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## Flexible workspaces within corporate real estate

**Fernanda Antunes Batista da Silva<sup>1</sup>**

<sup>1</sup> University of Aberdeen, Business School, United Kingdom, r02fa19@abdn.ac.uk

### ABSTRACT

Building flexibility within real estate is challenging due to its inherent characteristics of being immovable, large and expensive, making any transformation a complex matter. However, it is possible to achieve different types of flexibility within the different types of corporate real estate an organisation owns. The literature surrounding the development of more flexible workspaces within the corporation has a focus on the physical layout and internal usage raising issues such as non-territorial spaces, hot-desking and hotelling. Flexible workspaces, however, can also take place outside an organisation. As technology allows the office space to evolve beyond its industrial heritage, space as a service becomes another option for corporations to unleash flexibility. External flexible workspaces are offices with different levels of curated services available to hire on an 'easy-in, easy out' basis. Originally used by freelancers and start-ups seeking affordability, the current flexible workspace market has expanded in terms of the number of operators, the magnitude of take-ups and the type of users, which now also encompasses large corporations. To date, very little research has been made on the adoption of flexible workspaces by the corporate sector. This study is aimed to provide an overview from academic and non-academic sources of the approach corporations take to use such environments, what drives them to flexible workspaces and the perspectives for the future in a post-pandemic world. It is found that from cost reduction to talent retention, the reasons why corporations are attracted to flexible workspaces vary, as well as their patterns of usage, which range from housing a flexible workspace within their portfolio, to outsourcing workspace to an operator. As Covid-19 has made organisations rethink the amount of real estate they occupy, it is expected a greater drive from corporations to incorporate flexibility and allow agility in uncertain economic times.

**Keywords:** flexible workspaces, coworking, corporate real estate, workspace strategy

## 1. INTRODUCTION

Ongoing pressures to outperform in a progressively competitive business environment has led organisations to rethink their old ways and embrace transformation. Different bodies of literature, such as organisational strategy and human resource management, argue that flexibility is one manner for organisations to achieve better outcomes (Atkinson, 1984; Volberda, 1996; Holman et al., 2005; Bal and Izak, 2020). However, the search for flexibility is not limited to the managerial capabilities and labour utilisation, it also involves the corporate real estate portfolio of a firm.

There are numerous reasons why building flexibility within real estate is challenging. While organisations fluidly respond to changes, the built environment is, by definition, immovable, large, and expensive, making any transformation a complex matter (Gibson, 2001; Too, Harvey and Too, 2010). However, it is possible to achieve different types of flexibility within the different types of corporate real estate an organisation owns. While in the core portfolio, physical and functional flexibility can be developed by the design of the floorplate and the activities supported by the workspaces, in peripheral portfolios, financial flexibility can be achieved by taking shorter leases or memberships from flexible workspace providers (Gibson, 2001).

The literature surrounding the development of more flexible workspaces within the corporation has a focus on the physical layout and internal usage (Gibson, 2001), raising issues such as team space, meeting areas, non-territorial spaces, hot-desking and hotelling (Weatherhead, 1997a; Manning, Rodriguez and Ghosh, 1999; Gibson and Lizieri, 2001). Flexible workspaces, however, can also take place outside an organisation. As technology allows the office space to evolve beyond its industrial heritage, space as a service becomes another option for corporations to unleash flexibility. External flexible workspaces are offices with different levels of curated services available to hire on an 'easy-in, easy out' basis. Originally used by freelancers and start-ups seeking affordability, the current flexible workspace market has expanded in terms of the number of operators, the magnitude of take-ups and the type of users, which now also encompasses large corporations. Under the umbrella of the concept of external flexible workspace, there is a plethora of terms, the most well-known of them being coworking spaces and serviced offices (Nagy, 2018; British Council for Offices, 2019).

This study identifies how corporations adopt flexible workspaces, the drivers, and future implications of the workspace considering the COVID-19 crisis through a systematic literature review. The scope of this paper is limited to the corporation's perspective, therefore it excludes the views of employees and the supply side. The paper is structured in four parts. After the introduction, the method used to develop this piece is presented, and then the results are discussed. Finally, the key points are summarised in a conclusion.

## 2. RESEARCH METHOD

The review builds on the method developed by Xiao and Watson (2019) which has eight steps: (1) formulating the research problem; (2) developing and validating the review protocol; (3) searching the literature; (4) screening for inclusion; (5) assessing quality; (6) extracting data; (7) analysing and synthesizing data; and (8) reporting the findings.

The purpose of this study is to understand the rise of flexible workspaces within corporate real estate and to identify what are the current predictions for the future. The research questions that guide this literature review are the following:

- How do corporations embrace flexible workspaces?
- What drives corporations to adopt flexible workspaces?
- What are the perspectives for the future in a post-pandemic world?

To answer the questions aforementioned, it was developed a structured keyword search in the following databases during June 2021: Emerald, MDPI, DOAJ, Scopus, JSTOR, Wiley Online Library, Springer Link and Science Direct. The keywords used are shown in Tab. 1. Each keyword from each group was combined to create 27 search strings.

Table 1: Keywords used in the systematic review

Group	Keywords
Flexible workspaces	Flexible workspace Flexible space Flex space Coworking Co-working Serviced office Managed office Business Centre/Center Flexible office
Corporate Real Estate	Corporate Real Estate Corporate property Facilities management

The search using the databases was straightforward and in total 1,824 studies were gathered. In JSTOR, due to the high number of results when searching for “serviced office AND facilities management” and “managed office AND facilities management”, the results were refined by subject, including topics such as business and urban studies, and excluding topics such as aquatic sciences and biology. Aside from databases, the search also included materials from a backward search, i.e., using the list of references at the end of the articles or book sections, and materials that were previously known to the author. The list of references was initiated by collecting the basic information of the studies, including name, authors, date and name of the publication. After that, as in Jylhä, Remøy and Arkesteijn (2019), three scans were conducted to include and exclude references based on criteria presented in Table 2.

Table 2: Criteria to include and exclude references

Phase	Excluding	Including
Initiating the database	Language other than English.	-
First scan	Repetition. Content type other than article, book sections and report (e.g., property journal index, editorial, Q&A, etc).	-
Second scan	Studies that do not focus on the office (e.g., retail, housing, not real estate subjects, etc)	-
Third scan	Studies that do not focus on corporations and do not mention flexible workspaces (e.g., employee perception, learning, inclusion etc)	Backward search and previous collection

In the first scan, there were excluded repetitive titles and content types other than the one stipulated on the review protocol, for example, editorial and journal index. After the first scan, the number of studies was reduced from 1,824 to 830. During the second scan, the titles were examined and when necessary, also the abstract. In this phase, it was excluded studies that did not focus on real estate and office space. After the second scan, the number of studies was 396. The third scan included reading abstracts and when necessary, the paper. The exclusion criteria in this stage were studies that did not focus directly on corporations. For instance, it was excluded pieces regarding employee satisfaction in

open-plan offices, the coworking business model and the buying versus leasing decision. In total 75 studies were included in this systematic literature review. However, as advocated by Webster and Watson (2002), it was also conducted a backward search to identify relevant studies cited by the articles. From such, 13 other pieces were included, resulting in 88 references (Fig.1). The main sources are shown in Tab.3 and the distribution of the studies over the years is shown in Fig. 2.

Figure 1: Scanning steps

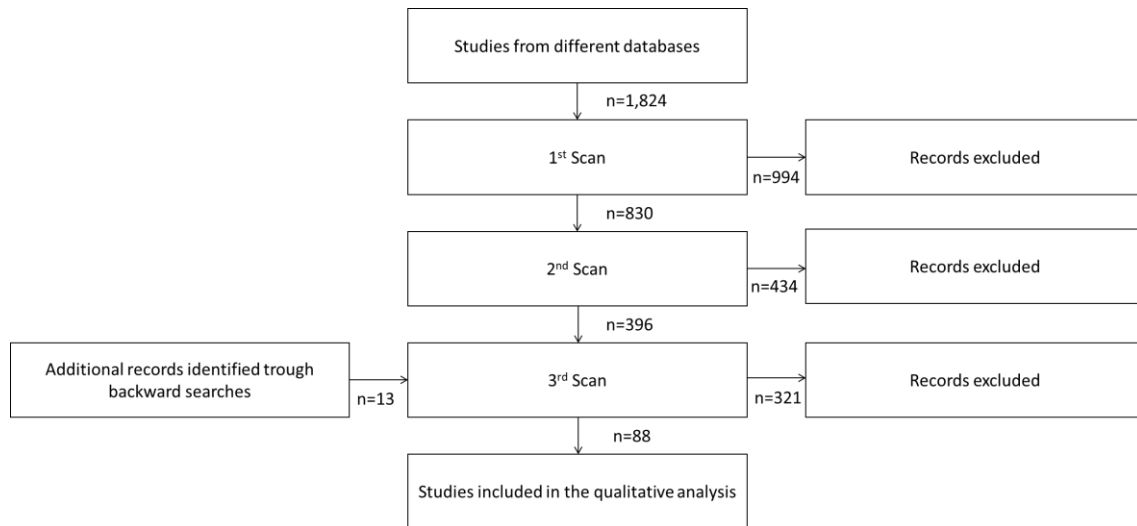
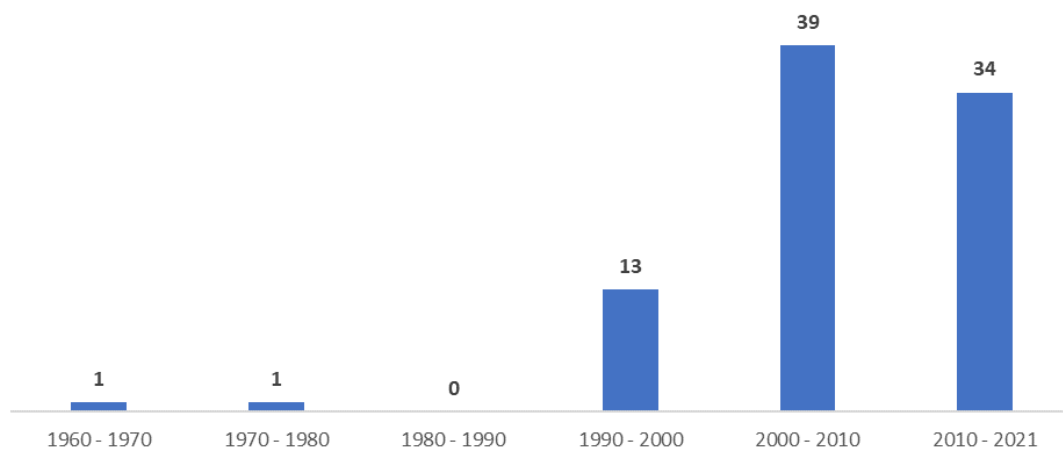


Table 3: Main sources of the literature review

Main sources	1 <sup>st</sup> scan	2 <sup>nd</sup> scan	3 <sup>rd</sup> scan
Facilities	116	97	16
Journal of Corporate Real Estate	109	97	30
Journal of Facilities Management	47	33	7
Journal of Property Investment & Finance	17	16	3
Property Management	25	15	1
The Journal of Real Estate Research	6	6	4
Urban Studies	5	4	1
Others	505	128	26
Total	830	396	88

Figure 2: Number of included studies over the years



The quality of the studies was not accessed since this review aims to gather the breath of studies to reveal the full picture of flexible workspaces within the corporate real estate agenda (Xiao and Watson, 2019). The selected material was coded to help group findings. In total, seven themes were observed: flexibility within corporate real estate portfolios, drivers, corporate real estate strategy, the future of workplaces, new ways of working, case studies and taxonomy. The data was synthesized according to the descriptive themes and combined into the four groups presented in the results section.

### **3. RESULTS**

#### **3.1. Flexibility in corporate real estate**

The search for flexibility within corporate real estate is increasingly important due to a vast number of uncertainties organisations are expected to address to remain competitive. However, as corporations are essentially fluid entities that evolve in response to their environment, real estate is traditionally the opposite due to its inherent characteristics of being immovable, large, and expensive, adding substantial complexity to any change (Gibson, 2001; Too, Harvey and Too, 2010).

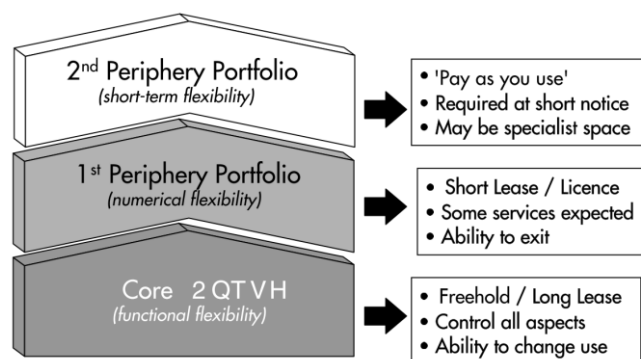
Gibson (2000, 2001) argues that there are three perspectives of flexibility within corporate real estate: the physical, the functional and the financial. The physical aspect relates to the range of layouts a building might support and includes aspects such as building design, usable areas and the ability to change configurations. Functional flexibility looks into what sort of activities an office could support, and how to adapt to the alternative workplace solutions (e.g., hot desking, hotelling, shared workspaces, free address areas, etc), varying density, operating hours and third places (Gibson, 2001; Lindholm, Gibler and Leväinen, 2006). Finally, financial flexibility deals with the financial risk and exposure of real estate decisions, which includes the type of tenure and terms of agreements. While this financial flexibility was thought to be possible only through freehold ownership, more recently corporations have found it to be achievable through serviced offices (Gibson, 2001).

To understand how flexibility can be managed across a corporate real estate portfolio, Gibson (2001) applies Atkinson's (1984) model of the flexible firm to corporate real estate. In Atkinson's (1984) theory, an organisation's labour market is divided into core and peripheral groups. The idea is that the core group conducts the main activities of the firm, while peripheral groups perform less central activities and the number of workers in such a group is defined by economic fluctuations. Flexibility, however, is required in both groups, while the core staff are expected to perform a variety of jobs, the peripheral workforce is enrolled into responsive working contracts (Gibson, 2003). From an organisational perspective, three types of flexibility affect key aspects of the workspace and how it is held: contractual flexibility (1) where the staff are employed on a range of contracts (e.g., fixed term contract); time flexibility (2), where staff work at a schedule that fits both the employer and employee (e.g., part-time work), locational flexibility (3), where staff work in the most appropriate location (e.g., home, satellite office) (Gibson, 2003).

Gibson (2001) translates Atkinson's theory into the core-periphery property portfolio (Figure 3). The core portfolio is the centre of the organisation, which can be illustrated by headquarters buildings, and the key flexibility aspect would be related to functional flexibility. The first periphery portfolio should provide numerical flexibility to expand or exit fast through short leases at different stages of the business cycle. Therefore, the real estate suitable for this portfolio is the one with shorter leases or memberships with some

services and the ability to exit. Finally, the second periphery portfolio is the one for specific short-term demands, for instance, training, testing a new market, or unforeseen growth. The real estate product that meets that demand is serviced offices that offer ‘pay as you use’ space (Gibson, 2001).

Figure 3 – Core-periphery property portfolio



Source: Gibson (2001)

An example of flexibility in the core portfolio is Rapal, a Finish company that provides products and services for property management (Ruostela et al., 2014). In 2008 the company started a ‘New Ways of Working’ project that consisted of work profiling staff and designing working practices suitable for each. As a result, the team were divided into three: ‘Mobile’ (20% of the workforce), which includes managers and salespeople that are rarely in the office and thus, do not need a fixed workstation; ‘Fixed’ (30% of employees), which are IT personnel that requires a fixed workstation, and ‘Flex’ (50% of the team), which is a group of people in between, usually consulting experts who sometimes need a workstation but are also often found in meeting rooms. This profiling resulted in a new multi-use office solution divided into two separate areas, the ‘front office’, for customer communication and the ‘back office’, where expert work is done. There are also zones for named workstations, un-named workstations, a touchdown area for mobile workers, quiet rooms and project spaces. The quantitative results of the project included a cost reduction of 50% and a drop in carbon emissions by 30% (Ruostela et al., 2014).

Examples of companies using the first and second periphery include Vodafone and HSBC, which use coworking spaces to manage headcount rises and falls and when a refurbishment programme is underway (British Council for Offices, 2019). The approach is also seen in Echeverri, Jylhä and Koppels’ (2021) case study where due to fluctuations in the headcount a company in the Netherlands decided to downsize its core portfolio and complement it with a short-term lease agreement of two years with a coworking operator. The following quote illustrates the rationale.

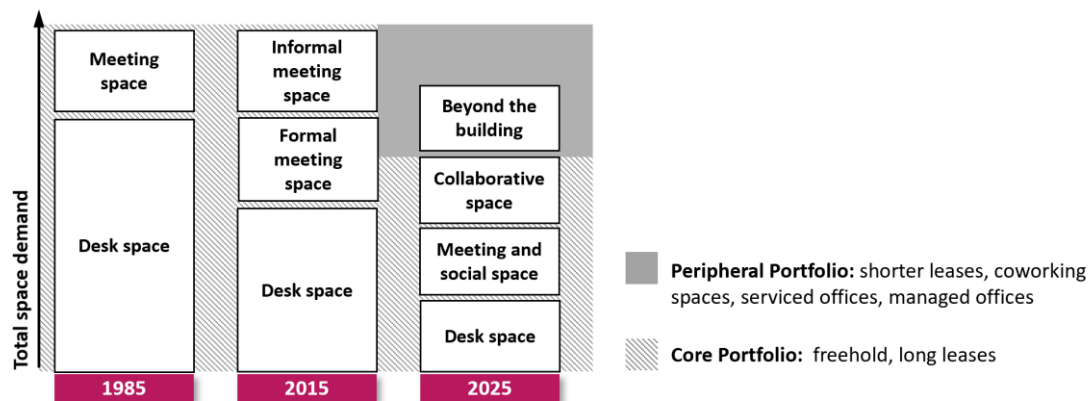
As mentioned by Interviewee C “The organization is in a constant state of transformation and the business finds it very hard to project beyond just the next three years, what the headcount will look like, or what the needs of the organization and employees will be. [ . . . ] the nice thing is that it gives us this flexibility in the future, should we not need so much space, then we can simply terminate part or all of these serviced office desks. So, flexibility is really important in the company at the moment, and that’s one of the things that you get with serviced offices that you cannot get with a traditional office” (Echeverri, Jylhä and Koppels, 2021, p. 11)

Such use of peripheral real estate portfolios is facilitated by external flexible workspace providers that offer space as a service on an *ad hoc* basis, which represents a shift from

more traditional forms of office space. In order to understand such an evolution, Myerson (2015), explains the three overlapping waves of changes that the workspace has experienced. Emerged at the end of the 19<sup>th</sup> century, along with important technological advances, the ‘Taylorist office’ focused on efficiency and employee control. This could be seen now as the ‘old days of working’, as it is based on the manufacturing mindset where the entire team is present at the workspace to accomplish its tasks (Ruostela *et al.*, 2014). The second wave came in Scandinavian countries, Germany and the Netherland in the post-World War II period, with the rise of the ‘Social-Democratic office’. To attract scarce employees, companies started offering more pleasant work conditions, instead of higher wages. Bürolandschaft is an example of an experiment that happened during this wave (Myerson, 2015). The ‘Networked office’ came with the rise of new technologies which allow work to be performed anywhere and space is seen as a commodity. ‘Technology permits the “global organisation” by linking individuals and groups together irrespective of their location’ (McGregor, 1994, p. 22). In this third wave, the simultaneous physical presence of all team members might be impossible or counterproductive (Ruostela *et al.*, 2014), the boundaries of the workspace are not well-defined but blurred, and the office is not a place for routine work, but mentoring, training and innovation (Myerson, 2015; Prus, Nacamulli and Lazazzara, 2017).

The third wave of office evolution is a manifestation of the concept of ‘New Ways of Working’, also called ‘Agile Working’ and ‘Smart Working’ (Errichiello and Pianese, 2020), which is a set of approaches that challenges the *status-quo* aiming to improve productivity, business performance and welfare of employees and the environment (Ruostela *et al.*, 2014). The ‘Networked Office’ provides a richer palette of work settings (Harris, 2015) and allows companies to adhere to peripheral portfolios as theorised by Gibson (2001, 2003). Figure 4 shows this change within the core portfolio and the emergence of the peripheral portfolio.

Figure 4: The changing palette of work settings and options



Source: Adapted from Gibson (2001) and Harris (2015)

### 3.2. The patterns of adoption

Companies can adopt flexible workspaces in different ways and for different goals. The literature surrounding the development of more flexible workspaces within the corporation, i.e., the creation of functional flexibility within the real estate portfolio, has had a focus on the physical layout and internal usage (Gibson, 2001), raising issues such as team space, meeting areas, non-territorial spaces, hot-desking and hotelling (Weatherhead, 1997a; Manning, Rodriguez and Ghosh, 1999; Gibson and Lizieri, 2001).

Flexible workspaces, however, can also take place outside an organisation. As pointed out by Vuokko, Kojo and Nenonen (2015), the literature surrounding multi-locational work started with the works of Healy (1968), who discusses how communication is replacing transportation in the work activity, and Nilles et al. (1976), who analysed the impact of substituting telecommunications for urban transportation, i.e., ‘telecommuting’. The following section discusses the different patterns of adoptions found in the literature (Table 4). The models were derived from studies focused on telework (Wood, 1997), the virtual office (Stocks, 1998), taxonomies of multi-locational work (Vuokko, Kojo and Nenonen, 2015), flexible workspace strategies taken by corporations (Yang, Bisson and Sanborn, 2019; Echeverri, Jylhä and Koppels, 2021) and flexible workspace patterns taken by corporations (Campos, Schmitz and Teixeira, 2015; Weinbrenn, 2016; Arora, 2017; Bauer, 2017 in Heinzl, Georgiades and Engstler, 2021; Nagy, 2018; Sargent *et al.*, 2018; British Council for Offices, 2019; Josef and Black, 2019 in Heinzl, Georgiades and Engstler, 2021; Errichiello and Pianese, 2020).

### *Internal Flexible Workspaces*

#### *Model 1: In-house flexible workspace for employees*

In-house flexible workspaces for a corporation’s staff have different names in literature. This model is also called ‘flex-offices’ (Nappi and Eddial, 2021), ‘alternative officing’ (Becker, 1999), ‘activity-based integrated workplaces concepts’ (Skogland, 2017), ‘flexible space in the company’s own offices’ (British Council for Offices, 2019), ‘coworking on own premisses’ (Josef and Black, 2019 in Heinzl, Georgiades and Engstler, 2021), ‘internal coworking space’ (Arora, 2017 and Bauer, 2017 in Heinzl, Georgiades and Engstler, 2021), and ‘corporate smart working centres’ (Errichiello and Pianese, 2020).

The concept includes an open-plan office space in which most employees have non-territorial workspaces and a range of activity-setting environments, such as quiet rooms for concentrated work (Bradley and Osborne, 1999; De Paoli, Arge and Hunnes Blakstad, 2013); project and meeting rooms for teamwork (Weatherhead, 1997a; Pitt and Bennett, 2008; Ruostela *et al.*, 2014); cafeteria and social environments, for serendipitous encounters between employees and exchange of ideas (Weatherhead, 1997a, 1997b; Pitt and Bennett, 2008; Nenonen and Lindahl, 2017); touchdown facilities for visiting staff (Weatherhead, 1997a, 1997b; Pitt and Bennett, 2008; Ruostela *et al.*, 2014), among others. This model involves practices such as hot-desking, in which non-assigned desks are used by different workers on an ad hoc basis (Weatherhead, 1997a; Wood, 1997; Stocks, 1998; Pitt and Bennett, 2008), and hotelling, in which workstations can be rented like a hotel room (Wood, 1997; Manning, Rodriguez and Ghosh, 1999). The internal flexible workspace can occupy a limited footprint within the company’s main work environment and might be used as a pilot project to experiment with new ways of working (British Council for Offices, 2019).

The approach is widely used by many corporations in different geographies, including Ernst & Young (Manning, Rodriguez and Ghosh, 1999) and Sun Microsystems, Inc. (Richert and Rush, 2005) in the U.S.; BT (Weatherhead, 1997a), IBM (Weatherhead, 1997b), DEGW (Bradley and Osborne, 1999), Driver Jonas LLP (Pitt and Bennett, 2008), Royal Bank of Scotland, GlaxoSmithKline, PricewaterhouseCoopers and Government Property Agency (British Council for Offices, 2019) in the U.K.; Finish company that provides products and services for property management Rapal (Ruostela *et al.*, 2014), The National Institute for Working Life in Sweden (Nenonen and Lindahl, 2017), multinational telecommunications company Telenor in Norway (De Paoli, Arge and



Hunnes Blakstad, 2013), American multinational Microsoft in several locations across the globe (Williams and Labrie, 2015; British Council for Offices, 2019).

*Model 2: In-house flexible workspace for employees and public*

This approach consists of a corporation setting its in-house flexible workspace that is open both for the corporation's employees and to the public. The concept has its origins in 'guesting', which is when a company uses another firm's office space (Stocks, 1998). However, nowadays, companies are purposely trying to mimic the success of coworking spaces in terms of innovation, collaboration and learning and welcoming start-ups and freelancers to interact with employees within their corporate real estate portfolio (Nagy, 2018). In the literature, this model is called 'corporate think tanks', 'innovation labs', 'digital labs' (Bauer, 2017 in Heinzl, Georgiades and Engstler, 2021), 'corpworking' (Campos, Schmitz and Teixeira, 2015), 'internal coworking spaces', 'project labs', 'innovation incubators' (Arora, 2017), and 'campsites' (Nagy, 2018). Under this model, companies can use a 'synergistic' approach and target the audience to include people whose business goals are aligned and collaboration and knowledge-sharing is more likely to be fruitful (Yang, Bisson and Sanborn, 2019). When companies bring start-ups or other external users to work within their corporate premises, the goal is to allow co-creation and learning with the motto of 'fail quick, fail cheap, learn from the mistakes and refine' (Nagy, 2018, p. 3).

To illustrate, Orange created the Villa Bonne Nouvelle coworking space in Paris where half of the space is occupied by selected freelancers and start-ups, and the other half is for Orange's temporarily stationed teams (Nagy and Lindsay, 2018). Another example is Zappos Insights in the U.S. (Campos, Schmitz and Teixeira, 2015). Some corporations also run specific accelerator or incubator programmes, for example, Microsoft's Garage (Arora, 2017).

*Model 3: In-house flexible workspace as a business*

Also called 'open houses' (Nagy, 2018), 'coworking as a line of business' (Josef and Black, 2019 in Heinzl, Georgiades and Engstler, 2021), 'revenue' and 'customer contact' approach (Yang, Bisson and Sanborn, 2019), 'multi-users smart working centres' (Errichiello and Pianese, 2020), under this model, corporations set up their own flexible workspaces, often within under-used or obsolete real estate, for the public to promote and complement the organisation or to open up new markets (Yang, Bisson and Sanborn, 2019; Heinzl, Georgiades and Engstler, 2021). Such an approach allows corporations to recoup some of the overall real estate costs and create a relationship with emerging companies that could eventually benefit their own business (British Council for Offices, 2019; Yang, Bisson and Sanborn, 2019).

Nagy and Lindsay (2018) cite as an example car brand MINI, who used to run A/D/O, a creative coworking space in Brooklyn, U.S for brand building. Other examples in the U.S. include State Farm, Verizon and Chase Bank (Yang, Bisson and Sanborn, 2019). Sargent *et al.* (2018) also mention Coca-Cola, Google, Sprint and AT&T.

While some companies adhere to this model setting up and running the flexible workspaces by themselves, others partner up with flexible workspace providers to do so. In this sub-model, identified as 'partnership with a service provider' or 'co-branded flexible space' by the British Council for Offices (2019), while the corporate real estate portfolio remains unharmed, space is repurposed and monetised by a service provider who is entitled to manage it. Wireless network operator Verizon is a big adopter of this

approach, having partnered, among others, with Work.Life in London (British Council for Offices, 2019) and Alley in New York (Egan, 2017).

#### *External Flexible Workspaces*

The main aspect that drives corporations to buy memberships from flexible workspace operators is the financial flexibility these spaces provide. As corporations no longer wish to embrace the traditional long lease model allied with the emergence of new ways of working enabled by technology, new opportunities are possible in the workspace environment (Weinbrenn, 2016). Large companies are reducing their real estate footprint and increasingly seeking accommodation on short-term leases, rather than in a traditional self-occupied space (Just et al. 2017 in Pfnür and Wagner, 2020)..

#### *Model 4: Private offices*

In this model, corporations lease fully fitted out private offices from flexible workspace providers. The approach, also called ‘serviced office’, ‘executive suite’ (Weinbrenn, 2016), and ‘private office in a co-working space’ (British Council for Offices, 2019), allows rapid expansion and contraction and it is used for many reasons. It can serve as swing space, i.e., temporary space to allocate the workforce during a specific project, renovation of the main office or construction of a new one (Bauer, 2017 in Heinzl, Georgiades and Engstler, 2021; British Council for Offices, 2019; Echeverri, Jylhä and Koppels, 2021). It can also be used as a satellite office (British Council for Offices, 2019) for corporations seeking the ‘hub-and-spoke’ (Sargent *et al.*, 2018) or ‘core and flex’ strategy (Echeverri, Jylhä and Koppels, 2021), in which the flexible workspace is complementary to a core, headquarters location. Such a strategy provides flexibility in the real estate portfolio for companies to address business volatility and fluctuating demand and to reconfigure their workspace, by expanding or contracting the footprint (Mcgregor, 2000; Echeverri, Jylhä and Koppels, 2021). Corporations also take this model while expanding as overflow space (Weinbrenn, 2016; Echeverri, Jylhä and Koppels, 2021), to test new markets (Arora, 2017; Echeverri, Jylhä and Koppels, 2021), and as a decision instead of owning or leasing traditional office space (Josef and Black, 2019 in Heinzl, Georgiades and Engstler, 2021). The choice of the location of a coworking space is mostly driven by its proximity to the corporation’s clients and customers (British Council for Offices, 2019).

Anecdotal examples include HSBC using coworking as swing spaces in London (British Council for Offices, 2019), and Chinese e-commerce giant Alibaba using CoWrks, a flexible workspace in Bengaluru to set up a presence in the Indian start-up capital (Khan, 2017). Echeverri, Jylhä and Koppels (2021) bring evidence from The Netherlands to support such a driver. According to the authors, while building its headquarters in Amsterdam, a tech company from the transportation industry established a partnership with a large coworking provider to co-locate in the same building complex and accommodate an uncertain headcount as relocation combined with intense growth took place.

#### *Model 5: Managed workspace*

In this approach, a corporation outsources to a flexible workspace provider the task of finding, fitting out and managing bespoke office space (Weinbrenn, 2016). The managed workspace allows the corporation to customise the aesthetics office and services in an all-inclusive rent paid monthly with no upfront costs (Sargent *et al.*, 2018) with shorter

commitments than a traditional lease of around 18 months (Instant Offices, 2021). The pattern is similar to Model 4 but it is associated with companies that wish to have a branded office but are seeking speed of procurement (Dabson and McAllister, 2014) or lack immediate resources to plan and manage a new workspace (Sargent *et al.*, 2018).

#### *Model 6: Individual memberships*

In this approach, corporations buy individual memberships from flexible workspace providers to allow employees to work from a coworking space. It can serve as a ‘touchdown space’ for mobile workers (Echeverri, Jylhä and Koppels, 2021), as a pilot programme to evaluate workers’ preference, as a supplementary way to co-locate when there is a rapid spike in headcount (British Council for Offices, 2019), as a way to develop a product or service among freelancers and start-ups (Bauer, 2017 in Heinzl, Georgiades and Engstler, 2021), or as another third-place option for the employee to choose a preferable venue to work (Josef and Black 2019 in Heinzl, Georgiades and Engstler, 2021), in a location often targeted to avoid employee’s long commute (Errichiello and Pianese, 2020) but that could also be in a holiday destination (Bauer, 2017 in Heinzl, Georgiades and Engstler, 2021).

Table 4: Patterns of adoption

<b>Model</b>	Model 1: In-house flexible workspace for employees	Model 2: In-house flexible workspace for employees and others	Model 3: In-house flexible workspace as a business	Model 4: Private offices	Model 5: Managed offices	Model 6: Individual memberships
<b>Portfolio</b>	Core	Core	Core	1 <sup>st</sup> periphery	1 <sup>st</sup> periphery	2 <sup>nd</sup> periphery
<b>Target population</b>	Employees	Employees and target companies	Public	Employees	Employees	Employees
<b>Manager</b>	Corporation	Corporation	Corporation	Corporation or provider	Provider	Provider
<b>Most important drivers</b>						
Cost reduction	x		x			x
Attract, retain, and inspire talent	x	x				x
Brand building		x	x		x	
Accommodate uncertainty				x	x	
Network of locations				x		
<b>Sources of flexibility</b>						
Functional: Diversity of workspaces	x	x	x	x	x	x
Functional: Intense use of space	x	x	x	x	x	x
Physical: Adaptability of configuration	x	x	x			
Physical: Network of locations				x	x	x
Financial: short-term agreements				x	x	x
Financial: portfolio diversification				x	x	x

### 3.3. The drivers for flexible workspaces

Other than the search of physical, functional and financial flexibility within a corporation's core and peripheral portfolios, there are various drivers for the adoption of both external and internal flexible workspaces. From the literature, it was identified that companies also are compelled to flexible workspaces for cost reduction, to attract, retain and inspire talent, for corporate branding, to accommodate uncertainty and to allow access to a network of locations.

#### *Cost Reduction*

Real estate is the second or third largest cost factor in most corporations (Steiner, 2005; Stoy and Kytzia, 2006; Ruostela *et al.*, 2014). Cost reduction is, therefore, a well-known corporate real estate strategy (Nourse and Roulac, 1993; De Jonge, 1996, in Krumm, 1999; Lindholm, Gibler and Leväinen, 2006; Harris and Cooke, 2014) which aims for profitability growth and consequently maximises the wealth of shareholders (Lindholm, Gibler and Leväinen, 2006). The driver of cost reduction through flexible workspaces is mentioned by many authors (Weatherhead, 1997a; Stocks, 1998; Gibson and Lizieri, 2001; Gibler, Black and Moon, 2002; Ekstrand and Hansen, 2016; Harris, 2016) and involves contraction of the office footprint, and an increase in non-territorial spaces due to technological advances (Dent and White, 1998; Gibson and Lizieri, 2001; Nappi and Eddial, 2021).

In Model 1 (In-house flexible workspace for employees), the cost reduction can be achieved by hot-desking and hotelling, a practice that allows corporations to accommodate between 20 and 40% more employees and the reduction in costs per employee can reach 60% (Croon, 1998; Ward, 2016 as cited in Nappi and Eddial, 2021). As mentioned previously, through the development of this model, Rapal was able to reduce costs by 50% (Ruostela *et al.*, 2014). Another quantitative example is IBM UK Ltd, which was able to reduce its space per employee from 22 square meters in 1991 to 17 square meters in 1995 (Weatherhead, 1997b).

In Model 3 the corporation might be able to recoup some of the overall real estate costs through the new business line while simultaneously building brand and establishing new connections. As an anecdotal example, John Vazquez, senior vice president and global head of real estate at Verizon, said that the approach is 'more profitable, quite honestly, than subleasing the space and just giving someone a tenant improvement allowance and collecting rent, and then the space is gone for 10 years and you really get nothing for it except the rent' (Egan, 2017).

In Model 6, companies can cut costs by reducing their real estate footprint and increasingly taking short-term leases, rather than in a traditional self-occupied space (Just *et al.* 2017 in Pfnür and Wagner, 2020). According to Arora (2017), in the Indian context, a 20 to 30 seater office can save up to 30 per cent if operating from a coworking space instead of a traditional office. Similarly, Fiorentino and Livingstone (2021) estimate that corporations can cut between 20 to 40 per cent of their real estate costs and see a reduction in their administrations and management expenses.

#### *Attract, retain and inspire talent*

Even though corporate real estate has historically been connected with attempts to minimise cost and improve productivity, in recent years there has been a shift into the discourse to a more human-centric office, one that values community and fosters

collaboration, learning and satisfaction among employees (Nappi and Eddial, 2021; Pataki-Bitt and Kapusy, 2021). This shift is still based on financial performance as the cost of losing a trained worker ranges from 1.5 to 3 times salary (Iszo and Withers, 2001 in Lindholm, Gibler and Leväinen, 2006). Furthermore, the physical workspace is the third most important decision factor for employees to accept or leave a job (ASID 1999 in Lindholm, Gibler and Leväinen, 2006).

In Model 1 (In-house flexible workspace for employees) and Model 2 (In-house flexible workspace for employees and others), the social places within the office space such as larger atria, lobbies and cafes improve serendipitous encounters between workers which led to more informal conversations, learning, creativity and innovation (Nenonen and Lindahl, 2017). The range of work environments where the employee can choose to work alone or together is found to increase the sense of community and belonging (Harmon-Vaughan, 1995; Nanayakkara, Wilkinson and Ghosh, 2021).

Model 6 (Individual memberships) can also be deployed to attract, retain and inspire a workforce in which commuting times to headquarters would be impossible or unfeasible. Employees from Vodafone, for example, requested membership access to coworking spaces to allow the choice of where to work (British Council for Offices, 2019). The use of coworking spaces is also correlated to employee satisfaction. According to the British Council of Offices (2019), 57% of survey respondents consider that working in such an environment had improved their social experience and 47% believes that it had improved their work-life balance.

### *Brand building*

Real estate plays an essential role in the corporate branding of a company, i.e., the symbol of a company's value and emotions (Appel-Meulenbroek *et al.*, 2010). Flexible workspaces are linked with an image of being low hierarchical, modern and professional (Skogland, 2017) and can reinforce a company's mission and values (British Council for Offices, 2019).

In Model 2 (In-house flexible workspace for employees and others) and Model 3 (In-house flexible workspace as a business), the ultimate goal is to improve marketing and sales by exposing the company's products and services to the user, who might end up a client in the long run (Nagy, 2018).

Brand building is also a goal for those corporations adopting Model 5 (Managed offices), once the external environment is custom-made following the corporation's guidelines for employees not to lose the sense of belonging to the brand (British Council for Offices, 2019).

### *Accommodate uncertainty*

Organisations are constantly reinventing themselves and in a volatile business environment is hard to accurately predict the number of working staff in the short and long term (Gibson, 2001; Nanayakkara, Wilkinson and Ghosh, 2021). Therefore, uncertainty drives corporations to adopt flexible workspaces as a temporary fix, for instance through swing spaces and overflow spaces, or a longer-term strategy. The numerical and financial flexibility provided by external flexible workspaces is especially suited to accommodate uncertainty. However, this can also be accomplished through the functional flexibility of Model 1, in which the wide range of workspaces combined with new working practices welcomes an expanding or contracting workforce.

### *Network of locations*

The hub and spoke model, also called core and flex, consists of when a company has a main office (hub, core) and distributed satellite offices (spokes, flex) for employees to have a professional place to work. To avoid being tied up to a rigid and long lease, corporations opt to become a member of a flexible workspace which also gives them access to a network of locations (Sargent *et al.*, 2018). Such a strategy provides flexibility in the real estate portfolio for companies to address business volatility and fluctuating demand and to reconfigure their workspace, by expanding or contracting the footprint (Mcgregor, 2000; Echeverri, Jylhä and Koppels, 2021). The easiness of establishing a network of locations is the main driver for external flexible workspace models, such as Model 4 (Private offices), Model 5 (Managed offices), Model 6 (Individual memberships).

### **3.4. The way forward**

As the work environment adapts to a post-pandemic world, predictions about the death of the office were made. Not by random, as many big companies made statements about going fully remote forever. However, as history tends to repeat itself, bold predictions are often more nuanced in reality. An example often cited in the literature to make the case of the importance of physical locations is Yahoo, which banned working from home in 2013 and called the entire organisation back to the office to prevent company culture and productivity from continuing to deteriorate after years of fully remote work (Harris, 2015, 2016; de Leede, 2016; Arora, 2017; Marzban *et al.*, 2021).

Anticipating the future of flexible workspaces within corporate real estate is challenging. However, one of the main consequences of the COVID-19 pandemic has been the overall success of working from home (Workplace Evolutionaries, 2020; Leesman, 2021; Marzban *et al.*, 2021; Naor *et al.*, 2021; Tagliaro and Migliore, 2021), which has led companies to rethink the amount of office space they occupy and the purpose of it (Marzban *et al.*, 2021; Naor *et al.*, 2021; Tagliaro and Migliore, 2021). From the literature search, only four studies were focused on the impact of COVID-19 in the workspace. The main themes that have emerged from such pieces are:

- *Network of locations*: a probable future is an increasingly digital and mobile workforce that will require a variety of third places to work such as satellite offices, or spokes, to accommodate their needs (Marzban *et al.*, 2021). Employees might choose to work in such because they do not want to commute to the main office or might not want to work from home due to distractions with family or lack of appropriate equipment or technological infrastructure (Tagliaro and Migliore, 2021).
- *Hybrid working*: in this type of flexible working, employees can choose the number of days to work in the office and elsewhere (e.g., home or third places) (Marzban *et al.*, 2021; Naor *et al.*, 2021; Tagliaro and Migliore, 2021), which arguably improves their work-life balance (Pataki-Bitt and Kapusy, 2021)
- *Collaborative and safe headquarters*: the office remains relevant for collaborative activities and serendipitous encounters. The layout, however, would include several environments (e.g., meeting room and break areas) (Tagliaro and Migliore, 2021) and clear surfaces to emanate the feeling of cleanness, along with enhanced workspace hygiene standards (Pataki-Bitt and Kapusy, 2021).

- *Generation Z*: Generation Z's preference regarding the location of the office is 'a place close to nature but easy to reach from the city by public transport or transportation services organised by the company' (Pataki-Bitt and Kapusy, 2021, p. 9). The new working force also wishes individual workstations for focus work, creative space for teamwork, managerial offices and a breakout area within their place of work. Generation Z also values autonomy to work remote, if desired (Pataki-Bitt and Kapusy, 2021).

From the abovementioned themes, it is possible to draw a connection between the different models outlined in this literature review. While external flexible workspaces are more suited to allow a network of locations and hybrid working, internal flexible workspace might be more appropriate to guarantee a collaborative and safe headquarters, while also making room for generation Z's preference. It is also possible to argue that the way forward for the workspace is not that different than what, for instance, Harmon-Vaughan (1995), McGregor (2000), Harris (2001, 2015) and Myerson (2015) have predicted a long time before the COVID-19 outbreak: the future of the workspace is likely to be a network of locations where a range of activities can be conducted anywhere, at any given time.

#### 4. CONCLUSION

The findings of this study shed light on the efforts of corporations to deliver flexibility in corporate real estate. In this paper, a systematic literature review covering studies from 1968 to 2021 was conducted to identify the efforts that have contributed to the development of flexibility within corporate real estate. The analysis of 88 papers, chapters and reports identified that the search for flexibility is not new, but only recently possible due to advances in technology.

Based on studies focused on telework, the virtual office, multi-locational work, flexible workspace strategies and patterns taken by corporations, it was identified that corporations adopt six different models with flexible workspaces. Due to the novelty of external flexible workspace models, most of the studies were focused on how to deliver flexibility through in-house design and new working practices. Within internal models, a company can have an in-house for employees (Model 1), or shared with emerging companies (Model 2), or act as a flexible workspace provider (Model 3). Within external flexible workspaces, corporations can have a private office (Model 4), a managed workspace (Model 5), or buy individual memberships for their employees (Model 6). While internal flexible workspaces give corporations the control over the physical space to organise as they wish, external flexible workspaces allow corporations to deal better with uncertainties such as the number of working staff and allow easy access to a network of locations and extra financial flexibility. Other than the search for physical, functional and financial flexibility, it was observed that corporations are driven to flexible workspaces due to their capabilities to reduce costs; attract, retain and inspire talent; build a corporate brand; accommodate uncertainty, and allow a network of locations.

This literature review also identified some initial reflections regarding the workspace in a post-pandemic world. More than a disruptor, COVID-19 seems to be a catalyst to changes predicted for the workspace a long time ago. Either way, the level of uncertainties it has created leads to greater attention to flexible workspaces and the multiple possibilities that lie within.

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