THE ROLE OF TECHNOLOGY PARADOX IN MOBILE TECHNOLOGY USAGE ON THE RELATIONSHIP BETWEEN CONTEXTUAL FACTORS AND TASK PERFORMANCE

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DEDICATION

This thesis is dedicated to the memory of my mother and father

"May Allah rest their souls in peace."

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"In the name of Allah, Most Gracious, Most Merciful."

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ABSTRACT

Information and communication technologies (ICTs), particularly in the form of smartphones, have introduced a considerable amount of flexibility in the work environment in terms of 'time and space'. One of the important purposes of using these technologies in the workplace is to enhance employee task performance. Although, the use of ICTs can enhance the quality and ease with which employees communicate and organize work, the implications of ICTs in organizational contexts can also be paradoxical with co-existing positive and even negative aspects. This can trigger tension in employees and affect the behavioral aspects of task performance. This research is focused on examining the mediating role played by technology paradox (TCP) between its contextual factors (CNF) and the employee task performance (TSP). A two-phase explanatory sequential design of the mixed- methods approach is applied. In the first phase, quantitative analysis with a cross- sectional survey employing a sample size of 451 respondent has been done. The respondents were employees whose carrying out tasks using private smartphones in different organizations in Kuwait. The data was analyzed using Partial Least Squares – Structural Equation Modelling (PLS-SEM). In the second phase, the quantitative results obtained in the first phase were further explained through the analysis of the qualitative data (i.e in-depth interviews). The in-depth interviews were carried out with five respondents from the earlier set selected based on snowballing sampling. The findings of the research revealed that CNF has a positive relationship with both the TCP and TSP, and the TCP also has a positive relationship with TSP. Further, the TCP has a positive mediating effect between CNF and TSP. The results of this research have provided both theoretical and practical implications. The formation of a positive behavioral influence on the user of technology determines the success of TSP. Also, it suggests managers to provide a context which is congenial to the smartphone usage in the workplace for its most productive use towards TSP.

ABSTRAK

Teknologi maklumat dan komunikasi (ICTs), terutamanya dalam bentuk telefon pintar, telah memperkenalkan sejumlah besar fleksibiliti dalam lingkungan kerja dari segi 'waktu dan ruang'. Salah satu tujuan penting menggunakan teknologi ini di tempat kerja adalah untuk meningkatkan prestasi tugas pekerja. Walaupun penggunaan ICTs dapat meningkatkan kualiti, dan kemudahan di mana pekerja berkomunikasi serta mengatur kerja, terdapat implikasi dalam konteks organisasi, menjadi paradoks samada positif atau negatif. Ini boleh mencetuskan ketegangan pada pekerja dan mempengaruhi tingkah laku dan aspek pelaksanaan tugas. Penyelidikan ini fokus untuk mengkaji peranan pengantara yang dimainkan oleh teknologi paradoks (TCP) antara faktor kontekstualnya (CNF) dan prestasi tugas pekerja (TSP). Reka bentuk jujukan penjelasan dua fasa bagi pendekatan kaedah gabungan (kuantitatif dan kualitatif) telah digunakan. Pada fasa pertama, analisis kuantitatif berbentuk tinjauan keratan lintang, menggunakan sampel 451 responden telah dijalankan. Responden adalah pekerja yang menjalankan tugas menggunakan telefon pintar persendirian di organisasi berbeza di Kuwait. Data dianalisis menggunakan Kuasa Dua Terkecil Separa – Pemodelan Persamaan Struktur (PLS-SEM). Pada fasa kedua, keputusan kuantitatif yang diperolehi dalam fasa pertama dijelaskan lagi melalui analisis data kualitatif (iaitu temu bual mendalam). Temu bual mendalam telah dijalankan dengan lima orang responden daripada set awal yang dipilih berdasarkan persampelan bola salji. Penemuan penyelidikan menunjukkan bahawa CNF mempunyai hubungan positif dengan kedua-dua TCP dan TSP, dan TCP juga mempunyai hubungan positif dengan TSP. Selanjutnya, TCP mempunyai kesan pengantaraan positif antara CNF dan TSP. Hasil penyelidikan ini memberikan implikasi teori dan praktikal. Pembentukan pengaruh tingkah laku yang positif terhadap pengguna teknologi menentukan keberhasilan TSP. Juga, ia mencadangkan pengurus untuk menyediakan konteks yang sesuai dengan penggunaan telefon pintar di tempat kerja untuk kegunaannya yang paling produktif terhadap TSP.

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LIST OF ABBREVIATIONS

CB	-	Covariance Based
CAIT	-	The Central Agency for Information Technology
CBS	-	Central Statistical Bureau
CDT	-	Cognitive Dissonance Theory
CFA	-	Confirmatory Factor Analysis
CITRA	-	Communication and Information Technology Regulatory Authority
CPS	-	Coping Strategies
CR	-	Composite Reliability
CNF	-	Contextual Factors
ESD	-	Explanatory Sequential Design
DV	-	Dependent Variable
EEP	-	Empowerment/Enslavement Paradox
GCC	-	Gulf Cooperation Council
GDP	-	Gross Domestic Product
HDR	-	Human Resources development
HR	-	Human Resources
HRM	-	Human Resources Management
ICTs	-	Information and Communication Technologies
IDP	-	Independence/Dependence Paradox
IoT	-	Internet of Things
IR	-	Interview Respondent
IS	-	Information Systems
IV	-	Independent Variable
MMR	-	Mixed Methods Research
MV	-	Mediating Variable
NDP	-	National Development Plan
OCX	-	Organizational Context
PLS	-	Partial Least Squares
SEM	-	Structural Equation Modelling

SNSs	-	Social Networking Sites
TAM	-	Technology Acceptance Model
TCP	-	Technology Paradox
TCX	-	Technological Context
TOE	-	Technology, Organization, and Environment Model
ToP	-	Theory of Paradox
TTF	-	Task Technology Fit
TTM	-	Theory of Technological Mediation
TSP	-	Task performance
VIF	-	Variance Inflation Factor

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter introduces a general background of the study and research topic followed by the problem statement, research questions, and objective. Subsequently, this study's scope and contribution to the relevant body of knowledge are briefly discussed. The definitions of the research constructs and their dimensions are context-based and differ depending on the study being analyzed; hence, these definitions have been operationalized, as applicable to this research. The chapter ends with a summary of the overall outline of this thesis

1.2 Background of the Study

Information and communications technologies (ICTs) are highly prevalent nowadays, in the form of networks, devices, and applications, used to connect to multiple sources of information to share knowledge (Rice & Leonardi, 2013). Furthermore, economies all over the world are increasingly incorporating ICTs into their industries, business processes, and government services to increase efficiency and productivity and improve the quality of life of everyone (Parra et al., 2021). Similarly, multiple oil-based economies such as Kuwait, where oil exports constitute most of the country's gross domestic product, have been spearheading a drive toward smart cities and related digitalization processes. Kuwait's aim is to achieve economic diversification through its New Kuwait: Vision 2035 strategy (Ringel, 2021; Saxena & Al-Tamimi, 2018), which targets the reduction of both the country's dependence on the oil sector and its fluctuating oil prices (Al-Mutairi et al., 2020). ICTs lie at the heart of Kuwait's new strategy, and Kuwait's government and policymakers in the country are now implementing measures to ensure the increased adoption of ICTs, to the point

where such technologies are used in all sectors to leverage the capabilities of rapid technological innovations and developments and boost the productivity of the workforce. According to Huawei Kuwait - ICT Talent Development 2020, 91% of Kuwait's nationals are employed in sectors that are currently at high risk of disruption by new technologies. Employed new technologies and new work structures have resulted in changes to the organization and execution of work in various work environments (Ter Hoeven et al., 2016). It is now difficult to find a work setting where workers do not require the support of ICTs, particularly smartphones, to perform their professional tasks. Smartphones have become an integral part of contemporary workers' lives; even many unskilled labor tasks now require the use of smartphones. There is no doubt that the proliferation of mobile technologies, which combine multiple technologies in a single device, has changed the nature of work and the behaviors of employees who use such devices for work-related purposes.

The present study was conducted in Kuwait, which has witnessed substantial increases in smartphone and mobile social media usage in recent years. Table 1.1 illustrates the usage of ICTs in Kuwait based on Kuwait National ICT Figures; a report published in 2020 while this research was being conducted.

Table 1.1 Indicators of ICT usage in Kuwait (Communication and Information Technology Regulatory Authority [CITRA], 2020)

Indicators of ICT Usage in Kuwait	**Percentage (%)**
Mobile-cellular subscriptions	178.5%
Active smartphone users	99.5%
Daily Internet usage per individual	98%

The information in Table 1.1 indicates that Kuwait is a leading country in the use of smartphone technology (CITRA, 2020).

Kuwait has a dynamic telecommunications sector that emphasizes its mobile infrastructure and services. Zain, Saudi Telecom Company, and Ooredoo are the three leading operators offering mobile platform services on one of the most advanced mobile networks in the Middle East, covering 100% of Kuwait's land area. This system may account for the increase in mobile subscriptions and the rapidly increasing number of people with access to cellphones and mobile Internet connections (CITRA, 2020).

The intensity of ICT usage has increased during the COVID-19 pandemic. In 2020, Internet penetration increased by 0.6%, reaching 99% overall. Similarly, mobile connections increased by 4.5% (7.38 million) and were equivalent to 174% of the total population (4.20 million). In addition, the number of social media users increased by 3.8%, reaching 99% (CITRA, 2020). These growth trends are expected to continue.

Kuwait's culture emphasizes social relationships, oral communication, and face-to-face interaction. Thus, Kuwaiti people like to personalize their relationships and frequently engage in social interaction. However, changes in culture are likely to bring about changes in technology usage and vice versa (Guimarães, 2020). Specifically, the proliferation of new ICTs coupled with the extensive use of the Internet has contributed to the emergence of other methods of socializing that Arabic people are now using, including text-based and social networking communication, through which they can hide their real identities and talk with others in a noncommittal manner (Rouibah & Hamdy, 2009).

Figure 1.1 illustrates social media usage in Kuwait (per the total population) from 2017 to 2020. As shown in the figure, Kuwait has witnessed a surge of 70.69% in social media penetration, jumping from 58% to 99%. Furthermore, the proportion of active mobile social media users increased by 69.49%, from 59% to 100% (CITRA, 2019; Kemp, 2020).

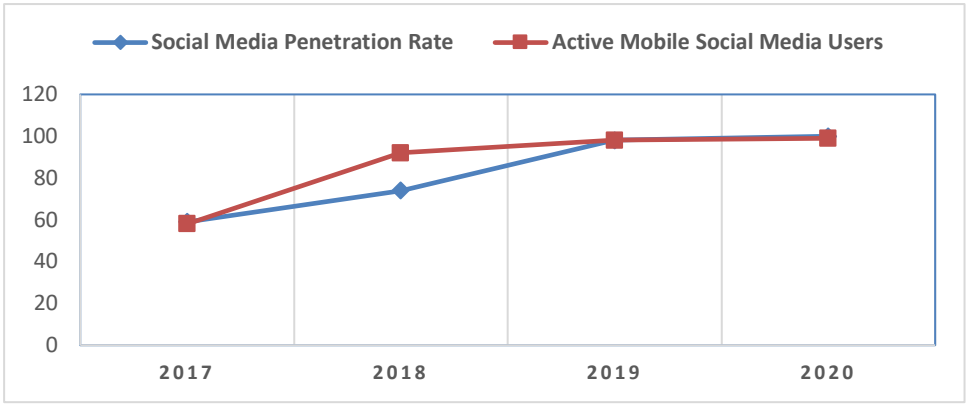

Figure 1.1 Social media usage in Kuwait (Kemp, 2017, 2018, 2019, 2020)

In business contexts, according to the Consolidated Kuwait National ICT Indicators Report (2016), a survey on ICT usage in the government sector that targeted IT decision-makers (N = 254), each representing a separate organization, the Internet has become a critical channel for accessing information regarding government services in Kuwait; less than 7% of Kuwaiti people now obtain information through offline channels. Within the report, another survey on the device penetration rate among businesses (N = 3018) found that the PC smartphone penetration rate was 84%. One of the main priorities of Kuwaiti businesses is the mobilization of enterprise applications; 34% of organizations are now using smartphone applications, and 27% are using custom-developed smartphone applications. Finance and accounting applications had the highest levels of penetration, with 80% of businesses already using them (Figure 1.2) (Central Agency for Information Technology [CAIT], 2016).

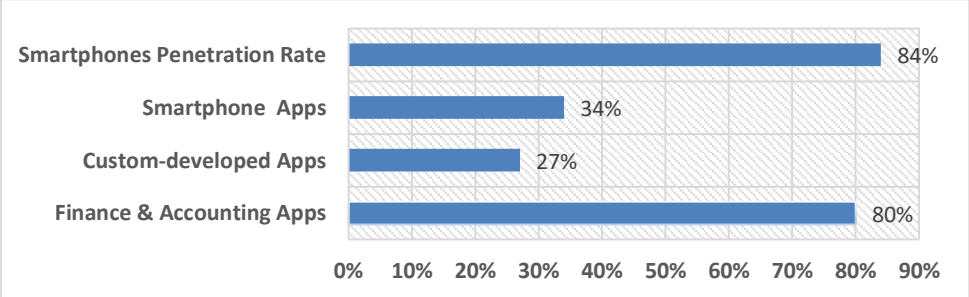

Figure 1.2 Smartphone penetration rate among businesses (CAIT, 2016)

Recent reports on Kuwait's pre-pandemic ICT usage (CAIT, 2016; CITRA, 2019), as well as reports on digital device usage in the country (Kemp, 2020), have indicated a growing presence of ICTs, particularly in the form of smartphones, in

people's personal and professional lives. As the smartphone penetration rate increases, so does the level of dependency on these devices (Shin, 2014). Furthermore, based on the recent rise in mobile technology (MT) usage among Kuwaiti people, it is safe to assume that workers in Kuwait are becoming increasingly dependent on smartphones in the workplace. Higher dependence on smartphones means higher relevance of this technology in terms of one's daily professional routine (Lee et al., 2018; Shu et al., 2011).

In recent years, many businesses have recognized the importance of responding to the reverse technology-adoption life cycle, which is currently being observed in workplaces as a result of increasingly more employees bringing experience with consumer technologies to their work environments (Niehaves et al., 2013). Rather than providing employees with new smartphones, organizations that have embraced this growing trend have started rolling out bring-your-own-device (BYOD) policies, which allow employees to use their own devices at work and, in turn, promote autonomy in task performance (TSP), strengthen relationships among workers and their superiors, and encourage knowledge-sharing (Pitichat, 2013). In this manner, BYOD policies contribute substantially to higher work performance; many related studies have reported that employees are more likely to be productive when using their own devices for business-related communication (Andriole, 2012). Technology, however, can be considered a double-edged sword; to leverage the benefits of smartphones also means to experience the inevitable negative aspects of these devices (Järvenpää & Lang, 2005) and therefore generate a so-called technology paradox (TCP), a phenomenon that is likely to influence aspects of an employee's professional performance, such as their TSP (Miron-Spektor et al., 2018).

The concept of the TCP has been extensively researched since it was introduced by Mick and Fournier (1998), a study that resulted in a taxonomy of eight TCPs that users commonly encounter and must deal with. Since then, multiple scholars have studied, directly or indirectly, conflicts in new technologies, such as mobile technologies (De Vries Kedem et al., 2020; Sowon et al., 2019). By contrast, some studies have adopted a *paradox*ical lens to explore the contradictory impact of technology on various aspects of people's lives (Arnold, 2003; Cavazotte et al., 2014;

Fonner & Roloff, 2012; Mazmanian, 2013). Prior research has highlighted two contextual factors (CNF) that act as drivers of the TCPs, such as empowerment–enslavement paradox (EEP) and the independence dependence paradox (IDP) that are likely to manifest in the workplace; these factors are the technological (TCX) and organizational (OCX) contexts (Järvenpää & Lang, 2005; Schlachter et al., 2018; Sowon et al., 2019). For example, smartphones empower employees to coordinate and manage tasks regardless of time and location while enslaving them by making them permanently available for work; such availability intensifies work pressure and leads to closer monitoring and supervision by superiors.

Nonetheless, the TCP relationship, with its antecedent (CNF) and outcomes (TSP) related to employees in the workplace, remains a relatively underexplored area that warrants further research. Previous studies have paid little attention to how paradoxes emerge and evolve owing to various actors (Aust et al., 2015) or how they impact employee performance (Miron-Spektor et al., 2018). Thus, the literature lacks evidence of the existence of an integrative model relating the TCP to CNF and the TSP of employees. Furthermore, the role of the TCP as a mediator between CNF and TSP in organizational contexts, particularly in the Middle East, is underresearched.

The TCP phenomenon in relation to MT usage, a highly disruptive innovation, is now more relevant than ever before. The COVID-19 pandemic brought about several changes worldwide in 2020, such as lockdowns, which have not only transformed people's style of work but also altered the manner in which many professional tasks are executed. Employees are increasingly using Internet-based video-conferencing services, like Zoom, to communicate and continue to work from home, leading to a surge in Internet service usage from 40% before the lockdowns to 100% during the lockdown (De et al., 2020). Consequently, workplace monitoring and problems related to technostress are likely to become more prevalent alongside a notable spike in the presence of digital devices, which in turn escalates the likelihood of experiencing the TCP. Thus, there is a need to understand how employees perceive the TCP phenomenon in relation to MT usage, a context that accentuates the presence of this latent TCP.

1.3 Problem Statement

Mobile technology (MT) has a high potential to become one of the most effective and efficient government tools to offer services to the public. To capitalize on the proliferation of smartphones and social networks in Kuwait, the Kuwaiti government has been transforming its activities according to the demands of convenience and efficiency in interactions for all parties, including citizens, businesses, and all government units. There has been a shift toward a smart or m-government (mobile-application-based) strategy that involves the utilization of many types of wireless mobile technologies, services, applications, and devices. In addition, incorporating MT as an additional delivery channel for e-government services could further enhance such services, provide benefits for all (Almie, 2018) and, most importantly, increase employee productivity, which is a key objective of Kuwait's National Development Plan and New Kuwait: Vision 2035 (Mahdi, 2018).

MT, however, has paradoxical implications that manifest in users' usage experiences; these implications are referred to as the TCP. That is, there is an inherent, irresolvable contradiction in such technology; trying to focus on only its positive aspects may defensively trigger its negative aspects. Similarly, concealing the complexity of this interrelationship may activate counterproductive reinforcement cycles that intensify tension, a byproduct of such a paradox (Lewis, 2000; Lewis & Smith, 2014; Smith & Lewis, 2011), which in turn can further affect employee performance (Miron-Spektor et al., 2018).

The sharp rise in the mobile subscription base in Kuwait, coupled with high smartphone usage, a rate of 99% per individual (Kemp, 2020), has increased employees' dependence on smartphones to complete their professional tasks. In addition, the absence of clear BYOD policies that regulate the use of employees' private devices at work alongside a lack of policies and regulations related to e-usage, especially in the government sector (Al-Mutairi et al., 2018), may further intensify the contradictory effects of technology, namely the EEP and IDP. The lack of such policies may influence how employees perceive these paradoxes. Consequently, the TCP is likely to manifest in the experiences of employees in Kuwait. The TCP is perceived

and managed differently by employees working for different organizations; thus, TSP varies among businesses (Järvenpää & Lang, 2005). However, it is unclear how employees in Kuwait perceive the impact of the contradictory aspects of smartphone usage in OCX.

MT provides a rich source of both ironic and paradoxical examples. Arnold (2003) asserted that an understanding of the place of such technology in the world is inadequate if irony and paradox are not considered (Arnold, 2003). Advocates of the paradoxical lens have explored the influence of smartphone usage on various aspects of users' lives (Borges & Joia, 2014; Cavazotte et al., 2014; Mazmanian et al., 2013); however, such studies remain few in number (Sowon et al., 2019), particularly those related to smartphone usage for work-related purposes in non-Western contexts. There is a dearth of literature that adequately explains the mechanisms or contexts behind the quantitative interrelationships between the TCP, CNF, and the TSP of employees; this paper sheds light on several problems associated with these interrelationships.

First, multiple scholars have highlighted a methodological gap due to a lack of variation in research methods that causes overlapping categorization of types of paradoxes. Hence, there is a need to address the phenomenon of the TCP by using other methods, such as quantitative or mixed methods approaches, to verify extant paradoxes in non-Western contexts and to fill the theory application gap, particularly with respect to the theory of paradox (ToP), through which new insights can be generated (Lewis & Smith, 2014). The existing contextual imbalance in theoretical evidence reveals a lack of studies on the TCP from non-Western perspectives. Developed theoretical models (Järvenpää & Lang, 2005; Mick & Fournier, 1998) illustrating the role of the TCP have yet to be comprehensively tested in practical managerial scenarios to support extant models in the literature.

Second, owing to unsound methodologies and variations in existing empirical studies, the following three prominent knowledge gaps need to be filled: (1) How CNF, namely, technological (TCX) and organizational (OCX) contexts act as driving factors in the emergence of the TCP remain unclear (Chae & Yeum, 2010; Järvenpää & Lang, 2005; Mick & Fournier, 1998); (2) the impact of the TCP on certain job aspects, such

as employee TSP (Miron-Spektor et al., 2018), and how the TCP plays a mediating role between CNF and employee TSP remains underexplored; and (3) the results of some early studies (Barley et al., 2011; Cavazotte et al., 2014; Fonner & Roloff, 2010; Schlachter et al., 2018; Ter Hoeven et al., 2016) that encountered the TCP in multiple contexts, including the use of ICTs in the form of smartphones, are inconsistent and conflicting and thus require further research in new contexts.

Therefore, there is a need to address existing gaps in the literature by empirically investigating the relationships of the TCP with CNF and TSP in MT usage and examining the mediating role of the TCP between CNF and TSP. Such an investigation should be conducted based on the experiences of employees who use smartphones for work-related purposes to derive both theoretical and practical implications. Professionals and policymakers in Kuwait must be made aware of the conflicting effects of the use of MT, and understanding TCP usage is a key step in understanding user experiences by providing a more comprehensive view of technology use for work-related purposes (Huang & Zhang, 2019).

1.4 Research Questions

The problem statement in this study led to the development of five research questions to be answered in order to address existing research gaps and to attain the aim of this study. Mixed methods research (MMR) employs an explanatory sequential design (ESD) approach that starts with a quantitative phase (QUAN phase) followed by a qualitative phase (QUAL phase). To address the research questions, the researcher adopted a pragmatic worldview that enabled the employment of multiple methods of data collection to inform the problem under investigation without the need to consider the dichotomy between positivism and interpretivism; the focus of this study was the primary research question as opposed to the methods used (Creswell & Plano Clark, 2017). The following five research questions were proposed:

RQ1 Which contextual factors drive the emergence of the technology paradox in mobile technology usage based on the experiences of employees in Kuwait?

RQ2 Does the technology paradox in mobile technology usage have relationships with contextual factors and employee task performance?

RQ3 Which specific dimensions of contextual factors and the technology paradox in mobile technology usage are related to employee task performance?

RQ4 Does the technology paradox in mobile technology usage mediate the influence of contextual factors on employee task performance?

RQ5 How can employee task performance be enhanced through effective mobile technology usage in environments involving the technology paradox?

1.5 Research Objectives

This study had two primary aims: (1) to address gaps in the literature related to the TCP phenomenon in MT usage by empirically investigating the TCP's relationships with CNF and TSP to explain how it influences employees' TSP based on the experiences of professionals in Kuwait who use their smartphones for work-related purposes, and (2) to determine how the TCP mediates the influence of CNF on TSP. To accomplish these aims, the following research objectives were developed:

RO1 To identify the contextual factors that drive the emergence of the technology paradox in mobile technology usage based on the experiences of employees in Kuwait.

RO2 To identify the relationships of the technology paradox with contextual factors and employee task performance in mobile technology usage.

RO3 To identify, at the dimensional level, the interrelationships between contextual factors, the technology paradox, and employee task performance in mobile technology usage.

RO4 To determine the mediating role played by the technology paradox between contextual factors and employee task performance in mobile technology usage.

RO5 To explain how employee task performance can be enhanced through effective mobile technology usage in environments involving the technology paradox.

A summary of the research problem, questions, objectives, and associated hypotheses is provided in Table 1.2.

Table 1.2 A summary of the research problem, questions, objectives, and associated hypotheses

Research Problem	Research Questions	Research Objectives	Research Hypotheses
To address existing gaps in the literature by empirically investigating the relationships of the TCP, in terms of its dimensions, with CNF and TSP in MT usage	**RQ_1** Which CNF drive the emergence of the TCP in MT usage based on the experiences of employees in Kuwait?	**RO_1** To identify the CNF that drive the emergence of the TCP in MT usage based on the experiences of employees in Kuwait.	H_1: There is a positive relationship between TCX and EEP. H_2: There is a positive relationship between TCX. and IDP. H_3: There is a positive relationship between OCX and EEP. H_4: There is a positive relationship between OCX and IDP.
	RQ_2 Does the TCP in MT usage have relationships with CNF and employee TSP?	**RQ_2** To identify the relationships of the TCP with CNF and employee TSP in MT usage.	H_A: There is a positive relationship between CNF and the TCP. H_B: There is a positive relationship between the TCP and TSP. H_C: There is a positive relationship between CNF and TSP.
	RQ_3 Which specific dimensions of CNF and the TCP in MT usage are related to employee TSP?	**RO_3** To identify, at the dimensional level, the interrelationships between CNF, the TCP, and employee TSP in MT usage.	H_5: There is a positive relationship between EEP and TSP. H_6: There is a positive relationship between IDP and TSP. H_7: There is a positive relationship between TCX and TSP. H_8: There is a positive relationship between OCX and TSP.

Table 1.2 A summary of the research problem, questions, objectives, and associated hypotheses (continued)

Research Problem	Research Questions	Research Objectives	Research Hypotheses
To investigate the mediating role of the TCP in MT usage between CNF and TSP	**RQ_4** Does the TCP in MT usage mediate the influence of CNF on employee TSP?	**RO_4** To determine the mediating role played by the TCP between CNF and employee TSP in MT usage.	H_D: The relationship between CNF and TSP is mediated by the TCP. H_9: The relationship between TCX and TSP is mediated by EEP. H_{10}: The relationship between OCX and TSP is mediated by EEP. H_{11}: The relationship between TCX and TSP is mediated by IDP. H_{12}: The relationship between OCX and TSP is mediated by IDP.
	RQ_5 How can employee TSP be enhanced through effective MT usage in environments involving the TCP?	**RO_5** To explain how employee TSP can be enhanced through effective MT usage in environments involving the TCP.	

1.6 Research Significance

This research makes several contributions to the limited body of knowledge related to the TCP.

First, regarding its theoretical contribution, this research fills a theoretical gap that exists in the literature by extending previous research on the theory of paradox (ToP) in the context of technology to enrich relevant theories, including the job demands and resources model (Demerouti et al., 2001), the theory of technological mediation (Verbeek, 2016), and the integrated technology, organization, and environment (Tornatzky & Fleischer, 1990) and the unified technology acceptance use model (Ventakesh et al., 2013). By complementing or combining the ToP with previously applied theories, this research provides a thorough understanding of how the associated theories can define the nature of the TCP, as well as explain and understand how other theories capture the nature of tensions, which in turn, can provide more theoretical insights and managerial suggestions (Aust et al., 2017; Fairhurst et al., 2016; Lewis & Smith, 2014).

Furthermore, this research contributes a model for understanding the use of MT in the workplace for work-related purposes; the model may add value to the body of knowledge on this subject. The model differs from traditional theories in information systems (IS) that use rational technology adoption theories to investigate the impact of ICTs yet rarely address the concept of the TCP. Drawing on existing theoretical models in the literature that link CNF to the TCP (Järvenpää & Lang, 2005; Mick & Fournier, 1998), and based on a recommendation to extend existing research on the TCP to include newer variables (Ter Hoeven et al., 2016), this study extended these existing models by linking the TCP to CNF and a new variable, namely TSP. In addition, the theoretical model developed in this study was empirically tested by studying the interrelationships between the three research constructs CNF, the TCP, and TSP, as well as the mediating role of the TCP between CNF and TSP. In this way, this study fills the empirical and practical knowledge gaps that exist in the literature.

Second, regarding contextual significance, this research fills a population gap and thus may add to the body of knowledge regarding employees' perceptions of the TCP in a non-Western context, namely, Kuwait, a country with high smartphone engagement.

Third, this research fills a methodological gap by employing an MMR approach to address an under-researched and complex phenomenon, namely the TCP. Therefore, this research leads to greater insights into the research problem compared with previous related studies (Creswell & Plano Clark, 2017).

Finally, regarding its practical significance, this research raises awareness of the TCP; such awareness is required to enhance employee TSP and, therefore, could help organizations and policymakers. In addition, the developed model could be extended in future research or applied in studies conducted in other Gulf Cooperation Council (GCC) countries.

The contributions of this research lie in the identification and filling of extant research gaps, the development of a model that explains the antecedents (CNF) and outcomes (TSP) of the TCP, and the mediating role of the TCP between CNF and TSP to draw implications and bring about transformations in working environments such that TSP is enhanced in the presence of the TCP rather than in its absence.

1.7 Research Scope

Geographically, this research encompasses Kuwait, a country located in the Middle East with a population of 4,464,521 (Central Statistical Bureau [CSB], 2020). The percentage of expatriates working in all sectors is 79.59%, compared with Kuwaitis, who account for only 20.40% of the total workforce. Most Kuwaitis work in the public sector and prefer managerial jobs. By contrast, expatriates tend to work in fields that are of little interest to Kuwaiti nationals, such as manufacturing, construction, retail, wholesale, and hospitality (Labor Market Information System, 2020).

Kuwait's small population and relatively huge oil reserve enable its citizens to enjoy a high standard of living, which is reflected in the exponential rise in ICT usage, especially smartphones. Owing to volatile oil prices, Kuwait has recognized a need to reduce its heavy dependency on the oil sector by transforming itself into a digital economy through its New Kuwait: Vision 2035 strategy (Saxena & Al-Tamimi, 2018). Technology is the essence of this strategy, the aim of which is the construction of a smart city from scratch. Figure 1.3 presents the evolution of the planning stages of New Kuwait: Vision 2035 alongside the strategy's objectives (Mahdi, 2018).

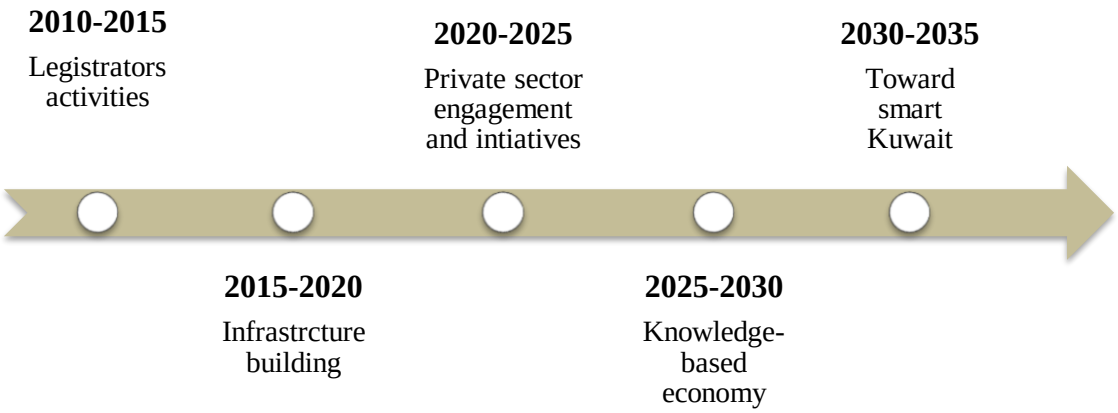

Figure 1.3 The evolution of planning toward new Kuwait 2035 adapted from (Mahdi, 2018)

In 2016, the Kuwaiti government launched a new ICT regulatory body, namely CITRA, which is involved with Internet management, public sector IT development, smart government strategies, national cybersecurity, standards oversight, and investment in IT. Chinese technology firm Huawei signed a memorandum of understanding with CITRA that covers knowledge sharing, technology, and consultancy to support the government's New Kuwait: Vision 2035 strategy. Huawei has been providing infrastructure solutions for mobile operators, as well as other services, for more than ten years. In 2017, Huawei launched its Innovation and Training Center in Kuwait, where it offers training programs for more than 1000 trainees per year from the public and private sectors. The center also provides Huawei solutions for smart cities and smart government, and applications for the Internet of Things. In addition to Huawei, CITRA has also signed memoranda of understanding with other renowned companies, including Cisco Systems, Amazon Web Services, Microsoft, and Whale Cloud (CITRA, 2019).

New Kuwait: Vision 2035 seeks to convert conventional services into e-services to combat administrative corruption that was elevated prior to COVID-19, especially the adverse implications of indigenous practices like "wasta," a relationship-based approach to recruitment and compensation (Budhwar et al., 2019). In other words, the use of influence, networks of people, or connections to get things done. The digitalization of services contributes to the reform of administrative and bureaucratic practices that are pervasive in Kuwait to reinforce transparency and accountability, increase the productivity of the workforce, and achieve human resource development; these goals are the primary objectives of New Kuwait: Vision 2035 (Mahdi, 2018). The government and private sectors are required now more than ever to raise the efficiency of the workforce in the local market and change the public mindset regarding how routine tasks should be executed.

The global pandemic has accentuated the critical role of ICTs, as many pandemic-related disruptions to essential aspects of people's lives (i.e., health care, education, livelihood) have been overcome by the capabilities of ICTs (Parra et al., 2021). Although Kuwait has made strides in transforming itself into a digital economy in recent years, many problems have surfaced during the ongoing pandemic, such as a lag in the digitalization of many pivotal operations, to which the country has engaged in a rather reactive response, namely, the development of Kuwait Vision 2035. The COVID-19 crisis coupled with declining oil prices has increased the pressure on Kuwait, which is now forced to expedite the digitalization of its operations through ICTs. With rapid changes both globally and locally, there is a need to understand employees' perspectives regarding how their smartphones contribute to their professional TSP.

In addition, the ongoing pandemic has brought about several changes resulting from adopted policies related to curfews, be they partial or total, that have reshaped the nature of work during the pandemic. The Kuwaiti government launched its Matta platform, an appointment-scheduling smartphone app that enables government agencies to identify booked appointments by scanning a quick response code on a smartphone in order to register the entry and exit of visitors to all government buildings listed on the platform.

In response, the Kuwait Civil Service Commission (CSC), with the approval of the Council of Ministers, has published a guide that covers the procedures and rules for a gradual return to work and introduces a flexible working system in the form of weekly schedules. Employees can work remotely using the rotation system, without rotation, or on-site on the condition that they do not violate the maximum limit for workers specified in the guide to prevent the spread of the virus (CSC, 2020). Similarly, workers in the private sector have been adhering to instructions and precautionary measures by limiting the number of workers on-site and promoting flexible working and teleworking.

Remote working or teleworking (Belzunegui-Eraso & Erro-Garcés, 2020; Boell et al., 2016; Fonner & Roloff, 2012), telecommuting (Chang et al., 2021; Weiwei et al., 2021), and flexible working (Ter Hoeven et al., 2016; Yunus et al., 2021) are all terms that imply some degree of autonomy or empowerment to employees to fulfill their tasks in the way they prefer, choosing the technology they want. However, a coexisting sense of enslavement that cannot be disentangled and is aggravated owing to perpetual connectivity and increased responsiveness to colleagues and superiors inevitably causes dynamic tensions that arise because of the experience of a paradox (Lewis, 2000; Smith & Lewis, 2011). Studies have revealed that some technologies, such as smartphones, are prone to causing more tension than others. Such findings have highlighted the presence of latent tensions, which consequently are now more easily identifiable to scholars (Jarzabkowski et al., 2013). Paradoxes are dynamic in nature; they evolve, change, and fade in and out of people's lives. Such dynamism explains why the perception of existing paradoxes in the literature is likely to change (Chae & Yeum, 2010; Smith & Lewis, 2011) and thus needs to be verified in non-Western contexts, which was one of the objectives of this research.

It would be logical and meaningful to explore multiple ICTs instead of just one, as the use of the same range of capabilities on different devices suggests more commonalities than differences among the devices themselves (Schroeder, 2010). Nonetheless, this study mainly focused on smartphone technology, the most prevalent ICT, for several reasons explained as follows.

First, as mentioned, regarding the TCP in relation to ICTs, the scope of this study was limited to smartphones. Smartphones are designed to be carried 24/7 and support their users in multiple ways. The result is that individuals can become strongly attached to their smartphones (Rush, 2011) and expect others to be constantly available for communication throughout the day. Such expectations can generate stress or anxiety when the device is not within immediate reaching distance (Carbonell et al., 2018). Furthermore, such constant connectivity can blur the boundaries between personal and professional domains (Ramarajan & Reid, 2013; Reyt & Wiesenfeld, 2015). Irrespective of their job roles, employees can assume multiple roles simultaneously when using their smartphones for work; for example, an individual can act as a private citizen or an employee. Consequently, the outcomes are generally affected by work-related CNF, which in turn alter how technology is experienced (Middleton et al., 2014).

Second, regarding this study's theoretical foundation, the scope of this research extended to behavioral aspects of the TCP. Although technology is paradoxical, research has revealed that mobile users tend to feel the impact of the contradictory nature of smartphones more strongly than that of any other form of technology (Arnold, 2003; Mick & Fournier, 1998). The integration of multiple technologies into a single device accentuates this paradoxical nature of technology. Furthermore, smartphone users more often engage in close and personal relationships with their devices than do users of any other ICT (Chae & Yeum, 2010; Järvenpää & Lang, 2005). In this manner, a smartphone is an intensely personal device. The close relationship of a user combined with a high intensity of smartphone usage can sooner or later trigger a conflict, where the user experiences simultaneous positive and negative consequences of using their smartphone. In summary, the ambiguities and paradoxes that emerge from smartphone use can provoke internal conflicts in users (Bruzzi & Joia, 2015; Clegg et al., 2002).

Finally, regarding the purpose of this study, the scope of this research extended to include an investigation of the mediating role of the TCP between its antecedent, namely CNF, and its outcome, namely TSP. Although the smartphone is highly ubiquitous, it remains a relatively new technological device that is still young and

constantly evolving (Wilmer et al., 2017). Consequently, the coexisting positive and negative effects of smartphone use are conceptually inseparable and grow in strength with upgrades and new releases (Järvenpää & Lang, 2005).

Thus, the paradoxical implications of smartphones should be examined and analyzed to find solutions in order to mitigate the tension generated by encountering conflict associated with this technological device (Bruzzi & Joia, 2015). In addition, there is a need to understand the paradoxical nature of smartphones in order to better understand the role of technology in both the business world and everyday life (Arnold, 2003). Contemporary workers are operating in increasingly dynamic, uncertain, and ambiguous business environments (Jules & Good, 2014). Therefore, the ability to manage paradoxes is pivotal to corporate success in this highly digitalized world (Järvenpää & Lang, 2005). Recent studies have emphasized the importance of recognizing tensions in order to improve TSP (Ingram et al., 2016; Leung et al., 2018; Liu et al., 2020; Miron-Spektor et al., 2018). There is ample scope for research related to the TCP in such a country as Kuwait; such research could lead to the development of a model representing the GCC countries.

1.8 Operational Definitions

Definitions of the terms used in this research are based on context. The operational definitions applicable to the context of this research are provided as follows:

Contextual Factors (CNF): CNF is composed of two factors, namely TCX and OCX, which act as driving forces in the emergence of the TCP (Järvenpää & Lang, 2005).

Technological Context (TCX): TCX is represented **by** private smartphone usage during a typical workday due to a perceived need or a job requirement. The value or benefit of smartphones cannot be realized without continued usage of these devices (Deng et al., 2010). Therefore, TCX is a factor that can affect workers'

motivation and usage patterns, increasing their susceptibility to the TCP (Järvenpää & Lang, 2005).

Organizational Context (OCX): OCX is represented by organizational strategies, policies, and assigned tactics that support the adoption of private smartphones for work-related purposes (Järvenpää & Lang, 2005) when implementing BYOD policies; OCX facilitates conditions that directly affect usage intensity Buettner, 2015; Van Deursen et al., 2015; Venkatesh et al. 2003).

Technology Paradox (TCP): The TCP is a situation, act, or behavior that seems to have contradictory or inconsistent qualities. The TCP encompasses two dimensions, namely the EEP and IDP, which represent the contradictory aspects of smartphones use (Järvenpää & Lang, 2005; Mick & Fournier, 1998). Focusing on only the positive aspects of these devices may defensively trigger negative effects and activate counterproductive reinforcement cycles that intensify tension (Lewis & Smith, 2014; Smith & Lewis, 2011).

Empowerment–Enslavement Paradox (EEP): The use of private smartphones can promote a sense of empowerment and autonomy in users that may positively affect their TSP; however, at the same time, smartphones can hamper users' freedom because of the increased connectivity and responsiveness that result from smartphone use (Järvenpää & Lang, 2005; Mazmanian et al., 2013; Schlachter et al., 2018).

Independence–Dependence Paradox (IDP): The use of private smartphones provides opportunities for workers to experience a form of independence in terms of time and space and how they execute professional tasks; however, at the same time, smartphones can increase dependency and exacerbate feelings of helplessness (Borges & Joia, 2013; Järvenpää & Lang, 2005; Leonardi et al., 2010).

Task Performance (TSP): The use of private smartphones to perform assigned tasks can enhance the quality of tasks completed at work through increased flexibility in handling different tasks and learning modern methods useful to work;

however, at the same time, it can hinder task completion due to frequent interruptions (Järvenpää & Lang, 2005; Chae &Yeum, 2010).

Mobile Technology (MT): Mobile technologies are handheld IT artifacts that encompass hardware (devices), software (interfaces and applications), and communication (network services). All these features are intertwined; therefore, the device, interface, and applications are considered to be one integrated system that can create value for users. The term "cell phone" includes advanced cell phones or smartphones; the terms "cell phone" and "smartphone" are used interchangeably in this research.

1.9 Organization of the Study

Chapter Two: Chapter Two provides a structured literature review. In addition, a discussion on each of the constructs in this research is presented, and the research gap that was observed during the literature is described. A summary of the literature review is also included. Furthermore, the proposed research model and the research hypotheses and propositions developed based on the study purpose and research objectives are described. The research model illustrates the interrelationships between the three latent variables CNF, the TCP, and TSP alongside their dimensions. This model is based on the main theories discussed in Chapter Two. Finally, a summary of Chapter Two is provided.

Chapter Three**:** The research methodology adopted in this study is explained in Chapter Three, alongside the reasons for choosing this specific methodology from among the available methods highlighted in this research. In addition, Chapter Three discusses the nature of this research and the variables involved and explains all methods used. The rationale behind the sample selection is discussed, and the methodology adopted for the preparation of a self-administered survey questionnaire is explained. The procedures adopted to assess reliability and validity are also reported. Furthermore, the data collection process is explained, all employed statistical procedures are described, and the procedure for validating the questionnaire is

explained. Chapter Three describes the data analysis process, for which an MMR approach with ESD was employed., the assumptions underlying structural equation modeling (SEM) are presented, as are missing values and outliers, sample estimation, the normality of distribution, multicollinearity, and the reliability, validity. In addition, an evaluation of the model and its salient features is presented. Finally, a summary of Chapter Three is provided.

Chapter Four: Chapter Four reports the results of the quantitative and qualitative analysis of the data and provides answers to the research questions. The results are in the form of descriptive statistics followed by the detailed results of the quantitative and qualitative phases of research. Chapter Four concludes with a summary of the findings.

Chapter Five: Chapter Five discusses the results obtained in the previous chapter, interprets the results and their relevance to the literature review, and provides the answers to the research questions to fulfill the objectives of this study. The results are corroborated with earlier studies. Finally, a summary of Chapter Five is provided.

Chapter Six: Chapter Six discusses the theoretical contributions and managerial implications of this research. Furthermore, the limitations of the study and suggestions for future research are described. Chapter Six finally provides several conclusions drawn from this research, thereby highlighting its importance in relation to the technology paradox.

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Appendix A Back-To-Back Translation

الجدول 3-2 البنود المدرجة في الاستبيان ومصادرها

البُعد	الكود	عناصر مقتبسة من المؤلفات
السياق التكنولوجي (TCX)	TCX 1	تتطلب وظيفتي دائمًا دعم هاتفي الذكي الخاص بي.
	TCX 2	كثيرًا ما أحتاج إلى استخدام هاتفي الخاص للوفاء بالتزامات العمل.
	TCX 3	أقضي يوم عملي بأكمله متصلاً "من خلال هاتفي الذكي الخاص".
	TCX 4	خلال يوم العمل العادي، تكون جميع اتصالاتي المرتبطة بالعمل من خلال هاتفي الذكي الخاص.
	TCX 5	أحتاج كثيرًا إلى استخدام هاتفي الذكي الخاص للبقاء على اتصال بعملي.
	TCX 6	أجد نفسي مشغولاً على هاتفي الذكي "عبر الإنترنت" عندما ينبغي أن أقوم بعملي.
السياق التنظيمي (OCX)	OCX 1	تشجع الإدارة العليا استخدام الهواتف الذكية الخاصة في العمل.
	OCX 2	تشجع استراتيجية المنظمة استخدام الهواتف الذكية الخاصة في العمل.
	OCX 3	تشجع سياسات المنظمة استخدام الهواتف الذكية الخاصة في العمل.
	OCX 4	تشجع الخطط التكتيكية (تنفيذ خطط العمل) على استخدام الهواتف الذكية الخاصة في العمل.
	OCX 5	من الشائع في مؤسستنا استخدام الهواتف الذكية الخاصة لصالح العمل.
	EEP 1	يصعب عليَّ إيقاف تشغيل هاتفي الذكي الخاص أثناء ساعات العمل.

إشكالية التمكين – الاستعباد (EEP)	EEP 2	أحمل دائمًا هاتفي الذكي الخاص معي في كل مكان أذهب إليه للبقاء على اتصال بعملي.
	EEP 3	غالبًا ما أتحقق من هاتفي الذكي الخاص قبل البدء في مهمة هامة.
	EEP 4	أشعر بالقدرة على أداء مسؤوليات وظيفتي أثناء استخدام هاتفي الذكي الخاص.
	EEP 5	يزيد هاتفي الذكي الخاص من استقلاليتي ومرونتي في العمل.
	EEP 6	أشعر بالالتزام بالرد على الفور على المكالمات الهاتفية أو الرسائل من العمل.
إشكالية مستقل- غير مستقل (IDP)	IDP 1	لن أتخلى أبدًا عن استخدام هاتفي الذكي الخاص بالعمل، حتى لو تأثرت حياتي اليومية به كثيرًا.
	IDP 2	أنا غير قادر على القيام بالمهام اليومية للعمل بدون هاتفي الذكي الخاص، حيث يتم حفظ جميع الجداول والعناصر الشخصية عليه.
	IDP 3	يساعدني هاتفي الذكي الخاص على أداء المهام اليومية بشكل مستقل.
	IDP 4	أنا قادر على القيام بمهامي اليومية للعمل بدون هاتفي الذكي الخاص.
	IDP 5	أشعر بالاستقلالية عند استخدام هاتفي الذكي الخاص.

الجدول 3-2 البنود المدرجة في الاستبيان ومصادرها (يُتبع)

البعد	التعريف الإجرائي	الكود	العناصر المقتبسة من المؤلفات	المراجع
أداء المهام (TSP)	قد يؤدي استخدام الهواتف الذكية الخاصة لأداء المهام المسندة إلى تحسين جودة المهام المنجزة في العمل من خلال تعظيم المرونة في التعامل مع المهام المختلفة وتعلم الأساليب الحديثة المفيدة للعمل، إلا أنه، في نفس الوقت، يمكن أن يعيق إكمال المهمة بسبب الانقطاعات المتكررة.	TSP1	يساعدني هاتفي الذكي الخاص في أداء مهامي اليومية في العمل بأقل وقت وجهد.	كوبمانز وآخرون. (2013)، يون وآخرون. (2012)
		TSP2	يعمل هاتفي الخاص على تحسين جودة المهام التي أكملها في العمل.	تارفدار وآخرون. (2007)
		TSP3	يؤدي مجرد وجود هاتفي الذكي الخاص إلى انخفاض قدرتي على التركيز على أداء المهام.	ثورنتون وآخرون. (2014)
		TSP4	يزيد هاتفي الخاص من مرونتي في التعامل مع المهام المختلفة.	بيانشي وفيليبس (2005)
		TSP5	يتطلب إكمال مهام عملي من خلال هاتفي الذكي الخاص وقتًا أكثر من المعتاد.	كوبمانز وآخرون. (2013)

The dimension	Code	Items excerted from the literature
Technological Context (TCX)	TCX 1	My job always requires the support of my smartphone.
	TCX 2	I often need to use my own smartphone to meet work commitments.
	TCX 3	I spend my entire working day connected "through my own smartphone".
	TCX 4	During a normal work day, all my work related communications are through my own smartphone.
	TCX 5	I often need to use my own smartphone to keep in touch with my work.
	TCX 6	I find myself busy on my smartphone "online" when I should be doing my work.
Organizational Context (OCX)	ocx 1	Top management encourages the use of private smartphones at work.
	ocx 2	The organization's strategy encourages the use of private smartphones at work.
	ocx 3	The organization's policies encourage the use of private smartphones at work.
	ocx 4	Tactical plans (implementation of work plans) encourage the use of private smartphones at work.
	OCX 5	It is common in our organization to use private smartphones for the benefit of work.
The problem of empowerment — enslavement (EEP)	EEP 1	It's hard for me to turn off my smartphone during working hours.
	EEP 2	I always carry my own smartphone with me everywhere I go to keep in touch with my work.
	EEP 3	I often check my own smartphone before starting an important task.

	EEP 4	I feel able to perform my job responsibilities while using my own smartphone.
	EEP 5	My own smartphone increases my independence and flexibility at work.
	EEP 6	I feel obligated to respond promptly to phone calls or messages from work.
	IDP 1	I would never give up using my smartphone for work, even if my daily life affected it a lot.
The problem of independent – noni-independent (IDP)	IDP 2	I am unable to do daily work tasks without my own smartphone, as all schedules and personal items are saved on it.
	IDP 3	My own smartphone helps me perform daily tasks independently.
	IDP 4	I am able to do my daily work tasks without my own smartphone.
	IDP 5	I feel independent when using my own smartphone.
	TSPI	My own smartphone helps me perform my daily work tasks with minimal time and effort.
	TSP2	My own smartphone improves the quality of the tasks I complete at work.
Task Performance (TSP)	TSP3	Just having my own smartphone reduces my ability to focus on performing tasks.
	TSP4	My own smartphone increases my flexibility in dealing with various tasks.
	TSP5	It takes more time than usual to complete my work tasks through my own smartphone.

Survey Questionnaire

THE ROLE OF TECHNOLOGY PARADOX ON THE RELATIONSHIP BETWEEN CONTEXTUAL FACTORS AND TASK PERFORMANCE

Dear Participant,

Thank you for taking part in this research.

A- Research Background

A Smartphone has become an indispensable part of contemporary workers' lives. It grants them the freedom to work whenever and wherever they prefer, at the same time, takes away such freedom by increasing their connectivity to work. Thus, Technology is a double-edged sword, and Smartphones, in particular, incorporate various technologies (e.g., *applications – email, social media, and other online tools*) in a single device, are designed to be carried 24/7, and support their users in various ways. Therefore, users are more susceptible to encountering the *positive* and *negative* influences of this device "*simultaneously*" than with any other form of technology. In this research, we refer to this phenomenon as a *Technology Paradox*.

This survey questionnaire seeks to find the influence of *Technology paradox* on *Task performance* of employees in various industries in Kuwait.

B- What is required

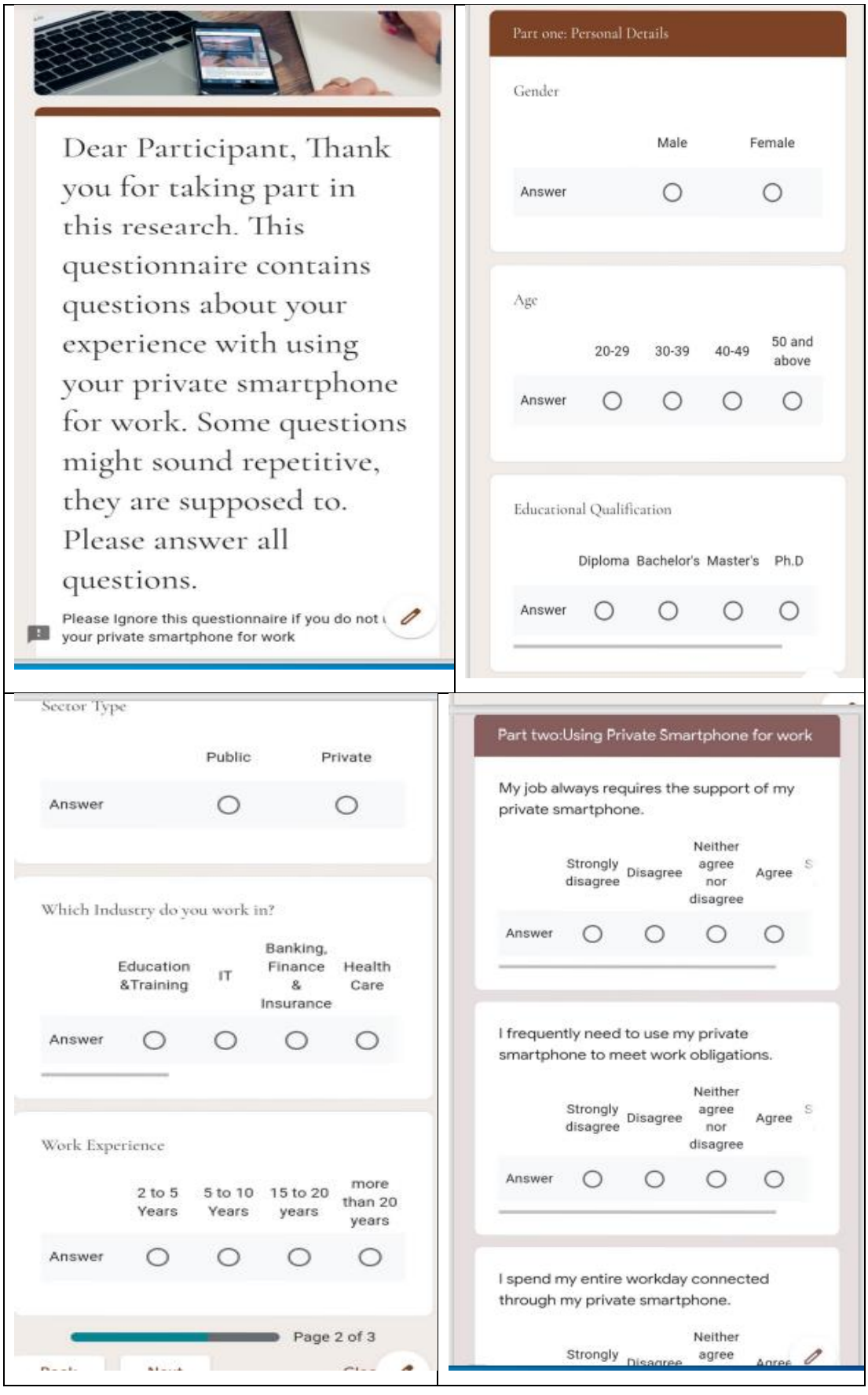
The first part – *demographic details*, provides us your background, please place a *tick mark* (√) (manual form) or *activate the radio button* (electronic form). In the second part, circle ONE response for each item about your experience in using your smartphone for work. Some questions might sound repetitive- they are supposed to. Please answer all questions.

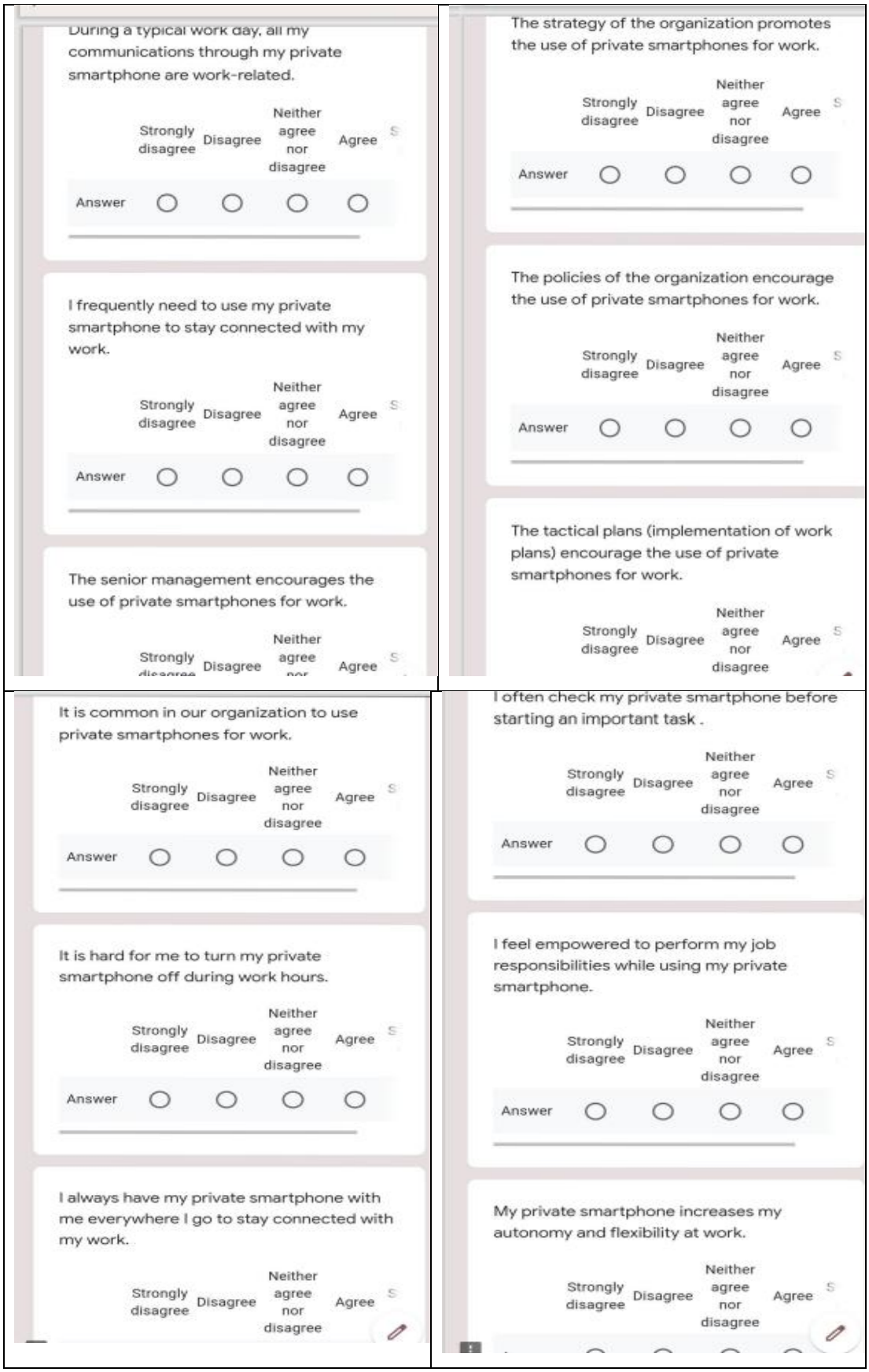
C- The benefits

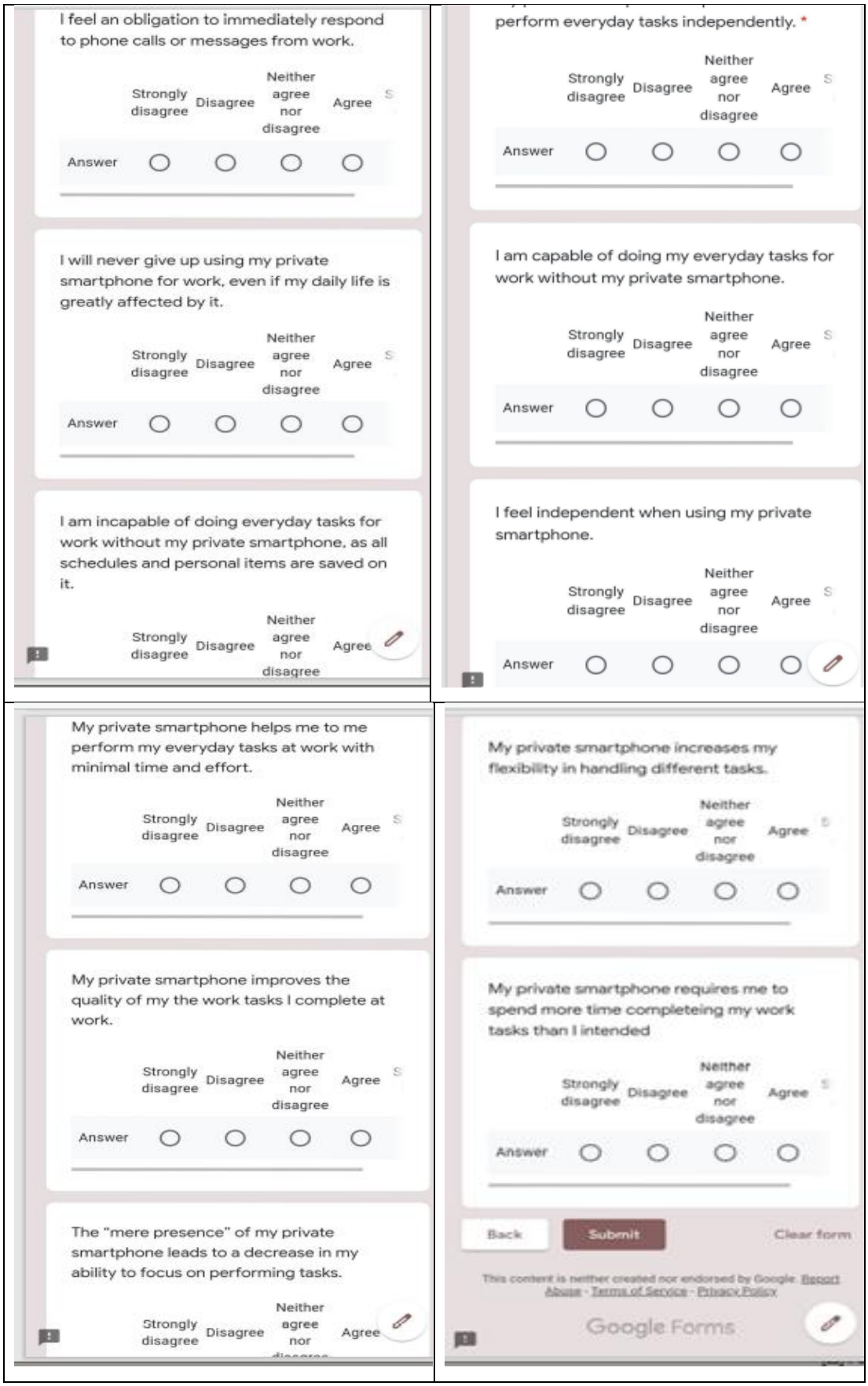
Your answers are valuable to us, as it may lead to the refinements in Smartphone usage and introduction of more training programs by various organizations in Kuwait in connection to the areas where improvements are required to promote Smartphone usage, if necessary. Thank you in advance

Maria Alhadad
Ph.D. Candidate
Azman Hashim International Business School (AZIBS)
Universiti Teknologi Malaysia (UTM)
Kuala Lumpur, Malaysia

Appendix B Pilot Test Survey Questionnaire




During a typical work day, all my communications through my private smartphone are work-related.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I frequently need to use my private smartphone to stay connected with my work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
The senior management encourages the use of private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
The strategy of the organization promotes the use of private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
The policies of the organization encourage the use of private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
The tactical plans (implementation of work plans) encourage the use of private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
It is common in our organization to use private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
It is hard for me to turn my private smartphone off during work hours.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I always have my private smartphone with me everywhere I go to stay connected with my work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
I often check my private smartphone before starting an important task .
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I feel empowered to perform my job responsibilities while using my private smartphone.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
My private smartphone increases my autonomy and flexibility at work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree


I feel an obligation to immediately respond to phone calls or messages from work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I will never give up using my private smartphone for work, even if my daily life is greatly affected by it.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I am incapable of doing everyday tasks for work without my private smartphone, as all schedules and personal items are saved on it.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
perform everyday tasks independently. *
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I am capable of doing my everyday tasks for work without my private smartphone.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I feel independent when using my private smartphone.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
My private smartphone helps me to me perform my everyday tasks at work with minimal time and effort.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
My private smartphone improves the quality of my the work tasks I complete at work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
The "mere presence" of my private smartphone leads to a decrease in my ability to focus on performing tasks.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
My private smartphone increases my flexibility in handling different tasks.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
My private smartphone requires me to spend more time completeing my work tasks than I intended
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
Back
Submit
Clear form
This content is neither created nor endorsed by Google. Report Abuse - Terms of Service - Privacy Policy
Google Forms

شكراً لك على المشاركة
يتضمن هذا الاستبيان أسئلة تتعلق بتجربتك الخاصة باستخدام هاتفك الذكي الشخصي للعمل و أثناء فترة الدوام. قد تبدو بعض الأسئلة مكررة لكن من المفترض أن تكون كذلك. لذا يرجى الإجابة على جميع الأسئلة. لا توجد إجابات صحيحة أو خاطئة؛ نحن مهتمون فقط برأيك

تجاهل هذا الاستبيان اذا ا كنت لا تستخدم الهاتف الذكي الشخصي للعمل

القسم الأول: البيانات الشخصية

النوع

	انثى	ذكر
الاجابة	○	○

العمر

	50 و ما فوق	40-49	30-39	20-29
الإجابة	○	○	○	○

المؤهل العلمي

	اخرى	دكتوراه	ماجستير	بكالوريوس	دبلو
الإجابة	○	○	○	○	○

نوع قطاع العمل

	عام	خاص
الإجابة	○	○

قطاع العمل

	الترفيه	البنوك و التمويل و التمويل	الرعاية الصحية	IT	التعليم أو التدريب
اجابة	○	○	○	○	○

سنوات الخبرة

	20 و ما فوق	15 من -20 سنة	5 من 10 - سنة	2 من 5 - سنوات
الإجابة	○	○	◉	○

Clear selection

Page 2 of 3

Back Next Clear form

القسم الثاني: استخدام الهاتف الذكي الشخصي أثناء الدوام

يرجى الإشارة إلى مدى موافقتك على العبارات التالية. لا توجد اجابات صحيحة أو خاطئة؛ نحن مهتمون فقط برأيك

تتطلب وظيفتي دائما دعم هاتفي الذكي الخاص بي

	أوافق بشدة	أوافق	لا أوافق و لا أعارض	أعارض	أعارض بشدة
الاجابة	○	○	○	○	○

كثيرا ما أحتاج إلى استخدام هاتفي الخاص للوفاء بالتزامات العمل.

	أوافق بشدة	أوافق	لا اوافق و لا أعراض	أعارض	أعارض بشدة
الاجابة	○	○	○	○	○

أجد نفسي مشغولاً على هاتفي الذكي "عبر الإنترنت" عندما ينبغي أن أقوم بعملي.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

تشجع الإدارة العليا استخدام الهواتف الذكية الخاصة في العمل.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

تشجع استراتيجية المنظمة استخدام الهواتف الذكية الخاصة في العمل.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

أقضي يوم عملي بأكمله متصلاً من خلال هاتفي الذكي الخاص.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

خلال يوم العمل العادي، تكون جميع اتصالاتي المرتبطة بالعمل من خلال هاتفي الذكي الخاص.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

أحتاج كثيرًا إلى استخدام هاتفي الذكي الخاص للبقاء على اتصال بعملي.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

من الشائع في مؤسستنا استخدام الهواتف الذكية الخاصة لصالح العمل.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

يصعب علي إيقاف تشغيل هاتفي الذكي الخاص أثناء ساعات العمل.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

أحمل دائمًا هاتفي الذكي الخاص معي في كل مكان أذهب إليه للبقاء على اتصال بعملي.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

تشجع استراتيجية المنظمة استخدام الهواتف الذكية الخاصة في العمل.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

تشجع سياسات المنظمة استخدام الهواتف الذكية الخاصة في العمل.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○

تشجع الخطط التكتيكية (تنفيذ خطط العمل) على استخدام الهواتف الذكية الخاصة في العمل.

	أعارض بشدة	أعارض	لا اوافق و لا أعارض	أوافق	أوافق بشدة
الاجابة	○	○	○	○	○


لن أتخلى أبدًا عن استخدام هاتفي الذكي الخاص بالعمل، حتى لو تأثرت حياتي اليومية به كثيرًا.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
أنا غير قادر على القيام بالمهام اليومية للعمل بدون هاتفي الذكي الخاص، حيث يتم حفظ جميع الجداول والعناصر الشخصية عليه.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
يساعدني هاتفي الذكي الخاص على أداء المهام اليومية بشكل مستقل.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
أشعر بالقدرة على أداء مسؤوليات وظيفتي أثناء استخدام هاتفي الذكي الخاص
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
يزيد هاتفي الذكي الخاص من استقلاليتي و مرونتي في العمل.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
أشعر بالالتزام بالرد على الفور على المكالمات الهاتفية أو الرسائل من العمل.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
الأداء الوظيفي
يساعدني هاتفي الذكي الخاص في أداء مهامي اليومية في العمل بأقل وقت وجهد.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
يعمل هاتفي الخاص على تحسين جودة المهام التي أكملها في العمل.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
أوافق بشدة
الاجابة
أنا قادر على القيام بمهامي اليومية للعمل بدون هاتفي الذكي الخاص.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
الاجابة
أشعر بالاستقلالية عند استخدام هاتفي الذكي الخاص.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
الاجابة


يؤدي مجرد وجود هاتفي الذكي الخاص إلى انخفاض قدرتي على التركيز على أداء المهام.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
الاجابة
يزيد هاتفي الخاص من مرونتي في التعامل مع المهام المختلفة.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
الاجابة
يتطلب إكمال مهام عملي من خلال هاتفي الذكي الخاص وقتًا أكثر من المعتاد.
أعارض بشدة
أعارض
لا اوافق و لا أعارض
أوافق
الاجابة
Page 3 of 3

Appendix C Pilot Test Results Of The Survey Questionnaire

The following pilot study results were for the two dimensions of contextual factors (CNF); technological context (TCX) and organizational context (OCX), two dimensions of technology paradox (TCP), Empowerment-enslavement paradox (EEP) and independence-dependence paradox (IDP) and task performance as a higher-order construct.

Table 1: Skewness and Kurtosis

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
TCX1	30.0	4.0	0.8	0.0	0.4	-1.4	0.8
TCX2	30.0	3.7	0.9	-0.4	0.4	-0.5	0.8
TCX3	30.0	3.7	1.1	-0.2	0.4	-1.1	0.8
TCX4	30.0	4.1	0.6	-0.1	0.4	-0.4	0.8
TCX5	30.0	4.3	0.7	-0.5	0.4	-0.6	0.8
TCX6	30.0	3.6	0.9	0.3	0.4	-0.6	0.8
OCX7	30.0	4.1	0.9	-0.6	0.4	-0.4	0.8
OCX8	30.0	4.0	0.9	-0.1	0.4	-1.6	0.8
OCX9	30.0	3.9	0.6	0.1	0.4	-0.3	0.8
OCX10	30.0	3.8	0.8	0.0	0.4	-0.9	0.8
OCX11	30.0	3.6	1.0	-0.1	0.4	-1.0	0.8
EEP12	30.0	4.0	1.1	-1.3	0.4	1.7	0.8
EEP13	30.0	4.2	0.7	-0.9	0.4	1.8	0.8
EEP14	30.0	3.9	0.8	-0.3	0.4	-0.2	0.8
EEP15	30.0	3.7	0.8	-0.9	0.4	2.5	0.8
EEP16	30.0	3.4	0.9	-0.4	0.4	-0.8	0.8
EEP17	30.0	3.7	1.1	-0.9	0.4	-0.1	0.8
IDP18	30.0	3.9	0.7	0.1	0.4	-1.1	0.8
IDP19	30.0	3.9	0.6	0.0	0.4	0.2	0.8
IDP20	30.0	4.0	1.0	-0.8	0.4	-0.1	0.8
IDP21	30.0	3.7	0.8	0.3	0.4	-0.7	0.8
IDP22	30.0	4.1	0.9	-0.6	0.4	-0.4	0.8
TSP23	30.0	4.1	0.8	-0.6	0.4	0.1	0.8
TSP24	30.0	4.0	0.9	-0.6	0.4	-0.4	0.8
TSP25	30.0	4.2	0.7	-0.2	0.4	-0.8	0.8
TSP26	30.0	3.8	0.6	0.1	0.4	-0.3	0.8
TSP27	30.0	3.9	1.1	-0.6	0.4	-0.9	0.8

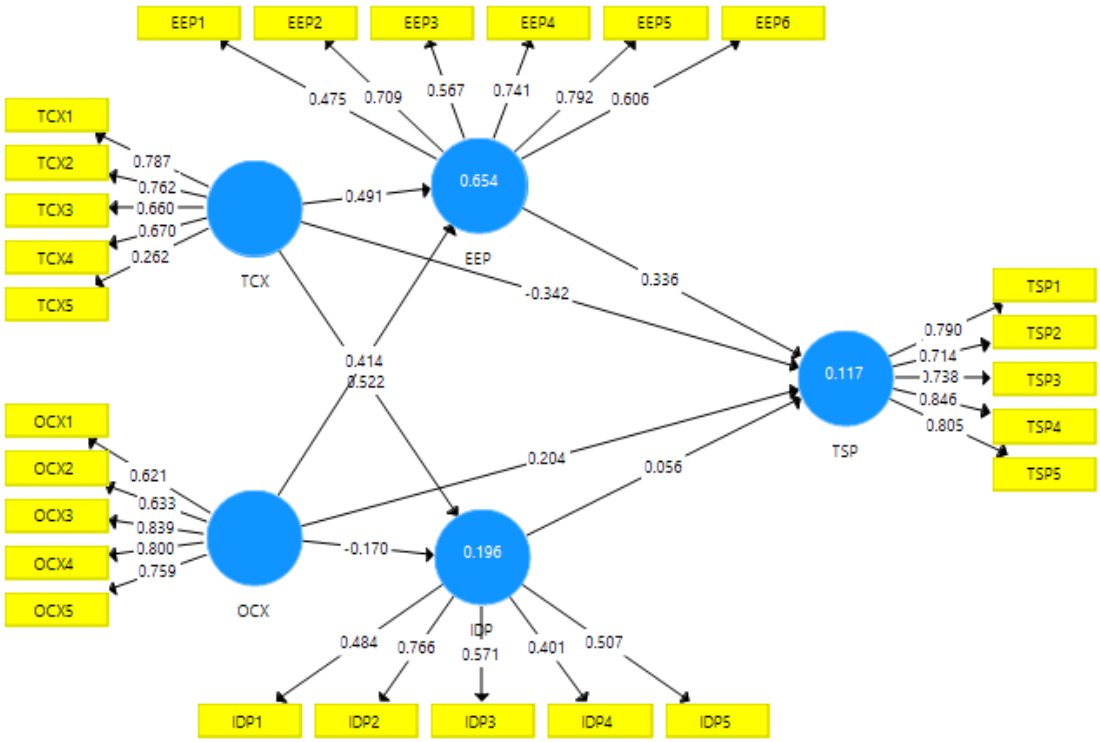


Figure 1: Reflective Measurement Model Before reduction

Table 2: Reliability and Validity Before Reduction

Dimensions	**Cronbach's Alpha**	**rho_A**	**CR**	**AVE**
EEP	0.724	0.724	0.816	0.432
IDP	0.411	0.411	0.684	0.313
OCX	0.781	0.781	0.853	0.541
TCX	0.617	0.617	0.776	0.431
TSP	0.838	0.838	0.886	0.609

Table 3: Factor Loading Before Reduction

Dimensions	EEP	IDP	OCX	TCX	TSP
EEP1	0.475				
EEP2	0.709				
EEP3	0.567				
EEP4	0.741				
EEP5	0.792				
EEP6	0.606				
IDP1		0.484			
IDP2		0.766			
IDP3		0.571			
IDP4		0.401			
IDP5		0.507			
OCX1			0.621		
OCX2			0.633		
OCX3			0.839		
OCX4			0.800		
OCX5			0.759		
TCX1				0.787	
TCX2				0.762	
TCX3				0.660	
TCX4				0.670	
TCX5				0.262	
TSP1					0.790
TSP2					0.714
TSP3					0.738
TSP4					0.846
TSP5					0.805

Table 4: Discriminant Validity

Dimensions	Dimensions				
	EEP	IDP	OCX	TCX	TSP
EEP	**0.657**				
IDP	0.300	**0.560**			
OCX	0.706	0.140	**0.736**		
TCX	0.737	0.420	0.594	**0.656**	
TSP	0.244	0.041	0.246	0.050	**0.780**

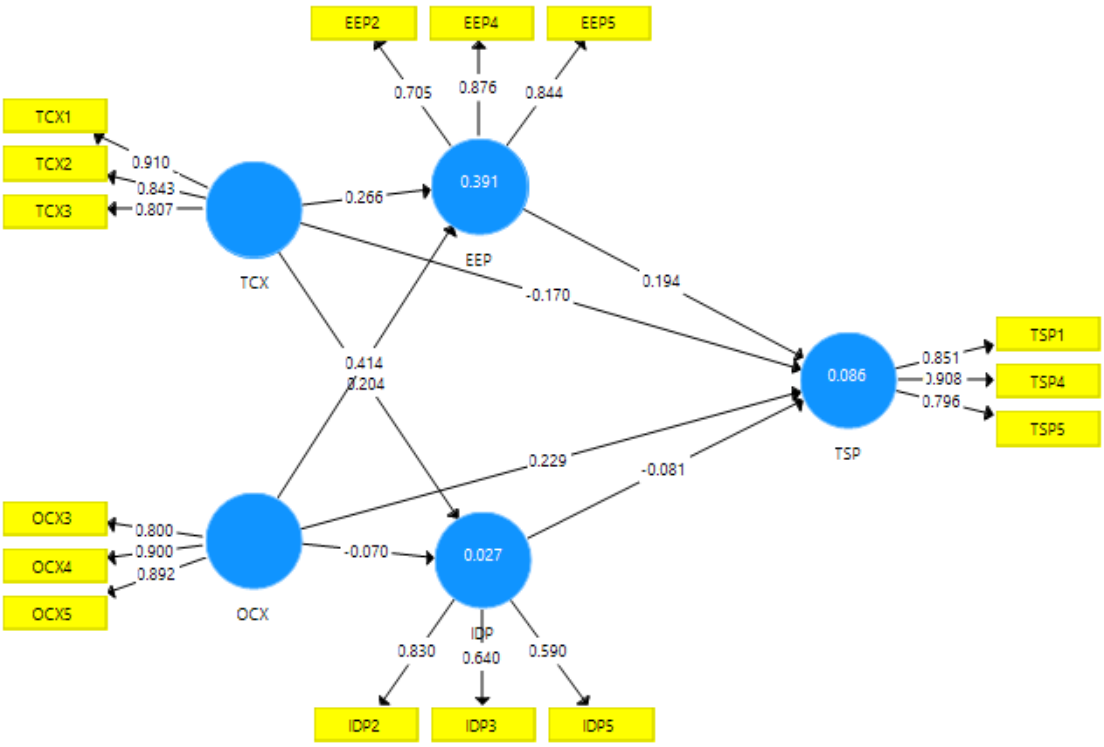


Figure 2: Reflective measurement model after reduction

Table 5: Reliability and Validity After Reduction

Dimensions	Cronbach's Alpha	rho_A	CR	AVE
EEP	0.735	0.735	0.852	0.659
IDP	0.439	0.439	0.732	0.482
OCX	0.830	0.830	0.899	0.749
TCX	0.813	0.813	0.890	0.730
TSP	0.811	0.811	0.889	0.727

Table 6: Factor Loading After Reduction

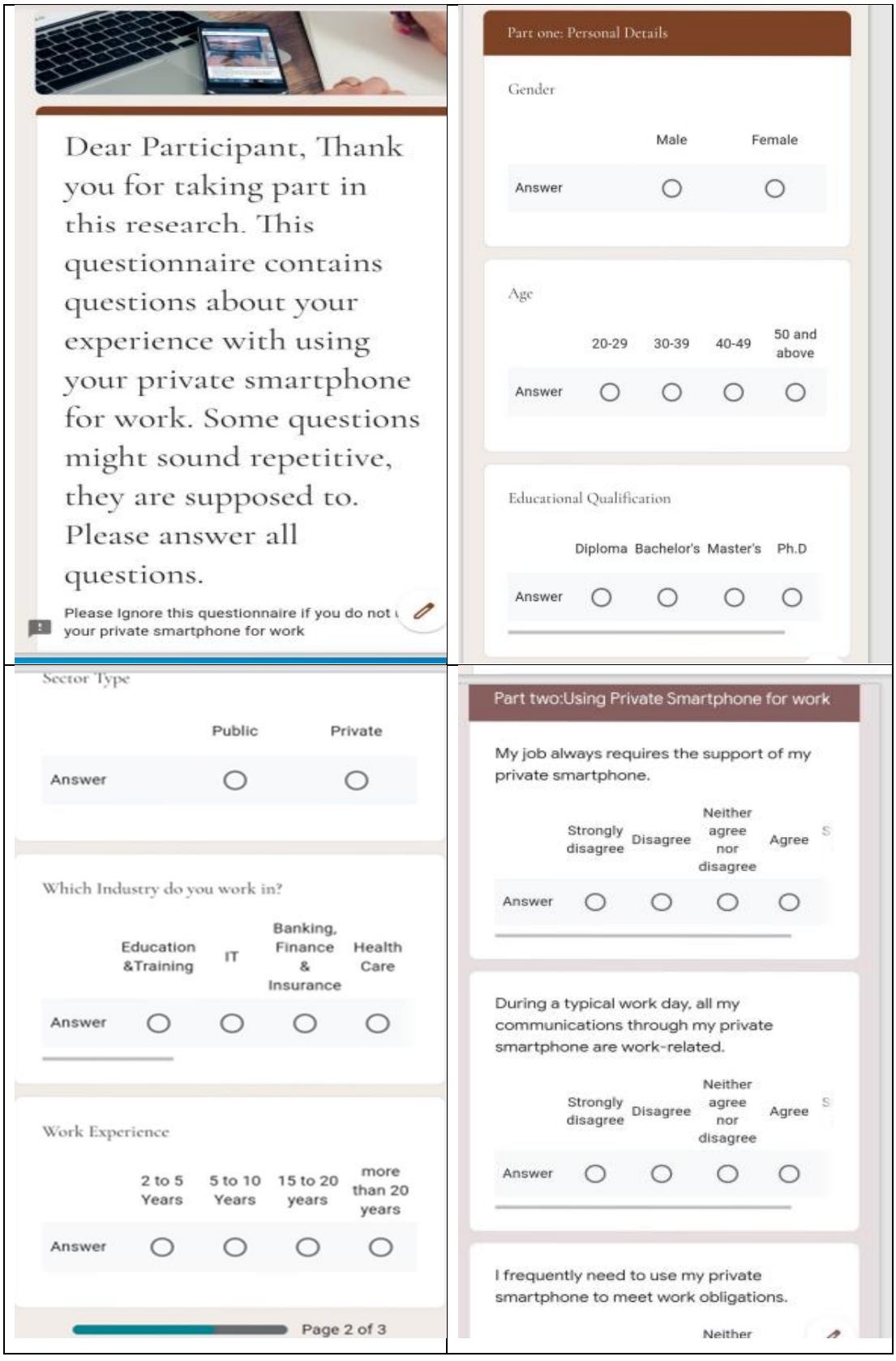
Dimensions	EEP	IDP	OCX	TCX	TSP
EEP2	0.705				
EEP4	0.876				
EEP5	0.844				
IDP2		0.830			
IDP3		0.640			
IDP5		0.590			
OCX3			0.800		
OCX4			0.900		
OCX5			0.892		
TCX1				0.910	
TCX2				0.843	
TCX3				0.807	
TSP1					0.851
TSP4					0.908
TSP5					0.796

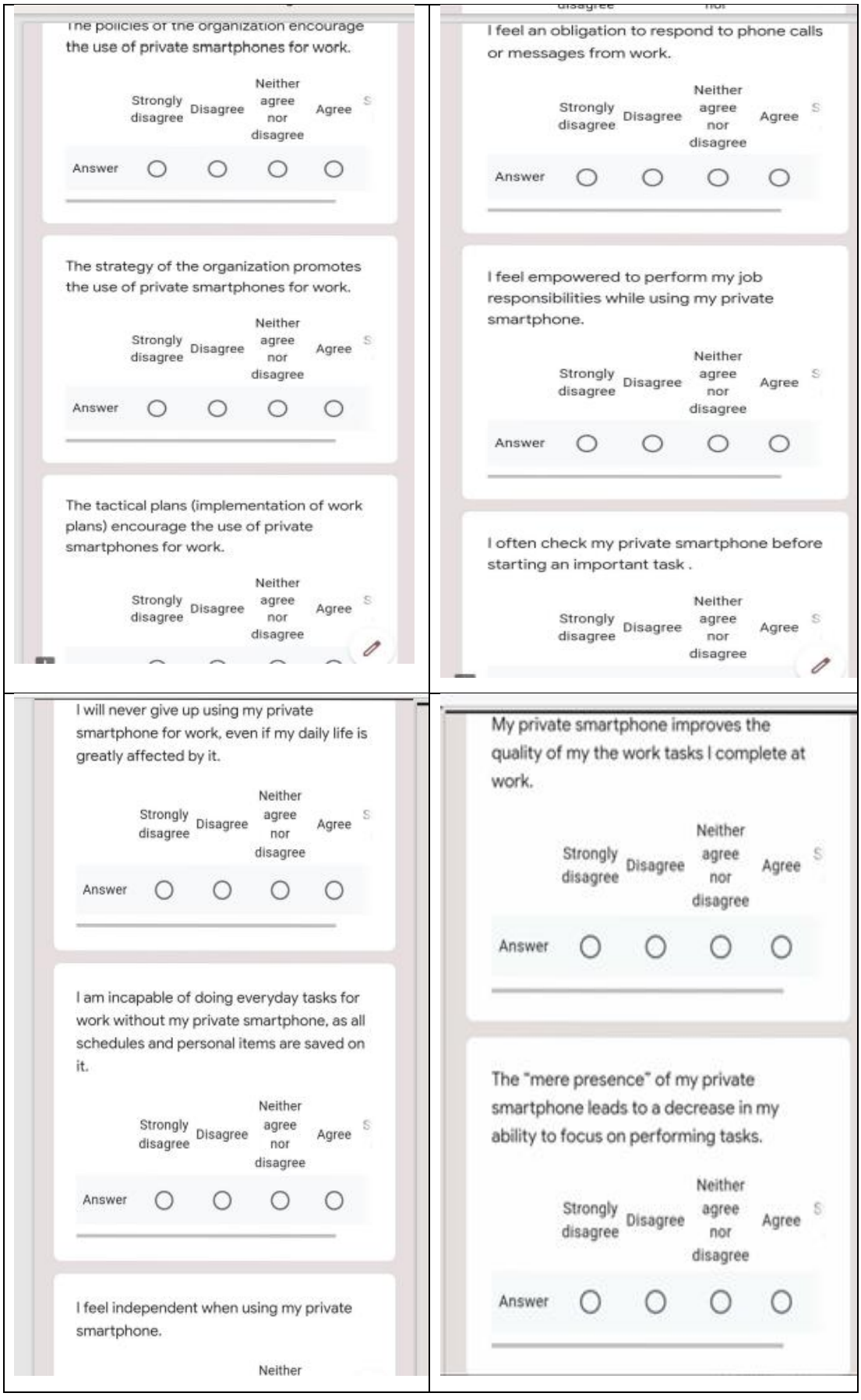
Table 7: Discriminant Validity After Reduction

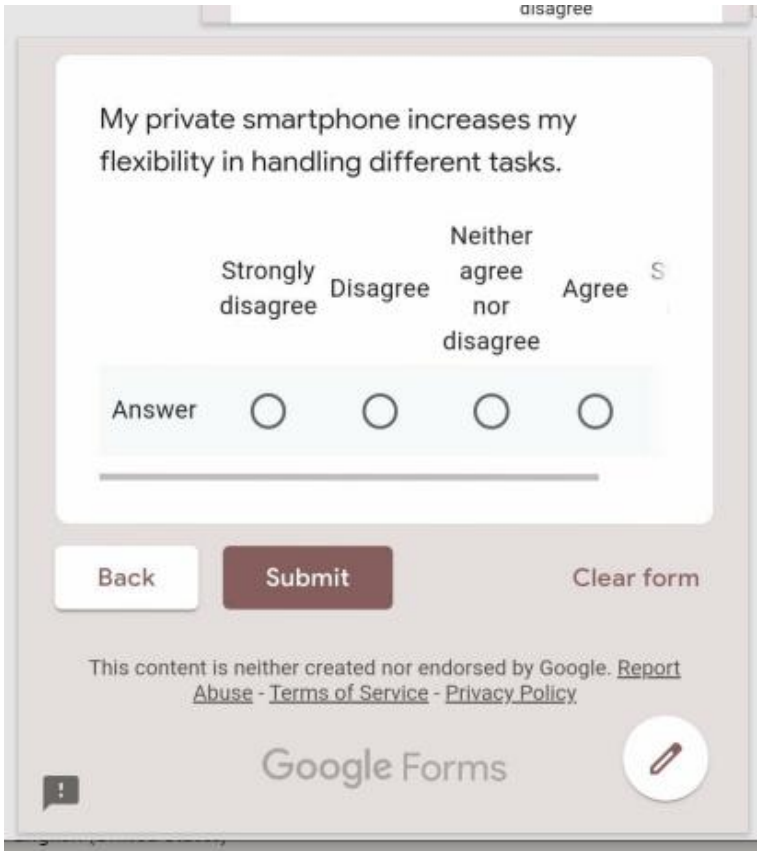
	Dimensions				
Dimensions	**EEP**	**IDP**	**OCX**	**TCX**	**TSP**
EEP	**0.812**				
IDP	0.173	**0.694**			
OCX	0.594	0.069	**0.865**		
TCX	0.546	0.157	0.678	**0.854**	
TSP	0.223	-0.059	0.224	0.079	**0.853**

Thus, eliminating the factor loadings below 0.7, the reduced questionnaire is given in Appendix D.

Appendix D The Final Survey Questionnaire




The policies of the organization encourage the use of private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
The strategy of the organization promotes the use of private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
The tactical plans (implementation of work plans) encourage the use of private smartphones for work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
I feel an obligation to respond to phone calls or messages from work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I feel empowered to perform my job responsibilities while using my private smartphone.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I often check my private smartphone before starting an important task .
Strongly disagree
Disagree
Neither agree nor disagree
Agree
I will never give up using my private smartphone for work, even if my daily life is greatly affected by it.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I am incapable of doing everyday tasks for work without my private smartphone, as all schedules and personal items are saved on it.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
I feel independent when using my private smartphone.
Neither
My private smartphone improves the quality of my the work tasks I complete at work.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
The "mere presence" of my private smartphone leads to a decrease in my ability to focus on performing tasks.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer


disagree
My private smartphone increases my flexibility in handling different tasks.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Answer
Back
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Appendix E Qualitative Interview Protocol

1.0	**Introduction**		
		1.1	Thank interviewee for participation, introduce study focus
		1.2	Explain interview structure and inform the interviewee that it is recommended to share anecdotes of experiences of smartphone usage for work-related purposes
		1.3	Demographic details (gender, age, time in current role, previous education and work experience, experience with smartphone usage).
2.0	**Research Questions**	**Contextual Factors (CNF)**	
	RQ_1 Which contextual factors drive the emergence of the technology paradox in mobile technology usage based on the experiences of employees in Kuwait?	A.	Technological Context (TCX)
		2.1	Does your job always require the support of your private smartphone? Explain
		2.2	During a typical workday, are all types of communications through your private smartphone work-related? Explain.
		2.3	Can you explain how often you are using your smartphone to meet your work obligations? Are there particular times when this will fluctuate? How do you decide when and where to be connected through smartphone – for instance, some employees decide to take their cell phones to meetings, lunch, everywhere – do you have similar experiences (probe interviewee for more stories/examples)? Why do you do this?
		B.	Organizational Context (OCX)
		2.4	How do the policies of the organization encourage the use of private smartphones for work? Are there any workplace policies that might restrict or guide the use of smartphones? Explain
		2.5	How does the strategy of the organization promote the use of private smartphones for work?
		2.5	Can you explain how the tactical plans (implementation of work plans) encourage the use of private smartphones for work?

3.0		**Technology Paradox (TCP) and Task Performance (TSP)**	
	RQ_2 Does the TCP in mobile technology usage have relationships with CNF and employee TSP? **RQ_3** Which specific dimensions of CNF and the TCP in mobile technology usage are related to employee TSP?	3.1	How responsive are you to communication through ICTs? For example, are you responding to emails instantly, or is there a particular way that you work? Why do you take this approach?
		3.2	Do you feel an obligation to immediately respond to phone calls or messages from work?
		3.3	How does the use of your private smartphone make you feel empowered or enslaved? Explain.
		3.4	How does the use of your private smartphone make you feel independent or dependent? Explain. How does your private smartphone help you to perform everyday tasks independently?
		3.5	Does your organization make you feel empowered or enslaved (in terms of using your smartphone for work)? Explain.
		3.6	Does your organization make you feel independent or dependent (in terms of using your smartphone for work)? Explain will you give up using your private smartphone for work, if your daily life is greatly affected by it?
		3.7	Does the feeling of being empowered or enslaved influence your task performance? Explain. Does your private smartphone increase your flexibility in handling different tasks?
		3.8	Does the feeling of being independent or dependent influence your task performance? Explain. Are you capable of doing your everyday tasks for work without your private smartphone?
		3.9	What is your view about the association between the context, paradox in mind, and your task performance with specific reference to smartphone usage?
	RQ_4 Does the TCP in mobile technology usage mediate the influence of CNF on employee TSP?	4.1	If we conceptualize that there is an environment supportive to smartphone usage (contextual factors), and the feeling of 'positive and negative' about the impact of the smartphone on your work (technology paradox), and then, there is an outcome to be produced by you in the form of task performance how do you relate these three? Does your private smartphone improve the quality of the tasks you complete at work?
			CLOSURE
		5.1	Are there any other comments you would like to add to end this interview or any sections that you would like us to go back to for further discussion?
		5.2	Thank participant, and state the date of when the transcript will be sent for their review. Remind them that contact details are available on the information form

Appendix F Empowerment Theme

Respondents	***Excerpts of the in-depth interviews Empowerment Theme***
IR_1	*"Yes, we are empowered by the organization to use the information that we find most suitable in a given situation."*
IR_2	*"We find empowerment to use the phones in our decision-making activities, and sometimes we find answers to the questions asked by our students very easily in the Apps, which not only clarifies their doubts but also, it uses creative ways to make the student comprehend it through audio-visual aids and registers it in their minds."*
IR_3	*"The organization in which I serve is technology governed and naturally has a strong technological context. This strong context or background of technology empowers us to make the best use of technology to produce quality work. I know my powers and line of authority. I have a clear picture of the limits of my usage of resources, and I do not have to consult my superiors on either the resource utilization or use of manpower, and it is left to my discretion."*
IR_4	*"There is no end for HR issues in any organization as somebody would fall sick, somebody needs leave, somebody has to report to the Vice-president, and there is a major crisis at times where HR intervention is a must. So, in one way, I am enslaved by technology, as I can be accessed from anywhere by my boss. But yes, it also empowers me to make decisions as I have all the data and information at my fingertips. I can call it 'a double-edged sword'."*
IR_5	*"As I report to the top level of management at my capacity of Senior Legal Consultant, I do have my privileges, and I am definitely empowered in my job to make decisions at my own discretion on issues such as legal requirements in a case, fixation of fees for consultancy, using the company resources for executing the tasks, assuring the type of deliverables to the customer, deciding on the timeline and so on. My senior management has never interfered or questioned my decisions on these matters, and this empowerment has enabled me to perform much better."*

The Relationship Between Organizational Context and Empowerment-Enslavement Paradox

Respondents	***Organizational context (OCX) and → Empowerment-Enslavement Paradox (EEP)***
IR_1	*"Our organizational policies, strategies, and their execution are supportive to the smartphones as the enabler technology. This automatically empowers us to make use of the facilities available through smartphones to ease our work, and the Apps mentioned before are very handy in carrying out our day-to-day activities. That does not mean that I always feel that smartphones are an enabler to the execution of strategic plans of the organization, but sometimes, it generates a feeling as if it has made us slaves to technology. Our critical thinking abilities are being reduced due to the smartphone Apps, and to some extent, we are enslaved to it. It has now become a habit for me to look into my smartphone for a plausible solution to a problem than thinking about it myself. I feel that if smartphones are used only as information providers to our decision-making, then fine, it empowers us, but if it is used as a tool to make decisions itself, then we are enslaved to it as our discretion takes the back seat."*
IR_2	*"Our organization is supportive of the use of smartphones in teaching-learning activities. For higher classes, we have provided mobile Apps to the students to learn lessons through smartphones during their free time. We find empowerment to use the phones in our decision-making activities, and sometimes we find answers to the questions asked by our students very easily in the Apps, which not only clarifies their doubts but also it uses creative ways to make the student comprehend them through audio-visual aids and registers it in their minds. To be frank, these Apps have reduced the burden of teaching, and we need not 'know it all' as smartphones assist us even in teaching. But on the flip side of it, we have observed that our knowledge base is diminishing, and we do not try to remember or recall even the simplest of the formulae, as they are stored in the App, and yes, in one way, we are also enslaved to the technology."*
IR_3	*"Our organizational policies are congenial to the usage of smartphones during the working hours, and in fact, we cannot operate without some of the mobile Apps which are very handy. xxxx are the Apps we use almost on a daily basis and are quintessential for our job performance. I personally feel that the smartphone empowers me in my work more than enslavement, as it has become an indispensable tool in my kit. Of course, to some extent, I am enslaved to it; however, as the positive impact is more than the negative, I feel it will remain a part of our day-to-day operations.*

Respondents	***Organizational context (OCX) and → Empowerment-Enslavement Paradox (EEP)***
IR_4	*"Our organization is tuned to the use of smartphones in its functionality. It is more of an empowerment to us as it facilitates the accomplishments of our tasks much easier. For instance, I use xxxx App for simplifying complex workflows, xxx recruits to facilitate my hiring requirements, SmartH2R for my day-to-day activities as an HR manager, and there are many such Apps, which are indispensable to me as an HR Manager. It is difficult for me to answer if it empowers or enslaves me, as my answer to both is yes, but the positives outweigh the negatives, so I am happy the organization is supportive of its usage."*
IR_5	*"As mentioned before, I frequently use smartphones to accomplish my day-to-day tasks as an accountant. Our organizational policies support the usage of mobiles during work…. Even my individual work is facilitated through mobile Apps, and I cannot be comfortable without it. My smartphone has empowered me to a great deal, but, at the same time, made me a slave to it also to some extent, as it rules me in my activities, and without it, I become a sort of handicapped. But I must mention that the positives are more than the negatives both in quantity as well as its magnitude."*

Appendix G Enslavement Theme

Respondents	***Excerpts of the in-depth interviews Enslavement Theme***
IR_1	*"This adoption of technology has led to a situation of being at an advantage as well as at a disadvantage. Smartphone has given me the ability to contact any of our resources and retrieve the information I want for use at my work, but at the same time, my dependency on it has enslaved me to it."*
IR_2	*".... But on the flip side of it, we have observed that our knowledge base is diminishing, and we do not try to remember or recall even the simplest of the formulae, as they are stored in the App, and yes, in one way, we are also enslaved to the technology."*
IR_3	*"Our organizational policies are congenial to the usage of smartphones during the working hours, and in fact, we cannot operate without some of the mobile .... I feel that the smartphone empowers me in my work more than enslavement, as it has become an indispensable tool in my kit. Of course, to some extent, I am enslaved to it; however, as the positive impact is more than the negative, I feel it will remain a part of our day-to-day operations."*
IR_4	*"There is no end for HR issues in any organization as somebody would fall sick, somebody needs leave, somebody has to report to the Vice-president, and there is a major crisis at times where HR intervention is a must. So, in one way, I am enslaved to the technology, as I can be accessed from anywhere by my boss."*
IR_5	*"The best part is, I can retrieve information from anywhere or any person from my organization. But at the same time, yes, it has enslaved me to itself as, if I don't have my smartphone with me, I get lost."*

Appendix H Independence Theme

Respondents	***Excerpts of the in-depth interviews Independence Theme***
IR_1	*"……. He was not only impressed but inquired about the App I had used. This made me feel independent of my work, as I could produce the result instantly from wherever I was."*
IR_2	*"….it made me feel independent as I don't have to take the help of others or my physical presence with the student is not required always.''*
IR_3	*"Smartphone is my source for immediate access to any design data, maintenance data or order specifications in the oil rigs where I work most of the time, and it gives me the power to make independent decisions, but at the same time I am easily traceable by my boss, and it has snatched away my freedom completely, and it appears as if I am on the job 24/7."*
IR_4	*It enables me to make independent decisions, and after I am convinced about the action plan based on the results I get from my App, I discuss it with my superior, and he gets easily convinced as my arguments are all based on facts and figures as supported through my App."*
IR_5	*"I feel independent in decision making in connection to my job through the use of the right technology support."*

Appendix I Dependence Theme

Respondent	*Excerpts of the in-depth interviews Dependence Theme*
IR_1 Accountant	*"…….But on the flip side of it, the smartphone has at times made me feel completely dependent on it as I feel handicapped without it.."*
IR_2 Teacher	*"…sometimes, yes, it does make me feel that I am over-dependent on it, and it even snatched my independence as anyone can contact me anytime, even for trivial issues that waste my productive time.*
IR_3 Engineer	*"While I feel I am independent in my operations, I also feel that I am over-dependent on technology as my operation will be standstill without it.*
IR_4 HR Manager	*the situation is dichotomous as it also makes me feel dependent on it all the time, but the advantages are higher, so I ignore the negative effect of it."*
IR_5 Legal Consultant	*"Yes, the technology also makes me feel that I am over-dependent on it."*

Appendix J Technological Context Theme

Respondents	***Excerpts of the in-depth interviews Technological Context theme***
IR_1	*" ….in our organization …..I had to submit the balance sheet to the Vice-president for the quarter year with the available data in a few hours. I had xxxx mobile App installed on my smartphone, and within half an hour, I could project the assets and liabilities on the Balance Sheet as required by the Vice-president. He was not only impressed but inquired about the App I had used."*
IR_2	*"… .. Smartphone provides me access to communicate to any teacher and take inputs while deciding on an important aspect which may affect the students' career."*
IR_3	*"The organization in which I serve is technology governed and naturally has a strong technological context. This strong context or background of technology empowers us to make the best use of technology to produce quality work. I have a clear picture of the limits of my usage of resources, and I do not have to consult my superiors on either the resource utilization or use of manpower, and it is left to my discretion."*
IR_4	*"In our organization smartphone, usage is official. As an HR manager, it is a must for my day-to-day operations. Most of my communications with the employees during duty hours will be through smartphones. Sometimes the employees have doubts about the usage of some of the newly introduced HR schemes, and they call me, and I clarify their doubts over the phone. Most of the photos of the department activities are communicated to me through WhatsApp or uploaded to the site, and the link on the internet is communicated to me. In one way, all the interactions which last for a few minutes will be settled through the phone, and usage of smartphone is inevitable during the duty hours."*
IR_5	*"As a legal consultant, I need to stay in touch with my clients throughout my service period as they keep contacting me through WhatsApp, especially when a legal issue pops up. So, my smartphone is an indispensable part of my professional life. Our organization has responded very well to this change in information handling and adopted very fast and introduced expertise both at the level of human and physical resources. This background motivates us to exploit the smartphone to the best of its use as we need to beat the competition."*

Technological Context (further explanation of the survey questionnaire)

Respondents	***Technological context (TCX)***
IR_1	1. My job always requires the support of my private smartphone *"Smartphone is a part of my support device to establish communication with the client. Being an accountant, my smartphone is on during the entire working hours. Any queries on, e.g., the pay-slips of the employees, claim settlements, balance sheets, cash flow statements, profit-loss accounts, etc., will be through smartphone, and I need to keep my device close to me as I may receive calls from my superiors or colleagues at any time. Most of the queries will be answered through my smartphone. Only when more clarification of detailed discussions is required, my boss calls for personal interaction."* 2. During a typical workday, all my communications through my private smartphone are work-related. *"I could say most of the communication is work-related. I do receive personal calls, but they are few, as my family and friends know that I have a busy schedule in my office. The rest of the communication is all work-related. When I report to the Senior Vice-president of the company, typically, they are issues connected to bookkeeping, financial statements, employee records connected to salary, pay-rolls, bills and payments, client invoicing, credit card receipts, company assets, financial analysis reports, government client reporting, advise on decision making, public accounting, insurance claims, etc. Sometimes just a few minutes' discussions on these aspects may save a lot of time for the higher management.* But *there are occasions when I have to speak longer to provide further details, so the duration of the call may even extend to an hour or so, especially when my boss is offsite and needs some clarifications on the financial aspects of the company."* 3. I frequently need to use my private smartphone to meet work obligations. *"Yes, the connectivity to all the stakeholders of business during the entire work-day is through my smartphone. If my superior has something to communicate with, invariably, she contacts me through the smartphone. If the issue is small and can be sorted out over the phone, it will be settled; However, if documents have to be produced, personal meetings may be necessary. If I can quickly recall, there was a call from my superior on 'bills and payments.' We have an application in our office which is tailor-made to undertake this activity. I need to capture the situation first into my application over the smartphone, in which I drop the invoice and auto-enter all the data into the database. I forward it to my superior for approval from my device to my superior's device. My superior will then sanction the payment on a priority basis and payment will be made. It will be immediately reconciled into the system by synchronizing the transaction to the system database. On some days, this operation will take place for hours until all the pending bills are cleared. So, on some days my entire work-day is connected through a smartphone.*

Respondents	***Technological context (TCX)***
IR_2	1. <u>My job always requires the support of my private smartphone</u> *"Even though my smartphone will not be used during my teaching period, it will be active most of the time during the rest of the working hours. For instance, if I need to know the details of additional topics I need to cover in a chapter or change of schedule in timetable or an emergency meeting, or if I need an immediate response from my colleagues, I need to use my smartphone. So, my job demands the use of my smartphone all the time during duty hours, except during meetings and classes."* 2. <u>During a typical workday, all my communications through my private smartphone are work-related.</u> *"Yes, as we are under the instruction that we are not supposed to take personal calls during the duty hours, I generally do not respond to calls from relatives or friends. Most of the time, the discussions over the phone are with my superiors and colleagues about the latest updates and rules issued, implementation of a decision of school councils, local community associations, strategic issues of school, resources utilization, operational issues, parent issues, department policies, legislative issues, environmental issues, etc. Some parents have a troubled child whom we will have to speak to even though there are trained counselors who respond to parent queries. But parents feel comfortable when they speak to the class teacher and know about the performance of their children. So, mostly yes, the mobile phones are used during the duty hours to discuss the issues related to school, students, and other matters in the school where a physical meeting may not be necessary."* <u>3. I frequently need to use my private smartphone to meet work obligations.</u> *"Not always, I can claim that my work-day is connected through the smartphone. But occasionally, yes, there have been days when I have been connected to the Vice-principal of the school for almost the entire day. For instance, when we had our school 'open day' during which the entire day parents used to visit us and discuss the issues related to their children, I had to get connected to the Vice-principal throughout the day periodically. This was because certain issues were the prerogatives of the Vice-principal, but the parents discussed it with me as I was more accessible to them. To seek the consent of my superior, I had to be in touch with the Vice-principal before I made any commitment to the parents. This*

	process was on for the entire day. So, there are days when I don't use my smartphones continuously for the entire day, and there are days when I do it depending upon the nature of the task to be accomplished on that day."

Respondents	***Technological context (TCX)***
IR_3	1.My job always requires the support of my private smartphone *"My job will be difficult to execute if not for my smartphone. During the field visits in the oil rigs, for technical assistance from my colleagues, the first contact point would be through my smartphone. If the technical issue is resolved, there will be no need for the technician to visit the maintenance site, or else, I may have to summon the concerned technician to be at the maintenance site during the scheduled maintenance program. During my work last week, there was a leakage in the oil seal from a diesel engine, and I had to quickly send the photo of the cylinder head through WhatsApp to the technician so that he has a clear idea of which seal he needs to procure despite me sending the specifications of the same. There are similar other issues to be resolved which demand the usage of smartphones during my work so taking the smartphone to my work site will be unavoidable and it becomes a part of my work."* 2.During a typical workday, all my communications through my private smartphone are work-related. *"My duty is mainly in oil rigs, and the calls I receive are official. I mainly deal with rigging activities, so calls will be from the head office and are related to the inventory control, drilling operational issues and deviations from the plan if any, safety issues, compliance check, the effectiveness of activities, materials, and supplies, condition monitoring, procedure evaluation, drilling budget, daily operation reviews, work service order, dispatch of materials required at the rig, follow-ups on maintenance and repair, the scope of a project plan, review of project schedule, resources optimization, etc. Detailed meetings and documentation will be made during the personal meetings; however, some clarifications and inquires do happen as and when the problem arises, and smartphones are handy during that time."* 3. I frequently need to use my private smartphone to meet work obligations.

	"Yes, I will be using my smartphone throughout the work-day mostly. As told before, I am a rig engineer, and I cannot be there on-site all the time because I have to look after some overall maintenance issues at times. During those days, when I am out of the worksite, the technicians will contact me on the smartphone and take my approval on repair or replace of the part of the machine. They communicate to me the type of mechanical breakdown and even send to my smartphone the picture of the component which has failed. I will have to study the situation and procure the part from the inventory or approve replacement to the technician so that he can use the components available on the site. During some major breakdown, the entire day may be used in the smartphone for bringing back the rig into its original working condition."

Respondents	***Technological context (TCX)***
IR_4	1.My job always requires the support of my private smartphone. *"Most of my communication with the employees during the duty hours will be through the smartphones. Sometimes the employees have doubts about the usage of some of the newly introduced HR schemes, and they call me, and I clarify their doubts over the phone. Most of the photos of the department activities are communicated to me through WhatsApp or uploaded to the site, and the link on the internet is communicated to me. In one way, all the interactions which last for a few minutes will be settled through the phone, and usage of smartphone is inevitable during the duty hours."* 2.During a typical workday, all my communications through my private smartphone are work-related. *"Rarely do I use the mobile phone for personal calls during duty hours unless there is an emergency at home. It will be used mainly to handle issues such as HR strategy implementation, bridging the management and employee relations, recruitment issues, scheduling the meetings, training and development, employee welfare, HR support to business needs, developing a positive working environment, handling conflicts of interest, pays and benefits, performance appraisal, legal compliance, etc."* 3.I frequently need to use my private smartphone to meet work obligations. *"I use the smartphone very often during my working hours. As an HR manager bridging the management and employee relations is an important part of my work, and it demands lots of negotiations with either of the sides. Even during the*

	training and development period, continuous usage of the phone will be required as there is a lot of coordination work to be undertaken. In short, I can say that I would be dysfunctional without the smartphone available during the duty hours.''

Respondents	*Technological context (TCX)*
IR_5	1.My job always requires the support of my private smartphone. *"Using my smartphone during working hours is a necessity for my profession. My clients keep calling over the phone. The nature of the claim, the policies, and procedures to be followed, the documents to be submitted, scheduling the meeting, etc., are all facilitated through phone calls. In fact, when I start my office from home, the first thing I check is if I have carried my smartphone with me or not. It is quintessential for my day-to-day operations, and it is a part of my work requirement. All the firsthand information regarding the legal issue will be collected through the phone call, and the client will be asked to submit the documents in person during the scheduled meeting. So, ye,s smartphone is part of my work requirement."* 2.During a typical workday, all my communications through my private smartphone are work-related. *"My nature of duty demands the usage of my smartphone to a great deal. The calls will be on discussing legal issues, drafting statutory and legal submissions, legal opinions, reviewing legal materials, supply of relevant documents, legal clauses, progress monitor of cases, service delivery, dispute handling, taxation issues, real estate deals, employment agreement, etc."* 3. I frequently need to use my private smartphone to meet work obligations. *"Yes, I will have to use my smartphone throughout the day sometimes. Say the drafting statutory and legal submissions need lots of information from various sources, and I need to make calls often. Similarly, while giving legal opinions, again and again, the clients call me while cross verifying if all the documents are ready for submission, I will have to check the concerned whenever there is a missing document, and I do it over the smartphone."*

The Relationship Between Technological Context and Empowerment-Enslavement Paradox

Respondents	***Technological context (TCX) → Empowerment-Enslavement Paradox (EEP)***
IR_1	*My organization has accepted smartphones as one of the technologies which have to be used during the job execution. This adoption of technology has led to a situation of being at an advantage as well as at a disadvantage. Smartphone has given me the ability to contact any of our resources and retrieve the information I want for use at my work, but at the same time, my dependency on it has enslaved me to it. Without my smartphone at work, I feel I am handicapped, and every now, and then I look into my smartphone for account statements, bills, payment receipts, pending bills, etc., from the past records."*
IR_2	*"Smartphone is one of the technologies which is being used in our school to make us perform better…… Smartphone provides me access to communicate with any teacher and take inputs while making decisions on important aspects which may affect the students. But sometimes, I also feel I am enslaved to it as I feel I am accessible to my higher authorities no matter whether I am at work or home. I am planning for a picnic with my family, and my superior calls me to work on the same day because my presence there is a must. If the smartphone was not there probably, I could have had many opportunities to enjoy my leave."*
IR_3	*"As an engineering firm, we are attached to the latest technologies, and the context in which the technology is being used is very well supportive of our functionality. While the technology supports our thinking and decision-making abilities in connection to the job, at times, it also gives us a feeling that on many issues, we had much more freedom before this technology was introduced. A smartphone is my source for immediate access to any design data, maintenance data, or order specifications in the oil rigs where I work most of the time, and it gives me the power to make independent decisions, but at the same time, I am easily traceable by my boss, and it has snatched away my freedom completely, and it appears as if I am on the job 24/7. No matter what situation I have at home, being a maintenance engineer, I have to report it to the site as soon as I receive the call on a maintenance issue."*

Respondents	***Technological context (TCX) → Empowerment-Enslavement Paradox (EEP)***
IR_4:	*"The technology has been supportive in executing the HR aspects in my organization. The technology usage in the organization and the impact it has created on our functionality are considerable. There is no end to HR issues in any organization as somebody would fall sick, somebody needs leave, somebody has to report to the Vice-president, and there is a major crisis at times where HR intervention is a must. So, in one way, I am enslaved by technology, as I can be accessed from anywhere by my boss. But yes, it also empowers me to make decisions as I have all the data and information at my fingertips. I can call it 'a double-edged sword'."*
IR_5	*"Smartphone as a technology is very well accepted in our organization. Our organization has provided a smartphone to all the employees who report to Vice-president in the organization, and they are all installed with Mobile Apps relevant to our work. Smartphone is a quick reference manual for me for any legal issue, and I have almost anything and everything in it to accomplish my job. The best part is, I can retrieve information from anywhere or any person from my organization. But at the same time, yes, it has enslaved me, especially when the feeling of being lost without my smartphone."*

The Relationship Between Technological context and Independence-Dependence Paradox

Respondents	***Technological context (TCX) and → Independence/Dependence Paradox (IDP)***
IR_1	*" The technological context in our organization as stated before is strong on the usage of the smartphone during the working hours and to what extent it makes me feel independent in my work or dependent can be explained through the following situation very clearly. I was to submit the balance sheet to the Vice-president for the quarter year with the available data in a few hours. I had 'xxxxx' mobile App installed on my smartphone, and within half an hour, I could project the assets and liabilities on the Balance Sheet as required by the Vice-president. He was not only impressed but inquired about the App I had used. This made me feel independent of my work, as I could produce the result in no time from wherever I was. But on the flip side of it, the smartphone has at times made me feel completely dependent on it as I feel handicapped without it. But the positive feeling is much greater than the negative, and hence I continue to exploit it for my advantage."*
R_2	*"As stated before, technology context is strongly developed in my school, and we are free to use the smartphone except in the restricted areas and times. This context does have a bearing on my feeling of being both independent as well as dependent on my smartphone. Independent in the sense that it helps me to facilitate teaching-learning. One of my students had difficulty understanding the …). Although I explained to him the concept of finding the LCM, he wanted to test whether what he had understood was right. I gave him the APK App, which automatically gives the LCM, and asked him to practice manually and test it on the smartphone. It worked so well with him the outcome was achieved with ease. So, the technological context does make me feel independent as I don't have to take the help of others, or my physical presence with the student is always required, and it makes me feel independent. But sometimes, yes, it does make me feel that I am over-dependent on it, and it even snatched my independence as anyone can contact me anytime, even for trivial issues which waste my productive time. But, by and large, it provides me the confidence to act independently in my work."*

Respondents	***Technological context (TCX) and → Independence/Dependence Paradox (IDP)***
R_3	*"The organization in which I serve is technology governed and naturally has a strong technological context. So, yes, I feel quite independent with my smartphone usage to make appropriate decisions, as I have supporting tools available at my fingertips. I am free to browse the details of the latest technology available in my field. ….. I could easily find the specifications of the latest oil pump specially designed for such conditions and had to just recommend it to my Chief Engineer and take his consent and place the order. When I replaced the unit, I got the problem of maintenance reduced completely, and even my boss was very happy as it was a long-time maintenance issue in our oil rig. So, yes, smartphone technology has made me feel independent in my operational domain. There are always ill effects associated with anything that is tried new, and so is the case of technology adoption. While I feel I am independent in my operations, I also feel that I am over-dependent on technology, and I feel handicapped if I don't have my smartphone with me. But, as long as it serves the purpose, I feel that the positive effect will overcome the negative influence."*
IR_4	*"Our organization considers technology as the driving force to the business and hence the technology context is very strong particularly towards mobile technology. In my opinion, smartphone usage has made me independent in my decision-making as I have references to base my decisions on HR issues. Our company always aims towards the 'right-sizing' of the organization. But, as an HR manager, I need to be accountable for the number I arrived at after the analysis of the workforce. It is in such situations I find smartphone technology comes to my rescue, and there are some very efficient Apps available for the rightsizing of the organization based on the job analysis. I have a mobile App 'xxxxx', which I find very handy in such situations. It enables me to make independent decisions, and after I am convinced about the action plan based on the results, I get from my App, I discuss it with my superior, and he gets easily convinced as my arguments are all based on facts and figures as supported through my App. So, It makes me feel independent in my task performance. But the situation is dichotomous as it also makes me feel dependent on it all the time, but the advantages are higher, so I ignore the negative effect of it."*

Respondents	***Technological context (TCX) and → Independence/Dependence Paradox (IDP)***
IR_5	*"Our organization has a strong technology orientation. This has given us access to all the supporting technologies, particularly smartphone-based technologies. I feel independent in decision-making in connection to my job through the use of the right technology support. My smartphone gives me all possibilities in a legal situation or all the support documents in a legal issue, and with minimum interference of my higher authorities, I can offer consultancy to my clients, and they are satisfied with the results I produce. There are checklists that I often make use of before arriving at a legal decision. None of my decisions have been disregarded by my superiors in the consultancy I have offered in insurance claims, tort claims, breach of contract, equitable claims, landlord/tenant issues, and so on. On the other side of it, yes, the technology also makes me feel that I am over-dependent on it. If connectivity is poor on a day, I am lost, and I cannot make a decision as I need to browse for the alternatives. But the negative effect is minimal compared to the use of it, and hence I feel quite positive about being more independent with my technology."*

The Relationship Between Technological Context and Task Performance

Respondents	***Technological context (TCX) and → Task Performance (TSP)***
IR_1	*"The technology in my organization is supportive of the smartphone usage, to a great extent, and most of my tasks are technology-enabled as mentioned before, and I can say with confidence that it has enhanced my task performance."*
IR_2	*"Our school is technology-enabled in administration, teaching, and services. With particular emphasis on mobile technologies, I have found that it has contributed to the enhancement in my task performance. For instance, for teaching mathematics after my presentation in the class, I make my students make use of the mobile Apps to learn the concepts faster. So the learning outcomes are achieved with greater efficiency."*
IR_3	*"Our firm being an engineering organization it cannot survive the competition without the best use of the latest technology, and hence it has a strong technology context. Today as most of the former technologies are available at our fingertips through the smartphone, I find it very handy to use in my design calculations and maintenance troubleshooting, and, yes, the technology context has contributed to my engineering task performance."*
IR_4	*"We consider technology as a driver to our employee productivity. My observation is that the technology context provided in our organization has improved the task performance of the employees."*
IR_5	*"Technology context is supportive of the use of smartphones in our organizations. As a consultant, I had to remember many legal codes in the former years, and working used to be very taxing. But the smartphones have made everything available for instant use through the Apps, and it has immensely contributed to my task performance."*

Appendix K Organizational Theme

Respondents	***Excerpts of the in-depth interviews Organizational Context Theme***
IR_1	"..the policies of the organization do support smartphone usage. While there is an instruction to avoid using smartphones for personal use during office hours by very nature, we do not use them for any unofficial purpose during the working hours unless it is an emergency."
IR_2	*"…. there are not many strategies developed in our school to promote smartphone adoption; however, there are teaching apps introduced into our smartphones that can be transferred to the computers/laptops and displayed to the students through xx software. There is a team that works on strategic planning to introduce all the useful apps to teach math and science in particular. So, yes, building a strong support strategy to facilitate smartphone usage is on the agenda of the strategic planning in our school."*
IR_3	*"A smartphone was provided to me by my company on the day of induction, and it was a part of our company policy to use smartphones for official communications as and when it is required. My job will be difficult to execute if not for my smartphone. During the field visits in the oil rigs, for technical assistance from my colleagues, the first contact point would be through my smartphone. If the technical issue is resolved, there will be no need for the technician to visit the maintenance site, or else, I may have to summon the concerned technician to be at the maintenance site during the scheduled maintenance program."*
IR_4	*"In fact, the use of smartphones has transformed the HR practices in the sense that tracking and monitoring HR activities have become much easier and faster with the use of smartphones. All the organizational policies, procedures, practices, and systems can be viewed easily on the smartphone. our organizational policies are very supportive to its use."*
IR_5	*"Our organization has a clear smartphone strategy mainly aimed towards the maximization of its usability. There are several mobile apps that we regularly use during our work, and we should make sure they are the most recent apps and have all the necessary features. Documentation is the most important part of legal consultancy, and digitization of the legal documents is a critical factor to be considered. We spend much time strategizing on how to ensure security to these legal documents in the digital form, store them in a secure database and retrieve them with ease at the shortest possible time."*

The Relationship Between Organizational Context and Independence-Dependence Paradox

Respondents	***Organizational context (OCX) and→ Independence-Dependence Paradox (IDP)***
IR_1	*"We have a good organizational context supportive of the adoption of technology in the form of smartphones. However, I do not see the impact of these on my feeling of independence or dependence on technology. In fact, the technology context of the organization can have an impact on such a feeling. The organization does have an influence on my behavioral aspects in the performance of the job, such as my desire to stay competitive in my field, my desire to acquire higher qualifications, or my desire to contribute to the organization. But I do not find how the policies and procedures which have strategic orientation can make me feel independent or dependent on technology."*
IR_2	*"Our organizational context is aligned with smartphone usage, and it helps us in our task performance. I have given examples earlier that smartphone applications have been exploited by us to make learning easier and enjoyable for our students. So, I am confident about the positive association between organizational context and task performance."*
IR_3	*"In my opinion, the organizational context is more about the organizational structure which is supportive of the strategies of the organization. It can help a great deal in utilizing the resources in the organization in accomplishing the organizational objectives. But my feeling of being dependent or independent of technology is more dependent on the technology content of the organization rather than the organizational context."*
IR_4	*"The organizational context is more connected to my department, as it involves the building of the structure for accomplishing the organizational, mainly the human aspects. The policies, procedure, and tactics of the company may be complementary to the accomplishment of the objectives, but I don't think it can influence the state of being independent or dependent on technology."*
IR_5	*"The organizational context can support the human aspect in the performance of the job, but it cannot have an impact on my being independent or dependent on technology as these are not very much related. For instance, the company policy may empower me to gain access to all the resources which are necessary for me to prepare a legal document. But the policies, procedures, and systems do not have much influence on my feeling of being independent or dependent on technology for executing a task."*

The Relationship Between Organizational Context and Task Performance (questionnaire)

Respondents	***Organizational context (OCX) and → Task Performance (TSP)***
IR_1	The policies of the organization encourage the use of private smartphones for work. *"Smartphone usage during working hours has become a part of the culture of our organization. The policies of the organization are in favor of smartphone usage as it contributes to knowledge-sharing and facilitates the day-to-day activities, which include scheduling of the meetings, clarification on the bills and reports submitted to higher authorities, answering customer queries, etc. There have been no incidents of superiors giving adverse remarks on smartphone usage during the duty hours, and on the contrary, the company has introduced the policy of permitting the employees to bring their own mobile devices to the workplace."* The strategy of the organization promotes the use of private smartphones for work. *"Our organization has strategies to continuously enhance mobile apps for accountancy as it has an impact on our business performance. The main focus is on the functionality of the applications and how they can save time and increase flexibility. Strategies to enhance the reach of the services to all sections of society are also considered seriously. We are focussing on the simplification of the processes involved in accounting, and it has a bearing on our performance too. So, yes, the strategies of the organization are supportive of smartphone adoption."* The tactical plans (implementation of work plans) encourage the use of private smartphones for work. *"Tactical issues are mainly dealing with how we operationalize our business strategy. So, while cell phone adoption is helping us in gathering the required information in the right place at the right time, tactical issues are left to our discretion on how we are going to use the information we receive to the best advantage of the organizations. So, yes, we are empowered by the organization to use the information that we find most suitable in a given situation."*

Respondents	***Organizational context (OCX) and→ Task Performance (TSP)***
IR_2	The policies of the organization encourage the use of private smartphones for work. *"Our school has an atmosphere congenial to the use of smartphones except in some places, e.g., meeting rooms, classrooms, library, common rooms for teachers, and places where it could disturb the academic environment. Announcements will be made well in advance during the meetings or programs to keep the mobile phones in silent mode. The rest of the time, we are free to use our smartphones, as they are tools for communication between all the stakeholders of the school. The school principal and vice-principal have made a rule that teaching and non-teaching staff should be reachable during working hours. So, the organizational settings are congenial to the usage of smartphones."* The strategy of the organization promotes the use of private smartphones for work. *"As such, there are not many strategies developed in our school to promote smartphone adoption; however, there are teaching apps that are introduced into our smartphones which can be cast to the computers and displayed to the students through PowerPoint in Microsoft. There is a team that works on strategic planning to introduce all the useful apps to teach maths and science in particular, which is of interest as teaching is relatively difficult in those two courses. The advantage of these apps is that we teachers can browse them during travel or at home so that we are familiar with its functionality. So, yes, building a strong support strategy to facilitate smartphone usage is in the agenda of the strategic planning in our school."* The tactical plans (implementation of work plans) encourage the use of private smartphones for work. *"Yes, we are given the complete freedom to use the smartphones the way we feel most useful in accomplishing the institutional objectives. For instance, there are several apps available for teaching mathematical operators. But, depending upon the individual abilities of the students, we have the flexibility on which one would be a more appropriate mobile app for a student to learn faster and retain the knowledge gained for a longer duration. So, in that sense, the tactical issues are supportive of the smartphone usage."*

Respondents	***Organizational context (OCX) and → Task Performance (TSP)***
IR_3	The policies of the organization encourage the use of private smartphones for work. *"The very nature of my duty demands the use of smartphones, and the organization is well-set for the usage of it during the working hours. Most of the technical issues get resolved over the phone, and it saves our time and resources, so the organization encourages the use of mobile phones during working hours. Today's smartphones are so sophisticated that we can transfer the design data over the phone and use it on the site as and when required. There are occasions when the 'standard operating procedure' of the equipment has been observed in the smartphone before operating on the machine directly. Safety issues are saved on smartphones so that they can be handy on the sites. The first thing we look into during an emergency is the mobile phone. So, I can say that a positive atmosphere has been built towards the carrying of a smartphone to the workplace.* The strategy of the organization promotes the use of private smartphones for work *"Yes, we have a well-developed strategy to strengthen the apps which can be used on our smartphones on maintenance aspects. It is realized that a clear mobile strategy can make business goals more achievable. The ability to access distant servers, instant transfer of information, and videoconferencing are powerful tools that can provide the necessary boost to the maintenance operations in the rigs in both periodic and breakdown maintenance. Each year separate meetings are held to strengthen the smartphone support strategies in our organizations."* The tactical plans (implementation of work plans) encourage the use of private smartphones for work. *"I feel tactical plans are related to the way we execute the operations based on the information we have received over the smartphone. Even though the right kind of information with graphics or media is received, the operation of the particular machine component, say oil pump, may vary slightly depending upon the model. So, we will have to use our own judgment on how to use the information to the best of our abilities to operationalize the oil pump. So, yes, our policies are supportive of the tactical aspects of executing a technical task."*

Respondents	**Organizational context (OCX) → Task Performance (TSP)**
IR4	The policies of the organization encourage the use of private smartphones for work. *"Smartphones have provided flexibility and mobility to the workplace, and their use has been encouraged in the workplace. My job as an HR manager is to place the right person in the right place and supply to him/her the right information regarding recruitment, placement, training, development, performance, and promotion and smartphone is the tool that makes information handling much easier, and as a policy, its use is supported in the organization. Diversity of the workforce is the most distinguishing feature of today's HR environment, and handling a diverse workforce becomes much easier over the smartphone, as it provides flexibility and eases communication both in oral and written form supported with pictures and animation. In fact, the use of smartphones has transformed HR practices in the sense that tracking and monitoring HR activities have become much easier and faster with the use of smartphones. I had received a cell phone from my company the day I was put into work, and it has been upgraded as newer features were introduced, and it is a part of my paraphernalia. As all the organizational policies, procedures, practices, and systems can be viewed easily on the smartphone round the clock, our organizational policies are very supportive of its use.* The strategy of the organization promotes the use of private smartphones for work *"Strategic planning in terms of the mobile strategy is mainly on three aspects: customer relationship management (CRM), supply chain management (SCM), and enterprise resource planning (ERP) in our organization. Today the ERP aspects are brought to the smartphones, and employees are given access to the company database. We in the HR department are mainly involved in 'change management,' which is quintessential for the success of any new strategy introduced in the organization. As the usage of smartphones has both positive and negative impacts on employee performance, proper training is essential for the right usage of these devices. The key issue is about findings means to provide access to the company's resources to the employees so that they make the use of the same to enhance their productivity."* The tactical plans (implementation of work plans) encourage the use of private smartphones for work. *"As an HR manager, I need to use my abilities and experience on tactical issues. While strategies remain the same, tactical execution may change based on the situation. When I communicate with our employees, there are several issues that need to be considered, like their communication styles, ethnicity, cultural background, and a lot of*

	demographic aspects, which have a bearing on the way they act and behave in a given situation. So, I will have to change my tactical aspects of executing the HR strategies depending upon the person whom I am dealing with. The organization has provided to me the complete freedom to act the way I wish provided that the task is executed in a congenial manner."

Respondents	**Organizational context (OCX) → Task Performance (TSP)**
IR_5	The policies of the organization encourage the use of private smartphones for work. *"Computer accessed communication is a part of work culture in legal firms, so the organizational policies are conducive to its usage during consultation services. There are several legal activities apps on smartphones which include- online notary services, legal legislation, case browse, legal document generation, etc. So, our organization has policies which are very supportive of the usage of smartphones."* 2. The strategy of the organization promotes the use of private smartphone for work. *"Our organization has a clear smartphone strategy mainly aimed towards the maximization of its usability. As mentioned before, there are several mobile apps which we use on a regular basis during our work, and we should make sure they are the most recent apps and have all the necessary features. Documentation is the most important part of legal consultancy, and digitization of the legal documents is a critical factor to be considered. We spend a lot of time in strategizing on how to ensure security to these legal documents in the digital form, store them in a safe database and retrieve them with ease at the shortest possible time."* *3.* The tactical plans (implementation of work plans) encourage the use of private smartphones for work. *"This point is not very much applicable to my profession, as we do not have many tactical issues to be handled in our profession. Conformance to the law has a single way of executing it irrespective of the background of the person, and not knowing the law is no excuse from the law. So, there are no situations where I need to be more tactical in my approach."*

Appendix L Task Performance Theme

Respondent	*Excerpts of the in-depth interviews Task Performance (TSP) Theme*
IR_1	*"I frequently use smartphones to accomplish my day-to-day tasks as an accountant. Our organizational policies support the usage of mobiles during the work, and I can say that at least 60% of our communication with the peer group is through mobile."*
IR_2	*"… .. If I can recall it correctly, there will be parents having a troubled child with whom we have to speak to despite the fact that there are trained counselors who respond to parent queries. But parents feel comfortable when they speak to the class teacher and know about the performance of their children. So, mostly yes, the mobile phones are used during the duty hours to discuss the issues related to school, students, and the resources in the school where a physical meeting may not be necessary."*
IR_3	*"I will be using my smartphone throughout the workday mostly. I am a rig engineer and cannot be there on-site all the time because I have to look after some overall maintenance at times. During those days when I am out of worksite, the technicians will contact me and take my approval on repair or replace the part of the machine. They communicate to me the type of mechanical breakdown and even send to my smartphone the picture of the component which has failed. I will have to study the situation and procure the part from the inventory or approve replacement to the technician so that he can use the components available on-site. During some major breakdown, the entire day may be used in the smartphone for bringing back the rig into its original working condition."*
IR_4	*"I use my smartphone very often during my working hours. As an HR manager bridging the management and employee relations is an important part of my work, and it demands lots of negotiations with either of the sides. Even during the training and development period, continuous usage of the smartphone will be required as there is a lot of coordination work to be undertaken. In short, I can say that I would be dysfunctional without the smartphone available during duty hours."*
IR_5	*"….. The nature of the claim, the policies, and procedures to be followed, the documents to be submitted, scheduling the meeting, etc., are all facilitated through phone calls. In fact, the first thing I check is if I have carried my smartphone with me or not. It is quintessential for my day-to-day operations, and it is a part of my work requirement. All the first-hand information regarding the legal issue will be collected through phone calls, and the client will be asked to submit the documents in person during the scheduled meeting. So, yes smartphone is part of my work requirement.*

Th Relationship between Empowerment-Enslavement Paradox and Task Performance

Respondents	***Empowerment-Enslavement Paradox (EEP) and →Task Performance (TSP)***
R_1	*"In my opinion, any employee who feels empowered would have a better task performance. I had had several situations in which when my Vice-president had given me complete autonomy, I had accomplished the task very well. There was a case of our annual audit, and the VP had given me the complete authority to deal with the external auditor. I had the liberty to fix the time frame as found fair to the staff members, decide the audit procedure with the external auditor, maintain the fixed assets additions and disposal, debt agreements, lawsuits, etc., reconcile the bank account, etc. There were many key decisions that I had to take in consultation with the auditor. The entire process was so smoothly conducted that in the end, our VP congratulated me in our annual meeting for shouldering his responsibilities, and it would not have been possible if he had not empowered me the entire task. It will be difficult if the superiors interfere in every other activity in accomplishing a major task. So, yes, while empowerment may enhance task performance, enslavement may bring down the task performance."*
R_2	*"In our school, the teachers are empowered to make decisions and take actions accordingly within the framework of school rules and regulations. We have a clear understanding of our responsibilities, so we feel empowered in our duties. There are many cases in which I had the freedom to take the initiative and empower myself in order to help the student perform better. For instance, student counselling or sometimes parent counselling is an important duty of a teacher. ..... I strongly believe that yes empowerment of the teachers will make them do better in their task, whereas the feeling of enslavement could bring down the task performance."*

Respondents	**Empowerment-Enslavement Paradox (EEP) and → Task Performance (TSP)**
R_3 Engineer:	*"During the orientation program, the employees in our company were not only briefed about our roles and responsibilities but also informed about the empowerment, job enrichment, job enlargement, and so on. Within the limits and capacity of our work, we are empowered to make decisions on certain issues which may need immediate attention. The higher authorities will never interfere in our decision-making on such occasions and support us as they are convinced about our corporate citizenship behavior. Not only me but all my colleagues, to a very great extent, are convinced that empowerment is positively associated with task performance, but it 'comes with a rider' in the sense that there must be a clear understanding about to what extent an employee is empowered to make a decision on an issue. Sometimes the feeling of enslavement may also increase the task performance because the enslaved nature of performance will be like sticking on to the rules and regulations and executing all the tasks as demanded by the higher authorities. So, I don't agree with the concept that empowerment can enhance task performance and enslavement can bring down the task performance; instead, there is a possibility that both can be contributing towards enhanced task performance."*
IR_5 Legal consultant:	*"Empowerment goes by the designation and the importance of the tasks being handled by the employees. At lower levels of operation, complete empowerment, particularly when the employee is new to the organization, may not be advisable on the basis of company reputation and client satisfaction. The employee needs time to understand the organizational culture and be a part of the company, and know exactly how the senior officers may respond to a situation and emulate the same behavior. When I was newly recruited in the company about 15 years ago, I was not empowered to execute my tasks in the company to the extent I am today. As I report to the top level of management at my capacity of Senior Legal Consultant, I do have my privileges, and I am definitely empowered in my job to make decisions at my own discretion on issues such as legal requirements in a case, fixation of consultancy fees, using the company resources for executing the tasks, assuring the type of deliverables to the customer, deciding on the timeline and so on. My senior management has never interfered or questioned my decisions on these matters, and this empowerment has enabled me to perform much better. Yes, at senior levels, the empowerment may lead to better task performance, but at junior level, enslavement may produce better results, in my opinion."*

Appendix M The Mediation Effect of The Technology Paradox

Respondents	***Contextual Factors (CNF) →Technology Paradox (TCP)→Task performance (TSP)***
IR_1	*"At the time of joining the organization, we are provided adequate orientation towards the organizational culture. This provides us adequate exposure to the context in which we operate in the organization. It was understood by me that the organization had a clear vision, and the objectives were in alignment with the vision of the organization, and the latest technologies were in place to accomplish those objectives. Thus, the context was very supportive of the technology usage, say smartphones.* *During my experience in the organization, I could perceive both the positive and negative influences of smartphones. Sometimes I felt that it made me feel that as I have access to all the knowledge, I require I am well-equipped to perform any challenging task. But at the same time, I felt that my individual capacities were not being used, and I had become a slave to the technology. I observed that even for simple calculations, I used to take the help of my smartphone. However, over a period of time, I found that despite the negative influences it has, smartphones are contributing positively to my competencies, and it has improved my task performance.* *I had observed during my work experience that whenever I was empowered on my job, I would easily accomplish the task, and when I generated the feeling of being enslaved, either to technology or the instructions of my higher authorities, the task performance fell down. It is mainly due to the motivational aspect of performing the task. While*

	I am empowered, I am well-motivated, and it leads to better task performance, and when enslaved, my performance would fall down as there is no sense of ownership for the task accomplishment."
IR_2	*In my opinion, the school has supportive contextual factors that have an influence on the behavior of the teachers, and accordingly, they perform their duties and tasks. In our school, the context is set right for the usage of smartphones for productive use. I have personally experienced both the positive and negative influences of smartphones. Sometimes I feel empowered and sometimes enslaved to it. For instance, I am contacted by my peer group no matter where I am, and when the phone rings, it needs to be attended to, particularly if it is from the Vice-principal and the flow of my teaching is lost for the moment, which constitutes a sort of dependency on it. This has its influence on my task performance, as I would lose the flow of my teaching. Thus, the context, the state of my behavior towards smartphone usage, and my task performance are linked to each other in this order.* *It is important to note that the nature of my job is highly' knowledge-intensive,' and this kind of job requires to be set-free in its execution. For creative ways of explaining a course topic, I need to be highly motivated and energized to deliver a quality lesson to my students. When things are more formalized, and I am asked to repeat the same things, the creativity takes the backseat, and task performance falls abruptly. So, the dual nature of technology making me empowered or enslaved has an effect, and it is controlled through the context provided by the administration and has its bearing on the outcome in the form of my class delivery."*

LIST OF PUBLICATIONS

1. International Journal of Technology and Human Interaction (IJTHI) Volume 18, Issue 4, Article 2.

2. Contextual Factors, Technology Paradox, and Job Performance in Smartphone Usage: A Systematic Review