Coping Strategies for Technostress as a Challenge in a Digitized Working Environment

Masterarbeit

zur Erlangung des akademischen Grades „Master of Science (M.Sc.)" im Studiengang Wirtschaftswissenschaft der Wirtschaftswissenschaftlichen Fakultät der Leibniz Universität Hannover

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Hannover, den 28.09.2017

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1 Introduction

One of the greatest challenges for companies is to react quickly to changes. There have always been market changes. However, it is new that cycles of technological or social changes become shorter and more dramatic. With the increasing digitalization, the working environment has changed massively. The adaption and use of digital technologies lead to a reengineering of business processes and organizational structures. Companies migrate analogue approaches to digital formats (digitization) or even perform change processes towards a digital business with new revenue and value creation options (digitalization) (c.f. Gartner Inc., n.d.). In addition, the interactions between individuals and organizations change (c.f. Ragu-Nathan et al., 2008, p. 417). But not only organizations have to adjust to keep up with the current pace of changes. The workforce is supposed to keep up with the rapid technological development to meet varying work procedures according to information and communication technology (ICT) requirements. The increasing use of ICTs leads to productivity gains as the accomplishment of work tasks as well as the information and knowledge transfer gets more efficient. However, the use of technology can also have a negative impact on the employees (c.f. Galluch, Grover & Thatcher, 2015, p. 2). The "[…] same technologies can make them feel compulsive about being connected, forced to respond to work-related information in real time, trapped in almost habitual multitasking and left with little time to spend on sustained thinking and creative analysis." (Tarafdar et al., 2011, p. 114). ICT-intensive work processes often lead to situation that fewer employees must do the same workload (c.f. Wang, Shu & Tu, 2008, p. 3003). Figure 1 exemplifies how German employees assess the effects of digitization on their workplaces. It reveals, that the stress level of the workforce is increasing because of digital transformation.
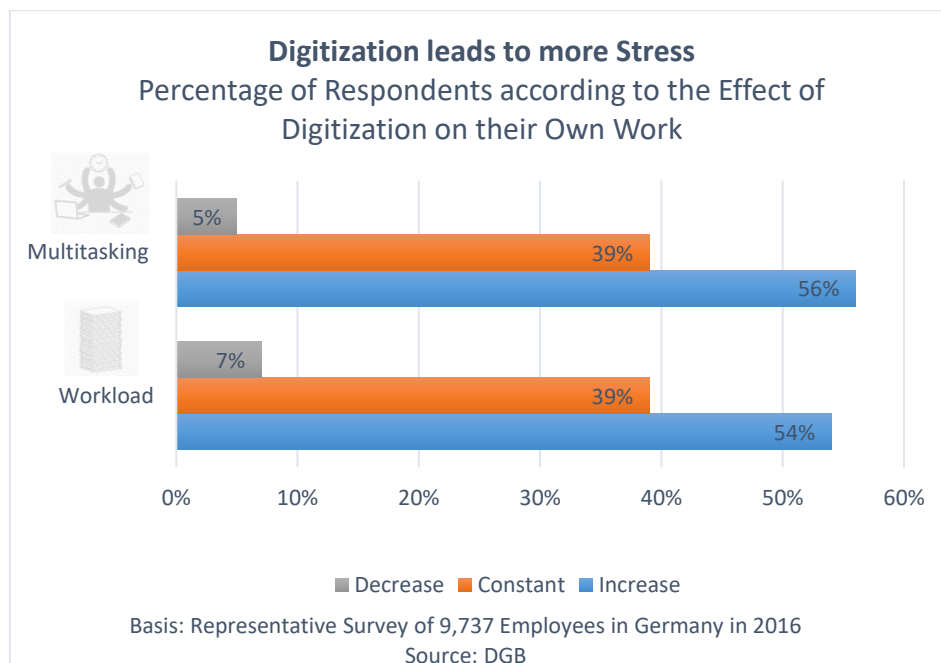

Figure 1: Impact of Digitization on Employees
Own Illustration according to Nier (2016)

In this context, the term "technostress" has been established. Individuals experience technostress due to the use of technologies. This phenomenon is a part of the broad spectrum of stress research. The positive impact of IT usage has been analyzed by numerous researchers. Nowadays, the focus is on the potential negative effects that influence organizational and social life (c.f. Tarafdar, Gupta, & Turel, 2013, p. 269).

For some time past, the causes and implications of technostress have been intensively researched. However, the aspect of coping with technology-induced stress situations is still neglected. Therefore, the aim of this thesis is to investigate how coping influences the technostress phenomenon (RQ 1) and how and why employers should support employees to mitigate negative effects of ICT use (RQ 2). The first research question aims to establish a connection between the general stress literature and the technostress literature. By means of the transmission of a well-recognized stress model, existing technostress models will be expanded. The second research question aspires to supplement the findings of research literature with practical experience and to identify possible gaps in research.

This thesis is structured as follows to answer the research questions. The methodology is visualized in figure 2. The introduction is followed by theoretical foundations in chapter 2 to create a basic understanding. This includes the presentation of the central concepts in stress and technostress research as well as the idea of coping strategies. In chapter 3 a literature review according to Webster and Watson (2002) is undertaken, which is based on the theoretical concepts of the second chapter. Chapter 4 displays the structure of interviews, which are based on findings of the previous chapter and will be analyzed according to these concepts. The focus of the interviews is on constant work-related availability as a central stress factor in technostress context. Based on this, a critical discussion of the results is displayed in chapter 5 in order to identify the significance of coping in the technostress context and to identify measures for successful management. In chapter 6 limitations are stated, followed by a summary of the overall findings.

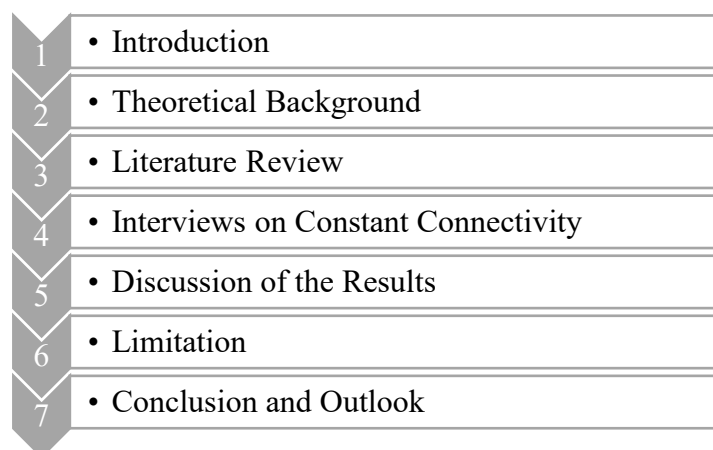|	
1	• Introduction
2	• Theoretical Background
3	• Literature Review
4	• Interviews on Constant Connectivity
5	• Discussion of the Results
6	• Limitation
7	• Conclusion and Outlook

Figure 2: Structure of the Thesis
Source: Own Illustration

vidual stress perception. The expert interviews were conducted in addition to the literature review to find out which possibilities organization have to support their employees in coping with components of the technostress phenomenon and which challenges are related with mitigation mechanisms. The interlocutors were interviewed on the topic of extended work-related availability. To focus on this component of techno-invasion was appropriate, since it is already known and various measures/strategies are applied at the individual and organizational level. The identification of experts, who have experience with all components of the technostress phenomenon would have become very difficult. Many conclusions could be drawn from the interviewer's statements on the superior technostress phenomenon. However, some aspects of coping with techno-invasion are so specific that no generalized statements could be made for other components. Furthermore, not all aspects of the literature review could be queried by the interview questions. This would have go beyond the scope of the interviews and this thesis. The interview guideline was designed in a way that it did not influence the interviewees. Representatives from various departments and industries were interviewed. However, for further research in this area an increase in the sample size as well as the survey of persons from other areas and from other countries would be advisably. The survey of foreign experts could expand the findings. Furthermore, questioning employees would be a chance to study the stress perception and the effectiveness of the mitigation mechanism.

7 Conclusion and Outlook

Information and communication systems change work processes in organizational life. Companies benefit, among other things, from efficiency gains and the speed of information processes. However, research proves that the increased use of ICT at workplaces can have a negative impact on employees and organizational outcomes. So far, researchers have been able to identify five technostress creators and to derive first findings on the effects. With the help of a structured literature analysis according to Webster and Watson (2002), the state of the art was derived. It was revealed that coping strategies for technostress as a challenge in a digitized working environment constitute a research gap. It has been shown that the transfer of the transactional stress model into existing technostress models offers an additional value and helps to understand the phenomenon and relationships better. Global competition makes the use of ICT unavoidable. Thus, it should be a management interest to understand why technostress occurs, which negative consequences arise and how these can be alleviated. The research results are not unambiguous yet. Therefore, expert interviews were conducted to discuss mitigation measures. By comparing the theoretical and practical findings two aspects became clear. On the one hand, it is shown that the integration of coping into technostress research is meaningful. Implications for future studies have been derived. On the other hand, the results give organizations an advice how to deal with technostress within the company.

Up to now, research has been neglected that coping strategies influence the stressor-strain relationship. Stress literature is slowly being considered to understand how technostress varies between individuals. Based on the transactional stress model of Lazarus and Folkman (1984), one can theoretically explain how people react to technostress. Generally, personal circumstances and resources as well as the organizational environment and resources influence whether an event is perceived as stressful (appraisal process). Further research is needed to clarify how these factors affect individual perception of technostress. So far, results are still not unequivocal. For instance, further research is needed about the influence of variables like age on the phenomenon. The influence of seniority as well as the changes over life-phases have to be investigated. Future generations in the labor market are growing up with technology and thus have the same prerequisites. Until now, the this is a difference between age cohorts. In the course of the literature analysis and the interviews, various technostress inhibitors were highlighted, which influence the appraisal process and mitigate negative effects. Organizational framework conditions should be designed to grant employees a sufficient degree of autonomy to cope with daily hassles and other stressors. In addition, the acceptance of new technologies can be increased by the involvement of employees in the development and implementation process. Moreover, companies can train their employees to cope with different technologies by teaching different coping strategies. The focus should be on problem-focused strategies such as the distribution of knowledge how to set up functions. Problem-focused strategies facilitate to change the initial situation and reduce the technostress level more consistently than emotions-focused strategies. Nevertheless, it is not important to train employees emotion-focused coping strategies, which are applicable if a situation cannot be changed. Social support in terms of technical support and creation of an open knowledge transfer (literacy facilitation) are supportive measures in addition to training. With the help of the interviewees, it is shown that stress is perceived in quite different ways by using the example of techno-invasion. This reinforces the call for the integration of coping processes in technostress research. Furthermore, this example demonstrates that employees cope with stressors differently. Some employees voluntarily use offers, which facilitate the extended work-related availability. However, some employees are affected by techno-invasion because, for example, there are insufficient capabilities for representation. Furthermore, it should not be neglected that the use of mobile devices not only invade from professional life to private life, but also vice versa. The example of extended work-related availability also reveals the difficulties for selection of mitigation measures. Business requirements need to be considered. Expectations of availability should be defined to prevent misuse of authority and to ensure compliance with legal requirements. Individual needs of the employees asked for customization - for example, provision of dual SIM cards, options to set up system notifications or designing flexible working hour models. Providing different options is an opportunity to meet needs of different stress types. The challenge is to prevent appraisals of potential stressors as a threat, but to facilitate the appraisal as a challenge, which promises a gain for the individual. It has been shown that many companies only take few measures to avoid or

reduce technostress. For many organizations, the focus of stress management measures is on the general stress level. The most widespread stress triggers are the workload and the speed and quantity of changes. These developments are often related to the use of ICT. Therefore, the topic of technostress should always be addressed in companies and linked to the general stress prevention measures. Executives play a crucial role, as they are the first ones to notice, if an employee shows off stress symptoms. In addition, the example of techno-invasion points out that executives influence their employees through their own (communication) behavior. Furthermore, it became clear that executives belong to the employment group, which is the most affected by techno-invasion. Therefore, measures should be taken that concern not only employees of the lower hierarchical level, but also measures for higher hierarchical levels.

In summary, technostress is a phenomenon, which has not been fully researched yet. For a comprehensive understanding of the interrelations, technostress models should consider coping processes. However, companies should already have an interest in sensitizing their employees and executives how to cope with technology induced stressors. The challenges of a digitized workplace can only be met if the organizations support their employees in maintaining their health and develop their skills.