ACTIVITY BASED WORKING OFFICES: ONE OFFICE TYPE IMPLEMENTED THREE WAYS

EILEEN SIM and CHRISTOPHER HEYWOOD
University of Melbourne

ABSTRACT

Purpose: *Australian organisations are increasingly choosing Activity Based Working (ABW) offices to meet their Corporate Real Estate strategies. Existing studies have identified various 'Inputs' into and 'Outputs' of ABWs with indicators of mixed outputs, and it is unclear why these mixed outputs are being achieved. This study examines the under-reported 'Throughput' processes that deliver ABWs as a first step to understanding those outputs. The links between the 'Throughput' and the 'Output' are not explored here but will be explored in a future paper.*

Design/ methodology/ approach: *Three financial institutions were studied because financial institutions are the largest adopters of ABW in Australia. Analysis of internal project documents and semi-structured individual interviews with project team members involved in the ABW implementation were employed to understand how these financial institutions implemented their ABWs.*

Findings: *Even though all organisations implemented the same office type, there were three different implementation processes and as a result, different ABW office designs – type of worksettings and how they are laid out. First, ABW offices can be implemented as a set of pre-designed office worksettings or as custom-designed worksettings. The pre-designed office worksettings are dependent on an organisation's overall ABW strategy and their level of maturity in designing ABW offices. Second, projects' scale also affected the implementation process because increasing the scale increased the number of potential participants that could be engaged in the process with risks that engaging too many participants may delay the implementation process. In one organisation where the building was tenanted by and built for the single tenant, the ABW office project ran alongside the building design and construction project. This had, an increased complexity in the design process but created the potential for an integrated building and workplace design as the building and workplace was designed by the same architects. Third, the similarities and distinctions between the processes across the three cases are also identified.*

Practical implications: *Similar to open-plan offices, the ABW office type are often blamed for the outcomes produced. This study indicates that one office type, Activity Based Working, can have three different implementation processes resulting in different office designs in terms of worksettings and layout. Thus, it is expected that the employees' acceptance of the Activity Based Working offices in the three case study organisations will vary – which will be explored in a future paper.*

Originality/ value: *This study provides insight into the implementation process of ABW offices within today's business and technological environment and, as such, updates studies on the implementation processes of non-territorial offices from approximately two decades ago to this changed context.*

Keywords: *Activity Based Working, Implementation process, Corporate Real Estate Strategies, Throughput, Output*

Discipline: *Corporate Real Estate*

Email contact: Eileen.sim@unimelb.edu.au

Introduction and state of the art

Activity Based Working (ABW) offices have been increasingly adopted in Australia as the innovative workplace solution to achieve organisations' Corporate Real Estate (CRE) strategies. 'ABW' is adopted here because it is more intuitive and self-explanatory even though different terms can be used in the academic and professional literatures. Fundamentally they all refer to the same type of workplace having the following core

features: 1) Unassigned individual (non-territorial) workspaces; and 2) Contains various types of worksettings suited to the type of activities that employees conduct to promote switching behaviour (employees switching worksettings based on their activity), for example, Hoendervanger, et al. (2016) and Rothe, et al, (2015).

Organisations adopting ABW office as their 'real estate intervention' typically aim to address various value-adding CRE strategies, such as, increase productivity; increase customer and employee satisfaction; and increase innovation (Lindholm, et al., 2006). A study of approximately 250 organisations' ABW implementation found that the only CRE strategy which outperformed organisations' expectations was the increase in organisational flexibility. Other CRE strategies, such as real estate cost savings, increase in work-private life balance, employee satisfaction, and productivity failed to meet the organisations' expectations (Baalen, Heck, Muelen, & Oosterhout, 2011) in Appel-Meulenbroek, Oldman, & Susante (2016)).

Other studies from post-occupancy evaluations from employees offer similar evidence. With regard to productivity levels, some studies found that employees in ABW offices have slightly higher productivity levels than those in assigned seating (Appel-Meulenbroek et al., 2016; Candido, et al. 2016) and that productivity increased post-relocation into an ABW office (T. J. M. Van Der Voordt, 2004a). Other studies found that productivity levels fell post-relocation into an ABW office (T. J. M. Van Der Voordt, 2004a) and also over time as space became tighter and territorial behaviour increased (Mosselman, et al. 2009). Employees also exhibit non-switching and territorial behaviour with only 13-32% of employees switching workplaces on a regular day (Appel-Meulenbroek, et al., 2011; Hoendervanger et al., 2016; Tagliaro & Ciaramella, 2016b, 2016a) and reserving desks by occupying desks with belongings even when not present to use them (Kim, et al, 2016; Mosselman et al., 2009; Tagliaro & Ciaramella, 2016b, 2016a) or coming early to occupy their favourite workstation (Kim et al., 2016; T. J. M. Van Der Voordt, 2004b) or personalizing the workstation even when against the workplace guidelines (Brunia & Hartjes-Gosselink, 2009; Tagliaro & Ciaramella, 2016a). Thus, popular workspaces seemed underprovided even though there were still extensive unused spaces (Tagliaro & Ciaramella, 2016b). This could also suggest a mismatch between workspace allocation and activities. Some studies explained employees' non-switching behaviour was due to employees not relating switching workspaces with increased productivity due to wasted time switching workspaces (Kim et al., 2016); unsuitability of switching workstations with their work (Greene & Myerson, 2011) especially when that depended on each other (Been, Beijer, & Hollander, 2015; Ekstrand & Hansen, 2016) and much collaboration (Kim et al., 2016). Employees arriving later not only waste time searching for a workspace suited to their activity but may end up working at unsuitable workspaces that are not fitted with the appropriate technology and furniture (Kim et al., 2016; T. J. M. Van Der Voordt, 2004b) which have adverse effects on their health and wellbeing. Employee satisfaction was also found to be mixed and dependent on the department and organisation hierarchy (Ekstrand, 2016).

This literature indicates that some CRE strategies are underachieving but it is uncertain why this is occurring. There is also conflicting evidence on how well ABW offices have been implemented with one study showing that the ABW implementation process is in both the top 5 positive and top 5 negative aspects of the ABW (Been et al., 2015). Respondents thought positively about the implementation process where there were options to look at other ABW environments, had an active working group to actively provide input and visual images were provided to facilitate employees' understanding of the new environment. Whereas, respondents thought negatively of the implementation process because they were unable to provide input or the input was not incorporated, the top down implementation caused friction, there was insufficient information and involvement and employees felt uninformed about the goals (Been et al., 2015). These conflicting views indicate that organisations implement ABW differently and employees experienced it differently, thus, influencing their workplace acceptance. Many authors stress the importance of the ABW or facility implementation process to reap positive results (F. Becker, 2004; Brunia et al., 2016; Finch, 2011; Koetsveld & Kamperman, 2011). To gain a further insight into the achievement of CRE strategies, this research investigates how three ABW offices are being implemented. The following sections will present a literature review on the implementation process recommended in the existing literature as a theoretical framework followed by the methods used to gather the data on the three case studies prior to presenting the results and a brief analysis.

Theoretical Framework

A theoretical framework drawing on the existing ABW implementation and organisational change management literature was developed to understand the best practice theories as a frame of reference to investigate the actual ABW implementation process. The two fields of literature aligned closely because ABW is a workplace innovation typically complemented with an organisational or cultural change requiring organisational change management in the process to facilitate a sustainable change in employees' behaviours (For example, F. Becker et al., 1994; Bell, 2006; Inalhan, 2009; Koetsveld & Kamperman, 2011) through dealing with their workplace

attachments (Inalhan, 2009), beliefs in the inherent benefits (Anderson & Ackerman-Anderson, 2010; Herscovitch & Meyer, 2002), interconnected norms of the groups or systems (Cameron & Green, 2015; Inalhan, 2009) and the individual's sense of obligation to provide support for the change (Herscovitch & Meyer, 2002). The implementation process illustrated in Diagram 1 begins after the top management's decision to adopt the ABW, thus, omitting the earlier decision making process which typically includes key steps such as 'Conducting a needs and resources assessment' and 'Conducting a fit assessment' (Meyers, Durlak, & Wandersman, 2012). This section consists of a brief outline of the steps with a fuller development of some concepts available in the analysis section.

Diagram 1: Theoretical framework on ABW Implementation Process

After: Anderson & Ackerman-Anderson (2010), F. Becker (2004), F. Becker et al. (1994), Koetsveld & Kamperman (2011) and Thomson (2006)

The upstream, mid-stream and downstream phases in Diagram 1 are adopted from Anderson & Ackerman-Anderson (2010) who emphasizes that the upstream process is a critical foundation for success and in gaining support from employees and to minimise employee resistance to set a positive climate and runway. However, organisations tend to move too quickly through this phase or neglect it, overspend on the midstream design phase resulting in insufficient funds to deal with downstream change activities (Anderson & Ackerman-Anderson, 2010).

The first step is the organisation preparing to lead the change (Anderson & Ackerman-Anderson, 2010). This typically consists of assembling a team to lead, make decisions on the workplace changes and to develop the necessary support functions such as the capital outlay, communication and participation plan (Anderson & Ackerman-Anderson, 2010; F. D. Becker, Joroff, & Quinn, 1995; Bell, 2006; Kotter & Rathgeber, 2006).

The second step is 'Orientation and Ambition' (Koetsveld & Kamperman, 2011) where the organisation and the corporate real estate entities define the ABW project goals. These are based on how the ABW will meet current and future organisational challenges and vision to ensure alignment between the real estate strategies and the organisational strategies (Anderson & Ackerman-Anderson, 2010; F. D. Becker, 2004; F. Becker et al., 1994; Cameron & Green, 2015; Tagliaro & Ciaramella, 2016b).

Prior to developing the ABW concept, data collection is undertaken to assess the situation to determine the design and workspace requirements and to prepare people for the workplace (Bell, 2006). The six data collection aspects considered to be critical are:

- Reassessing how/ where work is done (F. D. Becker, 2004; F. Becker & Joroff, 1995; F. Becker et al., 1994; Sims, Joroff, & Becker, 1996; Thomson, 2006);

- Reassess occupancy levels to determine space requirements (F. D. Becker et al., 1995; Thomson, 2006);

- Understanding the current spatial customs and conventions across departments (Thomson, 2006);

- User group facilitation (Thomson, 2006);

- Understanding the relationship process or workflows (F. D. Becker et al., 1995; Paton & McCalman, 2008); and

- Cultural audit and readiness to change workplace (F. D. Becker, 2004; Bell, 2006; Meyers et al., 2012).

More successful ABW cases included user group facilitation, whereas, the less successful ABW cases reassessed how/ where work is done but omitted the user group facilitation (Brunia et al., 2016).

The data is then analysed to develop the ABW concepts and to design the desired state (Anderson & Ackerman-Anderson, 2010; F. Becker et al., 1994; Koetsveld & Kamperman, 2011; Thomson, 2006) which is typically compiled in a design brief prior to proceeding with the detailed design proposals (F. D. Becker, 2004). It is also critical to begin planning new space management policies (Thomson, 2006) and to change the business practices (F. Becker et al., 1994). If the organisation is conducting a pilot in the following step, the designers may only design for the pilot study first and only proceed to designing for the actual workplace after that.

To analyse the impact of the ABW concepts and design, a pilot study with a full-scale mock up is recommended (F. D. Becker, 2004; F. Becker & Joroff, 1995; Bell, 2006) to identify what works (or does not) to manage risk, make necessary adjustments, and to allow pilot and non-pilot employees to familiarise themselves with new workplace concepts and workspace (F. Becker & Joroff, 1995; Bell, 2006).

Step 6 plans and organizes the behavioural and structural aspects of the ABW implementation (Meyers et al., 2012; Thomson, 2006). The structural aspects of implementation includes the procurement or construction of fit-outs for the ABW (Koetsveld & Kamperman, 2011), whereas, the behavioural aspects relates to employees' cognition to create awareness of the ABW and facilitate the users' understanding and embracing the new ABW through various communication channels in hopes that it will translate into their behaviours when they move into the ABW (Bell, 2006; Ekstrand & Hansen, 2016; Koetsveld & Kamperman, 2011; Kotter, 1996; Kotter & Rathgeber, 2006; Meyers et al., 2012).

When the ABW is completed, the organisation will start relocating employees into the ABW (Step 7) (Paton & McCalman, 2008). Ongoing maintenance, support, monitoring and refinements to further improve the workplace (Step 8) is required to embed the new behaviours by dealing with complaints or misunderstandings quickly (Brunia et al., 2016; Meyers et al., 2012; T. D. J. M. Van Der Voordt, 2003). This also included providing technical assistance to support employees' use of the ABW and its technology (F. Becker, Quinn, Tennessen, & State Univ. of New York, 1995; Ekstrand & Hansen, 2016; Meyers et al., 2012). This step is typically given less attention in change management because managers often think in terms of much shorter time frames (Kotter, 1996; Kotter & Rathgeber, 2006) and the change task is seen as completed when the move occurs.

The final step is the organisation's reflection to learn from experience and course correct for future projects of a similar scale (Anderson & Ackerman-Anderson, 2010; Meyers et al., 2012; Paton & McCalman, 2008).

ABW implementation process may differ depending on the strategies undertaken (F. Becker et al., 1994; Koetsveld & Kamperman, 2011). Both authors agree that of the business and cost-driven strategies in implementing ABW, cost-driven strategies are inferior and should be avoided because they tend to skip steps resulting in lower satisfaction levels and lower long-run sustainability due to reversion to traditional ways of working despite similar total costs[1]. Business-driven projects focused on providing more effective work

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[1]Business-driven strategies had higher capital costs but lower ongoing cost whereas cost-driven strategies had lower capital costs but higher subsequent cost due to reversion to traditional ways of working or making significant changes to the system (F. Becker et al., 1994).

environments to improve employees' results as opposed to cost-driven projects emphasizing employees producing the same results without reducing their effectiveness (F. Becker et al., 1994). Two other strategies - process or solution-oriented strategies – were also identified (F. Becker et al., 1994). Solution-oriented strategies omit certain steps and replicate a standardized workplace solution across multiple sites with minor modifications, whereas, process-oriented strategies are those that standardize principles guiding the implementations and the process to identify the most appropriate solution. Solution-oriented strategies typically omitted or minimized 'Reassessing how/where work is done' and 'Conducting fundamental change in business practice' (F. Becker et al., 1994).

The inconsistencies between change management and ABW implementation fields are:

- Real estate views change management only coming in immediately before the ABW roll out (F. Becker et al., 1994; Thomson, 2006) but change management says that effective change begins at the start of the implementation process after the decision has been made to adopt the ABW (Solutions, 2015) to avoid dealing with angry workers disappointed that the new environment does not incorporate their opinions (F. D. Becker, 2004); and

- The 'Data collection to assess the situation' step here is mostly gathered from the literature on ABW and not change management since the data gathered is specific to ABW.

The inconsistencies and the actual implementation process have not been adequately interrogated. Their highly descriptive nature steers towards a qualitative research approach.

Methods

To investigate how ABW are implemented in organisations, this study undertook multiple case-studies (Yin, 2009) to replicate the research design across three cases and conduct a cross-case analysis (Neuman, 2012). The case study methodology was identified as the most appropriate method because it is a naturalistic inquiry method enquiring into "... a contemporary phenomenon in depth and within its real-life context …" (Yin, 2009, p. 18) to enable an in-depth study (Stark & Torrance, 2005) of the social phenomenon on how ABW are implemented (Yin, 2009). Multiple case studies were selected to avoid misrepresenting the phenomenon and increase its external validity (Yin, 2009) even though generalizability to the entire population of offices is still limited.

Since Australia is a leader in the ABW offices globally, only domestic case studies were initially considered. Financial institutions were selected as they are earlier adopters of ABW in Australia providing potentially more cases and the results will assist this large group of adopters with future workplace implementation. The ABW were studied at least12 months post-relocation so that employees' responses have stabilised and their ABW experience is more dynamic. No more than a 5 year gap between the year the project was completed and this study was allowed as this made it challenging to collect reliable data.

This study uses qualitative data because it provides an inductive approach that is superior at capturing multiple voices from individual perspectives using rich and meaningful descriptions and explanations (Denzin & Lincoln, 2008; Miles & Huberman, 1994; Neuman, 2012) within a local context (Guba & Lincoln, 1994). The methods here are individual interviews with key personnel involved in the implementation of the workplace and document analysis of private documents provided by the organisations. The interviews were conducted with people such as the workplace change manager, project manager, facilities manager, external workplace consultants, change and communications manager, lead architects, head of workplace and in-house design manager. Typical documents collected were the design brief, change and communications plan, floor plans, aspirational brief, worksetting compilation, functional brief, pilot documents and pre- and post-occupancy evaluation results. The interviews and documents collected varied across organisations depending on their availability.

Results

This section provides a brief summary on the organisational context of all three case study organisations. A full description of the implementation process for the three case studies has not been included to avoid excessive repetition with the Analysis section that compares the three case studies through the theoretical framework.

Even though all three Australian financial institutions studied implemented the same workplace concept, the organisational contexts varied (Table 1). Both B2 and B3's sites were Australian but B1's site was in New Zealand. The financial institutions are all headquartered in Australia and the initial intent was to only study domestic sites as the extensive study makes overseas travelling unfeasible. However, due to B1's large Australian-wide organisational restructuring it was not possible to study an Australian site. The case study was made possible because the Australian property team managed the project and have been developing a collection of worksettings in conjunction with this workplace project over the past 2 years prior to rolling it out in New Zealand. Additionally, B1 also had a pre-designed ABW implementation process that included all steps, parties involved, checklist of things to be completed and approvals required. Therefore, understanding B1's implementation process and the activity intent behind each worksetting was run domestically. Since most of B1's worksettings were developed prior to the workplace project and have been piloted a few times in Australia, the worksettings design in B1 were not as customised to this individual project compared to B2 and B3.

The workplace concept developed by each organisation met the earlier definition of an ABW office and all teams were allocated a 'neighbourhood' area based on the size and mobility profile of each team (teams that are often on-the-road tend to had a higher employee to workstation ratio). In B2, each team area had a large variety of worksettings assigned to the team in close proximity to the open-plan desks, whereas, in B1 and B3, the collaborative areas were shared by all teams.

Using Kaya, Heywood, Arge, Brawn, & Alexander's (2004, p. 77) definition of level of strategic-ness of projects, B2 and B3 were of a "Level 1: Strategic FM (facilities management) projects" since the projects were part of a major organisational and business change in the headquarters and B1 was a "Level 2: Major building and business unit level project" regional office. Even though B2 and B3 are both headquarter projects, the projects' scales were very different. B2 involved more than 1,000 people relocating into the project, whereas, B1 and B3 involved relocating less than 400 employees. Additionally, B2 was the building's single tenant with the same architects as the building developer, which enabled a more integrated building design benefiting B2.

As seen in Table 1, there is less than a 5 year gap from the implementation of the workplace to the data collection of this research in 2017 to 2018. Prior to moving into the new workplace, B1 and B2's employees were located at several sites, whereas, the employees in B3 were already co-locating a single site.

Table 1: Comparison of three case studies organisational context

	B1	B2	B3
Headquartered in Australia	Yes	Yes	Yes
Located in Australia	No, New Zealand	Yes	Yes
Headquarter building/ site	No	Yes	Yes
ABW concept and worksetting developed in Australia	Yes	Yes	Yes
Project strategic level	Level 2: Major building and business unit level project; Regional office	Level 1: Strategic FM project; Headquarter office	Level 1: Strategic FM project; Headquarter office
Scale (number of people)	Approx. 200	1,000 people	Approx. 300-400 people
Completion date	2017	2013	2017
Year studied	2017-2018	2017	2018

Analysis

The implementation processes of all three organisations can be divided into three phases and based on the theoretical framework (Diagram 1) as seen in Table 2.0. The phases identified here are more general than that identified in the literature. Each step identified in the literature is compared to the three case study organisations with more emphasis on the differences (summarised in Table 3.0).

Table 2.0 Comparison of three phases to steps identified in theoretical framework

Phases	Steps identified in theoretical framework
Strategy and Design	*Step 1*: Preparing to Lead Change
	Step 2: Orientation and Ambition
	Step 3: Data collection to assess the situation
	Step 4: Develop the ABW concepts and to design to desired state
	Step 5: Analyse the impact
Implementation of workplace change	*Step 6*: Plan and organise for ABW implementation
	Step 7: Rollout/ relocation into the ABW
Post-moving in	*Step 8*: Ongoing maintenance, support, monitoring and refinement
	Step 9: Reflection to learn and course correct

Table 3.0: Comparison of case study organisation results with the theoretical framework

Theoretical framework process steps	B1	B2	B3	Differences from the theoretical framework
Step 1: Preparing to lead the change	Yes	Yes	Yes	None identified.
Step 2: Orientation and Ambition	Yes - All organisations insisted that the leadership team and property teams agreed on the business and property objectives as a precursor to proceed with the workplace project. **Leadership approval required to proceed			Unlike the framework, not all employees were involved. B2 and B3 spent more time on this step on how they wouldlike to reposition the organisation and to evaluate if this change is suited to all teams. Selection of change champion for B1 occurred here.
Step 3: Data collection to assess the situation	Yes - through different methods.			User group facilitation and understanding the relationship process or workflows: B1 conducted with change champions but B2 and B3 conducted with leadership team. Cultural audit and readiness to change workplace: was not conducted as extensively as suggested by the literature. Storage audit was not identified by the literature but conducted by all 3 organisations.
Step 4: Develop the ABW concepts and to design the desired state	Yes **Leadership approval required to proceed			In B2 and B3, this was led by the external architect teams who put together a design brief but in B1, this was led by the property team in conjunction with the change champions and there was no formal design brief put together.
Step 5: Analyse the impact	Planned but not executed	Yes	Yes	Only B2 and B3 successfully set up a pilot area but not to test the workplace design and make changes to the workplace design. B2 also used it for furniture selection purposes (unique and not in the literature). **only came after step 6.

Table 3.0: Comparison of case study organisation results with the theoretical framework (cont.)

Step 6: Plan and organise for ABW implementation	Yes – all implemented multiple communication channels			The literature did not identify the significance of change champions but change champions played a large communications role in all three organisations. Not identified in the literature: Pre-change surveys, decluttering and digitisation of documents, changing work processes, roll out of new technology. All organisations had some unique communications channels (for example. Competitions, etc).
Step 7: Rollout/ relocation into the ABW	Yes	Yes	Yes	Goal to have teams up and running by 10am on their relocation day. Relocation staggered depending on number of employees moving.
Step 8: Ongoing maintenance, support, monitoring and refinement	Yes	Yes	Yes	Continuous support through meetings and workshops. Cleaners instructed to remove personal belongings. Post-move survey issued but only B2 has made physical changes so far.
Step 9: Reflection to learn and course correct	Yes	Yes	Yes	Through feedback from surveys.

Phase 1: Strategy and Design

Step 1: Preparing to lead change

No significant differences with the theoretical framework identified here.

In all three organisations, even though assembling the team leading the change was not investigated, it was clear that teams were assembled and decision making processes were in place. All case study organisations described having a property team managing, appointing and assembling the necessary external support functions. This included reporting to the appropriate leaders and obtaining approval at the agreed points in time or depending on the magnitude (extent of impact) of the decision.

Step 2: Orientation and ambition

All case study organisations underwent this step where the property team held discussions with the leadership team to decide on the aspirations that both teams would like to achieve with this workplace project and the workplace strategy to deliver those aspirations. Thus, consisting of both property and business objectives in attempt to 'futureproof' the workplace to the changing organisational demands. Furthermore, all three organisations insisted that if the property team and the leadership team could not agree on these aspirations and objectives, they could not proceed with the workplace project.

Unlike the recommendation from the literature to involve all employees affected by the change, all three organisations only involved the leadership team at this stage. They explained that involving all employees would be too costly, time-consuming and the leaders were representatives of all the employees under them.

The difference between the three organisations here is that B2 and B3 spent more time on the leadership consultation than B1. The executive team's involvement in the leadership consultation of B2 and B3 was potentially because these were headquarters projects compared to B1's regional office project. Whilst all three leadership teams saw the workplace project as a catalyst for an organisational shift towards more flexibility and changing the way their employees worked, B2 and B3 took the time to identify the organisational vision, repositioning the organisation in the marketplace, necessary business transformations and how their workplace will meet both their current and future needs. B2 and B3 also evaluated which teams' type of work was unsuitable to transition into ABW and how this would be dealt with, whereas, B1 intended to transition all staff into the ABW environment regardless of their type of work. In B2 and B3, aspirational briefs outlining the organisations' aspirations were prepared.

After that, B1's managerial team selected their teams' change champions. However, in B2 and B3, selecting the change champions only occurred in Step 6: Plan and Organise for ABW implementation. This is due to the function of the change champions of which B1's change champions were involved in the workplace design resulting in more of a two-way communication, whereas, B2 and B3's change champions were not involved in the workplace design and functioned as a channel of communication from the property team to the employees. From the literature review, choosing change champions would have fallen under Step 1: Preparing to lead the change since the change champions communicate and lead the change within their teams but in all three organisations, selecting change champions occurred later. To select the change champions, the property teams in all three organisations provided the managers with a list of qualities they were looking for in the change champions and the managers selected the change champions based on their knowledge of the team.

Step 3: Data collection to assess the situation

Data was gathered in all three organisations on Reassessing how/ where work is done and Reassess occupancy levels to determine space requirement as suggested by the literature. The two data collection aspects that varied from the literature were:

- User group facilitation and Understanding the relationship process or workflows: In B1, user group facilitation is conducted with the change champions to understand an employee's daily life and the type of worksettings suited to support the employee's work. In B2 and B3, the user group facilitation was mainly conducted with the leadership team to understand the type of employees they have to cater for – type of work and the extent in which employees work in the office. This came up in the leadership consultation to understand how business is currently conducted, how they envision themselves conducting business in the future and brainstorming on how the workplace can support that.

- Cultural audit and readiness to change workplace: Under Step 2: Orientation and Ambition, all organisations evaluated how the new workplace would support their workplace culture. However, there was no real evaluation of employees' resistance to change that identifies the potential social, psychological and political potholes as identified by the literature. This was only partially conducted when the property team and leadership team evaluated their objectives and its alignment to ensure there is no leadership' resistance to change. Additionally, B2 and B3 identified teams that may be more resistant to change based on how desk-bound or mobile they were.

The data gathered was used to assist the workplace in attempt to accommodate everyone without necessarily consulting every single employee. The storage audit was not identified by the literature but was a key step here as the ABW typically accompanies a reduction in individual employees' and teams' storage capacity. There were teams that were more paper-reliant due to their work and the move towards an ABW with less storage space implies that the work processes have to be revamped for a sustainable reduction on their reliance on paper through more digitisation.

All three organisations conducted some interviews or discussion and both B2 and B3 invested into conducting observation studies and surveys to further understand how the existing workplaces were being utilised and the satisfaction levels. Unlike the literature's suggestion that all employees affected by the change should be involved, the three organisations explained they did not involve all employees as it would be too costly, time-consuming, the leaders were sufficient representations,and it was outside the employees' job scope and expertise.

Step 4: Develop the ABW concepts and to design the desired state

All three organisations underwent this step but B1's method was very different from B2 and B3.

For B2 and B3, a design brief that included the workplace concept and space requirements based on the data collected was prepared by the architects in conjunction with the property team. This was to guide the workplace design and to ensure that everyone was on the same page prior to starting the detailed workplace design.

With B1, no formal design brief was prepared because the workplace was co-designed between the property team and the change champions using the organisations' pre-designed worksettings. The change champions reflected on their daily work, identified the suitable worksettings and arranged them on the floorplate around the open-plan desks. The external architects for B1 were predominantly employed to translate the workplace design into architectural drawings for the installation of permanent fixtures for the builders to install (such as internet cables, power cables, etc.).

In all three organisations, the workplace design required approval from the leadership or management team prior to construction and procurement of the worksettings and fitouts.

Phase 2: Implementation of Workplace Change

This phase began after the workplace design (worksettings and layout) was generally already locked in with some minor changes possible. Even though the theoretical framework suggested analysing the impact (Step 5) after developing the ABW concepts and designing it to the desired state (Step 4), it was found that all three organisations only 'analysed the impact' (Step 5) of the design after or as part of Step 6: Plan and organise for ABW implementation.

Step 6: Plan and organise for ABW implementation

In planning the ABW implementation, all three organisations developed a communication plan that included various communication channels, timing and content of the communications sent out. As the literature suggest, there were multiple communication channels that varied across organisations in attempt to reach as many people as possible.

As per the literature's suggestion, the leadership team sent out the initial communications and participated in the workplace change management. However, the literature did not identify the use of change champions as the main communication channel which occurred in all three organisations. The change champions took on the role as the intermediary between the project team and the employees. There were regular meetings to inform or educate the change champions about flexible working, necessary steps to move into the new workplace and discuss the issues they were encountering with their team. B1's communications with the change champion began in Step 4, whereas, B2 and B3's communications with the change champions only begin in this step.

Other workplace change initiatives not discussed in the literature were sending out pre-change surveys to the employees, providing digital updates, de-cluttering and digitisation of documents, changing the work processes to increase digitisation and reduce the reliance on paper, and to roll out new technology. A pre-change survey provided the workplace change team with results to compare post-moving to identify what has improved and areas for further improvement. The digitisation of documents was critical to the paper reduction and digitisation of all necessary documents in an orderly manner several months before the move as there was significantly less storage for individuals and teams in the new ABW office. Additionally, B2 and B3 worked to change the businesses' processes that were heavily paper-reliant with an aim to ensure that the digitisation move was sustainable. All organisations also rolled out the new technology to support ABW at this stage to transition employees away from landline phones and desktops to laptops and occasionally mobile phones.

In B3, the workplace change manager was very hands-on and the employees had direct contact with the change manager. The workplace change manager was present at the team briefings to provide updates, address queries and they could email the change manager to meet up and discuss their concerns.

All organisations had some specific initiatives to further engage employees to participate in the workplace change or to educate and provide more information on how to work in a flexible workplace environment. Some initiatives to further engage with employees are competitions to name the meeting rooms in B1, an 'amazing race' competition in B2's building and hosting neighbourhood and building tours in B2 and B3.To further educate employees about flexible working, employees in B2 and B3 were provided with an e-learning module, large 'town hall' information sessions in B2 and two workshops on change readiness and technology in B3. Since B1's worksettings were all designed to be mobile, the change champions were also briefed on what furniture they could mobilise without the property team's assistance and how to mobilise furniture themselves.

Step 5: Analyse the impact

All organisations intended to set up a pilot area as part of the workplace change management process in which employees could experience an ABW by testing it or seeing it in person. However, B1 did not get to use the pilot space to help their employees transition into flexible working because they were tight on space in existing locations and the space planned for the pilot was used to accommodate employees that had to move urgently due to the discovery of seismic issues in the prior accommodation 3 months prior to the workplace move. Therefore, B1 skipped this step.

Both B2 and B3 set up a pilot space in an existing office in which B3 had the opportunity to run all teams through the pilot space for a week. Unlike B3, only teams in B2 with serious concerns about how ABW was going to work for their team worked in the pilot space from a few weeks to a month. Both B2 and B3 set up the

pilot to test the technology and as part of the workplace change initiative to familiarise employees with ABW and address their concerns. Additionally, B2 also used the pilot space to provide employees with the opportunity to select some furniture for the new office. This is unique and had not been previously identified in the literature. Employees who visited the pilot space had opportunities to provide feedback and vote on their preferred furniture such as the office chair. Of the three aims identified by F. Becker & Joroff (1995) and Bell (2006), the aim to identify what works (or does not) to manage risk and to allow pilot employees to familiarise themselves with new workplace concepts were met but the aim to make necessary adjustments were not quite met because majority of the worksettings and furniture were finalised for procurement prior to the pilot. Therefore, the pilot is embedded into Step 6 as part of the workplace change instead of a separate step.

Step 7: Rollout/ Relocation into the ABW

On the move-in date, all organisations ensured that support teams were in place to provide workplace tours, allocate lockers, assist with any queries and to deal with technology issues. The goal of all organisations was to have everyone up and running so that business can continue as usual by 10am on the day of their relocation. In B1 and B3, the move for all teams were staggered throughout the day so that the workplace change team could take the teams through the workplace in small groups and the queries would not have been overwhelming. In B2, the move was staggered over 3 months as the move involved more than 1000 employees.

Phase 3: Post-moving in

Step 8: Ongoing maintenance, support, monitoring and refinement

Support was provided to employees in various ways across all three organisations, as per the literature, to provide ongoing support and deal with complaints (F. Becker & Joroff, 1995; Ekstrand & Hansen, 2016; Sims et al., 1996). Meeting with change champions were organised in B1 and B2, meetings with team leaders and troubleshooting support was provided in B2 and technology workshops and leadership workshops were organised in B3. To reinforce the non-territorial behaviour (Brunia et al., 2016), in all three organisations cleaners were instructed to remove personal belongings left behind by employees and signs on how to use certain worksettings have been put up. Furthermore, B2 developed processes for teams that are new to flexible ABW environments and a refreshing behaviour program for teams whose flexible working behaviours have reversed over time. In B3, the concierge team was trained to run inductions for new employees who began at the office after everyone had already moved in.

However, in terms of making further improvements to the workplace, a post-relocation survey was issued in all three organisations (Sims et al., 1996) but so far only B2 has made changes. All three organisations received feedback from the survey and observation studies that the libraries were underutilised and required repurposing or redesigning. However, only B2 has conducted this change so far to repurpose the library into a meeting room. B1 is aware of the demand to replace the library with a collaborative worksetting but currently did not have the budget to make changes. B3 is currently drawing up plans with the architects to repurpose the library and intends to implement the change in a few months. B1 and B3's progress with the library lags B2's since B2 has already occupied the workplace for several more years than the other two. Another reason why changes have not been made in B1 and B3 was to give employees some time to settle into the workplace and observe if utilisation increases over time. In B1, most of the worksettings have not been moved despite the fact that all worksettings are mobile.

Step 9: Reflection to learn and course correct

All three organisations have issued pre-change and post-change surveys in attempts to understand how the workplace has impacted the employees and to incorporate these learnings into future ABW implementations. The organisations also participated in this study as part of reflecting on their ABW implementations.

Strategy pursued by each organisation

Both B2 and B3 pursued a business-driven strategy as opposed to B1 which pursued a solution-oriented and process-oriented strategy in the workplace implementation. B2 and B3 were more centred around the users and providing a more effective work environment and they completed all steps in the process. With regards to the satisfaction levels and sustainability of flexible working, the preliminary analysis of the data gathered on employees' acceptance of ABW is already indicating higher satisfaction levels and more sustainable flexible

working practices in B2 and B3 than in B1. B1 resembled a solution-oriented strategy in the worksettings design as B1 had a set of pre-designed worksettings and workplace guidelines that were implemented. Although the workplace was not exactly 'rubber-stamped' across locations, the use of the same worksettings across locations made them look similar. Reassessing how work was conducted and conducting a fundamental change in business practice was also less thoroughly conducted in B1 relative to B2 and B3. B1 also resembled a process-oriented strategy because B1 had a pre-determined workplace change process in which the organisation implement across every workplace change to identify a workplace solution based on the pre-designed worksettings. The possibility to undertake more than one workplace implementation strategy has not been identified in the literature.

Conclusion

From this study, it is evident that there is no one way to implement ABW as different strategies can be pursued. Interestingly, it is possible for an organisation to pursue up to two workplace implementation strategies, as identified in B1. Even though all three organisations somewhat conducted all the steps identified in the theoretical framework, each of these steps was also shown to be done differently in terms of who is involved, to what extent and the steps' sequence. The few key differences between the case studies and the literature are the case studies used change champions as a main communication channel from the property team with the employees and to co-design the workplace, reduced the existing and future storage of documents, the use of the pilot was not to make changes to the workplace design and the limited involvement of employees throughout the implementation process. This study has revealed two different ways of designing an ABW office which is the more conventional method of hiring architects to design the office based on your needs or to co-design the workspace with change champions using a selection of predesigned worksettings. The extent of leadership involvement in the project was also dependent on the project level – whether or not it was a headquarters office project.

Whilst it will be valuable to conduct further analysis into employees' acceptance of the workplaces and incorporate their feedback on the implementation process, this paper is a necessary precursor to document the implementation process.

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