THE COVID-19 OFFICE IN TRANSITION: COST, EFFICIENCY AND THE SOCIAL RESPONSIBILITY BUSINESS CASE

Distinguished Professor Lee D. Parker
School of Accounting
RMIT University

Adam Smith School of Business
The University of Glasgow
Scotland UK

Contact address:
School of Accounting
RMIT University
c/o 100 Gover Street
North Adelaide
South Australia 5006
Email: lee.parker@rmit.edu.au
Phone: (64)400991223

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ABSTRACT

Purpose

This study critically evaluates the covid-19 and future post-covid-19 impacts on office design, location and functioning with respect to government and community occupational health and safety expectations. It aims to assess how office efficiency and cost control agendas intersect with corporate social accountability.

Design/Methodology/Approach

Theoretically informed by governmentality and social accountability through action, it thematically examines research literature and web-based professional and business reports. It undertakes a timely analysis of historical office trends and emerging practice discourse during the covid-19 global pandemic's early phase.

Findings

Covid-19 has induced a transition to teleworking, impending office design and configuration reversals, and office working protocol re-engineering. Management strategies reflect prioritisation choices between occupational health and safety versus financial returns. Beyond formal accountability reports, office management strategy and rationales will become physically observable and accountable to office staff and other parties.

Research Implications

Future research must determine the balance of office change strategies employed and their evident focus on occupational health and safety or cost control and financial returns. Further investigation can reveal the relationship between formal reporting and observed activities.

Practical Implications

Organisations face strategic decisions concerning both their balancing of employee and public health and safety against capital expenditure and operation cost commitments to covid-19 transmission prevention. They also face strategic accountability decisions as to the visibility and correspondence between their observable actions and their formal social responsibility reporting.

Social Implications

Organisations have continued scientific management office cost reduction strategies under the guise of innovative office designs. This historic trend will be tested by a pandemic which calls for control of its spread, including radical changes to the office at potentially significant cost.

Originality/Value

This paper presents one of few office studies in the accounting research literature, recognising it as central to contemporary organisational functioning and revealing the office cost control tradition as a challenge for employee and community health and safety.

Keywords:

Office, covid-19, social responsibility, cost, efficiency, teleworking,

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Introduction

The coronavirus (covid-19) pandemic has arguably been the most far reaching global pandemic with the greatest impact on human life, societies and economies for more than a hundred years. As early as 1 June 2020, there have been over 6 million confirmed cases and over 370,000 deaths reported to the World Health Organization (WHO, 2020a). Such has been its reach that as of 1 June 2020, reported cases included over 2.8 million in the Americas and over 2.1 million in Europe, over 520,000 in the Eastern Mediterranean, and between 100,000 and 270,000 in each of the Western Pacific, South-east Asia and Africa. The beginnings of this were first reported in the WHO office in China on 31 December 2019, was then declared a "public health emergency of international concern" on 30 January 2020, and was named covid-19 by WHO on 11 February 2020 (WHO, 2020b). The Director General of WHO, Tedros Adhanom, expressed his organization's concern about what it considered to be both the alarming rate of spread of the virus and alarming levels of inaction by national governments (Luthi, 2020).

Covid-19 has been just another of a series of pandemics over the past century (Bakalla, 2020), including the Spanish flu (1918), Asian flu (1957), Hong Kong flu (1968), HIV/AIDS (1981), and Swine flu (2009). With respect to covid-19, the time span of the pandemic has been predicted to last between 18 months and two years, with periodic resurgences of the disease expected across that period (Pitovsky, 2020). In addition to projected massive illness and death impacts, government shutdowns of business and society for social/physical distancing quickly led to major economic impacts including sudden jumps in unemployment statistics, business closures, government budget deficits and national gross domestic product impacts (Chen *et al.*, 2020). The contemporary global business focus on efficiency and just-in-time systems led to major global supply chain disruptions, trade relations between countries began to show signs of increasing strain, national focus increasingly moved towards self-interest, digitisation of economic activity rapidly accelerated, and government surveillance of populations escalated (WBCSD, 2020).

In this crisis environment, the organisational office faces a period of unprecedented change in potential occupancy rates, location, spatial configuration, overall design and operating routines. Since the latter part of the 19th century, as a corporate governance locus of accounting, control, communication and accountability work, the office has grown to become a central driver of organisational strategy and activity. Not only that, but it has become a focus of many people's daily lives (Jeacle and Parker, 2013). Historically, the physical arrangement of the office has been seen to play an important part in its accountability and control functions, both within the organisation and in its engagement with its external environment (Parker and Jeacle, 2019). As a result of the covid-19 pandemic, many countries' governments have at least initially imposed strict 'lockdown' protocols requiring many organisations to close their operations and much of the population to remain at home for extended periods. This regime has been reinforced by strict guidelines covering 'social distancing' and avoidance of physical contact being applied to individuals and small groups regarding the minimum distances between each other they should observe in order to minimise the risks of community transmission of the disease (e.g. Australian Government Department of Health, 2020; New Zealand Government, 2020). To varying extents, such new protocols are set to become part of 'normal' community and office life in many countries, not

only for the duration of the pandemic, but potentially as customs that will persist in the long term as preventative measures against the inevitable rise of future pandemics (Lichfield, 2020). This carries enormous implications for today's predominantly open plan, densely occupied offices and for the recent spate of innovative office designs such as Activity Based Working (ABW) offices. For example the Australian Bureau of Statistics (ABS, 2020) has recently reported that in response to covid-19 70% of Australian offices have had to change their *modus operandi*.

Accordingly, this study aims to critically assess the implications of the covid-19 and post-covid-19 environment for office location, design and functioning. This assessment will focus on associated efficiency and cost control agendas in the context of government and community expectations regarding the discharge of corporate social responsibility (CSR). This will be conducted through the lens of Miller and Rose's (1990) governmentality theory and Oakes and Young's (2008) and Parker's (2014) accountability through action theory. These facilitate a better understanding of the historical governmental and business drives for office efficiency juxtaposed with the contemporary crisis-induced governmental concerns with public health and safety and economic recovery. Such examination draws on the extant published research literatures on the history of the office, historical and contemporary office design, scientific management of the office, contemporary innovations in office design, and the efficiency, surveillance and cost control roles of the office. It also examines a sample of the current emerging web-based professional and media literature addressing covid-19 impacts on office design and functioning. These two groups of sources facilitate a timely examination of the emerging business and general community discourse in the context of currently available published research.

The paper commences with an outline of the relevant governmentality and accountability through action perspectives that frame the analysis, followed by a brief summary of the research design and analytical approach. Relevant prior research literature-based knowledge is reviewed to provide an historical context for the subsequent analysis of covid-19 office impacts. This covers scientific management for office efficiency, the ABW efficiency and cost control agendas, and business case oriented CSR. Against this background, the contemporary covid-19 office discourse is examined with respect to the key emergent issues of teleworking, office redesign, re-engineered office working, and office space cost control implications. Overall discussion and conclusions are then addressed.

Governmentality and Accountability Through Action

The Foucauldian (1980) governmentality perspective that informs this paper's analysis stems from the early work of Miller and Rose (1990) and their explanation of the exercise and workings of political power and governance in the democratic state. Many studies have drawn on their Foucauldian (1991) inspired ideas concerning the many techniques that can be utilised in governing citizens' lives, beyond the formal confines of the apparatus of the State (Rose and Miller, 1992). The individual is given the autonomy to exercise self-discipline rather than simply being permitted to do whatever they wish (Mihret and Grant, 2017). While the individual is ostensibly accorded recognition as a self-regulating agent, their 'freedom' is conditional, being defined as 'regulated autonomy', in that their actions are both facilitated and constrained (Foucault, 1982; Miller and Rose, 1990, 2008). This reflects Foucault's argument that liberal government attempts to preserve individual freedoms while remaining accountable for the population's welfare. Hence its strategies often rely on indirect means of

implementation whereby despite the setting of explicit targets, rules and regulations, it relies upon the co-operation and compliance of its citizens (McKinlay *et al.*, 2012).

Rose and Miller's (1992) notion of the political rationality of government feeds into the discourse on such matters as organisational costs, waste, and efficiency, and with respect to this study's focus, office efficiency. Intervention of government in daily routines becomes morally justified in the pursuit of national and corporate government's ideals and objectives, often implemented via equipment, documents, procedures, calculations as means of indoctrinating subjects into patterns of behaviour desired by those in governance roles. In the world of the office, this can be operationalised through office design, staff working routines, and normalised formal and informal behavioural customs (Rose and Miller, 1992). Governmentality then, can be applied to our analysis and explanation of governance at a distance with respect to society, organisations and individuals (Dean, 1999).

In both the UK and USA, the efficiency movement that prevailed through the late 1800s and early 1900s reflected national and industrial efficiency objectives of their governments at that time. Through the Taylorist scientific management period, efficiency and cost reduction were the focus of business discourse and management attention with efficiency assuming the status of a moral virtue (Jeacle and Parker, 2013). This was promoted through all sectors of society and the economy by government in its concern to meet its efficiency objectives, and enthusiastically taken up by scientific management consultants and organisational managers (Jeacle and Walsh, 2002). Such agendas were translated into the world of the organisational office (Leffingwell, 1917; 1926). This had the effect of driving government efficiency and cost reduction focus right down to the level of the individual office worker who became habitually accustomed to normalised routines and protocols designed for these purposes. In this way, 'blind habit' appeared to become a form of 'calculated freedom' (Rose and Miller, 1992, p.187).

Thus governmentality involved government's shaping and normalisation of organisations' and individuals' beliefs, orientation and activities indirectly and from a distance rather than from direct action or close supervision. This was done through creating and influencing the general societal mood and climate of opinion, working through its influence over and support of various stakeholders such as management consultants, private, public and non-profit sector organisations and associations, and other business and professional leaders (Parker, 2016). With respect to business and therefore the office, this focussed on the pursuit of efficiency and cost savings, thereby supporting the scientific management consultants' promotion of techniques to deliver these. In the US for example, it was strongly represented by the so-called Progressives movement that permeated the whole society, advocating efficiency as a social good (Fleischman and Marquette, 1987). Governmental focus on and promotion of competition and efficiency has persisted right through the 20th century and continues to the present day (Davies, 2017). For example, it was reinforced by the rise of neo-liberal philosophies of government in the 1980s and as Lapsley and Miller (2019) argue, remains a powerful force in today's society. As they observe, it has extended its reach to other sectors beyond the public sector, introducing "an overt and persistent managerialism" (Lapsley and Miller, 2019, p. 2213).

Thus the governmentality perspective allows us to appreciate the strategic role of both the office and its design and use in today's organisational world, particularly in terms of its internal governance and governance of the organisation overall (Jeacle and Parker, 2013). Thus it can be said that governmentality is exercised both through the inculcation and transmission of ideology and values, but also through interventions that can take quite visible forms such as office apparatus and tools, office procedures, and occupational health and

safety (OH&S) instruments and technologies (Dean, 2009; Miller and Rose, 1990). Technologies for example, can take a range of forms including government and management discourse and messaging, training programmes, and behavioural monitoring (Miller and Rose, 1990; Spence and Rinaldi, 2012). Organisational office design and control systems both visibly and invisibly facilitate the exercise of political power as they induce and monitor desired patterns of behaviour. The overall intent is to govern office staff behaviour and actions to conform with management's strategic intent. Across many countries, the pervasive neo-liberal political philosophies and their accompanying manifestation in New Public Management (NPM) has focussed heavily on promoting efficiency and cost reduction agendas with the same fervour as exhibited by predecessor British and North American governments of the early 1900s (Parker, 2016). The cost minimisation fixation was reinforced by the Global Financial Crisis, permeating both the public and private sectors (Parker, 2013).

Such notions of governmentality extended to ideas about the design and use of space as a medium and outcome of organised action in the workplace (Kornberger and Clegg, 2004). The way it is designed can impact on both social organisation and the exercise of power over office space and the staff that work in such spaces (Rosen *et al.*, 1990). Attention to office design, space, social control and staff interaction have remained high on the agenda of organisational management fairly consistently from the scientific management era up to today (Jeacle and Parker, 2013). Thus the governmentality perspective can informatively speak to an analysis of covid-19's future impacts on office design, efficiency, cost, and health and safety.

Of further relevance to understanding the roles of cost control and social responsibility agendas in organisations' office design, location and functioning responses to covid-19 is the concept of social accountability through action. This was earlier explored by Oakes and Young (2008) when they conducted a study of a late 19th-early 20th century non-profit organisation in Chicago and found an important form of accountability expressed through personal encounter. This they found in marked contrast to today's customary focus on formal bureaucratically based forms of accountability rendered in 'removed' reporting style disclosure forms. Parker (2014) argues that today we tend to envision accountability as primarily concerned with discharging accountability *for* corporate actions. This risks our neglecting the possibility and potential importance of discharging accountability to organisational stakeholders and society at large *through* visible and observable corporate actions.

So from this accountability through action perspective, CSR strategies such as maintaining OH&S for office staff by various actions can, if organisationally and publicly observable, constitute a further transparent type of accountability, being action based and physically observable in action (Parker, 2014). Oakes and Young (2008) see such an approach as oriented towards meeting the needs of individuals and groups (Benhabib, 1987). This may include any interested or affected parties both within and external to an organisation. It offers an alternative expanded avenue for examining and critiquing CSR discharge, compared with the vast majority of CSR research in the accounting literature. It moves beyond formal reports to include examinations of publicly visible actions that may (or may not) exhibit CSR and associated accountability. This responds to Gray's (2002) concern that social and environmental accountants and accounting researchers have focussed on formal means of discharging accountability, to the virtual exclusion of informal means. That risks our failing to recognise and exploit alternative avenues for rendering social accountability.

Where this concept of accountability through action also offers a point of difference from most theoretical perspectives to date employed in examining CSR, is that it goes beyond the

usual focus on holding accountors to account, expanding inquiry and consideration to include how such accounts are or can be rendered (Sinclair, 1995). This, as Messner (2009) has argued, means that we need to divert our gaze from purely *what* is included in the scope of accountability disclosures to include *how* that accountability is (or is not) rendered. Discharging accountability through action can be as simply conceived as taking forms of observable routine operational conduct (Giddens, 1979; Roberts and Scapens, 1985) as accountors deliver CSR accountability through organisational policies, infrastructure, strategies, and actions (Fry, 1995; Ebrahim, 2005). This offers organisations the opportunity to physically express and evidence their philosophies and values through the observable actions triggered by their policies, strategies and investments (Parker, 2014).

Social accountability through action then, offers an alternative means for examining organisation's implementation of CSR. From Goffman's (1959) notion of front stage and backstage performances, it offers a window into organisations' backstage CSR and OH&S performances to their employees and front stage CSR and OH&S performances to external stakeholders, including government and society. Those physical performances go beyond the traditional types of formal accounting and accountability reports typically produced by organisations (Parker, 2014). Of course such performances may be presented by organisations and their managements to respond to pressures from key salient stakeholders (such as government), and the form they take and their extent of implementation may be conditioned by industry and social norms and expectations of their time (Messner, 2009).

Research Design

The sources for this study are two major groups of publicly available documents. The first group is published research literature with respect to office history, contemporary innovative office design and the business case for CSR. The second group is current web-based reports and articles with respect to observed and anticipated impacts of covid-19 on office design and operation. Given the relatively sudden emergence and societal impact of this pandemic, these two documentary sources present the most accessible and timely sets of data for researchers addressing this emerging issue and offering timely analyses and evaluations that can feed not only into the research literature but also into policy and practice responses to such a major crisis.

The historical and contemporary published research literature drawn upon has been selected from literatures on office administration, design and management, focussing upon their historical and contemporary themes that remain relevant to the design and operation of today's offices. This resulted from a process of thematic analysis and coding, with codes aggregated into major themes of contemporary relevance, particularly to issues of efficiency, management and cost control (Strauss and Corbin, 1990; Huberman and Miles, 1994; Ahrens and Dent, 1998; Ryan and Bernard, 2000). Contemporary literature on ABW was sourced from published research literature on contemporary office design and management in the management, property, real estate management, and facilities management disciplines. A small selection of relevant CSR literature was made with reference particularly to employee health and safety issues, and also with reference to the literature discourse on business case motivations for CSR.

Current covid-19 related discourse on office impacts were searched via Google web searches for most recently uploaded relevant articles. These were authored by office consultants, office designers, property management consultants, general media, business journalists, commercial real estate consultants, property developers, strategic and change management consultants.

The approach involved purposive sampling of materials most relevant to the paper's central aim (White and Marsh, 2006; Kim and Kuljis, 2010). Given the specialist nature of this paper's focal subject and the recency of the covid-19 crisis, the risks of a broad scan of web literature locating excessive volumes of both relevant and marginally relevant material (Unerman, 2000) were ameliorated. Thus given the recency of the initial major covid-19 impacts on organisations and communities at the time of writing, a wide scan of most recent web literature on covid-19 related office design and operational impacts yielded a small focussed sample of material pertinent to this study's intent and analysis (Unerman, 2000). For both the historical office literature and the contemporary web reports, thematic analysis was employed through coding and aggregation into core themes (Guthrie *et al.*, 2004: Jose and Lee, 2007).

Efficiency, Cost Control and CSR: The Office Story to Date

The changes in the office over particularly the late 19th century through to the present day, merit revisiting here. This historical context can illuminate recent trends in office design and functioning, and the impending implications of this global pandemic for them. Understanding past trends and managements' agendas, carries important implications for OH&S impacts of office design, usage and cost control in a pandemic era. To this end, this section will review our knowledge regarding the longstanding approach to scientific management for office efficiency, the more recent decades of emergent ABW efficiency and cost control agendas, and historical observations on business case oriented CSR.

Efficiency and the Historical Scientific Office

As Jeacle and Parker (2013) have demonstrated, since the early 1900s, the office has been a site where governmentality has been exercised. The efficiency advocates of the late 19th century, particularly led by Frederick Taylor (1911) and his scientific management school compatriots such as Metcalf and Church (Litterer, 1961) promoted concepts that were adopted by the community as a socially desirable value. Government focussed on public sector and national efficiency and waste. Scientific principles of systems and efficiency were embodied for example in Henry Ford's production lines and then extended to the office. This is most prominently evidenced by Leffingwell's (1917) lengthy text on office management principles and practice, drawing on Taylor and his theories. He contended that "desk activities *are* processing operations as surely as are activities at machine and bench" (Leffingwell, 1917, p. vi). Central to the scientific management prescription for efficient office working was the standardisation of routines and tasks as a foundation for controlling office efficiency and outputs (Frederick, 1920; Sharles, 1929; Campbell, 1933; Leffingwell, 1926). This was addressed via detailed observations of office working processes, time and motion studies, time records, and elimination of actions and motions deemed unnecessary (Turner, 1929; Leffingwell, 1926).

Office efficiency concerns extended to office and furnishing designs and placement. Office manuals covered office space, furniture and layout, addressing their relationship to the physical flow of administrative records and tasks, often mimicking a manufacturing plant's continuous production line flow (Jackson, 1925; Campbell, 1933) similarly analysed for time, motion, space and supervisory efficiency (Dicksee, 1918; Galloway, 1919). This fostered the open plan office design that is the dominant design in offices today (Martin, 2003).

Office space was planned to optimise the positioning of desks to facilitate efficient staff movement (Galloway, 1919; McGill 1922). Scientific management consultants recommended simple desk designs with minimal sized desk drawers and storage space, and chairs designed to prevent fatigue (Dicksee, 1918; Galloway, 1919; Dicksee and Blain, 1906; Lloyd, 1930). This reflected government's and scientific management's shared concern for economic, public sector, organisational and individual efficiency. Office space design and organisation has been termed the Taylorisation of space: open plan layout, desks positioned in rows, all open to observation, inspection and management supervision (Baldry, 1997). As Kornberger and Clegg (2004) have contended, architectural and physical space design are both an input and an outcome of the organisation of staff actions. Through the scientific management lens, social engineering has been applied to 'machine' modelling office design and management (Jeacle and Parker, 2013). Parker and Jeacle's (2019) photoelicitation study of early 20th century offices illustrates this phenomenon all too clearly. It revealed large scale offices resembling factory floors with desks often in rows all facing the same direction, long aisles segregating various office sections, standardised desk and workspace designs, densely packed with clerks working in close proximity to each other as cogs in the wheel of accountability record production and control.

The ABW Search For Efficiency and Cost Control

Parker (2016) has argued that the open plan innovative office designs of today, such as Activity Based Working (ABW) designs, represent a return to the scientific office management concepts implicit in the open plan offices of the early 20th century. Developed by the Dutch consulting company Velfhoen & Co in the late 1990s, the ABW office requires shared rather than privately allocated desks and equipment to employees. Staff inhabit meeting tables, group work benches, and cubicles for short term private work, one-on-one meeting pods, standing tables, lounges, café and multimedia areas (Donkin, 2011; Appel-Meulenbroek *et al.*, 2011). Staff employ mobile electronic technology moving between multiple office areas through the day. Invariably there are more staff than available workstations (Rolfo *et al.*, 2017) and staff take all materials with them when they move between locations (Danielsson and Bodin, 2008; Parker, 2016).

Designs such as ABW are promoted as improving staff satisfaction, motivation and performance (Wholers and Hertel, 2017) and facilitating task focussing, individual socialising, group collaboration and learning (Malkoski, 2012; Ayoko and Ashkanasy, 2020). Further claimed advantages include staff productivity, reduced absenteeism, and improved staff retention rates (Parker, 2016). However critiques and study findings suggest it can be used by staff differently to designers' intentions, and can reduce productivity, and lead to staff dissatisfaction, reduced motivation, increased levels of distraction, perceived distancing from supervisors and even health impacts (Haynes, 2007; 2008; Oseland, 2009; Appel-Meulenbroek *et al.*, 2011; Morrison and Macky, 2017; Ayoko and Ashkanasy, 2020). Accompanying floor space reduction and usage densification has induced staff perceptions of overcrowding, loss of privacy, and loss of personal control over interactions with others (Brown *et al.*, 2005; Danielsson and Bodin, 2008; Haynes, 2008; Davis *et al.*, 2011).

As Parker (2016) found, consultants and adopters of innovative open plan office designs admit to their agendas for embracing such initiatives. These include floor space reduction, flexibility of office usage, and diminished overhead costs, churn cost reduction, reduction in workstations and floor space per staff member (Brunnberg, 2000; Appel-Meulenbroek *et al.*, 2011; de Been and Beijer, 2014). Floor space densification is sometimes introduced by stealth as the ratio of workstation and bench numbers to staff may be gradually reduced,

requiring more intensive use (Parker, 2016). Adopters and consultants' agendas openly incorporate saving total office floor space of 30 percent or more, increasing density of staff floor space occupancy by up to 20 percent and delivering overall office cost savings of up to 30 percent (Parker, 2016). The latter can include reduced rental, insurance, light and power, security and other overhead costs (Lloyd, 1990; Davis *et al.*, 2011).

ABW asserts that staff are given the freedom to select where in the office at any point of time they choose to work, ostensibly striking a balance between organisational needs or their personal preferences (Appel-Meulenbroek *et al.*, 2011). Yet as Parker (2016) and Parker and Jeacle (2019) have contended, this is a matter of Taylorist social engineering in the scientific management tradition, continuing from the open plan layout of the early 20th century to today's ABW layouts. Picard *et al.*'s (2020) study of accounting firm office redesign strategising reveals architects and designers being commissioned by senior management to generate designs that facilitate managing partners' ideas about the future of the workplace, and reflecting current trends in architectural design and routines. Again, this arguably reflects both management's physical and social engineering of the staff office environment and working routines. From a governmentality perspective, while office staff are 'freed' to enjoy autonomous working routines, that autonomy is limited to their behaving in accordance with management's underlying design and productivity intentions. Just as their early 20th century forebears, the staff are effectively being programmed into complying with behaviour patterns required by management. So as in the scientific management era, organisational agendas of efficiency and cost reduction are strategically designed right down to the individual level.

The Business Case CSR Agenda

While early concerns with overall CSR in the 1970s had a strong emphasis on employee health and safety, in more recent decades, both managerial and researcher emphasis has arguably shifted to environmental impact (Gray *et al.*, 1995; Mathews, 1997). Gray (2002) and Owen (2008) identified limited social and environmental accounting researcher attention to organisational engagement with employees. To the present day, management literature has recognised employees as a key stakeholder in CSR (Snider *et al.*, 2003; McShane and Cunningham, 2012; Du *et al.*, 2015) but is less concerned with employee health and safety and more with employee morale and productivity, arguably to the financial benefit of the organisation. This orientation is also evident in historic and contemporary office design innovations for boosting staff satisfaction, motivation and performance. This reinterpretation of the CSR agenda reflects what some have labelled its corporate capture for financial purposes (O'Dwyer, 2003; Archel *et al.*, 2011). Again, employees are treated as a factor of production in the mechanistic tradition of scientific management, despite innovative office designers' and adopters' claims to be rejecting the Taylorisation of space.

The office redesign agenda also reflects a business case adoption of CSR notions. CSR strategies (and disclosure) exhibiting socially responsive actions may bolster an organisation's corporate profile, market positioning, customer/client acquisition, employee recruitment, and investor approval (Brønn and Vrioni, 2001; Parker, 2014). This builds social, intellectual and reputational capital (Day and Arnold, 1998; Brammer and Millington, 2005) to generate both operating and financial returns for the employer, particularly from investments such as major office redesign. This may be pursued through premium product and service pricing, reduced labour costs, lower health and safety costs, and operational cost savings (Azapagic, 2004). Refocussing the CSR to employees agenda may reflect an economic rationalist response to government and other salient stakeholder expectations, still maximising social and financial returns (Dyllick and Hockerts, 2002; O'Dwyer, 2003).

Historically, Parker (2014) has argued that the business case motivation towards CSR, particularly with respect to employees, has at times been successfully juxtaposed with altruistic motives for enhancing employee and societal welfare. His research into the CSR strategies of early British industrialists Robert Owen, Titus Salt, George Cadbury and William Hesketh Lever found that their personal religious beliefs and social welfare agendas were pursued alongside their business case motivations. The latter financially supported their broader employee health, welfare, education and living conditions agendas. While many industrialists did not follow their CSR focus, some did provide worker housing and infrastructure in order to control and render dependant their workforce with a view to extracting maximum financial returns from such investment (Pollard, 1965; Gaskell, 1979).

From research into office design and innovation, it would appear that the primary CSR attention to employees has revolved around enhancing their job satisfaction and task oriented motivation with a view to extracting a maximum contribution to staff productivity and corporate profits. Any reference to health and welfare appears also to have maintained this business case orientation. This remains consistent with scientific management philosophy and reflects the governmentality notion of self-disciplined staff, conditioned by predesigned offices and their routines, ostensibly exercising their alleged autonomy but in the interests of the employing organisation.

Covid-19 and Post Covid-19 Office Efficiency and Cost Control

The covid-19 pandemic era has brought multiple population and community health, social and economic challenges. As so many communities have been required or advised by government to retreat to their homes and where possible, to work from home, this has brought with it, major changes in the world of the office and has raised issues with respect to the future shape, modus operandi, and by inference, cost of the post-pandemic office. For a timely investigation of these issues, accessing immediately available web based professional and media discourse provides a first insight into potential design and operational changes to the office, and to their underlying CSR and cost control agendas.

Covid-19 Induced Teleworking

With the immediate onset of the pandemic came a rapid retreat of office staff from their physical offices to working electronically from home. This has prompted re-evaluations of the efficacy of the teleworking concept that has been a subject of discussion and experimentation for many years (Hinsliff, 2020). The initial impression appears to have been one of positive and productive outcomes from office staff teleworking across diverse geographic locations (Short, 2020; Viswanathan, 2020). This has stimulated discussion of the future for an expanded organisational commitment to supporting office staff working from home to varying degrees. This raises issues of at-home adequacy of workspace and personal office infrastructure and its OH&S standards, along with the extent to which the employing organisation contributes to the setup and maintenance cost. It also draws attention to the availability of suitable communication, copying and other technology for the teleworker, the manner in which office staff time and organise their working day, the scope for virtual video meetings, the commitments and stresses to be managed by officer workers with families, and the management of social isolation for maintaining personal mental health (Gaskell, 2020; George, 2020; Hamouche, 2020; Knight, 2020; Kretchmer, 2020).

The extent to which teleworking may become more prevalent will be in the first instance determined by employer and office staff attitudes. Recent surveys report that based on their

pandemic experience of teleworking, a minority of office staff prefer to return to the office full-time, while the majority are now disposed to seek a portion of the working week in the employer's offices and a proportion working at their home office (Beaudoin *et al.*, 2020; Gaskell, 2020; Lister, 2020; Margolies, 2020). Management attitudes appear potentially influenced by observation of positive teleworking results during the pandemic, alleviated fears of nonproductivity, and considerations of potential cost savings (Brower, 2020; Kasperkevic, 2020; Lister, 2020; Margolies, 2020; Richtel, 2020). Crucial to any longer term rise of the home office is the question of its necessary adequacy and extent of equipment for both effective operation and OH&S standards compliance. This again raises questions of home spatial feasibility for office staff and home office setup cost (Graham, 2020; Leggatt, 2020; Scarlett, 2020). Nevertheless, commentators observe the potential for a gradual transition to the hybrid office concept where office staff work between a combination of home and employer's offices (Short, 2020; Leggatt, 2020; Kasperkevic, 2020). To some extent, this will become an observable form of social accountability through action, although the home office component is largely invisible to outside parties, becoming a predominantly backstage opaque operation.

A further extension of the hybrid office concept about which some discussion has begun to emerge, is that of the satellite hub geographically distributed for example in suburbs of a large city. Thus the central business district (CBD) office may be augmented by co-working hubs located in suburbs or regions which office workers can access more easily from their home locations. This may serve as a half-way house or third option to the employer's central office and the staff's home office (Beaudoin, 2020; Leggatt, 2020; Scarlett, 2020).

From a governmentality perspective the extent and nature of shift towards teleworking and hybrid offices may be determined in part through staff preferences, employer efficiency and cost agendas, and pandemic OH&S requirements. Any increased recourse towards teleworking locations will arguably entail management's further attention to indoctrinating staff with organisationally oriented behaviour patterns, regardless of their physical location. Such facilities as communication technologies, home office equipment, and geographically distributed hub configurations all become means of management intervening in the office staff's operational world. They become avenues through which management exercises control from a distance, all the while preserving an image of staff autonomy. The latter nonetheless becomes a calculated freedom subject to output controls that become an increasingly employed means of ensuring individual compliance with organisational norms and agendas. This underlying governance agenda is well illustrated by reports of a covid-19 induced upsurge in corporate interest in procuring and installing remote working staff surveillance software that can monitor and analyse staff activities online. Pfeffer (2020) warns of the risk inherent in such direct surveillance and micromanagement technologies, instead advocating the building of mutual trust and communication with a focus on outputs rather than process. This, he argues, better supports staff mental and physical health and workplace engagement. Viswanathan (2020) too, sees this environment requiring staff self-management, with productivity becoming "the default measure of accomplishment". To that end, he sees higher levels of trust within the workplace, being essential for its covid-19 and post-covid-19 functioning. Nonetheless, governmentality is still potentially exercised through management's conditioning of the 'trusted' employee.

Redesigning Offices

In today's covid era, OH&S now presents a significant challenge to the traditional physical world of the office. As Mance (2020) puts it, serendipitous interactions between office staff

is epidemiologically incompatible with physical and social pandemic distancing regimes. The virus is a significant threat in an indoor office environment containing large numbers of staff in close proximity (Tranel, 2020). Such contemporary practices as hotdesking, shared computers and keyboards, and shared workbenches provide a potentially threatening breeding and cross contamination ground for bacteria and viruses (Diemar, 2020; Coleman *et al.*, 2020; Taylor, 2020). As Chung (2020) puts it, in a working day, a typical office worker may encounter as many as 40 different touchpoints capable of transmitting the virus. The contemporary era of open plan, co-working, hot desking, shared space and ABW offices therefore faces a major change and organisational investment in redesign before they are safe and covid-19 transmission control compliant in the new covid-19 and post covid-19 era (Cummions and Johanson, 2020). Their density of floor space occupancy; areas designed for staff passing by, meeting and interacting; promotion of staff movement within and between floor areas; and face to face workstation configurations are all potential incubators for passing and proliferating the virus (Morrison, 2020; Bleby, 2020). Continuation of such designs may not only create problems of noncompliance with covid-19 regulations and incurrence of penalties by employers but may also encounter office staff resistance to returning due to those designs' covid-19 transmission risks (Margolies, 2020). In this sense, the notion of accountability through action allows the office staff to visibly detect and respond to evident management attitudes and strategies in relation to pandemic OH&S.

The reconfiguration and redesign of offices appears to be a major strategic agenda for organisations, with planning and preparations almost immediately required before a return of staff to many organisational offices can be contemplated, even after national, state and regional covid-19 regulations permit. Office workspaces primarily require evaluation in terms of permissible physical/social distancing between office staff (Brower, 2020). Conference rooms are becoming subject to various government regulated limits in terms of maximum number of staff permitted in any floor space area, and general working area floor plans are similarly being evaluated for density of occupancy (Tranel, 2020; Richtel, 2020). The now pervasive open plan layout is subject to OH&S concerns with respect to the potential for covid-19 transmission, with major floor redesigns and office layout rebuilding becoming a distinct possibility (Kretchmer, 2020).

Some design consultants point to the magnitude of the change required, suggesting that for covid-19 control compliance, floor occupancy levels may need to be reduced to as low as 25 to 30% of previous occupancy levels (MACE, 2020). Observers point to the associated impending reversal of the trend towards densifying office occupancy over recent periods, so that whereas 30 years previously a workspace ratio may have been 25 square metres per person, it had in more recent years shrunk to a ratio of typically 10 square metres per person. That workspace ratio faces returning to past dimensions in response to regulations for controlling virus spread between office staff (Cummions and Johanson, 2020). For example Bleby (2020) and Cummions and Johanson (2020) refer to an ABW workspace target of 8 square metres per person needing to be reversed to 13 - 15 square metres.

Commentators also consider that design and layout needs to produce innovative solutions to provision of office locations for collaboration, socialising, relaxation, meetings, breakout zones, training rooms, food and drink areas, and individual work (Brower, 2020; Viswanathan, 2020; Tranel, 2020; Milota, 2020). Existing conference and meeting rooms appear likely to conform with OH&S requirements if they operate at half or less capacity (Margolies, 2020). As currently structured, they pose not only crowding risks within the room, but also require redesigning to cater for physical distancing of foot traffic entering and leaving such rooms (Graham, 2020).

The approach to reorganising office design for covid-19 transmission prevention may invoke either major structural office layout redesign, or at the minimum, office reorganisation within the existing layout, if that proves physically feasible (Coleman *et al.*, 2020). Layout redesign also raises the questions of the practicality of hot desking, versus shared spaces, versus designated spaces (Leggatt, 2020): clearly an implied step-wise design reversal compared with recent design trends. Indeed it remains an open verdict as to what extent the reversal may extend to designated private offices as part of a move away from open plan offices (Kretchmer, 2020). Corridor widths also present as an impending OH&S requirement for physical distancing of foot traffic around the office (Stromquist, 2020). This appears extendable to foot traffic signs and directional markings as well as designated floor and lift standing spot marking (Kretchmer, 2020). Whatever options are selected by an organisation, they are all highly visible to observers such as staff and other parties who physically attend the offices. Hence this offers a transparent opportunity for delivering social accountability through action, even if the organisation elects not to report formally.

From a governmentality perspective, the above reconfiguration of offices and redesigns of space, layout, workstation positions, corridors, and activity locations within the office are examples of major interventions that employing organisations have begun to make. Many of these will be legally required of them, in order to not only protect the health and welfare of staff but to begin the task of reconditioning staff behaviour patterns for their self-protection and to protect their employer from legal liability. Thus physical restructuring aims to translate employer OH&S agendas into longer term staff compliance that takes on the appearance of autonomous staff behaviour: a manifestation of calculated freedom.

The impact of office redesign also extends to furniture. This ranges from furniture designs such as standing and seating tables, glass protectors, screen and partition heights, and table/workstation positioning (Leggatt, 2020; Steelcase, 2020; Scarlett, 2020). Chair numbers reduction are at least a short to medium term requirement to discourage staff contravening national internal building space distancing regulations. Assigned rather than shared workstation seating also looms large on the short to medium term horizon (Milota, 2020). Thus in contrast to the more recent office design objectives of furnishing to encourage staff to come together, the covid-19 impact on design and configuration intentions has become one of pulling staff apart and reversing the past trend towards face-to-face seating arrangements (Margolies, 2020). Similarly, in contrast to the progressive shrinkage of office desk size from 1.8 down to 1.4 metres width, physical staff distancing requirements are imposing pressure for a reversal to former 1.8 metre widths (Bleby, 2020; Wainwright, 2020; Kretchmer, 2020; Margolies, 2020).

Investments in covid-19 compliant offices for some organisations have already begun to include the adoption of technologically based strategies that are already available. These include such innovations as door free entrances as well as foot, voice or handwave activated doors. The latter technologies can also be applied to lifts. Motion sensors are available not only for doors but for light switches, cupboards and bathroom faucets to limit common surfaces subject to staff touch (Carmichael, 2020; Tranel, 2020; Morrison, 2020; Margolies, 2020; Wainwright, 2020). Even smartphone apps can identify when staff distancing rules have been contravened (Kretchmer, 2020). Further available building management system enhancements include enhanced air ventilation, UV lights for disinfecting surfaces overnight, humidity monitoring, and improved filtration and occupancy indicators. Smooth versus textured surfaces improve cleaning efficacy and nanoseptic door and cupboard handles offer continuous self-cleaning, anti-microbial, anti-bacterial, antiviral surfaces (Milota, 2020; Margolies, 2020; Morrison, 2020; Short, 2020). All of these technologies are currently available and involve capital investments that may have previously been budgeted across

multiple future years, but now may require immediate expenditures (Milota, 2020). Again, as with office restructuring and furnishing, this is another example of the tools available to organisational management for exercising governance over staff behaviour through intervening in their customary working patterns and reconditioning their behaviours into self-governing covid-19 prevention compliance.

Re-engineered Office Working

In addition to covid-19 induced office restructuring and furnishing redesign and configuration, office routines are undergoing radical change. Such changes include assigned seating, staff working on split shifts, staggered workday or shift startup times, rotating work teams, requirements that unwell staff remain at home, regular staff use of hand sanitisers, and major restrictions and health controls over any remaining office food and drink dispensing areas (Chung, 2020; Carmichael, 2020; Kretchmer, 2020; Metropolis, 2020; Allen and Macombe, 2020; Short, 2020). With respect to staff shifts and teams rotating at different times through the office, such systems allow staff who need to be onsite, to remain more physically distant from each other (Allen and Macombe, 2020; Hewett, 2020; Ker, 2020). To a lesser extent, staggered lunch break periods between groups can also contribute to this physical separation (Carmichael, 2020). Greater recourse to staff working on flexitime and in some cases operating staff 24/7 are other physical distancing options (Morrison, 2000).

Cleaning too, becomes a major routine of elevated importance (Allen and Macombe, 2020; Carmichael, 2020). This ranges across regular swabbing of door handles, lift buttons, and railings, increased cleaning frequency of high traffic areas, clean desk/workstation top policies to aid overnight cleaning, and centralising rubbish bins and collection (Milota, 2020; Bleby, 2020; Mace, 2020; Margolies, 2020). In general, organisations face upgraded cleaning and sanitising protocols overall, throughout the day, and across workstations, meeting rooms, reception areas, corridors etc. (Gaskell, 2020; Pogue McLaurin, 2020; Tranel, 2020; Richtel, 2020). Such covid-19 prevention strategies entail increases in office operating costs (Bleby, 2020) which may be significant.

Within this new operational environment, interventions in staff attitudes and behaviours become part of the management control agenda. This is expedited predominantly via organisational communication and training. The underlying intention is arguably one of instilling accountability relationships between employer and staff, between staff themselves, and between staff and clients/customers. While office design floor configuration, cleaning and other strategies are aimed at minimising virus transmission risk, management faces the challenge of communicating to all parties that such risk cannot be completely eliminated (Allen and Macombe, 2020). Among required consistently clear communication methods and messaging, a primary tool is one of signs and displays concerning protection protocols, positioned at various interface and heavy traffic locations (Beaudoin *et al.*, 2020; Tranel, 2020; Margolies, 2020). Other techniques include regular updates communicated to all employees, frequently asked questions (FAQs) postings, available staff feedback channels, and advance information on further plans (Mace, 2020; Hamouche, 2020). Such strategies can be augmented by change management champions, small "office neighbourhood" groups and formal training modules (Milota, 2020; Stromquist, 2020; Hamouche, 2020). These all involve human resource investments that form another potentially crucial component of the overall covid-19 office reorganisation agenda.

From a governmentality perspective, such re-engineering of office working routines again represents the creation of new working process routines and associated acclimatising of staff

to new behaviour patterns with the intention of them participating in new or revised routines implementation. Thus while initially, routines may be interventions imposed by management, they again contain underlying aims of indoctrinating staff into self-activated behavioural changes. Again most of these changes will be highly visible to staff, so that they represent a form of social accountability through action being both discharged by the employer and witnessed and evaluated by employees.

Pursuing Office Space Cost Control

Commentators have observed the general tendency towards organisational office cost reductions over the last decade or so, in contrast to the impending fixed and variable cost reconfigurations that will result from the covid-19 crisis and its long term OH&S requirements (Chung, 2020; Diemar, 2020). Such innovations as hot desking have been highlighted as key strategies in management's efforts to reduce office floor space and associated costs (Hewett, 2020; Diemar, 2020). Despite various critiques of their perceived efficiency, open plan office configurations have persisted as management has clung to its penchant for low cost, high density, flexible office staff accommodation. This particularly contrasts with the alleged higher infrastructure and operational costs of maintaining or returning to designated private office structures (Carmichael, 2020).

Regarding more recently adopted innovative office designs such as ABW, real estate cost (particularly in CBDs) has been seen as a primary driver. This is due to such designs' reduction in required office floor space of between 30-50% (Parker, 2016; Bleby, 2020; Mance, 2020). Increasing city property rental costs had also motivated this drive towards office space reduction (Diemar, 2020; Nixey, 2020). Along with such space reductions came a deliberate densification of office occupancy and usage (Parker, 2016).

From not only an OH&S perspective, but also from a cost control perspective, the notion of teleworking by office staff, or their hybrid combination of teleworking and on-site office working, are attracting attention as potential office cost control moderators (Kasperkevic, 2020). This appears to be a potential longer term post-covid-19 organisational response to the need for reconfiguring and redesigning physical offices (and their associated costs) to prevent pandemic spread. It also presents them with a further cost reduction strategy (Lister, 2020).

While CBD buildings for example, may in early covid-19 and post-covid-19 stages experience increased vacancy rates, floor space lease rates may fall or may alternatively remain stable as building owners await economic recovery (Knight, 2020; Graham, 2020). Meanwhile organisations face OH&S driven requirements to de-densify office floor space occupancy, redesign internal office infrastructure, invest in alternative furnishings, and increase operational costs of routine cleaning and other virus prevention technologies. Teleworking offers a potential transfer of some of these costs to the employee at home and reduces demand for organisational office space through the working week (Graham, 2020; Singh, 2020; Scarlett, 2020).

Again, from a governmentality perspective, national government imposed OH&S requirements are triggering ostensibly voluntary organisational actions to redesign and reorganise office structures and working routines, albeit at potentially considerable cost. Additionally it is inducing the search for alternative office locations, structures and *modus operandi.* Such major changes would arguably not have been undertaken, but for the covid-19 crisis. Government outlining of public health principles and regulations has created an environment in which many organisations are adapting as a business case response for compliance with community health expectations and for maintaining their business survival.

Once more, we see their beginnings of a business evaluation of financial self-interest against public health impacts taking various forms of calculated freedom that reflect government's similar juggling of maintaining public health while attempting to restart the economy.

Discussion

With covid-19 expected to persist globally for years to come, and vaccine development set to take 18 -24 months at a minimum, the world of the office faces significant challenges. Given its relatively persistent open plan design tendencies over the past 100 years, and its increased floor space occupation density over recent decades, the now recommended social/physical distancing between office staff poses a major challenge to office design and floor space configuration. The risk of failing to address this is potentially aggravated by any persistence with hotdesking, and facilities-sharing typical of ABW and other 'innovative' office designs. Training, conference and meeting rooms and modules in their current configurations and occupancy levels only exacerbate this risk of virus transmission.

Despite the capital expenditure invested in infrastructure designs, furnishing and technology that have been associated with these innovative contemporary open plan offices, it appears likely to constitute a sunk cost as organisations face the task of redesigning office infrastructure and reconfiguring office floor layouts and density of staff occupancy. This constitutes a reversal of historically emerging trends to date, with office staff being separated rather than pushed together, shared spaces reverting towards dedicated spaces, electronic equipment being allocated to staff rather than shared among them, and desk and workstation sizes reversing to larger desktop dimensions characteristic of earlier decades. This may be augmented by other technology solutions in the shape of sensors, apps, touch free equipment, and more. These represent sizeable capital expenditures which some organisations may seek to avoid by engaging in floor configuration reorganisation, de-densifying occupancy, transferring some staff to alternative locations, expanding the amount of space being leased, and relying more on covid-19 preventative office working routines, thereby attempting operating expense substitution for major capital expenditures. This nonetheless will require a balancing of cost effective solutions against pandemic virus protection of staff, and raises the issue of which is to be prioritised.

The extent to which the organisation's social accountability through action is expedited will be directly tested by such decisions, since the strategic direction and evident associated prioritising of staff OH&S will be clear for all to see. Will the business case deliver cost minimisation at the expense of social responsibility, or will altruism along with the business case motivation deliver some balancing of cost control and staff OH&S priorities? Whatever choices management makes, those choices will constitute management's approach to exercising governmentality at a distance over the attitudes and behaviours of office staff on whom they will nonetheless rely to implement social/physical distancing and virus control. Nonetheless it still poses the question of what costs they are prepared to incur in structural and technological interventions as opposed to procedural and operating methods. Such choices may reflect management's values with respect to financial viability and returns, alongside staff and community health and welfare.

The choices open to organisations are not purely restricted to office infrastructure redesign and reorganisation. Teleworking and re-engineered office working routines represent alternative or supplemental strategies to office infrastructure design and floor space reconfiguration. While teleworking has been the predominant approach to maintaining office operations during periods of governmental lockdown regulations, its efficiency and

effectiveness has been increasingly observed and accepted by management and staff. From a governmentality perspective, staff appear to have employed their apparent 'calculated freedom' to maintain compliance with employers' behavioural and output expectations of them. This represents a response by apparently autonomously operating staff to management control from a distance. At the same time it arguably represents management's Taylorist extraction of 24/7 staff accessibility and an accompanying office staff response in terms of longer hours worked and productivity gains accruing to the employer. The question arises as to who has borne the space, furniture and equipment cost of this transition to teleworking: the staff or the employer?

Current media and professional/business discourse during the onset of the covid-19 crisis, suggests that as it continues during and post-covid-19, some degree of the now increased recourse to teleworking may persist. On one hand this may constitute a response to staff and employer preferences arising from their discovery of the advantages to each of this approach to office operations. For the organisation it may offer financial returns in a number of respects. It might facilitate the organisation's transfer of some infrastructure costs to employees while allowing employees some personal savings of time and cost of commuting. It may also reduce the extent of covid-19 induced floor space leasing cost and office redesign/reconfiguration cost incurrence by introducing a hybrid office working arrangement whereby staff spend part of the working week in organisation's offices and part in their home based offices. That in turn may ameliorate the organisation's reliance upon and operating costs of virus control oriented office working routines, cleaning protocols, and communication processes. One can see both governmentality and social accountability action dimensions at play here. Having been initially introduced to remote teleworking, office staff have already begun to be accustomed to self-regulating, self-disciplining teleworking routines, so that employers and employees are developing a familiarity with control at a distance, while in the hybrid office arrangement, still engaging in on-site face to face relationships and efficiency control with part of the working week spent in the organisation's physical offices. Thus social accountability through action may be exercised in dual locations, most likely driven predominantly by the CSR business case philosophy.

Since the early 20th century, organisational management appears to have demonstrated a persistent attachment to the open plan office. This has continued from the days of mimicking factory production line layouts to the more recent ABW style of flexible, group oriented, multilocation across building floors. Consistently there appears to have been an underlying agenda of minimising the capital and operational costs of organisational offices, although this is not always publicly acknowledged, alleged employee motivation and productivity gains instead being highlighted in employers' and consultants' rhetoric. As organisations now face restricting and reorganising office configurations and operations, the prospect of incurring greater capital expenditures and operating costs looms large. Such issues constitute an important backstage consideration which most organisational managements will now be quietly contemplating. Their reactions may be conditioned by their acceptance and compliance with government pandemic control guidelines and regulations, the manner in which they treat OH&S responsibilities as part of their CSR business case, and the extent to which they recognise themselves as being held accountable through their actions.

In Conclusion

This study set out to investigate covid-19 pandemic implications for office design, location and functioning with particular reference to management's efficiency, cost control and CSR agendas. It has necessarily drawn on publicly available literature, documents and web sources

in order to investigate and critically assess a currently evolving global event. The balance across the efficiency, cost control and CSR agendas has been argued as reflecting the strategic prioritisation given to OH&S versus financial returns. In reviewing the historical trajectory of office designs and operations over the past century, we find that despite apparently changed designs and configurations, the underlying intent and operationalisation of today's pre-pandemic offices, to considerable degree mirrors those of the office in the early decades of the 20th century. Irrespective of publicly advanced rationales, maximising efficiency and productivity from office space and its configuration, and the tight control over associated costs remain as strong undercurrent employer motivations.

The onset of the pandemic produced highly visible government responses (albeit with varying speed and severity) in the forms of guidelines and regulations with which organisations were legally or through social pressure, compelled to comply. Thus the OH&S element of CSR suddenly achieved major strategic priority and profile for organisations and their offices. From a governmentality perspective then, government's public health agendas were transmitted to organisations that in turn by their policies and actions then transmitted these to influence office staff attitudes and behaviours. Those were arguably already being influenced through media coverage of public health concerns and government messaging to the public at large. Hence office location, working processes and controls were being self-regulated and enacted by both organisations and individual staff members as a form of socially disciplined response to government policies.

While organisations have generally responded to government initiatives regarding pandemic control, from historical lessons, they have likely also been motivated by a CSR business case mentality. Given the visibility and transparency of what instructions they convey to staff, where and how office staff continue their daily operations, any adjustments to office design and configuration, and any re-engineered staff working routines, accountability through action presents itself as a potent form of disclosure and accountability. This encompasses both management and staff accountability discharge and demands. Whatever office infrastructure design, spatial reorganisation and re-engineered office working routines are instituted, they have been observed to reflect some varying combination of altruistic CSR motivation, CSR business case philosophy and compliance with government and community expectations and regulations. These reflect an intersection between public health and corporate financial returns agendas. The confluence of governmentality and social accountability through action responses can facilitate a rapport and co-functioning of these two agendas or expose organisations opting for one over the other.

Pandemic control intervention by government in the organisational and individual worlds has largely taken the form of social/physical distancing guidelines, permitted numbers of persons in physical spaces, and sanitising/cleaning routines. Where nation states or regions have experienced short term success in controlling cocvid-19 death rates and diagnosed cases, they have largely relied on social acceptance and compliance at individual, organisational and community levels. Nonetheless fairly rapidly significant political, community and business pressures for returning to the prior focus on the economy and financial priorities, tend to emerge.

This raises the issue of how organisational management will respond in the medium to longer term with respect to its office management and accountability strategies and expenditures. Will there be a return to focussing on financial returns at the expense of OH&S accountability? This may become evident in such observable decisions as opting for minimal floor space reconfiguration along with basic operational routine re-engineering. Alternatively, it may involve substantial investments in employee and community health and safety through

major redesigning of office infrastructure, along with significant technological and routine processual innovations. A further alternative includes adoption of some proportion of office staff teleworking. Again, management attitudes and policies will be self-revealing as the autonomy and 'freedom' of teleworking may for example be accompanied by major transfers of equipment and operating cost incurrence from the organisation to the individual employee in their home. Thus governmentality interventions have a variety of potential options going forward. These in themselves will tell us much about the agendas and priorities that organisations choose to follow, and may confer apparently greater degrees of front stage freedom on office staff while backstage imposing demanding cost and efficiency pressures on them.

Our future eliciting of the covid-19 longer term implications for office design and functioning will be vitally facilitated by our ongoing observation of and comparison between organisations' visible actions and their formal public reporting. This may provide valuable insights into management's publicly declared versus underlying rationales for whatever changes they institute. Despite whatever disclosures and claims are made, the evidence points to a significant and persistent historical focus on scientific management for cost efficiency. That will set the context and boundaries for pandemic control strategies in today's office.

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