussion concludes with the proposed effects of technostress appraisal on employee and customer engagement based on engagement orientation (Kumar and Pansari 2016).

-Place Figure 1 about here-

-Place Figure 2 about here-

THE TECHNOLOGY ENVIRONMENT AND TECHNO-STRESSORS

According to TST, the first step of the technostress process involves an interaction with technology, which exposes the individual to techno-stressors (Tarafdar, Cooper and Stich 2019). FSEs rely on technology like videoconferencing and email to collaborate with colleagues and to serve customers (Badrinarayanan, Madhavaram, and Granot 2011). Such technology aiding remote work has been shown to improve communication, structure problem-solving processes, and goal attainment (Hertel, Geister, and Konradt 2005). However, studies have shown that characteristics of the IS environment such as reliability, mobility, and ease of use have the potential to create demands during technology use (Tarafdar Cooper and Stich 2019). Since our discussion aims to provide HQ managers with a more nuanced understanding of technostress across their global subsidiary network, we suggest that infrastructural and cost elements of the IS environment may also create demands. For example, the average download broadband speed in the USA and most of Western Europe is above 50 megabytes per second (mbps), but rarely above 10 mbps in many South American, African, and Asian countries (Cable.co.uk 2021). Download speed affects the amount of time individuals search for information on computers, with slower speeds increasing users' physiological stress (Trimmel, Meixner-Pendleton, and Haring 2003). Consequently, we expect unfavorable characteristics of the IS environment to contribute to inefficiencies in using technology which could trigger various techno-stressors. For instance, poor quality technology-supporting infrastructure could mean FSEs are unable to achieve their objectives within official working hours (driving techno-invasion); slower at getting accustomed to new technology (driving techno-complexity); and present barriers to meeting important job commitments (driving techno-insecurity). Hence, we propose:

P1: Unfavorable characteristics of the host countries' IS environment will increase the FSE's perception of techno-stressors.

INFLUENCE OF CULTURE ON TECHNOSTRESS APPRAISAL

Culture is a complex and dynamic system of shared meanings, with norms, beliefs, and values which influence cognition and offer prescriptions for behavior (Chun, Moos, and Cronkite 2006). Culture will influence the appraisal of techno-stressors since individuals with different cultural orientations have different attitudes towards technology (Baker and Delpechitre 2013). However, despite the importance of culture in influencing individuals' decision-making process and attitudes towards technology (Im, Hong, and Kang 2010), there is scarce knowledge on how culture influences individuals' appraisal of techno-stressors. Krishnan (2017) proposed that the big five personality traits and culture have a direct effect on the appraisal of techno-stressors, but this study was not grounded in the TST process since it did not explore the direct relationship between the IS environment and techno-stressors. According to TST, variables such as personality and culture are individual differences which influence the appraisal of techno-stressors; and thus play a moderating role in the technostress process (Tarafdar, Cooper and Stich 2019). Nevertheless, Krishnan's (2017) research provides clues on how we might expect culture to influence individuals' technostress appraisal.

We discuss culture as a boundary condition of technostress appraisal by drawing on the Hofstede framework. Despite limitations including theoretical and methodological inconsistencies, the Hofstede framework continues to be relevant in cross-cultural research across several management disciplines, and has been the most popular framework used in IM and IS research (Leonidou, Skarmeas, and Saridakis 2018; Lee, Trimi, and Kim 2013).

Power Distance. Individuals in higher power distance cultures tend to conform to norms and defer to authority, whereas individuals in lower power distance cultures value freedom of choice and autonomy in decision making (Hofstede, Hofstede, and Minkov 2010). Technology use is likely to be mandated from top management in high power distance cultures (Engelen and Brettel 2011). Consequently, in high power distance cultures, given a higher respect for authority, we would expect FSEs to make sustained efforts to use technology despite lapses in the IS environment. However, since low-power distance is related to lower conformity, FSEs in such cultures would be less motivated to find solutions to IS usage difficulties brought on by the IS environment. Additionally, employees in low power distance cultures make decisions independent of hierarchical expectations, and thus would perceive less pressure to contribute to group performance targets (Im, Hong, and Kang 2010) when faced with increased techno-stressors. Therefore, taking the subsidiary's IS environment and where employees lie on the power distance spectrum into account, we propose that:

P2: FSEs higher (lower) in power distance are more likely to appraise the increased perceptions of techno-stressors driven by unfavorable characteristics of the IS environment as challenging (threatening).

Individualism. A collectivist mindset creates an environment where employees are considerate of their colleagues' perspectives and accommodating of lapses in the IS environment, whereas an individualist mindset would see employees less willing to share knowledge, thus creating an environment where they find it more difficult to navigate an unreliable IS environment (Krishnan 2017). Employees in individualist cultures are independent decision makers and more likely to engage with technology out of self-interest

depending on their perception of how useful it is to their personal development rather than organizational goals (Lee, Trimi, and Kim 2013, Baker and Delpechitre 2013). Additionally, since individualists are less likely to have access to societal resources (Hobfoll et al. 2018) which allow them use technology more efficiently, they are more likely to appraise techno-stressors as threatening in an unfavorable IS environment. However, employees in collectivist cultures are more likely to have a supportive community to help troubleshoot lapses in the technology environment, increasing the likelihood that they recognize the benefits that technology will bring (Krishnan 2017), thus appraising techno-stressors as challenging. Furthermore, the collectivist employee's need for acceptance from the MNE manager will be related to their fear of reprisal for non-conformity (Baker and Delpechitre 2013). This assertion is confirmed by the strong relationship between collectivism and high power distance (Im, Hong, and Kang 2011). Therefore, the collectivist FSE is more likely to tolerate an unfavorable IS environment, appraising techno-stressors as challenging to align themselves with the MNE's goals. Taking the subsidiary's technological environment and where FSEs lie on the individualism-collectivism spectrum into account, we propose that:

P3: FSEs higher (lower) in individualism are more likely to appraise the increased perceptions of techno-stressors driven by unfavorable characteristics of the IS environment as threatening (challenging).

Long-term orientation. Long-term oriented cultures have attitudes that orient them to future rewards, whereas short-term oriented cultures are more concerned with immediate results (Hofstede, Hofstede, and Minkov 2010). Long term orientation is linked to Confucian values of hard work and perseverance, as well as dynamic thinking and accepting radical changes (Sharma, 2010), which implies that such employees are more likely to appraise

techno-stressors as challenging amidst an unfavorable IS environment. Additionally, these FSEs would not mind sacrificing their personal time to accommodate longer work hours in adapting to lapses in the IS environment, since they expect harder work to reap career rewards (Krishnan 2017). However, short-term orientation would enhance FSEs' appraisal of techno-stressors as threatening, since the inefficiency of navigating an unfavorable IS environment can detract from short-term goals, deadlines, and increase feelings of insecurity (Krishnan 2017). Therefore, taking the subsidiary's IS environment and where FSEs lie on the long-term orientation spectrum into account, we propose that:

P4: FSEs higher (lower) in long-term orientation are more likely to appraise the increased perceptions of techno-stressors driven by unfavorable characteristics of the IS environment as challenging (threatening).

Masculinity. Masculine cultures are success-oriented, valuing attributes like assertiveness, competitiveness, and material success in an environment that emphasizes high performance; whereas feminine cultures are process-oriented and more likely to encourage a collaborative environment (Hofstede, Hofstede, and Minkov 2010). We expect masculine attributes to drive an employee's willingness to master technology despite lapses in the technology environment, thus enhancing their appraisal of technostress as challenging. Employees in a masculine culture are more likely to prefer the efficiency and effectiveness that remote work technology offers (Sun and Zhang 2006) and would be more willing to take on heavy workloads to satisfy ego-enhancing goals (Krishnan 2017) like securing promotions and bonuses. Given that the attributes of feminine culture foster collaboration (Krishnan 2017), we also expect employees in such cultures to have dependable colleagues to lean on should unfavorable characteristics of the technology environment increase techno-stressors.

As a result, employees in feminine cultures should also be more likely to appraise an increase in techno-stressors as challenging. However, because feminine cultures place a greater value on interpersonal relationships than personal goals (Krishnan 2017), prefer the context richness of face-to-face communication, and consider technology to be less useful in maintaining relationships (Sun and Zhang 2006) such as with customers, we believe that the positive moderating effect on technostress appraisal will be weaker than in feminine cultures. Therefore, taking the subsidiary's IS environment and where managers lie on the masculine-feminine spectrum into account, we propose that:

P5: FSEs at both high and low levels of masculinity are likely to appraise the increased perceptions of techno-stressors driven by unfavorable characteristics of the IS environment as challenging. However, this effect is expected to be weaker for FSEs with lower masculinity.

Uncertainty avoidance. Cultures higher in uncertainty avoidance tend to be threatened by ambiguity, whereas cultures lower in uncertainty avoidance are less fazed by novelty and experimentation (Hofstede, Hofstede, and Minkov 2010). Since employees in higher uncertainty avoidance cultures tend to take less risks and engage less in proactive behavior (Kreiser et al. 2010), we expect them to be less comfortable working with technology (Im, Hong, and Kang 2010), especially in situations where the IS environment proves unpredictable and undependable, e.g., frequent power outages, intermittent slowdown in broadband speed. On the other hand, employees in lower uncertainty avoidance cultures should find an increased perception of techno-stressors less daunting. They would more easily adapt to working with tight schedules and changing their work habits to accommodate an undependable IS environment (Krishnan 2017). In general, higher uncertainty avoidance

creates a perception of having to constantly fight threats, which heightens stress and anxiety, whereas FSEs in lower uncertainty avoidance cultures could consider uncertainty an opportunity for innovation (Engelen and Brettel 2011). Therefore, taking the subsidiary's IS environment and where managers lie on the uncertainty avoidance spectrum into account, we propose that:

P6: FSEs higher (lower) in uncertainty avoidance are more likely to appraise the increased perceptions of techno-stressors driven by unfavorable characteristics of the IS environment as threatening (challenging).

INFLUENCE OF TECHNOSTRESS APPRAISAL ON ENGAGEMENT

FSEs' technostress appraisal will impact their work engagement (Tarafdar, Cooper and Stich 2019), a strong indicator of employee well-being (Bakker and Demerouti 2017) and an important driver of organizational success (Eldor and Harpaz 2016). In conceptualizing engagement for this discussion, we draw on engagement orientation (Kumar and Pansari 2016) which offers a marketing-centric explanation of engagement, defined as the level of connectedness between customers and employees in a firm. The central thesis of engagement orientation is that engaged employees (comprising employees' satisfaction, organizational identification, commitment, loyalty, and performance) drive customer engagement (i.e., customer purchases, referrals, social influence, and knowledge sharing) (Pansari and Kumar 2017).

TST (Lazarus and Folkman 1984) explains that individuals respond to stress using coping behaviors consistent with their appraisal of techno-stressors, which drives well-being

outcomes such as engagement. Individuals that appraise techno-stressors as challenging are more likely to act proactively to make technology work for them (Pirkkalainen et al. 2019). However, a threat appraisal of techno-stressors could lead to threat-coping behaviors such as disparaging the organization and its policies, a likely precursor to organizational disengagement and poor performance (LePine, Podsakoff and LePine 2005; Maynes and Podsakoff 2014).

FSEs' challenge appraisal of techno-stressors should allow for proactive behavior that helps them cope with work stress by encouraging communication with colleagues and managers to find innovative ways to solve customer problems, hence driving employee engagement. In turn, engaged employees are more likely to have positive interactions with the firm's customers, driving customer engagement (Kumar and Pansari 2016). However, an FSE's threat appraisal of techno-stressors could lead to anti-organizational behaviors indicative of dissatisfaction and emotional instability (LePine, Podsakoff, and LePine 2005), thereby negatively affecting employee engagement. Although threat coping behaviors help individuals 'let off steam', they also rationalize an inability to work well with the technology and minimize further interaction with technology (Pirkkalainen et al. 2019), which would negatively impact customer engagement especially as customer interactions become increasingly virtual. Hence, we propose:

P7a: FSEs' challenge appraisal of technostress will be positively related to employee engagement, which in turn drives customer engagement.

P7b: FSEs' threat appraisal of technostress will be negatively related to employee engagement, which in turn negatively impacts customer engagement.

CONCLUSION

Understanding how the technostress process impacts employee engagement across different cultures is important as MNEs' global operations increasingly depend on virtual employee and customer interactions. In this short article, we proposed future research opportunities to better understand the effects of technostress across an MNE's subsidiary network since a 'one-size-fits-all' approach to managing global remote marketing teams is unlikely to be effective. Importantly, we propose that TST can provide a more nuanced understanding of how culture impacts employees' appraisal of techno-stressors, which has consequences for employee and customer engagement. This article should serve as a point of reference for future empirical research expanding our knowledge of the effects of technostress on MNEs' marketing performance.

REFERENCES

Badrinarayanan, Vishag, Sreedhar Madhavaram, and Elad Granot (2011), "Global virtual sales teams (GVSTS): A conceptual framework of the influence of intellectual and social capital on effectiveness." *Journal of Personal Selling & Sales Management*, 31 (3), 311-324.

Baker, David S., and Duleep Delpechitre (2013), "Collectivistic and individualistic performance expectancy in the utilization of sales automation technology in an international field sales setting." *Journal of Personal Selling and Sales Management*, 33 (3), 277-288.

Bakker, Arnold. B., and Demerouti, Evangelia (2017), "Job demands-resources theory: Taking stock and looking forward." *Journal of Occupational Health Psychology*, 22 (3), 273-285.

Cable.co.uk (2020), "Worldwide broadband speed league 2021" (accessed March 6, 2022), <https://www.cable.co.uk>.

Chun, Chi-Ah, Rudolf H. Moos, and Ruth C. Cronkite (2006), "Culture: A fundamental context for the stress and coping paradigm." *Handbook of Multicultural Perspectives on Stress and Coping*, Chap. 2. Boston, MA: Springer, 29-53.

Eldor, Liat, and Itzhak Harpaz (2016), "A process model of employee engagement: The learning climate and its relationship with extra-role performance behaviors." *Journal of Organizational Behavior*, 37 (2), 213-235.

Engelen, Andreas, and Malte Brettel (2011), "A cross-cultural perspective of marketing departments' influence tactics." *Journal of International Marketing*, 19 (2), 73-94.

Gartner (2021), "IRM 2021: The Year of Uncertainty and Change" (accessed October 18, 2021), <https://blogs.gartner.com>.

Griffith, David A., and Hannah S. Lee (2016), "Cross-national collaboration of marketing personnel within a multinational: Leveraging customer participation for new product advantage." *Journal of International Marketing*, 24 (4), 1-19.

Hertel, Guido, Susanne Geister, and Udo Konradt (2005), "Managing virtual teams: A review of current empirical research." *Human Resource Management Review* 15 (1), 69-95.

Hobfoll, Stevan. E., Halbesleben, Jonathon., Neveu, Jean-Pierre., and Westman, Mina (2018), "Conservation of resources in the organizational context: The reality of resources and their consequences." *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 103-128.

Hofstede, Geert, Gert Jan Hofstede, and Michael Minkov (2010), *Cultures and Organizations: Software of the Mind*. New York, NY: McGraw-Hill.

Im Il, Seongtae Hong, and Myung Soo Kang (2011), "An international comparison of technology adoption: Testing the UTAUT model." *Information and Management*, 48 (1), 1-8.

Kreiser, Patrick M., Louis D. Marino, Pat Dickson, and K. Mark Weaver (2010), "Cultural influences on entrepreneurial orientation: The impact of national culture on risk taking and proactiveness in SMEs." *Entrepreneurship Theory and Practice*, 34 (5), 959-984.

Krishnan, Satish (2017), "Personality and espoused cultural differences in technostress creators." *Computers in Human Behavior*, 66, 154-167.

Kumar, Viswanathan, and Pansari, Anita. (2016), "Competitive advantage through engagement", *Journal of Marketing Research*, 53 (4), 497-514.

Lazarus, Richard S., and Susan Folkman (1984), "Stress, appraisal, and coping". New York: Springer publishing company.

Lee, Ruby P., Qimei Chen, and Xiongwen Lu (2009), "In search of platforms to increase market responsiveness: Evidence from foreign subsidiaries." *Journal of International Marketing*, 17 (2), 59-73.

Lee, Sang-Gun, Silvana Trimi, and Changsoo Kim (2013), "The impact of cultural differences on technology adoption." *Journal of World Business*, 48 (1), 20-29.

Leonidou, Constantinos N., Dionysis Skarmeas, and Charalampos Saridakis, (2018), "Ethics, sustainability, and culture: A review and directions for research." *Advances in Global Marketing*, 471-517.

LePine, Jeffery A., Nathan P. Podsakoff, and Marcie A. LePine (2005), "A meta-analytic test of the challenge stressor-hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance." *Academy of Management Journal*, 48 (5), 764-775.

Leung, Fine F., Caleb H. Tse, and Chi Kin Yim (2020), "Engaging customer cocreation in new product development through foreign subsidiaries: Influences of multinational corporations' global integration and local adaptation mechanisms." *Journal of International Marketing*, 28 (2), 59-80.

Li, Fuli, Chen, Tingting, and Lai, Xn. (2018), "How Does a Reward for Creativity Program Benefit or Frustrate Employee Creative Performance? The Perspective of Transactional Model of Stress and Coping", *Group and Organization Management*, 43 (1), 138-175.

Maynes, Timothy D., and Philip M. Podsakoff (2014), "Speaking more broadly: An examination of the nature, antecedents, and consequences of an expanded set of employee voice behaviors." *Journal of Applied Psychology*, 99 (1), 87-112.

McKinsey (2020a), "Adapting customer experience in the time of coronavirus" (accessed October 18, 2021), <https://www.mckinsey.com>.

McKinsey (2020b), "Service industries can fuel growth by making digital customer experience a priority" (accessed January 15, 2021), <https://www.mckinsey.com>.

Meyer, Klaus E., Chengguang Li, and Andreas PJ Schotter (2020), "Managing the MNE subsidiary: Advancing a multi-level and dynamic research agenda." *Journal of International Business Studies*, 51 (4), 538-576.

Pansari, Anita., and Kumar, Viswanathan (2017), "Customer engagement: The construct, antecedents, and consequences", *Journal of the Academy of Marketing Science*, 45 (3), 294-311.

Pirkkalainen, Henri, Markus Salo, Monideepa Tarafdar, and Markus Makkonen (2019), "Deliberate or instinctive? Proactive and reactive coping for technostress." *Journal of Management Information Systems*, 36 (4), 1179-1212.

Sharma, Piyush, (2010), "Measuring personal cultural orientations: scale development and validation", *Journal of the Academy of Marketing Science*, 38 (6), 787-806.

Srivastava, Shirish C., Shalini Chandra, and Anuragini Shirish (2015), "Technostress creators and job outcomes: theorizing the moderating influence of personality traits." *Information Systems Journal*, 25 (4), 355-401.

Sun, Heshan, and Ping Zhang (2006), "The role of moderating factors in user technology acceptance." *International Journal of Human-Computer Studies*, 64 (2), 53-78.

Tarafdar, Monideepa, Cary L. Cooper, and Jean-François Stich (2019), "The technostress trifecta-techno eustress, techno distress and design: Theoretical directions and an agenda for research." *Information Systems Journal*, 29 (1), 6-42.

Trimmel, Michael, Monika Meixner-Pendleton, and Sandra Haring (2003), "Stress response caused by system response time when searching for information on the Internet." *Human Factors*, 45 (4) (2003): 615-622.

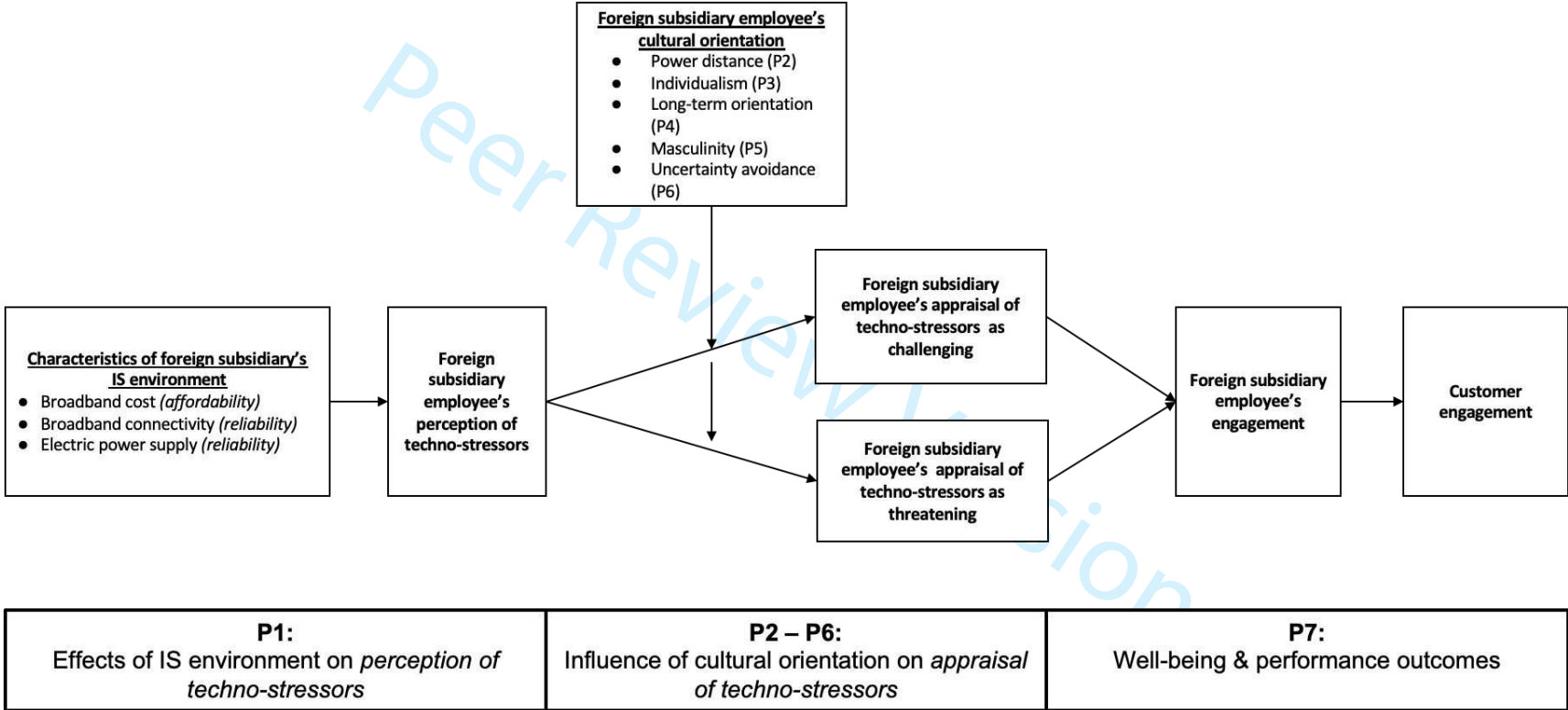
Peer Review Version

Figure 1: Techno-stressor Definitions

Techno-overload	<ul style="list-style-type: none">• Increased and faster workload due to the use of technology
Techno-invasion	<ul style="list-style-type: none">• Perception that the use of technology blurs the boundary between work and home
Techno-complexity	<ul style="list-style-type: none">• Feeling incompetent using technology
Techno-insecurity	<ul style="list-style-type: none">• Fear of losing one's job by being replaced by technology or individuals with superior technological skills
Techno-uncertainty	<ul style="list-style-type: none">• An unsettling feeling of constantly having to learn and adjust to new technology

From Tarafdar, Cooper, and Stich (2019)

Figure 2: Technostress Model for IM Research Based on Transactional Stress Theory



Dear Prof Hewett, Associate Editor, and Reviewers,

We are very happy to have reached this stage of conditional acceptance, and thank all of you for the very helpful feedback, which has helped to greatly improve the quality of the manuscript. We have read and addressed your comments carefully and revised our paper; keeping it within the word limit.

We happily agreed to many of the suggestions, but have had to carefully consider others due to space limitations and keeping the discussion focused on the primary theme of internationality and culture. Hence, we have proposed to remove Figure 1 if we are granted some leeway to slightly exceed the word limit so that we might provide the definitions of the techno-stressors. Being a relatively novel concept in our literature, we feel that readers may find the additional information useful. Regarding the addition of more variables to the model and discussion, we feel that after having initially streamlined the model to make it more pertinent to an important IM theme, re-expansion may run counter-productive to earlier helpful feedback to highlight the relevance of the topic to IM.

We have created a table below to provide you with actions we have taken to edit our paper based on your comments. We hope you will see the vast improvement of our paper and find it a good fit for the journal.

Best regards,

The Authors

1) Abstract:

AE's Comments	Comments from authors	Page No.
Please drop the term "entirely" as this suggests a full mediation which might or not be given.	We agree with this suggestion and have modified the phrasing accordingly.	P1
Why does the abstract focus on Non-Western countries? Based on my understanding, this model might be tested in any country, with different expected outcomes.	We agree with this suggestion and have modified the phrasing accordingly.	P1
IS: Please don't use abbreviations in the abstract.	We have removed all abbreviations in the abstract and have made other alterations to align with the journal's style conventions.	P1

2) Research Propositions

AE's Comments	Comments from authors	Page No.
P1: I am unclear whether this captures the paths to both appraisal types in Figure 2? If so, would it be helpful to explicitly relate to (i) challenging and (ii) threatening appraisals?	Thank you for your comment. Generally, technostress studies determine whether an individual has appraised technostress as challenging or threatening based on the resulting effect on engagement (e.g., Srivastava, Chandra, and Shirish 2015, <i>Technostress creators and job outcomes: theorising the moderating influence of personality traits</i>). However, we agree that some clarifications here might be beneficial to readers. We have decided to show the direct relationship between the IS environment and technostress perception in the theoretical model; so that it more closely mirrors the discussion in the	P5-6

	manuscript, especially where we make the distinction between stress perception and stress appraisal.	
P5: This PP is structured differently compared to P2-P4 and P6. Please rephrase for consistency, if feasible.	We agree that uniformity in constructing the hypotheses would have been ideal. However, for P5, we have explained that both high levels of masculinity as well as low levels (i.e., femininity) provides the individual with resources to positively appraise technostress (i.e., challenge appraisal); but with the stronger positive appraisal effect at high levels of masculinity. Nevertheless, to make sure this distinction is clearer, we have changed P5 slightly.	P10
P7b: This PP should read as an independent PP, hence please avoid using "But" in its wording.	We agree with this suggestion and have modified the construction accordingly.	P12

3) Figures

AE's comments	Comments from authors	Page No.
Figure 1: Given that the model doesn't refer to these dimensions, I recommend dropping Figure 1.	<p>Thank you for your comment. Although the model does not reflect the individual techno-stressor dimensions, we have referred to them in the manuscript (p.5) and have used the figure to save space in having to define each one. Additionally, given the novelty of the concept of technostress in international marketing, we believe readers might find it useful to have these definitions handy.</p> <p>Alternatively, we could include a short paragraph defining the techno-stressors if we are allowed to exceed the word limit slightly.</p>	P5

Figure 2: Might it be useful to add the numbers of the corresponding PP to the paths?	We agree and thank you for this suggestion. We have included descriptions of the paths in Figure 2 in a way that is helpful to the reader and keeps the figure organized, especially since we have not drawn individual paths for each of the moderating relationships. We hope you approve of the overall changes made to improve the clarity of the model.	P21
---	--	-----

4) Wording

AE's comments	Comments from authors	Page No.
P. 2: The term "knock-on effects" appears uncommon. Please rephrase.	We agree with this suggestion and have modified the phrasing accordingly.	P2
P. 6: The sentence starting with "Although Kristian..." reads lengthy and humble. Please re-phrase.	We agree with this suggestion and have modified the phrasing accordingly.	P6

Reviewer: 3

Comments to the Author

The following opinions are provided only to improve the study.

R3's comments	Comments from authors	Page No.
-The dimension of characteristics of foreign subsidiary's IS environment of the study focuses on the affordability and reliability of broadband and power supply. However, information system characteristics, such as complexity, interface design, could lead to employee's appraisal of technostress as	Thank you for your comment., Ayyagari, Grover, and Purvis (2011) and Galluch, Grover, and Thatcher (2015) - both cited in Tarafdar, Cooper, and Stich (2019) have explored several technology characteristics and their effects on different work stressors. We also agree and expect the	P5

<p>challenging or threatening. In the situation, individual self-efficacy plays an important role in appraising technostress as challenging or threatening. In the study, the IS environment does not describe the characteristics of information systems that cause employee's appraisal of technostress, but focuses only on affordability and reliability of resources.</p> <p>The study of Ayyagari, Grover and Purvis (2011, MIS Quarterly) uses a person-environment fit model and proposes that certain technology characteristics — such as usability (usefulness, complexity, and reliability), intrusiveness (presenteeism, anonymity), and dynamism (pace of change) — are related to Stressors (work overload, role ambiguity, invasion of privacy, work-home conflict, and job insecurity). Their study indicates the importance of technology characteristics.</p>	<p>characteristics discussed in these studies to have effects on technostressors. However, we have decided to emphasize more macro-level characteristics relating to infrastructure and utility costs which will likely affect FSEs differently based on their country of residence. Such characteristics have not yet received adequate attention in the information systems literature. We believe focusing on these characteristics would be more pertinent to HQ managers looking after global subsidiaries as well as advancing our knowledge of technostress.</p> <p>One of our contributions in this article is to encourage cross-country studies that show the effects of the technology infrastructure environment (since infrastructure differs globally) on the technostress process - a relationship we have had difficulty finding evidence of in the literature. As with other parts of the model, we decided against an exhaustive list of variables that could influence the technostress process, so that we could better focus our discussion on the areas we can encourage theoretical contributions.</p> <p>We have made a slight amendment to the discussion on p.5 accordingly, which we hope should suffice for this research note; conscious of space limitations.</p>	
--	---	--

<p>Culture may not be the only reason which moderates the impact of IS environment. For example, personal IT experience could moderate employee's appraisal of IS as challenging or threatening. Rich IT experience helps employees appraise IS as challenging.</p> <p>Furthermore, the study indicates that "This distinction between perception and appraisal is evident when considering an individual difference such as self-efficacy. For instance, self-efficacious individuals tend to appraise stressors as challenging; leading to greater creative performance, while the same stressors appraised as threatening by less self-efficacious individuals thwart creativity (Li, Chen, and Lai 2018)." Why the impact of self-efficacy is not discussed in the model. Please justify.</p>	<p>Thank you for your comment. We absolutely agree that many other variables like personality (Srivastava, Chandra, and Shirish 2015) and aspects of organizational culture (Tarafdar, Cooper, and Stich 2019) can moderate employees' appraisal of technostress. We gave an example of self-efficacy being an individual difference that can lead individuals to appraise stress either positively or negatively purely for illustration and to explain the theory better. The focus of this paper is on the effects of culture, which is a popular theme in international marketing studies; where we would like to encourage future research.</p> <p>In an earlier submitted manuscript, previous versions of our theoretical model had many examples of moderators, well-being and performance outcomes; but we have since streamlined the model and discussion to show the article's relevance to international marketing. We intend to explore other groups of moderators in future studies.</p>	P5-6
<p>Power supply and broadband availability and speed affect people's well-being, not only employee's well-being.</p>	<p>Thank you for your comment. We concur that power supply and broadband availability can impact all people's well-being. However, employees are the focal subject of our</p>	N/A

	article, hence our emphasis remains on them.	
--	--	--

Peer Review Version