

The Impact of the Covid-19 Pandemic on Teleworking and the Logistics of Work in Egypt

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Abstract

Purpose: *The aim of this paper is to investigate the impact of the Covid-19 pandemic on the implementation of teleworking and other flexible work practices, and the logistics of work in Egypt.*

Design Methodology/approach: *A review of relevant literature and a survey were conducted. Survey data were collected from a purposive sample of women working in professional and managerial roles in Alexandria and Cairo. The data were collected online between March and May in 2021. The questionnaire was in English. A sample of 1089 employees participated in the study. Data were collected on the perceived impact of the Covid-19 pandemic on employing organizations implementation of teleworking, other flexible work practices and childcare provision. A range of demographic and employing organization data was collected. Paired comparison and T-test analysis were employed in this study.*

Findings: *The survey results indicated that before Covid-19 implementation of flexible working policies, workplace childcare and childcare allowances were limited. However, Covid-19 is significant in explaining marked increases in the implementation of all flexible working policies and across all organisational ownership types and size groupings, this is not the case for the policies on childcare where there has been little change to rates of affirmation of implementation. Ownership type and organisational size were also significant in explaining some of the variations in rates of perceived implementation both before and after the pandemic.*

Research implication/limitation: *The study has limitations in terms of the sample being limited to women working in professional and managerial roles in Alexandria and Cairo, the results are therefore not generalisable. Nevertheless, it provides evidence of and confirms the significant influence of Covid-19 on the incidence of teleworking and other flexible work practices in Egypt. Research is needed to investigate this impact amongst a wider population. Research should also establish employee and employer perceptions of success, satisfaction with the arrangements, the logistics of work in this new environment and plans for the future.*

Employers in Egypt had adopted similar responses to the pandemic as others in many parts of the world in that Teleworking, WFH and flexitime had all been used to enable continuity of business activity during the pandemic. Greater flexibility in working hours had also been implemented through greater provision of opportunities for reduced hours and part-time working, possibly to cope with reduced levels of activity, as an alternative to laying staff off and as a means of enabling staff to cope with new realities in terms of a blurring of boundaries between work and home life and the demands imposed by children and other family responsibilities.

Practical implication/limitation: *What the authors have witnessed in Egypt as in many other countries is teleworking, WFH and flexibility as transformation in response to crisis, the test is to see whether these new modes of working would endure once the pandemic is over and whether the lessons learnt are utilised to inform and cultivate the future of work. There are some obvious challenges here for the Egyptian business, both in terms of the logistics of ensuring appropriate technical and environmental infrastructure and equipment for employees, but also clearly in transforming management structures, systems, mind-sets and organisational cultures.*

Originality: *There is little evidence of the extent of teleworking and other modes of flexible working and employer childcare provision in Egypt. The survey results reported here constitute important initial findings on the impact of the pandemic on employee perceptions of their employers' implementation of flexible work and childcare policies, both before and after the Covid-19 pandemic and in organisations varying by ownership and size.*

Keywords: *HRM policies and Practices, Covid-19, Teleworking, Logistics of work, SDG, Egypt.*

Introduction

Background to Covid-19 and its impacts

The Covid-19 pandemic with lockdowns, forced closures, social distancing, business, social uncertainty and anxiety has had a profound effect upon the way in which work is organised and the way in which it is conducted. Working lives have in many cases been permanently altered and new roles and demands have been imposed upon organisations, managers and supervisors and of course employees. This has inevitably had significant implications for the organisation and logistics of work.

As Robben (2021) asserts employers and employees were forced to adapt to a virtual-first way of working to rapidly adopt digital tools and Work From Home (WFH) solutions but with question marks around the quality of implementation.

The OECD (2020) and Hamouche (2021) among many others; (for example Aitken-Fox et al. (2020a, 2020b); Gourinchas (2020) and Koirala & Acharya (2020) identify the pandemic inspired imperative for many businesses and employees to adopt teleworking, remote and WFH practices whether they had embraced these practices in the past or not. For many, these were very new experiences for which

many were unprepared. The OECD refers to societies, business and employees effectively undergoing forced experiments. New demands were made in terms of technological, legal and digital security conditions.

The detachment of work from place enabled by technology and identified as a growing trend by Felstead and Henseke (2017) was given massive impetus by the requirements of and responses to the pandemic and the authors have witnessed a very rapid development of both the Digital workplace and the Digital workforce. It would seem likely that many organisations will be enhancing their investment in Digital transformation as a result of the pandemic.

While the authors are unaware of any statistics on the extent of teleworking in Egypt either before or as a result of the pandemic many employees were effectively prevented from attending their offices after March 2020 and many of these continued to work remotely. The survey results reported later also confirm a significant increase in employing organisations implementing remote and other flexible working arrangements.

However, Teleworking is not a universal possibility, many businesses and employees are unable to take advantage of and utilise these opportunities. Many jobs require physical presence and proximity and the OECD (2020) identifies the possibility that differential opportunities to use teleworking

may exacerbate existing inequalities given that young, less educated workers at the bottom of the wage distribution are much more likely to be working in jobs requiring this physical presence.

While noting that the potential for the Pandemic prompted positive and exciting innovations to the organisation and conduct of work, the ILO (2020) also noted that millions of workers either had or were in danger of losing their jobs and their livelihoods and that these impacts were falling disproportionately on those already in vulnerable and precarious positions, women and young people, and small businesses.

It is important to note that responses to the pandemic included other forms of flexible working, reduced hours, part time working, and temporary layoff or furlough were mechanisms used to counter the impact of the pandemic and obviate the need for organisations to dismiss employees in the face of the disruption to normal business caused by for example lockdowns, forced closures and the need to move activities online.

The pandemic has highlighted the failure of many businesses to have appropriate contingency plans (for example; Belzunegui-Eraso, 2020) has placed enormous focus on the need for business to develop resilience. For many; the use of teleworking as a go-to contingency to enable continuing operation was an indicator of this failure to plan.

The pandemic has also highlighted the issue of health and well-being at work and the logistics of work in the context of a need to socially distance, sanitise and protect from infection. Once again teleworking was perceived by many businesses as a solution for these health and well-being issues, to some extent obviating the need for organisations to address the issues associated with physical presence and proximity but which imposed often new and additional logistical issues for organisations and employees.

In this article we focus on the impact of the Covid-19 pandemic on the implementation of

teleworking, other flexible work practices and the logistics of work.

Teleworking

There is no one definition of teleworking but it is generally accepted to involve the use of information and communication technologies such as smartphones, tablets, laptops, and/or desktop computers, for work that is performed outside the employer's premises. So it implies a separation of work from an employer's workplace, and the use of ICT to enable and support this remote working. As ACAS (2005: p.24) note; "teleworking permits employees to spend all or part of their working week at a location remote from employers' workplaces", and Aboelmaged and El Subbaugh (2012: p.4) suggest, "teleworking can be defined as accomplishing work-related tasks from a different site that is remote from the traditional office on a periodical or exclusive basis via the support of ICT".

There are a number of different categories or modalities of teleworking which include home working, mobile working such as salesmen or truck or delivery drivers, and working from other shared facilities outside the office and the home. Teleworking can also be regular or occasional and irregular, partial, for example so many days a week but not fulltime, and permanent or temporary. The response to the pandemic involved many workers being required to work remotely at home using information and communication technologies on a regular full time basis.

However, as the impact and severity of the pandemic eases, many organisations have required or have provided the opportunity for their employees to return to the business workplace either full time or partially. Others have seen advantages from teleworking which encourage them to continue the practice; for example, as a strategy of infrastructure cost reduction to reduce contamination related to mobility or to generate a favourable climate for combining and integrating work and family life. It is clear that there is a range

of hybrid options of remote and non-remote being utilised by organisations to suit their own circumstances, culture and preferences. These can range along a continuum from almost entirely off premises to almost entirely on premises with many combinations of partial remote and partial on premises in between. So, for example; Chargebee is adopting a fully remote model, Codility is going mostly remote but with hybrid hubs and sponsored workspaces, and TomTom has given employees the choice of working in a company office or home office. Whereas the famous Goldman Sachs and Barclays have both indicated a desire to get their employees back on company premises with little; if any, remote and teleworking. What does seem to be clear is that there will be greater flexibility in the future and that this will apply both to location and hours and that ICT will be an inherent component of enabling the future organisation and location of work.

Country Context

Prior to the pandemic Egypt had started on the path of becoming a Digital Society to which the fostering of digital workplaces and workforce were integral. The pandemic with the emphasis it placed on digital solutions for the continuation of business activity is likely to have boosted interest in digital transformation in relation to the organisation and conduct of work. PWC (2020 and 2021 a and b).

The Egyptian Government Digital Transformation Strategy (Egypt Digitalization Report, 2021); which is an integral part of the Government's Vision 2030; that focuses on investment in the technological infrastructure and the need to develop a digitally literate workforce. It has begun the development of five smart cities, has built innovation and creativity centres and has begun the process of developing human capital through the national Academy for Training and a focus on ICT knowledge and skills.

However, while governments can encourage and provide appropriate enabling and supportive technological and human development

infrastructure for business to take advantage of, the actual investment in the creation of digital workplaces needs to be made by business. The authors have already noted the impact of the pandemic in forcing business to adopt digital solutions but as noted earlier there is little evidence of the extent to which business in Egypt has adopted teleworking and other flexible work organisation solutions.

The authors address this in a later section where they report on the outcomes of initial research into employees' perceptions of the impact of the pandemic on the organisational adoption of such solutions. Certainly there is some evidence in relation to the Middle East as a whole that the process of digital transformation in business had been accelerated by the pandemic, PWC (2020, 2021a). PWC here report that 50% of Middle Eastern CEOs were intending to increase their investment in Digital Transformation by more the 10% over the following three years and the PWC (2021a) report confirms that greater priority was being given in Middle Eastern business to the upskilling and wellbeing of their workforce.

Logistics of work, employment organisation and management and HRM

As was pointed out by Egypt Digitalization Report (2021), the challenge of the pandemic was to introduce effective teleworking and WFH to individual workers at the same time as maintaining teams in the new virtual context. They identify the need for organisations to ensure continuous communication, the provision to employees of proper corporate technical equipment, that they are using tools compatible with Corporate IT requirements, that poor connectivity will not negatively impact employee performance and effective engagement and that security is not compromised.

Robben (2021) refers specifically to the logistics of implementing successful WFH solutions, though the points are equally relevant to teleworking in general. He stresses the crucial ability of an employer to empower their employees with the right tools and infrastructure necessary to do their jobs without risking

productivity and information security. He further suggests that this requires focus on two key areas; Digital Infrastructure and Cybersecurity Infrastructure and policies.

- *The Digital Infrastructure* needs to enable employees to connect to the internet reliably enabling effective access to company servers and services and in order to facilitate this business should supply employees with employer laptops and other devices. It is also important that employees have strong internet and phone connections and where necessary these should be upgraded at the business expense.
- *The Cybersecurity Infrastructure* should ensure that employees can work remotely using encrypted devices over secure networks and platforms. In this context Robben (2021) identifies the importance of employees behaving appropriately in order to ensure compliance and security and the crucial role that can be played by training and company policies in achieving a resilient security culture.

The ILO (2021) also identify the need to ensure that employees are provided with appropriate ergonomic office furniture and equipment and that they have an appropriate workspace and that issues of work and job design are addressed. It is important that managements realise that implementing new technologies and ways of working such as implied by teleworking and WFH is not just a matter of ensuring employees have appropriate equipment and facilities with which to effectively perform their jobs in a remote and virtual environment. This is best regarded as a prerequisite but It is important that other potential barriers to and conditions for the effective adoption of new working practices are also addressed and in particular the so called people, leadership and cultural factors.

The Pandemic in prompting a very rapid and widespread forced adoption of teleworking has heightened awareness and the need to address issues that have been identified by researchers for number of years as being relevant to

the effective implementation of new digital information and communication technologies into the organisation of work and into people's jobs and lives. Some of these issues are examined in the following sections and the authors separate issues for employees from those for employers and managers.

For employees the impact of teleworking and the implied detachment of work from place, work colleagues and supervisors on employee behaviour and attitudes, levels and sources of organisational commitment, involvement, engagement, job satisfaction, technostress and physical and psychological well-being, work life-balance, integration and conflict, and job performance, have all been identified as potentially positive or negative.

For example; Felstead and Henseke (2017) found that remote working is associated with higher organisational commitment, job satisfaction and job-related well-being, but these benefits come at the cost of work intensification and a greater inability to switch off. They also found support for social exchange theory with remote workers doing unpaid work, working harder and/or putting in extra effort in return for the opportunity to alter where and when they work. Remote workers also find it difficult to redraw the line between home and work as predicted by Border theory, thereby impacting work life-balance.

Mostafa's (2021) research in Egypt found that remote working was associated with flexibility benefits that could enable appropriate integration and balance between work and personal domains, and health protection benefits, but that these are also at the expense of work intensification, longer working hours, feelings of job insecurity and difficulties with motivation and connecting with team members. However, Mostafa also found that while working at home the availability of effective ICT facilitated enhanced psychological wellbeing through enabling communication and mitigating the effects of feeling lonely and isolated.

Zhang (2020) focussed on teleworking and the

relevance of being a parent and found that having children and whether a single parent played an important role influencing levels of work to family and family to work conflict.

Prasad and Vaidya (2020) focus on remote working and its impact on employees' mental health and psychological wellbeing and thereby on performance. They identify isolation due to lack of interaction with colleagues and supervisors, family distractions, role overload and role conflict related to a lack of clear differentiation between multiple roles. Molino et al. (2020) identify the possibility of technostress in the context of perceptions of permanent availability and information overload.

Leighton and McKeown (2020); Spurk and Straub (2020) both argue that the pandemic and responses to it have transformed traditional relationships between employees and supervisors. There are potential benefits for employees in terms of autonomy, control, flexibility regarding working hours and location and the impact on organisational commitment, job satisfaction and well-being can be positive and may well provide opportunities for enhanced work-life balance.

For organisations and supervisors. In addition to the logistical issues identified above, teleworking can impose new requirements regarding the nature of leadership and supervision. Bondarouk et al. (2017), PWC (2020) and El-Kot et al. (2022) all argue for the need for changed mind-sets and transformational leadership. Maher (2013) notes that managing remote working in Egypt requires cultural change and that managers need to change from their traditional approach of Management by walking to an approach characterised as management by performance or objective. Supervision must be based in empowerment and trust of employees (PWC, 2020) rather than control, culture should be empowering, collaborative and participative, and performance measurement should focus on outputs rather than inputs and presence.

Teleworking inevitably provides challenges for the

traditional methods of exerting control through face to face interaction, visibility and physical presence and undoubtedly some supervisors and managements will see teleworking and greater flexibility over working hours and location as an opportunity for employees to shirk. The provision of appropriate Information and Communications technology for the employee should enable at least some mitigation of this as effective communications are empowered and supervisors receive training in how to manage and supervise in the new working environment.

In a comprehensive assessment of the challenges of managing remote workers Larson et al. (2020) confirm the management need to address issues related to lack of face to face supervision, and employees lack of access to information both formal and informal from interaction with colleagues, what they refer to as mutual knowledge. Employees' social isolation and distractions at home, especially associated with children, are also challenges for management and they suggest that employees should not be allowed to work remotely without the provision of both a dedicated workspace and adequate childcare. Solutions to these issues they suggest include; structured daily check ins with staff working remotely, rules of engagement and availability, a comprehensive and varied range of ICT options, opportunities for staff to engage in remote social interaction with colleagues, and management need to listen to workers and their anxieties and provide encouragement and support.

It seems clear, and as noted by the OECD (2020), that policy makers should facilitate the diffusion of best practice managerial practices developed in response to the increased use of telework. Managers need to adapt to the opportunities and challenges posed by telework. Adherence to outdated managerial practices may prevent managers from adopting telework, thus foregoing the benefits inherent in the use of telework. The attendant reduction in direct oversight may require managers to shift from a culture of presentism to an output-oriented assessment of worker performance.

As noted in the introduction, the pandemic and the teleworking and WFH responses to it has forced employers to confront the need to protect their employees from infection and to focus more on their health and well-being. The need to control the spread has also introduced an imperative that employees themselves take responsibility for behaving in accordance with the protocols for ensuring protection. Metwally (2021) locates this need for greater focus and action in the context of the concept of internal CSR, employee oriented CSR practices. While teleworking may seem a solution to many of these issues, especially those related to physical proximity and contact, the argument is extended to the social and psychological welfare and health of remote employees and it is suggested that teleworking imposes a greater need for focus on work-family relationships, close relations between organisational members, mutual trust between employees and management, networks, cooperative behaviours, voluntarism and commonly shared norms.

The impact of a shift to teleworking on traditional work-family/non-work boundaries and roles is something the authors have already referred to and it provides opportunities for both benefits and costs to the employee, their family and their employer. **It is important for organisations to be aware and to adopt approaches and policies which seek to minimise the costs and maximise the benefits.** Among **solutions to these issues** is the need for organisations to be flexible, to allow their employees flexibility and wherever possible to make teleworking a choice. As Zhang (2020) points out **children are an important influence on the success of teleworking especially if home based**, and, as Larson et al. (2020) also identify, organisations need to avoid a situation in which employees are expected to work with unsatisfactory technology, unsatisfactory workspaces and environment and with child caring responsibilities at a time they are required to be working.

Provision of effective ICT will potentially enable mitigation of feelings of isolation and loneliness. Wherever possible organisations should avoid

close electronic monitoring and rigid time schedules, provide flexitime opportunities for employees to choose when and where to work around core hours if necessary, and respect employees' rights to be disconnected. They may further need to address variations in existing childcare provisions and policies, especially if provision was within or close to the traditional workplace.

Hamouche (2021) notes that the pandemic disrupted many organisations performance measurement and performance based payment systems, the new working arrangements often posing insurmountable challenges. More long term as the OECD (2020) identify teleworking requires that performance is measured more by outputs and results than by inputs such as time at work. They note that this shift may be perceived as some relaxation of control but combined with the need for more trusting relationships it is also likely that digitisation may enable more information to be available to monitor performance.

A major concern for organisations is the issue of performance and productivity and many see teleworking and other forms of flexible working as threats to the performance and profitability of the business. The OECD (2020) point out that the impact of teleworking on firm performance can be either positive or negative.

ACAS (2005) and the OECD (2020) suggest there are significant opportunities for improvement in performance through cost savings associated with teleworking. These savings can be derived from lower capital costs, for example through savings in office space and equipment. It may be that there is a potential for lower labour costs from an enlarged pool of labour supply, lower hiring costs if the change to teleworking has positive effects on labour retention and lower wage costs if it is possible to tap into pools of labour that require flexibility; for example, because of caring responsibilities or disability, and will work for less in return.

Felstead and Henseke (2017) and the OECD (2020) identify the potential and crucial role

of improvements in employee commitment, engagement, satisfaction and well-being for performance and productivity improvements and gains. This potential would appear to be at least partially confirmed by the PwC (2020) survey in the Middle East on the impact of the pandemic found that a third of respondents thought that the new forms of flexible and teleworking with employees working remotely or choosing their working hours combined with access to new digital information, communication and collaboration tools had promoted productivity. Evans-Greenwood et al. (2021) in noting the impact of the Pandemic on the detachment of work from place also identify that an improved workforce experience leads to increased productivity and improved business results.

We can conclude from this review of research that effective and successful implementation and adoption of teleworking as a solution to the issues created by the pandemic (and in the longer term) therefore, requires that organisations ensure employees have access to an appropriate fast, reliable and secure ICT infrastructure, and an appropriate and effective home or other work environment. Employees' rights to have a choice and to be disconnected must be recognised and protected, and where possible opportunities for necessary flexibility of time and location. The relationship between employee satisfaction and wellbeing and performance and productivity should have significant influences on the management approaches and policies adopted by organisations including approaches to management, supervision, control and to the organisational culture.

The survey

As noted in the introduction there is little evidence of the extent of teleworking and other modes of flexible working and employer childcare provision in Egypt and the authors report here the findings of an initial survey of employee perceptions of their employers' implementation of flexible work and childcare policies, both before and after the Covid-19 pandemic. The authors analyse the

impact that the Covid-19 pandemic had on the implementation of these policies in a range of organisations in Egypt and examine the impact of organisational size and ownership type.

The flexible working practices investigated were: Part time working, Reduced Hours, WFH, Telework, and Flexi time. The data were collected from a purposive sample of working women in professional and managerial roles in a range of different organisations in Alexandria and Cairo. The data were collected online between March and May in 2021. The authors also collected organisational data including organisational ownership type, number of employees and the existence of written HR policies and practices and whether the organisation had a written Equal Opportunities Policy. The questionnaire was in English. A range of demographic data was also collected including age, educational level attained, employment status, marital status, motherhood, and role.

Sample Characteristics

As shown in Table 1 below; in total 1089 women completed the questionnaire. The majority of the respondents (66.4%) were aged 35 or less, 47% were married, 42% had children. The vast majority of the respondent population worked full time (93.5%). All of the respondents were educated to at least the Bachelor degree level. 63% of the respondents occupied managerial roles.

Organisational characteristics

As shown in Table 1 below; a majority of the respondents (53%) worked in organisations classified as private/family ownership, 37% in MNCs and 10.5% in the public/government sector. Nearly half (46%) of the respondents worked in organisations employing 1000 employees or more with 11% in organisations employing less than 50. Nearly all (94%) of the respondents affirmed that their employing organisation had written HR policies and 82% said this was also the case for an equal opportunities policy.

Table 1. Sample and Organisational characteristics

Item	Frequency	%	Item	Frequency	%
Ownership:			Current employment:		
Government	114	10.5	Full time	1018	93.5
Private/family business	576	52.9	Part time	71	6.5
Multinational	399	36.6	Marital status:		
Organizational Size:			Single	574	52.7
Below 50	123	11.3	Married	515	47.3
From 50-249	281	25.8	Have Children:		
250-999	185	17.0	Yes	456	41.9
1000 and more	500	45.9	No	633	58.1
Organization Policies:			Educational level:		
Written Policy -yes	1024	94.0	Bachelor Degree	847	77.8
Written Policy - No	65	6.0	Master Degree	217	19.9
Written EO policy – YES	895	82.2	Doctorate degree	25	2.3
Written EO policy – NO	194	17.8	Current Position:		
Age:			Non-Management	406	37.3
35 and less	723	66.4	Lower Management	246	22.6
36 and above	366	33.6	Middle Management	272	25.0
			Senior Management	165	15.2

Before Covid-19

Table 2 shows that the implementation of these flexible working and childcare policies was limited, the most commonly affirmed being flexitime, with 44% of respondents saying that their employer operated such a policy. Teleworking was implemented in the employing organisations of 36% of the respondents and WFH by 22%.

Table 2. The implementation of flexible working and childcare policies before and after COVID-19 virus.

	Before	Before	After	After
	Yes (Frequency)	Yes %	Yes (Frequency)	Yes %
Flexibility policies				
Part-time work	312	28.7	539	49.5
Reduced hours	167	15.3	680	62.4
WFH	240	22.0	844	77.5
Telework	393	36.1	761	69.9
Flexi-time	477	43.8	711	65.3
Childcare				
Workplace childcare	219	20.1	223	20.5
Childcare allowances	277	25.4	325	29.8

After Covid-19

The picture for flexible working policies after Covid-19 is very different and a majority of respondents indicate that their organisation is now implementing all of these policies except part-time working (49.5%). There were increases in the implementation of all the flexible working policies after COVID-19 and the increases were large, the largest being from 22.0 % of respondents affirming that their employer implemented WFH policies before whereas after Covid-19 this percentage was 77.5%. The comparable figures for teleworking were 36% increased to 70% and for flexitime from 44% to 65%. Before COVID-19 none of these policies were implemented by a majority of the respondents employing organisations, whereas afterwards all except part time work (49.5%) were implemented by the majority. There is some evidence of an increase in the provision of childcare allowances after the pandemic but the number of respondents affirming provision of workplace childcare remains much the same.

The authors conducted Paired **sample** and **T-Test** analysis to establish statistical significance of the impact of COVID-19 on the implementation of these policies and the outcome is presented in Table 3 below.

Table 3: Paired Comparison t-test

HR policies & practices	M	SD	t	df	Significant (2-tailed)
Workplace Childcare - Before Corona	.004	.43	.283	1088	.777
Workplace Childcare - After Corona					
Childcare allowances - Before Corona	.04	.46	3.178	1088	.002
Childcare allowances - After Corona					
Part-time work - Before Corona	.21	.53	13.063	1088	.000
Part-time work - After Corona					
Reduced hours - Before Corona	.47	.59	26.397	1088	.000
Reduced hours - After Corona					
WFH - Before Corona	.55	.55	33.284	1088	.000
WFH - After Corona					
Telework - Before Corona	.34	.54	20.836	1088	.000
Telework - After Corona					
Flexi time - Before Corona	.21	.53	13.421	1088	.000
Flexi time - After Corona					

COVID-19 was significant in explaining affirmed differences in the implementation of all the flexibility policies, and as noted above there were increases in implementation of all these policies. The pandemic was significant in explaining the increased affirmation of provision of childcare allowances.

The relevance of written HR policies

The main outcome from the data, and notwithstanding the overwhelming majority of respondents affirming that their employing organisation had written policies, is evidence that the absence of written HR policies is associated with greater likelihood of implementation of flexibility policies both before and after Covid-19.

The absence of written HR policies is also associated with less likelihood of both workplace childcare and childcare allowances being implemented after Covid-19 than before, this may be a reflection of employers taking advantage of the flexibility provided by the absence of written policies, flexibility possibly constrained by and not available to those with written policies, to reduce provision of what are presumably relatively expensive policies to

implement. It may also be associated with the apparent substantially greater propensity for implementation after the pandemic of reduced hours and WFH policies by employers without written policies (See Table 4 below).

The relevance of written Equal Opportunities policies (EOP)

The frequency of respondents affirming that their employing organisation had written Equal Opportunities Policies was less than for HR policies (82% against 94%) and the differences in implementation of flexible working policies between those that did and those that did not were much less marked. Before Covid-19 there was evidence that organisations with written EOPs were less likely to implement teleworking but this difference did not persist after Covid-19. The provision of childcare policies by those employers without an EOP was less likely than for those with, both before and after the pandemic (See Table 4 below).

Table 4: Comparison based on Organizational policy and equal opportunity

HR Policies and Practices	Organizational policy written (Before)		Organizational policy written (After)		Organizational policy – equal opportunity (Before)		Organizational policy – equal opportunity (After)	
	Yes N= 1024	No N= 65	Yes N= 1024	No N= 65	Yes N= 895	No N= 194	Yes N= 895	No N= 194
Childcare								
Workplace Childcare	1.80	1.72	1.79	1.97	1.79	1.86	1.77	1.91
Childcare allowances	1.75	1.72	1.68	1.97	1.72	1.83	1.68	1.80
Flexible practices								
Part-time work	1.73	1.40	1.53	1.34	1.71	1.71	1.51	1.46
Reduced hours	1.86	1.65	1.39	1.09	1.85	1.82	1.37	1.39
WFH	1.81	1.34	1.24	1.06	1.70	1.70	1.22	1.26
Telework	1.67	1.09	1.32	1.08	1.69	1.42	1.31	1.27
Flexi-time	1.59	1.08	1.36	1.09	1.58	1.50	1.33	1.41

The relevance of Organisational Size

The respondents were asked to identify the number of employees in their organisation and

were forced to choose one of four categories (see Table 5 below).

Table 5: Comparison based on Organizational Size

HR Policies and Practices	Below 50 N= 123		From 50 to 249 N= 281		From 250 to 999 N= 185		1000 and more N= 500	
	Before	After	Before	After	Before	After	Before	After
Childcare								
Workplace Childcare	1.80	1.80	1.81	1.91	1.78	1.74	1.80	1.75
Childcare allowances	1.80	1.80	1.81	1.91	1.80	1.58	1.67	1.60
Flexible practices								
Part-time work	1.29	1.21	1.78	1.57	1.78	1.39	1.75	1.58
Reduced hours	1.67	1.13	1.92	1.40	1.88	1.38	1.84	1.42
WFH	1.41	1.16	1.85	1.25	1.85	1.16	1.80	1.25
Telework	1.44	1.19	1.61	1.25	1.72	1.34	1.67	1.34
Flexi-time	1.44	1.32	1.60	1.42	1.62	1.30	1.55	1.33

Study of the responses suggests that the smallest organisations, those employing less than 50 employees, were substantially more likely to implement flexible working policies both before and after Covid-19 than the larger organisations. After Covid-19 implementation of flexible working policies as reported increases for organisations in all size categories and there is some narrowing of the differential rates of implementation between the size groupings.

Before the pandemic, there was relative consistency across the size groups in the provision

of workplace childcare, after the pandemic the smaller organisations are less likely to make such provision than the larger organisations. Before Covid-19, the largest organisations appear more likely to have been implementing policies on childcare allowances, after Covid-19 this seems to be even more likely.

In order to facilitate a T-test based on organisational size the authors reclassified the organisations into below 250 and 250 and above, for each human resources policies and practices before and after Covid-19 (See Table 6 below).

Table 6: t- test based on Organization Size before and after

HR Policies and Practices	Public/ Government N= 114		Private/ Family Business N= 576		Multinational N= 399	
	Before	After	Before	After	Before	After
Childcare						
Workplace Childcare	1.91	1.85	1.76	1.85	1.81	1.69
Childcare allowances	1.72	1.54	1.73	1.77	1.77	1.65
Flexible work policies						
Part-time work	1.60	1.53	1.71	1.47	1.75	1.54
Reduced hours	1.81	1.24	1.86	1.36	1.84	1.44
WFH	1.89	1.16	1.76	1.29	1.77	1.15
Telework	1.84	1.41	1.60	1.26	1.64	1.32
Flexi-time	1.61	1.33	1.63	1.38	1.44	1.30

As can be seen from the table, number of employees was significant in explaining the provision of policies on Childcare allowances, part time work WFH and teleworking before the pandemic and afterwards it was significant for all policies except WFH. The authors noted above the tendency for the differentials between the size groups to narrow after the pandemic but size remains a significant explanatory variable with the exception of WFH, with the smaller organisations seemingly more likely to be implementing teleworking, part time working and reduced hours and less likely to be implementing flexi time. After the pandemic, the smaller organisations are less

likely to be implementing policies on workplace childcare and allowances and size is significant as an explanatory variable.

The Relevance of Ownership Type

The respondents employing organisations were categorised into three ownership groupings, distinguishing Public and Government sector organisations, Private and Family owned, and Multinational. The enhanced likelihood of implementation of flexible working policies after Covid-19 is consistent across all policies and ownership types.

Table 7: Comparison based on ownership

HR policies & practices	Size	N	Before					After				
			M	SD	t	df	Significant p (2-tailed)	M	SD	t	df	Significant p (2-tailed)
1 Workplace Childcare	Less than 250	404	1.80	.39	-.67	866	.504	1.90	.33	-5.15	1.87	.000
	From 250 & up	685	1.80	.40				1.75	.43			
2 Childcare Allowances	Less than 250	404	1.81	.39	-4.03	1087	.000	1.90	.33	-10.11	1087	.000
	From 250 & up	685	1.71	.46				1.60	.49			
3 Part-time Work	Less than 250	404	1.63	.48	4.51	1087	.000	1.46	.50	2.14	845	.033
	From 250 & up	685	1.76	.43				1.53	.50			
4 Reduced Hours	Less than 250	404	1.84	.37	.354	830	.724	1.32	.47	3.05	1087	.003
	From 250 & up	685	1.85	.36				1.41	.49			
5 WFH	Less than 250	404	1.72	.45	3.80	1087	.000	1.23	.42	-.02	844	.987
	From 250 & up	685	1.82	.39				1.22	.42			
6 Telework	Less than 250	404	1.56	.50	4.24	1087	.000	1.23	.42	3.81	1087	.000
	From 250 & up	685	1.70	.46				1.34	.47			
7 Flexi Time	Less than 250	404	1.60	.50	.51	842	.610	1.40	.49	-2.21	1087	.027
	From 250 & up	685	1.60	.50				1.32	.47			

Prior to the pandemic, the public sector organisations appear to have been most likely to have implemented policies on part time working and least likely to have policies implementing WFH and teleworking. Multinational organisations were most likely to implement flexitime. After the pandemic; the public sector organisations remain the least likely to be offering teleworking but not WFH and while Multinationals remain most likely to be implementing flexitime, the differentials with the other ownership groups have narrowed substantially.

Before Covid-19, Public and government organisations were least likely to have implemented policies on Workplace Childcare and there was relative consistency in the implementation of

policies on childcare allowances. Perhaps the most interesting aspect of these results is that after the pandemic private and family business appear to less likely to be implementing policies on workplace childcare and childcare allowances than before the pandemic, whereas both the public sector and Multinational organisations seem more inclined to be implementing policies on these issues than before the pandemic.

In order to facilitate a T-test based on organisational ownership the authors reclassified the ownership groups into public and private including multinational, for each human resources policies and practices before and after Covid-19 (See Table 8 below for t-test).

Table 8: t-test based on organizational Ownership

HR policies & practices	Ownership	N	Before					After				
			M	SD	t	df	P	M	SD	t	df	P
1 Workplace Childcare	Public	114	1.91	.28	-3.20	1087	.001	1.85	.36	-1.56	1087	.120
	Private/ Multinational	975	1.80	.41				1.79	.41			
2 Childcare Allowances	Public	114	1.72	.45	0.66	138	.510	1.54	.50	3.91	1087	.000
	Private/ Multinational	975	1.75	.43				1.72	.45			
3 Part-time Work	Public	114	1.60	.49	2.93	1087	.003	1.54	.50	-0.68	1087	.498
	Private/ Multinational	975	1.73	.45				1.50	.50			
4 Reduced Hours	Public	114	1.81	.40	1.24	1087	.215	1.24	.43	3.25	1087	.001
	Private/ Multinational	975	1.85	.36				1.40	.49			
5 WFH	Public	114	1.90	.32	-2.90	1087	.004	1.16	.37	1.81	1087	.070
	Private/ Multinational	975	1.77	.42				1.23	.42			
6 Telework	Public	114	1.84	.37	-4.82	1087	.000	1.41	.49	-2.74	1087	.006
	Private/ Multinational	975	1.62	.49				1.29	.45			
7 Flexi Time	Public	114	1.61	.49	-1.18	1087	.237	1.33	.47	0.33	141	.743
	Private/ Multinational	975	1.56	.50				1.35	.48			

Table 8 reveals that this classification of ownership type indicates that before the pandemic it was significant in explaining differences of implementing provision of Workplace childcare, WFH and teleworking with the public sector organisations less likely to be implementing provision. It was also significant in explaining differences of provision of part time work but here the public sector was more likely to implementing provision.

After the pandemic, ownership type was a significant factor in explaining the implementation of policies on childcare allowances and reduced hours working, where the public sector was more likely to be implementing, and also in the implementation of teleworking where the public sector was less likely to be implementing provision. Teleworking is the only policy area where ownership type is a significant factor both before and after the pandemic and in both cases the public sector was less likely to be implementing provision according to the respondent employees.

Discussion and Conclusions

The results presented here demonstrate that employers in Egypt had adopted very much the same responses to the pandemic as others in many parts of the world in that Teleworking, WFH and flexitime had all been used to enable continuity of business activity during the pandemic. Greater flexibility in working hours had also been implemented through greater provision of opportunities for reduced hours and part-time working, possibly to cope with reduced levels of activity, as an alternative to laying staff off and as a means of enabling staff to cope with new realities in terms of blurring of boundaries between work and home life and the demands imposed by children and other family responsibilities.

Before Covid-19, and in the employing organisations of the selected sample of working women in professional and managerial roles, implementation of flexible working policies, workplace childcare and childcare allowances were limited.

Clearly Covid-19 has been significant in encouraging employing organisations in Egypt to implement a range of flexible working policies and practices but this is not the case for policies on childcare. There have been marked increases in the implementation of all the flexible working policies and across all organisational ownership types and size groupings, the rates of affirmation for childcare policies remain very much the same as before the pandemic.

Clearly also the vast majority of respondent employing organisations had both written HR and EO Policies. There is some evidence from this research that absence of written HR policies is associated with a greater likelihood of implementation of flexible working policies both before and after Covid-19. The absence of written policies is also associated with less likelihood of both workplace childcare and childcare allowances being implemented after Covid-19 than before. This may be a reflection of employers taking advantage of opportunity provided by the absence of written policies to reduce provision of what are potentially relatively expensive policies. The absence of written HR and EO policies providing employers opportunity to be more agile both in introducing and removing policies.

Organisational size is clearly a factor influencing the implementation of these flexible working and childcare policies either before or after the pandemic. The smallest organisations, those employing less than 50 employees, were substantially more likely to implement flexible working policies both before and after Covid-19 than the larger organisations.

This research also confirms ownership type as significant to the implementation of the range flexible working and childcare policies between groups either before or after the pandemic. Teleworking is the only practice where it is significant both before and after.

Implications for Egyptian Businesses

There can be little doubt given the results from the survey and the evidence from the PWC (2021 b)

survey of Egyptian Family Business, that there has been a significant shift to Teleworking, including WFH, and greater flexibility around working hours and schedules in response to the conditions and concerns imposed by the Covid-19 pandemic and the urgent need to engage with remote working where possible. Teleworking as noted earlier must be facilitated by the effective implementation of appropriate, reliable and secure digital technology and PWCs 2020 Digital HR survey reports that 72% of respondents said the pandemic had accelerated their organisations digital transformation. The authors noted earlier (2021a) ME CEOs reported intentions to increase investment in digital transformation in the future. These results need to be set aside those from the PWC Family Business survey which shows much lower levels of intention to invest in digital transformation and this sector comprises a majority of Egypt's companies and the nation's income and employment.

According to the evidence from PWCs (2021a) survey, this has given considerable impetus to a realisation among CEOs that digitisation and employee upskilling are crucial to their future competitiveness and sustainability, with 70% of the CEOs believing a skilled, educated and adaptable workforce to be a top business priority. This survey also provided evidence that the issue of employee health and welfare has been heightened and the report found that 50% of ME CEOs thought that employee health and welfare were priorities that businesses should help to deliver and that the mental health of employees was a particular concern given the disruption the pandemic caused to work and family lives. Though the survey Results do not support notions that business has responded to this increased awareness by improving the incidence of provision of workplace childcare or childcare allowances. It may be of course that other approaches are being adopted.

Introducing new working arrangements which utilise or are dependent on new digital technologies; such as the information and communication technologies and infrastructure that facilitate teleworking and other forms of remote and flexible working will often require

change to traditional management practices and organisational cultures (OECD, 2020). Unwillingness to change on the part of either employees or management will hamper the effective implementation of these new modes of working. The PWC (2020) report argues that the biggest obstacle to digital transformation is often the change required to traditional mind-sets and cultures, and that one of the main ways of navigating through the new ways of working is to empower employees. The PWC (2021b) report notes that family businesses, the majority of businesses in Egypt, should be wary of assuming that traditional structures and cultures that have served them well in the past and through the first stage of the pandemic will be fit for purpose in the newly competitive and digitally transformed future. They will need to work harder to introduce digital technologies across the business.

It is important to note the conclusions of El-Kot, et al. (2022) who note that the traditional organisational form, culture, and management and leadership styles in Egypt are bureaucratic, hierarchical, autocratic and controlling. Leadership has been transactional and management has been disinclined to delegate and empower their workforces, and relationships have been characterised by respect and loyalty on the part of employees and low trust on the part of management. Teleworking is likely to be most effective when underpinned by an appropriate technological and environmental infrastructure and where organisational structure and policy are flexible, relationships are trusting, employees are empowered and their wellbeing nurtured, performance measurement focuses on outputs, and where leadership is transformational. Maher (2013) also noted the bureaucratic, centralised, authoritarian structures, cultures and approaches to management as challenges to the introduction and effective utilisation of remote working in Egyptian organisations. He also identified a lack of strategic planning and the formulation of clear strategic goals, poor management skills in planning, organising, motivating and controlling and that most employees have developed habits of poor timekeeping and an inability to work on their own.

What the authors have witnessed in Egypt as in many other countries is teleworking, WFH and flexibility as transformation in response to crisis, the test will be to see whether these new modes of working will endure once the pandemic is over and whether the lessons learnt are utilised to inform and cultivate the future of work. There are some obvious challenges here for the Egyptian business, both in terms of the logistics of ensuring appropriate technical and environmental infrastructure and equipment for employees, but also clearly in transforming management structures, systems, mind-sets and organisational cultures.

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