

Work from home feasibility and challenges for public sector employees in a developing country

Journal of
Organizational
Effectiveness:
People and
Performance

41

Received 11 December 2023
Revised 4 May 2024
12 July 2024
Accepted 29 July 2024

Mohamed Mousa

*CENTRUM Católica Graduate Business School,
Pontifical Catholic University of Peru, Lima, Peru*

Ahmad Arslan

*Department of Marketing, Management and IB, Oulu Business School,
University of Oulu, Oulu, Finland*

Aman Ullah

*Department of Management and Marketing, Faculty of Business and Economics,
University of Melbourne, Melbourne, Australia*

Shlomo Tarba

Birmingham Business School, University of Birmingham, Birmingham, UK, and

Cary Cooper

Alliance Manchester Business School, The University of Manchester, Manchester, UK

Abstract

Purpose – Drawing on work from home (WFH), job demand-control and street-level bureaucracy literature streams, this paper specifically focuses on the emerging trend of WFH for public sector employees in a developing country context of Egypt.

Design/methodology/approach – The empirical sample comprises focus group discussions with a total of 40 public sector employees in Egypt. Thematic analysis was subsequently used on focus group discussion transcripts to bring out main themes linked to this topic.

Findings – Our findings show that employee (marginal discretion power, pharaonism, corruption), citizen (unfamiliarity with digital services) and country (lack of proper info-structure, overstaffing in the public sector)-level challenges hinder and/or slow down the potential for WFH in Egyptian public sector.

Practical implications – A major implication of our paper relates to highlighting the criticality of e-governance and WFH for public sector employees, as well as highlighting multilevel challenges associated with those. At the same time, socio-economic and political consequences of offering such options need to be considered in a country like Egypt where most public organisations are overstaffed, and those employees lack modern day employability skills. Hence, there needs to be an open debate in countries such as Egypt on the consequences of e-governance and WFH and whether it may facilitate delivering citizen services digitally. Also, high power distance culture plays a role in this context, and any change cannot be successful unless that specific aspect is confronted.

© Mohamed Mousa, Ahmad Arslan, Aman Ullah, Shlomo Tarba, Cary Cooper. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at <http://creativecommons.org/licenses/by/4.0/legalcode>

Data availability statement: We used qualitative data drawn from focus group discussions conducted with public sector workers in Egypt. Due to the nature of this research, the participants in our study did not agree for their data to be shared publicly.



Journal of Organizational
Effectiveness: People and
Performance
Vol. 12 No. 5, 2025
pp. 41-59
Emerald Publishing Limited
2051-6614

DOI 10.1108/JOEPP-12-2023-0549

Originality/value – This study contributes to the emerging WFH literature by being one of the pioneering studies to offer a multilevel (micro, meso and macro) assessment of this phenomenon in the under-researched fragile developing country's context.

Keywords Work from home (WFH), Street-level bureaucracy, E-governance, Job demand-control, Public sector

Paper type Research paper

1. Introduction

Work from home (WFH) represents an arrangement whereby employees stay at home and use information communication technology (ICT) to fulfil job duties (ILO, 2020, 5). Accordingly, it slightly differs from teleworking whereby employees fulfil job responsibilities from any location (home, café, etc.) (Qu and Yan, 2022). It is also perceived as an occupational feature that an employee can adopt to perform job duties (Dingel and Neiman, 2020). Authors (e.g. Stanek and Mokhtarian, 1998; Hopkins and Mckay, 2019; O'Meara and Cooper, 2022) consider WFH as an arrangement to overcome the long commutes and office-official politics. At the same time, authors such as Fonner and Roloff (2010) refer to WFH as an antecedent for employee's poor performance. According to Palumbo (2020), WFH is formalised, routinised and mostly governed by hierarchical relationships between managers, seniors and lower-level employees. Apparently, this is not the case in WFH as employees exercise a high level of freedom, independence and job autonomy (Balica, 2019; Olsen, 2019; Kassick, 2019).

In the public sector, the availability of WFH has commonly been associated with manager's resistance, employment regulations and employee preferences (Williamson *et al.*, 2018). Institutional culture might also boost employee's readiness to WFH particularly if the level of info-structure is sufficient (Bailey and Raelin, 2015; Williamson *et al.*, 2020a, b). This justifies why the availability to WFH differs across countries and contexts (Seva *et al.*, 2021; Ge *et al.*, 2022). Moreover, the growing list of job-related demands (e.g. technological demands, managing work/life balance, employee's acceptance of long work hours, employee's availability 24/7 and difficulty assessing employees' performance) remain as noticeable determinants deciding the implementation and/or expansion of WFH in some countries and/or contexts (Lundy *et al.*, 2021; Colley and Williamson, 2020).

Apparently, and towards the end of the rush period of COVID-19, the preference to continue WFH or return to the traditional office work varies among employees (Lund *et al.*, 2021; Williamson *et al.*, 2022). In Australia, for example, 10% of employees have expressed their preferences for traditional office work, while 45% consider that WFH has and will change the style of doing jobs in the next 3–5 years (PWC, 2021). From their side, Kossek and Lautsch (2018) consider WFH as a real measure for countries' advancement of information technology, availability of high-speed Internet and maintenance of ready-made solutions for remote communication. WFH may represent an optimal solution for many employee-related challenges (Rogers, 2021; Hurley and Popcsue, 2021). However, millions of employees who work in public sectors in fragile and developing nations have not been able to experience WFH, even during the turbulences of COVID-19 (Mousa *et al.*, 2024). Egypt is an example of those fragile and developing nations (Mousa *et al.*, 2023) that where WFH and employee autonomy are not seen as being in line with prevalent power distance. According to the OECD *et al.* (2010), state fragility refers to a condition in which a state lacks the political will and capacity to fulfil its supported functions. The world bank (2017) highlights that state fragility indicates that a given state witnesses at least one of the following two difficulties: poor governance/weak institutional capacity and/or political instability. State fragility usually tends to be associated with low-income and middle-income countries (Fund for Peace, 2006–2020; Mousa *et al.*, 2024). However, most fragile states are concentrated in areas of developing

nations (Kodila-Tedika and Simplicio, 2016; Mills, 2014). Egypt has been ranked as 42 among 179 countries in 2022s rank of fragile states (Fragile States Index, 2022).

Extant academic research on WFH has mostly been undertaken in western contexts (e.g. Williamson *et al.*, 2020a, b; 2022). Hence, the nature, characteristics and challenges of WFH and its association with public employees' behaviours and attitudes (e.g. job satisfaction, job autonomy, work/life balance, job crafting, mental health, virtual presenteeism, etc.) are under-researched and not understood well in developing countries' context (Grant *et al.*, 2019; Ge *et al.*, 2022; Diamantidas and Chatzoglou, 2019). Hence, the present study contributes to the global dialogue on the new normal work arrangement by focusing on the public sector in the context of a fragile developing country. The main objective of this paper is to offer an empirical assessment of the research question: *How does work from home manifest itself for public sector employees as a new normal in developing countries?* By doing so, our paper contributes to the emerging WFH literature by being one of the pioneering studies to offer a multilevel (micro, meso and macro) assessment of this phenomenon in the under-researched fragile developing state's context.

The rest of this paper is organised so that the literature review is presented in the next section. After that, research design and methodology discussions are presented. Study findings are presented after that, followed by a discussion on contributions and implications. The paper concludes with a presentation of study limitations and future research directions.

2. Literature review

2.1 *Work from home: emergence and trends*

WFH is an organisational policy allowing employees to perform their job duties at home during all or some parts of the week, and in the meantime, they can stay connected with their organisation via the effective and timely means of information technology (Allen *et al.*, 2015). Research on WFH started in the early 1980s at a time when information and communication technology advancements offered a possibility for employees to undertake some tasks away from their traditional offices as well (Olson and Primps, 1984; Olsen, 2019). It has been observed that the nature, characteristics, determinants and outcomes of WFH came to scholarly attention during that same year (Haddon and Lewis, 1994; Bailey and Kurland, 2002). However, most previous studies on WFH focused on its effect on work-life balance (Bloom *et al.*, 2015; Mousa and Avolio, 2023). And due to their excessive job duties, 32% of employees in the EU have been suffering to fulfil their familial obligations (Eurofound, 2018). This justifies why De Hauw and Greenhaus (2015) are concerned with WFH as a viable arrangement for employees to not only cope with their high-demanding work contexts, but also guarantee an acceptable level of work-life balance.

The Australian public sector has urged its employees to adopt and/or use WFH's privileges since 1994 (Dixon, 2003). In 2019, a third of the employees in Australian public sector were working from home (APSC, 2021). That ratio increased further during the pandemic era (Williamson and Colley, 2022). This justifies the number of studies addressing the association between WFH and other behavioural and workplace phenomena before COVID-19. For example, Collins (2005) has focused on the relationship between WFH and productivity, while Lee and Kim (2018) paid attention to the association between WFH and employee engagement. Williamson *et al.* (2018) further touched on managers' resistance to grant their lower-level employees the chance to WFH.

WFH includes advantages such as affording employees more time for families, more freedom to craft their job duties and more autonomy to exercise job independence (Grant *et al.*, 2019; Nakrosiene *et al.*, 2019). It also includes saving time and expenses, which are normally directed to transport costs (Grant *et al.*, 2019). The same has been asserted by other scholars (Ge *et al.*, 2022; Pinsonneault and Boisvert, 2001; Boell *et al.*, 2013) who have added that

working from home includes an increase in job satisfaction and work/life balance. Unfortunately, WFH also has its disadvantages such as stirring employees' feelings of loneliness and disturbing effective teamwork (Ge *et al.*, 2022; Boell *et al.*, 2013). It also fuels employees' exposure to IT threats, and subsequently, firms may jeopardise the security of their data (Pinsonneault and Boisvert, 2001). The effectiveness of WFH mostly marginalises the role of managerial support and/or coordination (Diamantidas and Chatzoglou, 2019). Furthermore, WFH does not fit workers with small home workstations that need to be shared with other family members or roommates (Ammons and Markham, 2004). The fact that some houses are subject to furniture ergonomics and poor lighting might also negatively affect employees' productivity and trigger mental health, eye strain and musculoskeletal symptoms (Seva *et al.*, 2021; Lindberg *et al.*, 2018). Moreover, the lack of mutual physical spaces was linked with challenges in relational communication during WFH (Jämsen *et al.*, 2022). The lack of relational communication practices may reduce the efficiency, team spirit and engagement of employees working from home. Also, it may have potential to trigger workplace conflict leading to poor employee performance outcomes.

2.2 Street-level bureaucracy, job demand-control and public employees in Egypt

Keeping in view the novelty and multidimensionality of WFH phenomenon in the context of developing countries such as Egypt, we believe that more than one theoretical lens is needed for analysing it. Hence, our paper uses both street-level bureaucracy (SLB theory) (Lipsky, 1980) and job demand-control theory (Karasek and Theorell, 1990) for conceptual argumentation. A key premise of SLB theory relates to the argument that public employees (including those working at lower levels) tend to have the discretion to decide when, how and whom to serve (Lipsky, 1980; Buffat *et al.*, 2016). Moreover, they tend to align their personal interests with their job routines (Weatherly and Lipsky, 1977; Buffat *et al.*, 2016). What might support those public sector employees in continuing with their developed routines is the lack of control they are subject to (Hesketh *et al.*, 2017; Mousa *et al.*, 2023c; Mousa, 2024). Lipsky (1980) stressed that accountability in most public sector contexts is rather limited. Furthermore, public sector employees have the authority to determine how they dispense benefits or allocate sanctions (Lipsky, 1980). In many cases, SLBs' face significant client demands that exceed the resources they have (Weatherly and Lipsky, 1977; Buffat *et al.*, 2016). Some scholars focusing on SLBs have highlighted the lack of trust with citizens they serve (e.g. Tummers and Bekkers, 2014). When SLBs are unsupportive and perform in the unfavourable atmosphere, they prioritise customers (i.e. citizens they serve) based on their liking, twisting or breaching rules and regulations for them (Davidovitz and Cohen, 2022). However, many of the routines public sector employees were used to adopting have recently been subject to assessment, change and improvement due to the emergence of new public management (NPM) over the past two decades (Pollitt and Bouckaert, 2017). NPM prioritises client needs and puts clients at the forefront (Farr-Wharton *et al.*, 2021). Unfortunately, these new practices have yet to be fully adopted in several countries around the world, particularly in fragile developing nations (Mousa *et al.*, 2023). In these countries, public sector employees usually do not prioritise client needs.

In such circumstances (i.e. developing countries' context), job demand-control theory (Karasek and Theorell, 1990) is useful to offer additional insights to public sector employees' behaviour and choices (e.g. Medzo-M'engone, 2021). This theory explains how job characteristics can shape the performance, stress and satisfaction of job holders (Karasek and Theorell, 1990). In general, any job has two basic characteristics: (a) job demands: which include "the physical consumption and psychological tensions involved in accomplishing the workload", and which negatively relate to performance and employee well-being when demand exceed the given resources (Karasek and Theorell, 1990, p. 291); and (b), job control:

the extent to which the employee has authority in deciding the routines and skills needed to fulfil job duties (Qu and Yan, 2022). In case of SLBs' working in developing countries both job demand and job control dynamics are not clear, along with lack of skills and training. Hence, once new work arrangements such as WFH emerge, they may appear to be burdensome to SLBs compared to western (developed economies) context, where WFH is seen to offer flexibility and freedom to employees including public sector employees.

In particular case of Egypt, despite protests and uprising in the last fifteen years, institutional administrative reforms have been almost non-existent (Allinson, 2019), therefore leading its public sector to look very much like public sector of several decades ago in other countries. Public sector employees in Egypt further tend to lack relevant technological skills needed to better provide services to their clients/citizens or WFH (Mousa *et al.*, 2022). Digital skills and competencies of public sector employees also add to resilience when they need to WFH (Fischer *et al.*, 2023). The focus on technology, digital competency and innovativeness is required for the better provision of services to citizens or WFH employees (Fischer *et al.*, 2023). However, for SLBs' in Egyptian public sector, several reasons as explained below hinder these positive outcomes linked with WFH.

2.3 Fragility, overstaffing, digitalisation and public service in Egypt

It is worth highlighting that the public sector in Egypt includes 34 ministries, 234 independent agencies of public services, 23 public entities and hundreds of local units distributed across the 27 Egyptian governorates and 323 service directorates (Al-Araby, 2014). The number of employees working in the Egyptian public sector reached 6.37 million in 2014 (Al-Araby, 2014). Such overstaffing adamantly slows down any coordination among the public units in Egypt (Barsoum, 2018). Moreover, according to OECD *et al.* (2010) and Barsoum (2016) Egyptians, regardless of their educational background, prefer public service jobs due to their short work hours, permanent hiring contract and access to public social and health insurance. However, overstaffing remains a risky struggle countering any attempt to develop the public sector (El Baradei, 2004, 2011).

Admittedly, Egypt, like many other countries in the Middle East, has initiated several attempts to reform its public sector with the aim to foster economic growth and fuel public satisfaction (OECD *et al.*, 2010). Such attempts have been enhanced and intensified after 2011s revolution in response to citizen expectations (Al-Araby, 2014). Egypt's 2014 constitution has also touched on some public governance reform-related demands such as decentralisation and E-government (Al-Araby, 2014). However, the main struggle that might hinder any public governance reform in Egypt is the complex bureaucracy resulting from 1960s socialist policies that mandated employment in the public sector sponsored by the government (Barsoum, 2018; Handoussa and El Oraby, 2004).

In 1980, Egypt started its transition towards the electronic delivery of public services (OECD *et al.*, 2010). However, the e-government of public sector in Egypt is only limited to a portal, called the Bawaba; which provides services such as birth certificates, marriage certificates, license renewals, train tickets among others (Barsoum, 2018). Citizens can use El Bawaba to submit enquiries, complaints and suggestions (Barsoum, 2018). However, only two percent of Egyptians have benefited from those electronic services (United Nations Department of Economics and Social Affairs, 2014). This might be because 50% of Egyptians do not use the Internet (United Nations Department of Economics and Social Affairs, 2014). Noticeably, most ministries in Egypt created Facebook pages after the 2011 revolution to post their news (Barsoum, 2018).

Digital transformation reflects the integration of digital technology into business that leads to change in business operations and the delivery of value to customers (Micić, 2017). It also refers to the widespread usage of digital technology in work practices and data transfer

(Aly, 2022). It necessitates an ongoing advancement in computer technology, software engineering and telecommunication platforms among others (Khalifa *et al.*, 2021). However, Egypt is lagging behind many countries in the Middle East, such as UAE, KSA and Qatar, in the digitalisation of its public and private sectors despite its 2030s vision to be the main contributor to ICT industries in its region (Khalifa *et al.*, 2021). Despite the need to build its digital infrastructure and meet the demands for technology, the Egyptian public sector is a step behind (Aly, 2022). Findings showed that Digital Readiness plays a critical role in increasing the willingness of public sector employees to embrace Smart Working arrangements (Giacomini and Palumbo, 2023). Furthermore, government-sponsored digital platforms also play a significant role in facilitating the public sector service provision based on four conditions: accepting and testing digital platforms with public free enterprises, attaining a critical frame of usership, encouraging the co-production of public sector services and creating accountability mechanisms for government administrations responsiveness (Shen *et al.*, 2023). A development and implementation of a sound strategy for digital transformation focusing on public-private collaboration to reinforce digital infrastructure and meet the demands for technology along with capacity-development, digital incorporation and switching to a knowledge-based economy can help foster economic growth and fuel public satisfaction in fragile developing nation like Egypt.

3. Research design and methodology

3.1 Study sample and data collection steps

The present study aims to investigate how and why WFH does not represent the new normal for public sector employees in Egypt. Specifically, the authors explored why public sector employees in Egypt did not effectively engage in WFH even during the height of COVID-19 pandemic and associated restrictions. Given the novelty of WFH in non-Western countries, particularly in public sector contexts, the authors of the present study employed a qualitative research approach (Miles and Huberman, 1994). According to Yin (1994), the implementation of an exploratory study should end up with one of three outcomes: generating new information, developing a theory/model, or suggesting propositions/hypotheses. Therefore, the present paper is part of a broader study on work dynamics in Egyptian public sector. The broader study includes both conceptual and empirical papers.

This study focuses on the ministry of local development because of its expansion plans for governance of all cities in Egypt. This ministry has hundreds of locations across Egypt. Moreover, it provides an unlimited set of services such as permits for sanitation works, widening and paving roads, private residential buildings, building on agricultural land and allocating land to build schools or hospitals. That is why the ministry has become one of the most active ministries dealing with public services. For the present study, the authors started with purposive sampling approach in June 2022 by searching on LinkedIn for currently working in the ministry of local development in Egypt. Unfortunately, they could not find many accounts on LinkedIn for such employees at all. One of the authors (who is himself Egyptian origin with significant research experience in that context) approached 40 employees who work in the ministry of local development in Egypt. The process of approaching and/or recruiting respondents was done through two of the employees who work in that ministry whom the lead author is personally acquainted to. Consequently, snowball sampling approach was used. The demographic characteristics of respondents are included in Table 1.

The lead author conducted 10 focus groups with 40 employees from the ministry of local development during September 2022 and October 2022 (see Table 2). Each focus group included four employees who are mostly friends or at least trust each other. Due to

N	Gender	Religion	Work experience	Marital status
1	Male	Muslim	>15	Married
2	Male	Muslim	>15	Married
3	Male	Muslim	>15	Married
4	Male	Muslim	>15	Married
5	Male	Muslim	>15	Married
6	Male	Muslim	>15	Married
7	Male	Muslim	>15	Married
8	Male	Muslim	>15	Married
9	Male	Muslim	>20	Married
10	Male	Muslim	>20	Married
11	Male	Muslim	>15	Married
12	Male	Muslim	>15	Married
13	Male	Muslim	>15	Married
14	Male	Muslim	>20	Married
15	Male	Muslim	>20	Married
16	Male	Muslim	>15	Married
17	Male	Muslim	>20	Divorced
18	Male	Muslim	>15	Married
19	Male	Muslim	>15	Married
20	Male	Christian	>15	Married
21	Male	Muslim	>15	Married
22	Male	Muslim	>15	Divorced
23	Male	Muslim	>15	Married
24	Male	Muslim	>15	Married
25	Male	Muslim	>15	Married
26	Female	Muslim	>15	Married
27	Male	Muslim	>15	Married
28	Male	Muslim	>15	Married
29	Male	Muslim	>15	Married
30	Male	Muslim	>15	Married
31	Male	Christian	>15	Married
32	Male	Muslim	>15	Married
33	Male	Muslim	>15	Divorced
34	Male	Muslim	>15	Married
35	Male	Muslim	>15	Married
36	Male	Muslim	>15	Married
37	Male	Muslim	>15	Divorced
38	Male	Muslim	>15	Married
39	Male	Christian	>15	Married
40	Male	Muslim	>15	Married

Source(s): Authors' own work

Table 1.
Demographic
characteristics of the
respondents

their desire and the sensitivity of this topic, respondents have not permitted disclosing/ revealing any of their personal information. Focus groups can lead to more in-depth discussion and rich data compared to individual interviews in many cases as discussants get ideas from each other to carrying on the conversation and link different dynamics being discussed, especially in case of research on a contemporary or applied topic (e.g. Krueger, 2014). The duration of each focus group ranged from 40 to 60 min, and all of them were in Arabic; the native language of respondents and the lead author. To avoid bias, research team members provided feedback on the themes (questions) discussed in focus group discussions. They also offered input how could the lead author conducting these focus group encourage/stimulate the respondents to talk freely. The research team was fully aware of the current socio-political challenges Egypt is witnessing and that

Table 2.
Focus groups' guide

Questions
1 To what extent do you feel satisfied with your current job?
2 Has there been a difference in your job responsibilities before and after the spread of COVID-19? If so, how?
3 How does your ministry support you before and after the emergence of Covid-19? Do you feel more care after the COVID-19? If so, how?
4 Was there a possibility to WFH during and after the spread of COVID-19? If not, why?
5 To what extent do you feel convinced with WFH as an arrangement to fulfil your job responsibilities?
6 To what extent do you think that WFH is relevant for public sector employees and public sector in Egypt?
7 What are the main challenges that might hinder public employee's possibility to WFH in the Egyptian context?
8 How can Egypt and its public sector shift to WFH arrangement particularly in its public context?
9 What are the main advantages you and your ministry can get if you WFH?
10 In your opinion, why do some countries in the Middle east shift towards working from home while Egypt does not?
11 To what extent do you see that WFH will be the new normal for public sector employees in Egypt in the near future?
12 Do you have any additional comment/suggestion concerning talent management practices post the spread of COVID-19?
Source(s): Authors' own work

respondents might be hesitant to disclose personal or workplace information or even participate. Hence, these sensitivities were taken into consideration. For ethical considerations, the respondents were informed that the main aim of the study was to explore the possibility (and challenges) for public sector employees in Egypt in changing to WFH modality. Furthermore, the respondents were assured that their answers would be used only for academic purposes. Moreover, they were granted the right either to have their focus groups recorded or not, and only four out of the ten focus groups agreed to be recorded. However, the lead author took detailed notes throughout the conducted focus groups.

Respondents were informed that they can waive and/or refuse to answer any question they perceive as sensitive or embarrassing. What facilitated focus groups was the fact that respondents have long years of experience (15+ years). Unfortunately, it was not possible to include young employees because the ministry had stopped recruitment 15 years ago as revealed in the focus groups. As all focus groups were conducted in Arabic, and the lead author who is native Arabic speaker with significant English publishing experience closely oversaw the process including translation of focus group discussion transcripts from Arabic to English. This approach helped to ensure data transcripts accuracy. The following was the focus group guide.

3.2 Data analysis

All focus group discussions were transcribed, and the translation protocol explained above helped us verify the data transcripts' accuracy. As our study is exploratory in nature due to lack of prior research on this specific topic in the fragile states' context, a structured exploratory research design and data analysis approach was used (Patton, 2002). The four-step process for qualitative data analysis suggested by Miles and Huberman (1994) was used. Accordingly, we first started by gathering data from every single focus group separately. During that stage, we paid attention to the relevance of guaranteeing public sector employees in Egypt the option of adopting WFH, what challenges they might encounter, what reactions client might initiate as a result of that shift and what arrangements they should find before implementing the WFH scenario. Second, the authors divided their collected data into

categories through identifying the keywords voiced by respondents and then comparing them with what is included in previous studies. In this stage, the authors paid attention to hybrid work, digital delivery of services, work through the Internet, public sector, social citizenship, modernisation, job autonomy and job satisfaction. In the third stage, the authors adopted their extracted keywords with those that are included in the previous studies particularly those conducted in the context of Middle East. Accordingly, and in this stage, the authors excluded the unimportant words and intensively focused on the level of power public sector employees in Egypt have citizens' familiarity with digital services, level of training, Internet accessibility, WIFI speed and the size of public sector in Egypt and the scope of its services. Fourth, drawing conclusions was done, where the main themes emerging from data were categorised as employee-related challenges, citizen-related challenges and country-related challenges. We further undertook verification of the conclusions, where we tried to ensure that our conclusions can pass the test of "plausibility, their sturdiness, their 'confirmability' – that is, their validity" (Miles and Huberman, 1994, p. 11). In summary, we identified pertinent patterns in the data and subsequently linked them to the above-mentioned themes to present the findings clearly. It should be noted that we have used the suggestions of Eisenhardt (1989), and Eisenhardt and Graebener (2007) concerning using quotations while presenting our findings.

4. Findings

Before going through the findings and discussion of this study, it is important to note that the authors' initial plan was investigate how the public sector in a fragile developing nation such as Egypt can revamp its WFH arrangements for its employees. The aim was to guarantee a contribution to the global dialogue about how to continue with WFH as the new normal of work life as a modality adopted by many western countries post COVID-19 era (Williamson *et al.*, 2020a, b; 2022). Unfortunately, this goal was not achieved as respondents provided contrary (but very interesting) data (answers) stressing the challenges in shifting to WFH (WFH) in their public sector jobs. In line with our focus group discussions and their analysis, three major themes emerged including: employee-related challenges, citizen-related challenges and country-related challenges. More details about the themes and sub-themes are elaborated below.

4.1 Employee-level challenges

4.1.1 *Public employees' marginal discretion power.* In developing SLB theory, Lipsky (1980) highlights that public sector employees usually exercise a high level of "discretionary power" to decide how to work and whom to serve. This is not the case in the Egyptian public sector, which represents a typical example of hierarchical management, in which power is granted only to high-level employees and decision-making is centralised (El Baradei, 2011). However, as revealed during the focus groups, public sector employees in Egypt exercise discretionary power to reduce official working hours (which are notably short), solicit gifts or small monetary benefits known as "ekrameya", and waste official work time by extending mid-day prayer break to escape workload. Moreover, public sector employees in Egypt do have the prerogative to opt for WFH as their superiors do grant them a choice, and they only can accept it if the decision comes from the minister of local development which must take approval from the prime minister of the country and its president to instigate this change. In other words, any decision or suggestion for a change in work arrangements in the Egyptian public context can only be made by a political head, president, or prime minister, and is not negotiable or an available option otherwise.

And even if I would like to WFH, how could I communicate my readiness to the government? Such major shift in how we perform tasks or fulfil job responsibilities needs a presidential decision. Respondent 1

A public employee like me works from home!? And who should suffer in the public transport, waste hours in traffic, and fill the streets of the cities. Respondent 40

4.1.2 Pharaonism. According to [Williamson et al. \(2018\)](#), WFH can be arranged only when managers accept, and employment regulations allow. In this case, it is clear that the concept regulation comes to describe laws, culture, attitudes, readiness, policies, tactics and desire. An examination of the Egyptian culture through the lens of Hofstede model and its six dimensions (power distance, individualism, masculinity, uncertainty avoidance, long-term orientation and indulgence) reveals that Egypt has a high level of power distance, less empowered members (public sector employees in this case), and a tolerated unequal distribution of power in the work context ([Almutairi et al., 2020](#)). Apparently, and as communicated in the focus group discussion, managers, and chairs of departments in the public sector in Egypt exploit the traditional work modality to benefit from the blind obedience of their followers/low-level public employees. What comes to support this pharaonic nature of the managers is the fact that in Egyptian culture, and again as expressed in the focus groups, a popular Egyptian idiom/proverb that is passed down from one generation to the next and used to describe public employee expectations is “tie the donkey where his owner (manager) wants it”. That idiom reflects the submissive nature of low-level public sector employees in Egypt who dare not object to the decisions of their superiors but prefer crony, hypocritic and adulatory responses (e.g. [Mousa et al., 2024](#)). This conveys the pharaonic nature of managers in public sector and the submissive nature of their followers, which can hinder the shift to WFH modality.

You mean that the employees under my supervision or I work from home? And how can I exercise full authority over them!? The word manager in Egypt is a revered concept and always accompanied by structural obedience and leadership control of followers, who should not be left to their own devices. Accordingly, work from home doesn't fit our culture. Respondent 9

If I work from home, my supervisor might die. He is used to bossing me around and receiving hypocritic adulation in return. Senior employees will never accept such new work arrangement. Respondent 2

4.1.3 Corruption. Surprisingly, most respondents admitted that they can only ask citizens to leave *ekrameya* or gratuity (tips for fast or extra service) if they work from the office. What comes as disturbing is the fact that respondents speak about bribes or gratuity without any sensitivity or embarrassment. Unfortunately, they consider it as a right given their low monthly salaries that mostly do not exceed 2500 Egyptian pounds (125 dollar). In other words, any shift to WFH will most likely be encountered by opposition from the majority of public sector employees as it implies a decrease in their income or benefits.

Work from home? A public employee whose salary in Egypt never exceeds 2500 Egyptian pounds (125 dollar) knows very well that the small financial perks he perceives from the citizens who need urgent or exceptional public services are important. How can I cover my family living expenses if I work from home!?. Respondent 16

4.2 Citizen-level challenges

4.2.1 Citizens' unfamiliarity with digital services. Until 2014, only two percent of Egyptians benefited from the public sector digital services provided through the platform called “El Bawaba” ([United Nations Department of Economics and Social Affairs, 2014](#)). Until 2014, and even though 2011 Egyptian revolution was initiated through Facebook, 50% of

Egyptians had not used much Internet by that time (United Nations Department of Economics and Social Affairs, 2014). Egyptians mostly use the Internet to access social media such as Twitter, Facebook and TikTok applications. This justifies why ministries in Egypt developed Facebook pages, and not any other online channel, to post their news (Barsoum, 2018). Accordingly, such a lack of knowledge about Internet/technology uses in Egypt might slow down the progress towards granting public sector employees the WFH right.

Work from home is more like an ambitious shift that does not fit the real level of awareness of 50 percent of the Egyptian citizens. How do you think about delivering services digitally in a country in which at least 50 percent of its citizens are uneducated!? Even the Egyptian parliament until this moment devotes 50 percent of its seats to farmers and labourer who are either uneducated or have below average education. Respondent 10

Egyptians are fully aware about Facebook and TikTok. I even describe Egypt as the country of 10 million TikTokers. Apart from those two applications, Egyptians will feel at a loss in the realm of the internet. It is a sort of culture, and they need time to accept any digital delivery of public services. Respondent 20

Interestingly, in the focus group discussions, participants emphasised that Egyptian citizens are more trusting of face-to-face interactions when dealing with public employees. This is true of the collectivist nature of society and high-context Arabic culture in which communication depends on gestures and body language and seeks harmony and consensus in social interaction (Al-Olayan and Karande, 2000). However, more empirical studies are needed to investigate the extent to which Egyptian citizens can be accepting of digitalised public services.

I think one of the main traits of Egyptians is the fact they love to talk and socialise. They appreciate it when I remember them or their concerns and trust my opinion or guidance. They also want to hear instructions or policies from me directly rather than read it in a handout or internet link. I personally find it easier to watch a video than read to get the same information. Accordingly, delivering Egyptians services virtually and deprive them from developing relations and building trust with public employees; the whole experience will be lost if it goes online. Respondent 7

4.3 Country-level challenges

4.3.1 Lack of the proper info-structure. Digitalising business operations and granting public sector employees WFH option necessitates the availability of advanced information technology, software engineering and telecommunication platforms (Aly, 2022; Khalifa *et al.*, 2021). Despite the goals of Egypt (2030) vision for ICT industries to become the key players in the region, digital infrastructure has not received sufficient investments and is lagging a step behind its counterparts in Arab gulf neighbouring countries in the digitalisation of public services (OECD *et al.*, 2010). This raises doubts regarding the preparation of public sector employees to be operated digitally. Unfortunately, even though Egypt has an electronic platform to deliver digital services called El Bawaba, it is limited to a few services such as issuing birth and marriage certificates (Barsoum, 2018).

Most of us do not know how to create a personal email. Moreover, the country itself has a real problem with the quality of internet in all public organisations. Can you imagine that most government offices until this moment have only one email account for receiving and sending messages? Respondent 24

We live in a centralised country, so management hierarchy is a concern. I must receive verbal permission from my superior together with an officially stamped document in order to implement instructions or decisions. The department does not ask us to use email and/or depend on them.

Moreover, many public organisations have only one computer. Who will use it among hundreds of employees!? Work from home is plausible only in developed countries. Respondent 28

4.3.2 Overstaffing and lack of training. Shifting from traditional office work to WFH requires specialised professional development and training of public employees. This raises concerns about the practicality of delivering training to 6.37 million employees in the Egyptian public sector (Al-Araby, 2014). According to Job demand-control theory, the performance of employees (public ones in this case) is mostly governed by their ability to develop and maintain the routines and skills needed to effectively fulfil the duties of their jobs (Qu and Yan, 2022). More specifically, public sector employees need specialised training and support to shift their office work to WFH. WFH has been recommended as a tool to reduce public sector size. Overstaffing remains a key struggle encountering public sector reforms in Egypt (El Baradei, 2011). Funding any shift towards WFH needs to be considered in relation to the associated economic and socio-political consequences of decreasing the number of public sector employees in Egypt. It is worth highlighting that overstaffing of Egyptian public sector comes as a result of socialism policies initiated by the government in Egypt during 1960 and 1970s. Such policies remained visible till very recently and it was mandatory to employ all graduates in Egypt in its public sector (Handoussa and El Oraby, 2004; El Baradei, 2004; Barsoum, 2018). As a result, most public sector employees lack any training to shift to modern arrangements such as WFH, as visible from this quote:

And how can my colleagues and I deliver services online, when we have not received any focused training on how to do so, and the number of public sector employees in Egypt is in the millions. Who will fund such training? And how long would it take?. Respondent 33

The following Figure 1 summarizes key findings of the study.



Figure 1.
Challenges to shifting to WFH modality in the public sector in Egypt

Source(s): Composed by authors

5. Discussion

5.1 Conclusions

This paper is one of the first studies to offer a multilevel (micro, meso and macro) assessment of WFH possibilities for public sector employees in an under-researched fragile developing country (i.e. Egypt) context. Based on focus group discussions with a total of 40 public sector employees in Egypt, the paper identified multilevel challenges which hinder move towards flexible work arrangements such as WFH in Egyptian public sector. The findings revealed that that marginal discretion power, pharaonism and corruption were critical aspects which hinder WFH transition at employee level. We further found that at unfamiliarity with digital services (and lack of trust in them) by citizens and lack of proper info-structure and overstaffing in the public sector at country level hinder and/or slow down the potential for WFH for in public sector. The study findings offer both theoretical contributions and practical implications as discussed below.

5.2 Theoretical contributions

The major theoretical contribution lies in exploring and identifying the challenges impeding the shift towards WFH for public sector employees in a fragile state such as Egypt. Findings reveal employee (marginal discretion power, pharaonism, corruption), citizen (unfamiliarity with digital services) and country (lack of proper info-structure, overstaffing in public sector)-related challenges that slow down and hinder intentions to adopt WFH modality in the Egyptian public sector even during and after COVID-19 era. The following figure shows the main challenges of public sector employees in Egypt in shifting to WFH.

WFH is not considered a new work modality in the public sector as countries such as Australia have supported its public sector employees to benefit from it since 1994 (Williamson *et al.*, 2020a, b; 2022). Nevertheless, fragile developing nations such as Egypt have yet to record any progress in that regard. Ge *et al.* (2022) and Seva *et al.* (2021) explain that the availability to WFH varies across countries and contexts. Furthermore, the findings of the present paper expand on the determinants (manager's resistance, employment regulation and employee preference) outlined by Williamson *et al.* (2018) who indicate that the scope of challenges facing public sector employees in fragile developing nations, such as Egypt, exceeds the that of western developed ones.

The second theoretical contribution lies in highlighting the limitations of Lipsky's (1980) SLB logic which argues that public sector employees tend to have some authority to determine their work arrangements, such as WFH to their advantage. In our study, low-level public sector employees in Egypt were found to have no influence on potential of WFH implementation for them. Consequently, the discourse about the discretion power exercised by SLBs is perhaps not fully applicable in a fragile developing nation such as Egypt.

The third theoretical contribution relates to depicting less relevance of job demand-control theory (Karasek and Theorell, 1990) to explain work-related arrangements, such as WFH in public sector organisations in developing countries and fragile states. According to this theory, the performance and satisfaction of employees (public sector ones in this case) is mostly governed by their ability to develop and maintain the routines and skills needed to effectively fulfil the duties of their jobs (Qu and Yan, 2022). In the case of public sector employees in Egypt, they might have the readiness concerning WFH, but the level of information technology, communication network and telecommunication platforms needed for digital delivery of public services (Aly, 2022; Khalifa *et al.*, 2021) is insufficient. Consequently, public sector employees in Egypt would be unable to control/raise their performance and satisfaction. Furthermore, the theory does not consider the receiver of the service (Egyptian citizen in this case) who may not feel ready to adopt digital methods of accessing public services. As this theory focuses only on employees and overlooks the influence of environment and context where these employees operate, in certain contexts, its applicability is rather limited.

5.3 Practical implications

A major implication of our paper relates to showing the criticality of e-governance and WFH for public sector employees, as well as highlighting multilevel challenges associated with those in developing countries' context. At the same time, socio-economic and political consequences of offering such options need to be considered in a developing country like Egypt where most public organisations are overstaffed, and those employees lack modern day employability skills. Hence, there needs to be an open debate in countries such as Egypt on the consequences of e-governance and WFH and whether it may facilitate delivering citizen services digitally. This societal debate should include representatives from labour unions in Egypt, ministries, senators, civil society organisations, labour rights activists, social activists and possibly representatives from some international labour organisations as well. Also, as highlighted high power distance culture plays a role in this context, and any change cannot be successful unless that specific aspect is confronted.

At the meso level, it is recommended that public sector organisations develop their infrastructure including their telecommunication platforms, software technology and computer engineering (Aly, 2022; Khalifa *et al.*, 2021) which would support WFH along with offering digital services in general. This might include preparing the budget needed for training employees on working from home and how to provide them with 24/7 technical and psychological support. At the micro-individual level, employees in the Egyptian public sector need to be prepared to cope with the digital era and can no longer operate in the same old way. This means not only accepting the idea of WFH but also accepting a shift to customer friendly approach and willingness to strengthen their skills needed for these new arrangements.

6. Limitations and future research directions

Our paper does have several limitations like any other research study. Firstly, the paper focuses on the perceptions and views of public sector employees without considering the views of their top managers including the minister. Hence, the findings are influenced by this. Also, restricting the data to the perceptions of employees in the ministry of local development without considering employees in other public sector organisations Egypt is another limitation. Still, keeping in view the limitations associated with data collection in a fragile developing nation, the paper offers a good starting point for further exploration, in such under-explored contexts.

Despite these limitations, this paper is one of pioneering studies focusing on WFH for public sector employees in developing and fragile states and open several venues for future research. Firstly, future scholars should analyse WFH dynamics of public sector employees in other fragile states as this would strengthen theory building efforts for this emerging work modality in such contexts. Also, our paper highlighted the limitations of job-control theory in the context such as Egyptian public sector, future scholars should undertake both qualitative and quantitative studies in other developing countries' context to highlight the specificities of those settings and engage in more context sensitive theorising of job-control. Finally, as culture referred to as pharaonism in this paper plays a vital role in job and work contexts in high power distance societies as Egypt. This particular aspect needs further exploration in other high power distance societies for both public as well as private sector employees in relation to WFH and other emerging work modalities.

References

- Al-Araby, A. (2014), "Vision for administrative reform in Egypt (presentation by the minister, June). Cairo, EG: ministry of planning, monitoring and administrative reform", available at: <http://www.ad.gov.eg/Admin/EditorDocs/Governance/Public%20Administration%20Reform%20Plan%20.pdf>

- Al-Olayan, F.S. and Karande, K. (2000), "A content analysis of magazine advertisements from the United States and the Arab world", *Journal of Advertising*, Vol. 29 No. 3, pp. 69-82, doi: [10.1080/00913367.2000.10673618](https://doi.org/10.1080/00913367.2000.10673618).
- Allen, T.D., Golden, T.D. and Shockley, K.M. (2015), "How effective is telecommuting? Assessing the status of our scientific findings", *Psychological Science in the Public Interest*, Vol. 16 No. 2, pp. 40-46, doi: [10.1177/1529100615593273](https://doi.org/10.1177/1529100615593273).
- Allinson, J. (2019), "Counter-revolution as international phenomenon: the case of Egypt", *Review of International Studies*, Vol. 45 No. 2, pp. 320-344, doi: [10.1017/s0260210518000529](https://doi.org/10.1017/s0260210518000529).
- Almutairi, S., Heller, M. and Yen, D. (2020), "Reclaiming the heterogeneity of the Arab states", *Cross Cultural & Strategic Management*, Vol. 28 No. 1, pp. 158-176, doi: [10.1108/ccsm-09-2019-0170](https://doi.org/10.1108/ccsm-09-2019-0170).
- Aly, H. (2022), "Digital transformation, development, and productivity in developing countries: is artificial intelligence a curse or a blessing", *Review of Economics and Political Science*, Vol. 7 No. 4, pp. 238-256, doi: [10.1108/reps-11-2019-0145](https://doi.org/10.1108/reps-11-2019-0145).
- Ammons, S.K. and Markham, W.T. (2004), "Working at home: experiences of skilled white collar workers", *Sociological Spectrum*, Vol. 24 No. 2, pp. 191-238, doi: [10.1080/02732170490271744](https://doi.org/10.1080/02732170490271744).
- APSC (2021), *New Ways of Working*, available at: <https://www.apsc.gov.au/initiatives-and-programs/workforce-information/research-analysis-and-publications/state-service/state-service-report-2020-21/chapter-2-harnessing-momentum-change/new-ways-working>
- Bailey, D.E. and Kurland, N.B. (2002), "A review of telework research: findings, new directions, and lessons for the study of modern work", *Journal of Organizational Behavior*, Vol. 23 No. 4, pp. 383-400, doi: [10.1002/job.144](https://doi.org/10.1002/job.144).
- Bailey, J.R. and Raelin, J.D. (2015), "Organizations don't resist change, people do: modeling individual reactions to organizational change through loss and terror management", *Organization Management Journal*, Vol. 12 No. 3, pp. 125-138, doi: [10.1080/15416518.2015.1039637](https://doi.org/10.1080/15416518.2015.1039637).
- Balica, R. (2019), "Automated data analysis in organisations: sensory algorithmic devices, intrusive workplace monitoring, and employee surveillance", *Psychosociological Issues in Human Resource Management*, Vol. 7 No. 2, pp. 61-66.
- Barsoum, G. (2016), "The public sector as the employer of choice among youth in Egypt: the relevance of public service motivation theory", *International Journal of Public Administration*, Vol. 39 No. 3, pp. 205-215, doi: [10.1080/01900692.2015.1004082](https://doi.org/10.1080/01900692.2015.1004082).
- Barsoum, G. (2018), "Egypt's many public administration transitions: reform vision and implementation challenges", *International Journal of Public Administration*, Vol. 41 No. 10, pp. 772-780, doi: [10.1080/01900692.2017.1387145](https://doi.org/10.1080/01900692.2017.1387145).
- Bloom, N., Liang, J., Roberts, J. and Ying, Z.J. (2015), "Does working from homework? Evidence from a Chinese experiment", *The Quarterly Journal of Economics*, Vol. 130 No. 1, pp. 165-218, doi: [10.1093/qje/qju032](https://doi.org/10.1093/qje/qju032).
- Boell, S.K., Campbell, J., Cecez-Kecmanovic, D. and Cheng, J.E. (2013), "The transformative nature of telework: a review of the literature", *19th Americas conference on information systems, AMCIS 2013 - Hyperconnected world: Anything, anywhere, anytime*, AIS Electronic Library (AISeL).
- Buffat, A., Hill, M. and Hupe, P. (2016), *Understanding Street-Level Bureaucracy*, Policy Press, Bristol.
- Colley, L. and Williamson, S. (2020), *Working during the Pandemic: from Resistance to Revolution?*, UNSW Canberra Public Service Research Group and CQ University, available at: <http://unsworks.unsw.edu.au/fapi/datastream/unsworks:72713/bin8d097b65-72fb-4706-b14eaae5df57967f?view=truexy=01>
- Collins, M. (2005), "The (not so simple) case for teleworking: a study at Lloyd's of London", *New Technology, Work and Employment*, Vol. 20 No. 2, pp. 115-132, doi: [10.1111/j.1468-005x.2005.00148.x](https://doi.org/10.1111/j.1468-005x.2005.00148.x).
- Davidovitz, M. and Cohen, N. (2022), "Playing defence: the impact of trust on the coping mechanisms of street-level bureaucrats", *Public Management Review*, Vol. 24 No. 2, pp. 279-300, doi: [10.1080/14719037.2020.1817532](https://doi.org/10.1080/14719037.2020.1817532).

- De Hauw, S. and Greenhaus, J. (2015), "Building a sustainable career: the role of work-home balance in career decision making", in De Vos, A. and Van der Heijden, B.I.J.M. (Eds), *Handbook of Research on Sustainable Careers*, Edward Elgar, Cheltenham, pp. 223-238.
- Diamantidis, A.D. and Chatzoglou, P. (2019), "Factors affecting employee performance: an empirical approach", *International Journal of Productivity and Performance Management*, Vol. 68 No. 1, pp. 171-193, doi: [10.1108/ijppm-01-2018-0012](https://doi.org/10.1108/ijppm-01-2018-0012).
- Dingel, J.I. and Neiman, B. (2020), "How many jobs can be done at home?", *Journal of Public Economics*, Vol. 189, 104235, doi: [10.1016/j.jpubeco.2020.104235](https://doi.org/10.1016/j.jpubeco.2020.104235).
- Dixon, N. (2003), *Telecommuting: Issues in Public and Private Sector Employment*, QLD Parliamentary Library, Brisbane.
- Eisenhardt, K.M. (1989), "Building theories from case study research", *Academy of Management Review*, Vol. 14 No. 4, pp. 532-550, doi: [10.2307/258557](https://doi.org/10.2307/258557).
- Eisenhardt, K.M. and Graebner, M.E. (2007), "Theory building from cases: opportunities and challenges", *The Academy of Management Journal*, Vol. 50 No. 1, pp. 25-32, doi: [10.5465/amj.2007.24160888](https://doi.org/10.5465/amj.2007.24160888).
- El Baradei, L. (2004), "Toward rightsizing the public administration (in Arabic) (Papers of the administrative component of the joint research project: Al Dawla Fi Alam Moutagheir, No. 4)", Cairo
- El Baradei, L. (2011), "Parallel structures in the Egyptian government bureaucracy: a problematic quick fix", *Public Administration*, Vol. 89 No. 4, pp. 1351-1366, doi: [10.1111/j.1467-9299.2011.01941.x](https://doi.org/10.1111/j.1467-9299.2011.01941.x).
- Eurofound (2018), *Striking a Balance: Reconciling Work and Life in the EU*, Publications Office of the European Union, available at: https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef18065en.pdf
- Farr-Wharton, B., Brunetto, Y., Wankhade, P., Saccon, C. and Xerri, M. (2021), "Comparing the impact of authentic leadership on Italian and UK police officers' discretionary power, well-being and commitment", *Policing: An International Journal*, Vol. 36 No. 5, pp. 333-340.
- Fischer, C., Siegel, J., Proeller, I. and Drathschmidt, N. (2023), "Resilience through digitalisation: how individual and organisational resources affect public employees working from home during the COVID-19 pandemic", *Public Management Review*, Vol. 25 No. 4, pp. 808-835, doi: [10.1080/14719037.2022.2037014](https://doi.org/10.1080/14719037.2022.2037014).
- Fonner, K.L. and Roloff, M.E. (2010), "Why teleworkers are more satisfied with their jobs than are office-based workers: when less contact is beneficial", *Journal of Applied Communication Research*, Vol. 38 No. 4, pp. 336-361, doi: [10.1080/00909882.2010.513998](https://doi.org/10.1080/00909882.2010.513998).
- Fragile States Index (2022), available at: <https://fragilestatesindex.org/category/analysis/analysis-2022/>
- Fund for Peace (2006-2020), "Fragile states index", available at: <http://fundforpeace.org/fsi/>
- Ge, C., Huang, H., Wang, Z., Jiang, J. and Liu, C. (2022), "Working from home and firm resilience to the COVID-19 pandemic", *Journal of Operations Management*, Vol. 69 No. 3, pp. 450-476, doi: [10.1002/joom.1200](https://doi.org/10.1002/joom.1200).
- Giacomini, D. and Palumbo, R. (2023), "Preparing the ground for smart working in the public sector: insights from an empirical analysis on municipalities", *Public Management Review*, pp. 1-27, doi: [10.1080/14719037.2023.2218387](https://doi.org/10.1080/14719037.2023.2218387).
- Grant, C.A., Wallace, L.M., Spurgeon, P.C., Tramontano, C. and Charalampous, M. (2019), "Construction, and initial validation of the E-work life scale to measure remote e-working", *Employee Relations*, Vol. 41 No. 1, pp. 16-33, doi: [10.1108/er-09-2017-0229](https://doi.org/10.1108/er-09-2017-0229).
- Haddon, L. and Lewis, A. (1994), "The experience of teleworking: an annotated review", *The International Journal of Human Resource Management*, Vol. 5 No. 1, pp. 193-223, doi: [10.1080/09585199400000010](https://doi.org/10.1080/09585199400000010).
- Haddoussa, H.A. and El Oraby, N. (2004), *Civil Service Wages and Reform: the Case of Egypt (Working Paper No. 98)*, EG: Egyptian Center for Economic Studies, Cairo, available at: http://www.eces.org.eg/MediaFiles/Uploaded_Files/%7B652708C2-C309-4BBF-BOE5013B91FB347B%7D_ECESWP98e.pdf

- Hesketh, I., Cooper, C.L. and Ivy, J. (2017), "Well-being and engagement in policing: the key to unlocking discretionary effort?", *Policing: A Journal of Policy and Practice*, Vol. 11 No. 1, pp. 62-73.
- Hopkins, J.L. and McKay, J. (2019), "Investigating 'anywhere working' as a mechanism for alleviating traffic congestion in smart cities", *Technological Forecasting and Social Change*, Vol. 142, pp. 258-272, doi: [10.1016/j.techfore.2018.07.032](https://doi.org/10.1016/j.techfore.2018.07.032).
- Hurley, D. and Popescu, G.H. (2021), "Medical big data and wearable internet of things healthcare systems in remotely monitoring and caring for confirmed or suspected COVID-19 patients", *American Journal of Medical Research*, Vol. 8 No. 2, pp. 78-91.
- International Labour Office (2020), "An employers' guide on working from home in response to the outbreak of COVID-19", available at: [act_emp/documents/publication/wcms_745024.pdf](https://act.ilo.org/documents/publication/wcms_745024.pdf)
- Jämsen, R., Sivunen, A. and Blomqvist, K. (2022), "Employees' perceptions of relational communication in full-time remote work in the public sector", *Computers in Human Behavior*, Vol. 132, 107240, doi: [10.1016/j.chb.2022.107240](https://doi.org/10.1016/j.chb.2022.107240).
- Karasek, R.A. and Theorell, T. (1990), *Healthy Work: Stress, Productivity, and the Reconstruction of Working Life*, Basic Books, New York.
- Kassick, D. (2019), "Workforce analytics and human resource metrics: algorithmically managed workers, tracking and surveillance technologies, and wearable biological measuring devices", *Psychosociological Issues in Human Resource Management*, Vol. 7 No. 2, pp. 55-60.
- Khalifa, N., Abd Elghany, M. and Abd Elghany, M. (2021), "Exploratory research on digitalisation transformation practices within supply chain management context in developing countries specifically Egypt in the MENA region", *Cogent Business & Management*, Vol. 8 No. 1, 1965459, doi: [10.1080/23311975.2021.1965459](https://doi.org/10.1080/23311975.2021.1965459).
- Kodila-Tedika, O. and Simplice, A. (2016), "State fragility, rent seeking and lobbying: evidence from African data", *International Journal of Social Economics*, Vol. 43 No. 10, pp. 1016-1030, doi: [10.1108/ijse-11-2014-0234](https://doi.org/10.1108/ijse-11-2014-0234).
- Kossek, E.E. and Lautsch, B.A. (2018), "Work-life flexibility for whom? Occupational status and work-life inequality in upper, middle, and lower-level jobs", *Academy of Management Annals*, Vol. 12 No. 1, pp. 5-36, doi: [10.5465/annals.2016.0059](https://doi.org/10.5465/annals.2016.0059).
- Krueger, R.A. (2014), *Focus Groups: A Practical Guide for Applied Research*, Sage publications, Thousand Oaks, CA.
- Lee, D. and Kim, S.J. (2018), "A quasi-experimental examination of telework eligibility and participation in the U.S. federal government", *Review of Public Personnel Administration*, Vol. 38 No. 4, pp. 451-471, doi: [10.1177/0734371x16680269](https://doi.org/10.1177/0734371x16680269).
- Lindberg, C.M., Srinivasan, K., Gilligan, B., Razjouyan, J., Lee, H., Najafi, B., Canada, K.J., Mehl, M.R., Currim, F., Ram, S., Lunden, M.M., Heerwagen, J.H., Kampschroer, K. and Sternberg, E.M. (2018), "Effects of office workstation type on physical activity and stress", *Occupational and Environmental Medicine*, Vol. 75 No. 10, pp. 689-695, doi: [10.1136/oemed-2018-105077](https://doi.org/10.1136/oemed-2018-105077).
- Lipsky, M. (1980), *Street Level Bureaucracy: Dilemmas of the Individual in Public Services*, Sage, New York, NY.
- Lund, S., Madgavkar, A., Manyika, J., Smit, S., Ellingrud, K. and Robinson, O. (2021), *The Future of Work after COVID-19*, McKinsey Global Institute, available at: <https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid-19>
- Lundy, J., Bentley, T., Shafaei, A., Wilk, V., Farr-Wharton, B. and Omari, M. (2021), "The role of leadership in maintaining employee wellbeing and performance under COVID-19 restrictions", available at: <https://www.committeeforperth.com.au/documents/factbase-bulletin-76-the-role-of-leadership-in-maintaining-employee-wellbeing-and-performance-under-covid-19-restrictions-june-2021>
- Medzo-M'engone, J. (2021), "Job demands and psychological well-being among Gabonese civil servants: the mediating role of perceived organizational support", *Journal of Workplace Behavioral Health*, Vol. 36 No. 4, pp. 335-350, doi: [10.1080/15555240.2021.1971538](https://doi.org/10.1080/15555240.2021.1971538).
- Mićić, L. (2017), "Digital transformation and its influence on GDP, Economics-Innovative and Economics", *Research Journal*, Vol. 5 No. 2, pp. 135-147.

- Miles, M.B. and Huberman, A.M. (1994), *Qualitative Data Analysis: an Expanded Sourcebook*, 2nd ed., Sage Publications, London.
- Mills, A. (2014), "Health care systems in low- and middle-income countries", *The New England Journal of Medicine*, Vol. 370 No. 6, pp. 552-557, doi: [10.1056/nejmra1110897](https://doi.org/10.1056/nejmra1110897).
- Mousa, M. (2024), "From announcing their pregnancy to returning to work: the experience of pregnant street-level bureaucrats in non-Western public contexts", *Public Integrity*, pp. 1-17, doi: [10.1080/10999922.2024.2304763](https://doi.org/10.1080/10999922.2024.2304763).
- Mousa, M. and Avolio, B. (2023), "Continuing working from home in the academic context: what do female academics prefer?", *Globalisation, Societies and Education*, pp. 1-11, doi: [10.1080/14767724.2023.2207122](https://doi.org/10.1080/14767724.2023.2207122).
- Mousa, M., Massoud, H. and Ayoubi, R. (2022), "Contexts of organizational learning in developing countries: the role of training programmes in Egyptian public banks", *Personnel Review*, Vol. 51 No. 3, pp. 1169-1186, doi: [10.1108/pr-06-2020-0453](https://doi.org/10.1108/pr-06-2020-0453).
- Mousa, M., Tarba, S., Arslan, A. and Cooper, S.C. (2023), "When extreme work becomes the norm: an exploration of coping strategies of public sector nurses", *Public Management Review*, pp. 1-20, doi: [10.1080/14719037.2023.2246493](https://doi.org/10.1080/14719037.2023.2246493).
- Mousa, M., Avolio, B. and Pahlevan Sharif, S. (2023c), "Emancipation and street-level bureaucracy in non-western contexts: the representation of neurodiverse individuals in public sector organizations", *Public Integrity*, Vol. 26 No. 4, pp. 439-454, doi: [10.1080/10999922.2023.2247867](https://doi.org/10.1080/10999922.2023.2247867).
- Mousa, M., Arslan, A., Cooper, C. and Tarba, S. (2024), "Live like an ant to eat sugar: nurses' engagement in extreme work conditions and their perceptions of its ethicality", *The International Journal of Human Resource Management*, Vol. 35 No. 2, pp. 309-332, doi: [10.1080/09585192.2023.2237877](https://doi.org/10.1080/09585192.2023.2237877).
- Nakrošienė, A., Bučiūnienė, I. and Goštautaitė, B. (2019), "Working from home: characteristics and outcomes of telework", *International Journal of Manpower*, Vol. 40 No. 1, pp. 87-101, doi: [10.1108/ijm-07-2017-0172](https://doi.org/10.1108/ijm-07-2017-0172).
- Olsen, M. (2019), "Using data analytics in the management of employees: digital means of tracking, monitoring, and surveilling worker activities", *Psychosociological Issues in Human Resource Management*, Vol. 7 No. 2, pp. 43-48.
- Olson, M.H. and Primps, S.B. (1984), "Working at home with computers: work and nonwork issues", *Journal of Social Issues*, Vol. 40 No. 3, pp. 97-112.
- O'Meara, S. and Cooper, C.L. (2022), *Remote Workplace Culture*, Kogan Page, London.
- Organisation of Economic Cooperation and Development, the International Bank Reconstruction and Development the World Bank (OECD et. al) (2010), "Higher education in Egypt. Reviews of national policies for education", available at: www.oecd.org/dataoecd/58/21/44959110.pdf
- Palumbo, R. (2020), "Let me go to the office! An investigation into the side effects of working from home on work-life balance", *International Journal of Public Sector Management*, Vol. 33 No. 6, pp. 771-790, doi: [10.1108/ijpsm-06-2020-0150](https://doi.org/10.1108/ijpsm-06-2020-0150).
- Patton, M.Q. (2002), *Qualitative Research and Evaluation Methods*, Sage, Thousand Oaks, CA.
- Pinsonneault, A. and Boisvert, M. (2001), "The impacts of telecommuting on organisations and individuals: a review of the literature", in Johnson, N. (Ed.), *Telecommuting and Virtual Offices: Issues and Opportunities*, IGI Global, pp. 163-185.
- Pollitt, C. and Bouckaert, G. (2017), *Public Management Reform: A Comparative Analysis-Into the Age of Austerity*, Oxford University Press, Oxford.
- PwC (2021), "The future of work | Changing places: how hybrid working is rewriting the rule book", available at: <https://www.pwc.com.au/important-problems/future-of-work-design-for-the-future/changing-places-hybrid-working.html>
- Qu, J. and Yan, J. (2022), "Working from home vs working from office in terms of job performance during the COVID-19 pandemic crisis: evidence from China", *Asia Pacific Journal of Human Resources*, Vol. 61 No. 1, pp. 196-231, doi: [10.1111/1744-7941.12353](https://doi.org/10.1111/1744-7941.12353).

-
- United Nations, Department of Economics and Social Affairs (UNDESA) (2014), "United nations E-government survey 2014 E-government for the future we want. New York, USA: undesa", available at: https://publicadministration.un.org/egovkb/portals/egovkb/documents/un/2014-survey/e-gov_complete_survey-2014.pdf
- Rogers, R. (2021), "Internet of things-based smart healthcare systems, wireless connected devices, and body sensor networks in COVID-19 remote patient monitoring", *American Journal of Medical Research*, Vol. 8 No. 1, pp. 71-80.
- Seva, R.R., Tejero, L.M.S. and Fadrilan-Camacho, V.F.F. (2021), "Barriers and facilitators of productivity while working from home during pandemic", *Journal of Occupational Health*, Vol. 63 No. 1, e12242, doi: [10.1002/1348-9585.12242](https://doi.org/10.1002/1348-9585.12242).
- Shen, Y., Cheng, Y. and Yu, J. (2023), "From recovery resilience to transformative resilience: how digital platforms reshape public service provision during and post COVID-19", *Public Management Review*, Vol. 25 No. 4, pp. 710-733, doi: [10.1080/14719037.2022.2033052](https://doi.org/10.1080/14719037.2022.2033052).
- Stanek, D.M. and Mokhtarian, P.L. (1998), "Developing models of preference for home-based and center-based telecommuting: findings and forecasts", *Technological Forecasting and Social Change*, Vol. 57 Nos 1-2, pp. 53-74, doi: [10.1016/s0040-1625\(97\)00070-x](https://doi.org/10.1016/s0040-1625(97)00070-x).
- Tummers, L. and Bekkers, V. (2014), "Policy implementation, street-level bureaucracy, and the importance of discretion", *Public Management Review*, Vol. 16 No. 4, pp. 527-547, doi: [10.1080/14719037.2013.841978](https://doi.org/10.1080/14719037.2013.841978).
- Weatherley, R. and Lipsky, M. (1977), "Street-level bureaucrats and institutional innovation: implementing special-education reform", *Harvard Educational Review*, Vol. 47 No. 2, pp. 171-197, doi: [10.17763/haer.47.2.v870r1v16786270x](https://doi.org/10.17763/haer.47.2.v870r1v16786270x).
- Williamson, S., Colley, L., Foley, M. and Cooper, R. (2018), *The Role of Middle Managers in Progressing Gender Equity in the Public Sector*, UNSW Canberra, Canberra, available at: <https://www.unsw.adfa.edu.au/publicservicesresearchgroup/sites/cpsr/files/uploads/Middle%20Managers%20and%20Gender%20Equity.pdf>
- Williamson, S. and Colley, L. (2022), *Working during the Pandemic: The Future of Work is Hybrid*, UNSW Canberra Public, available at: https://www.unsw.adfa.edu.au/sites/default/files/documents/Working_during_the_pandemic_the_future_of_work_is_hybrid_Feb_2022.pdf
- Williamson, S., Colley, L. and Foley, M. (2020a), "Human resource devolution, decoupling and incoherence: how line managers manage gender equality reforms", *Public Management Review*, Vol. 22 No. 10, pp. 1560-1578, doi: [10.1080/14719037.2019.1642951](https://doi.org/10.1080/14719037.2019.1642951).
- Williamson, S., Colley, L. and Hanna-Osborne, S. (2020b), "Will working from home become the 'new normal' in the public sector?", *Australian Journal of Public Administration*, Vol. 79 No. 4, pp. 601-607, doi: [10.1111/1467-8500.12444](https://doi.org/10.1111/1467-8500.12444).
- Williamson, S., Pearce, A., Connor, J., Weeratunga, V. and Dickinson, H. (2022), "The future of working from home in the public sector: what does the evidence tell us?", *Australian Journal of Public Administration*, Vol. 81 No. 4, pp. 640-648, doi: [10.1111/1467-8500.12556](https://doi.org/10.1111/1467-8500.12556).
- Yin, R. (1994), *Case Study Research: Design and Methods*, 2nd ed., Sage Publications, London.

Corresponding author

Ahmad Arslan can be contacted at: Ahmad.arslan@oulu.fi

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgrouppublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com