Dynamics of Contextual Factors, Technology Paradox, and Job Performance in Smartphone Usage:
A Systematic Review

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ABSTRACT

The purpose of this paper is to explore the theories pertaining to the dynamics of contextual factors, technology paradox, and job performance of employees so as to answer specific questions related to the theories' progressive advancement and to evaluate the relationships among them in the context of mobile phones using the evidence-based systematic review methodology. The term technology paradox has evolved over past decades, and theories have been postulated to explain its nature and relationships with its antecedents and outcomes; however, there is a dearth in the integrative models. Thus, the theory of paradox has been combined with other theoretical lenses to conceptualize tensions and responses to enrich extant theories on technology paradox and job performance. The finding of the study identifies seven research gaps in the available literature, which need to be plugged so that a holistic model is developed to address the interrelationships among the aforementioned research constructs.

KEYWORDS

INTRODUCTION

Technology paradox has been an active area of research since the past decade, but its relationship with the performance of employees in the workplace is relatively underexplored. The word technology in the technology paradox refers to various technologies used in service and manufacturing industries in general, but the focus of this research is information and communication technologies (ICTs), mainly smartphones in the workplace, and their relationship with employees' *job performance*. A paradox is a widely spread phenomenon in organizations (Lewis & Smith, 2014). In the context of technology, a paradox manifests when technology users recognize the opposing outcomes of technology use due to the conflict between their initial expectations of how technology is supposed to function and the actual performance of technology (Mazmanian, Orlikowski, & Yates, 2013; Mick & Fournier, 1998). Contemporary workplaces are characterized by uncertainty and unpredictability that impact employees working within such ambiguous business environments (Cullen, Edwards, Casper, & Gue, 2014), and technology, as a context, can act as a driving factor to the emergence of

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a technology paradox, which further provokes tensions and internal conflicts in employees that need to be addressed by workers as well as their organizations (Bruzzi & Joia, 2015; Clegg, Cunha, & Cunha, 2002). Therefore, technology as a context makes latent tensions more salient, thereby enabling researchers to easily identify them (Jarzabkowski, Lê, & Van de Ven, 2013). However, traditional rational technology acceptance theories are insufficient for explaining the intuitive and automatic behavior of employees using smartphones for work-related purposes (Buettner, 2015), and there is a need for a thorough review of the underpinning theories in this area.

BACKGROUND

The notion of technology paradox has received attention in the literature from the work of Mick and Fournier (1998), who had undertaken the pioneering work specifically in the consumer's perspective and provided the basic model of technology paradox. Based on this model, Jarvenpaa and Lang (2005) identified eight technology paradoxes through semi-structured interviews; however, there were ambiguities between the dimensions that were to be clarified through further investigation. Ter Hoeven, van Zoonen, and Fonner (2016) studied the practical paradox of technology in communication technology use for work, which enables spatial and temporal flexibility, and found that communication technology use increases well-being through accessibility and efficiency, while at the same time, decreasing well-being through interruptions and unpredictability. This research relied on cross-sectional data, so causation was not possible. Ratna and Kaur (2016) studied the impact of technology on job-related aspects and found that newer technologies had an impact on the performance of employees, but this research was based on convenience sampling, and its generalization remained questionable. Van Zoonen and Rice (2017) examined the paradoxical implications of personal social media use for work on employees' autonomy and work pressure and how those relationships are moderated by employees' sense of responsiveness to colleagues' social media use. The study concluded that employees were more likely to be stressed by the use of personal social media than to benefit from it. Therefore, there is a scope to extend this study using mobile applications of social media platforms, which differ in features and functionalities, as they provide more autonomy from a location-based computer and increase employees' responsiveness (Mazmanian et al., 2013). Schlachter, McDowall, Cropley, and Inceoglu (2018) focused on the *empowerment-enslavement paradox* in particular and found that it was the non-manual performance of employees that was affected by the technology paradox. In the backdrop of these studies, various theoretical models are discussed to answer the research questions that originated through the literature review.

THEORIES OF TECHNOLOGY AND JOB PERFORMANCE

Several theories have evolved over a period of time that deal with the dynamics of the technology paradox and job performance in the business environment. While this paper specifically focuses on mobile technology, these theories are generic and applicable to all forms of ICTs that are usable in the business environment. Further, in the research literature, contextual factors that act as the antecedents (Jarvenpaa & Lang, 2005) and the technology paradox are dealt with concurrently as the technology paradox.

The theory of paradox is the basic theory that introduces the very concept of a paradox, according to which a paradox is "contradictory yet interrelated elements that exist simultaneously and persist over time" (Smith & Lewis, 2011, p. 382). This definition emphasizes two fundamental elements: *contradiction*, which highlights conflicts between two distinct elements, and interdependence, which describes the co-existence, synergy, and interwoven nature of these contradictory elements (Andriopoulos & Gotsi, 2017). Furthermore, the word *paradox* triggers a context-based meaning (Lewis, 2000), and some contexts are more likely to produce tensions than others (Jarzabkowski et al., 2013). In the context of technology, technology paradoxes manifest in a state, undertaking,

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