Developing a Capacity for Organizational Resilience Through Organizational Culture of Collaborative Networks among Information Workers

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Abstract

The outbreak of the COVID-19 pandemic has highlighted the vulnerabilities of the traditional physically co-located office, forcing many organizations to work remotely. During COVID-19, many knowledge workers work from home regularly, and as a result, the power distance between remote e-workers and their previously on-site colleagues has disappeared. An in-depth organization-wide case study was conducted to answer our research questions, how does the involuntary working from home requirement due to COVID-19 affect team collaboration and performance? What are the enabling factors to design and implement a hybrid way of working in knowledge organizations? And how does organizational culture influence IT governance performance in global virtual teams in a large organization during volatile and uncertain situations? The main conclusion of this research is that organizational culture does influence the performance outcomes of IT governance.

Keywords: IT Governance, IS Resilience, working from home, Covid-19, Organization Culture

1. Introduction

The outbreak of the COVID-19 pandemic has highlighted the vulnerabilities of the traditional physically co-located office, forcing many organizations to work remotely. The workplace is rapidly becoming a more flexible concept. In May 2021, a Mercer study found that 70% of companies said they were planning to adopt the hybrid model. Many companies have already made the move, including prominent brands such as Adobe, Salesforce, Spotify, and Twitter. Microsoft's Work Trend Index (published in March 2021) found that 66% of employers around the world are redesigning their workplaces to accommodate hybrid work arrangements. In the UK, for example, more than 1.5 million people work from home full-time, nearly twice as many as ten years ago (Deloitte, 2020).

Microsoft's CEO Satya Nadella shared some new numbers: In April 2020, more than 200 million Microsoft Teams meeting participants in a single day, generating more than 4.1 billion meeting minutes. Also, Teams now has more than 75 million daily active users, and two-thirds of them have shared, collaborated, or interacted with files on Teams as well. As Nadella highlighted, "We've seen two years' worth of digital transformation in two months" (Deloitte, 2020).

The COVID-19 pandemic has caused unprecedented challenges to public health systems and global economies (Gallagher, 2020). Governments have enforced social distancing through various control measures on many aspects of society, in particular, mobilities (Walker et al., 2020). Our social and work lives have been suddenly transformed, and many countries are considering lockdown measures (governments forcing people to stay home) or social distancing (people staying at a certain distance from each other) to continue until the foreseeable future (Gallagher, 2020).

In existing work from home literature, studies focussed on the precondition that remote e-workers are voluntarily working from home to serve various purposes. For example, taking care of domestic duties (Versey, 2015), reducing commuting time (Kelliher & Anderson, 2010), and avoiding distractions (Fonner & Stache, 2012). Also, there is a "power distance" between the head office and the home office. Remote e-workers are often marginalized compared to their in-office counterparts which creates feelings of social and professional isolation, missed informal learning opportunities, and decreased support from the company. In recent years many large organizations have begun using complex organizational patterns such as global virtual teams and networks to enhance the quality of collaboration and decisions. In virtual teams, organizational members use technology to interact and collaborate regardless of geographical and organizational boundaries. In organizations with global virtual networks, IT governance can be complex to implement with such questions as "who

HICSS

makes which IT decisions" difficult to answer (Weill and Ross, 2004).

Organizational culture is another crucial factor that needs to be considered. Organizational culture can be defined as "the set of shared values and norms that control organizational members' interactions" [Weill and Ross, 2004]. Organizational culture can be used to support IT governance implementation, or it can impede effective governance.

However, during COVID-19, many knowledge workers are forced to work from home every day, and the power distance between remote e-workers and their previously on-site colleagues has disappeared. Suddenly, knowledge workers are forced to use technologies in new ways to perform their work and engage with their colleagues, combined with added pressures of managing home environments that may not be suitable for work purposes. The existing remote e-working literature thus cannot provide a thorough explanation of the enforced working-from-home situations during COVID-19. Therefore, understanding knowledge of workers' home working experience is essential in contributing to the remote e-working literature in the context of a pandemic. As COVID-19 forces entire companies to work from home, it is essential to explore how knowledge workers navigate through the challenges of changing working environments and how they can maintain "business as usual" through technological means and investigate the organizational, behavioral, and societal impacts of the pandemic (Ågerfalk et al., 2020). In this war against the deadly virus, we as information systems scholars can contribute to the global effort and explore how the current technologies can be leveraged by teams and organizations to develop new digital practices to survive and perhaps even strive in these uncertain times (Ågerfalk et al., 2020). Therefore, our research questions are: how does the involuntary working from home requirement due to COVID-19 affect team collaboration and performance? And what are the enabling factors to design and implement a hybrid way of working in knowledge organizations? This research also aims to explore the influence of the organizational culture on IT governance performance during an uncertain situation. A third research question is: "How does organizational culture influence IT governance performance in global virtual teams in a large organization during volatile and uncertain situations?" To respond to this question, an in-depth case study in a complex organization with global virtual networks and distinctive leaderships was conducted.

To answer these questions, we use a firm-specific human capital perspective, and a fresh re-conceptualization of person-organization fit (P–O fit)

from the framework of Social Cognitive Theory (Wingreen & Blanton, 2018). Wingreen and Blanton (2018) found that the IT profession is highly segmented, differentiated, specialized, and compartmentalized, thus making generalization from field research difficult, and hence, conclude that 'one size does not fit all', to employment arrangements. In other words, research in this area must account for the broad variation within and between persons, and groups of persons in a systematic way. The firm-specific human capital perspective proposes the intrinsic value of the human resource, and thus provides a useful foundation on which to begin an inquiry that is centered on persons, and groups of persons, rather than generalized to the profession.

P–O fit research is of particular interest because, by definition, a person's efforts to maintain P–O fit is ideally the manifestation of a desire to cultivate firm-specific human capital, which in the case of IT professionals is uniquely prioritized in the maintenance and development of technical competencies and performances (Wingreen and Blanton, 2018). In the context of this paper, P–O fit is defined as IT professionals˙ viewpoints about the correspondence between their priorities for the Hybrid way of working (HWoW) and technological factors, and the priorities of their organization.

The remainder of this paper includes the research background, conceptual framework, methodology, case description, data analysis, and discussion, and finally the conclusions, limitations, and future research.

2. Research Background

2.1. IT Governance

IT governance as an integral part of enterprise governance [Weill and Ross, 2004] consists of the "leadership and organizational structures and processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives" [Weill and Ross, 2004]. In this paper, IT governance is defined as "specifying the frameworks for decision rights and accountabilities to encourage desirable behavior in the use of IT" [Weill and Ross, 2004].

The traditional approach to defining resilience focuses on an event-based approach that deals with identifying potential risks and preparing response measures for each of them, whereas our definition of IS resilience incorporates a process-based approach to build a sustainable business model. The process-based approach embeds

resilience thinking in the culture of an organization, which distinguishes it from merely suggesting a corrective measure for a particular event (Vargo and Seville, 2011).

IT Governance performance assesses IT effectiveness through the following four objectives weighted by their importance to the enterprise:

1. Cost-effective use of IT - which comprises how much IT is beneficial for business.
2. Effective use of IT for growth - which concerns how IT is effective in learning, being innovative, gaining competitive advantage, and making improvements.
3. Effective use of IT for asset utilization - which focuses on how successful IT is in using knowledge-based assets in an organization.
4. Effective use of IT for business flexibility - which investigates how IT is successful for the business in responding to internal and external changes [Weill and Ross, 2004].

The above objectives are used in this research in identifying IT governance performance.

2.2. Information System Resilience

According to Sarkar et al. (2016), a clear interpretation of IS resilience was non-existent at the time of their research. Therefore, they defined IS resilience as follows:

IS resilience being a function of an organization's overall situation awareness related to Information Systems, management of Information Systems vulnerabilities, and adaptive capacity, risk intelligence, flexibility, and agility of Information Systems in a complex, dynamic, and interconnected environment.

According to this definition, IS resilience is based on six attributes – situation awareness, management of vulnerabilities, adaptive capacity, risk intelligence, flexibility, and agility Sarkar et al. (2016). The attributes of adaptive capacity, risk intelligence, flexibility, and agility suggest that IS resilience also addresses initiative-taking measures to adapt and improve IS. Therefore, the robustness of the system is not the sole focus point, but an intermediate. This proactive tone also characterizes organizational resilience, which shows that IS resilience is a subarea of organizational resilience.

Another perspective on IS resilience is provided by Aldea and Sarkar (2021). Aldea and Sarkar (2021) present a list of IS resilience characteristics gathered from multiple papers that expands on the attributes provided by Sarkar et al. (2016). Namely, the following characteristics are mentioned: diversity, efficiency, adaptability, cohesion, self-organization, robustness, learning, redundancy, rapidity, flexibility, equality, agility, vulnerability to risk, and responsiveness.

2.3. Organizational Culture

Organizational culture can be described as "a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel about those problems". Organizational culture is counted among the factors having an important influence on IT governance.

In this research, the dimensions introduced by Cameron and Quinn are used to identify organizational culture. They developed an instrument called Organizational Culture Assessment Instrument (OCAI) which is distributed in four competing values - internal-external, and stability-flexibility. Mapping those two dimensions of "competing values" lead to four organizational culture types:

- the dynamic, entrepreneurial Create Culture
- the people oriented, friendly Collaborate Culture
- the process-oriented, structured Control Culture
- the results oriented, competitive Compete Culture

The Create Culture

This is a dynamic and creative working environment. Employees take risks. Leaders are seen as innovators and risk-takers. Experiments and innovation are a way of bonding. Prominence is emphasized. The long-term goal is to grow and create new resources. The availability of new products or services is seen as a success. The organization promotes individual initiative and freedom. In an organization with a creative environment, people share knowledge and expertise. Loyalty is an important factor that leads to high commitment. Teamwork and participation have a high priority in this type of organization.

The Collaborate Culture

This working environment is friendly. People have a lot in common, and it feels like a large family. The leaders are seen as mentors or maybe even father figures. The organization is held together by loyalty and tradition. There is great involvement. They emphasize long-term Human Resource Development.

Success is defined within the framework of addressing the needs of the clients and caring for the people. The organization promotes teamwork, participation, and consensus.

In a collaborative culture, the emphasis is on being creative, entrepreneurial, and dynamic. The organization is risk-taking and moves to be the pioneer in its own business. Their aim is growth and leading in the product or service they provide. Individuals have freedom for creativity as an important commitment.

The Structured Control Culture

This is a formalized and structured workplace. Procedures direct what people do. Leaders are proud of efficiency-based coordination and organization. Keeping the organization functioning smoothly is crucial. Formal rules and policies keep the organization together. The long-term goals are stability and results, combined with the efficient and smooth execution of tasks. Reliable delivery, continuous planning, and low cost define success.

In this culture, there is a highly formalized and structured work environment with procedures for everything. Leaders are not risk-taking or innovative and they are more efficiency-minded instead. Such organizations consider themselves efficient when they meet the needed delivery, follow the formal rules on time, and have a low cost.

The Compete Culture

This is a results-based workplace that emphasizes targets, deadlines, and getting things done. People are competitive and focused on goals. Leaders are hard drivers, producers, and rivals. They can be tough with high expectations. The emphasis on winning keeps the organization together. Reputation and success are the most important. The long-term focus is on rival activities and reaching goals. Market dominance, achieving your goals, and great metrics are the definitions of success. Competitive prices and market leadership are important. The organizational style is based on competition.

OCAI is used in this research since it is a validated tool used by over 10,000 companies worldwide [37]. Moreover, consultants can use OCAI to make constructive changes through new teams, leaders, and working methods [38].

2.4. Remote e-working and COVID-19

The day before New Zealand (NZ) recorded its first case of the coronavirus on February 28, 2020, there was a report of "the largest mass exercise in remote working in global corporate history" (Field, 2020) as companies responded to the 'stay at home' message to help control the virus. By the following week, NZ organizations were following suit (Carroll, 2020), and working from home (WFH) has continued throughout all the alert levels of the pandemic. This has stimulated interest in WFH, the benefits and challenges it presents for workers and organizations, and how the experiences of WFH in a crisis will impact WFH in the future. In the extant literature, WFH is variably termed 'telework', 'telecommuting', 'remote working', 'e-work', and 'virtual work' (Sullivan, 2003). In addition, pertinent to the Covid-19 context, business continuity and resilience is, or should be, a driver for WFH as benefits in both these areas are evident in the literature (Martin & MacDonnell, 2012; Green et al., 2017).

2.5. Leadership under Risk and Uncertainty

Decision rights imply a decision-maker with the knowledge needed to make those decisions since a decision right specifies who in a firm has the authority to make what decisions. Decision rights must be moved to the department where the relevant knowledge resides ("delegation" solution), or the relevant knowledge must be moved to the locus of decision rights ("transmission" solution) (Jensen and Meckling 1992). IT governance, the term defined as "specifying the decision rights and accountability framework to encourage desirable behavior in the use of IT" (Weill and Ross 2004) constitutes the most universal and systematic approach to helping to solve the problems connected with supporting a business with IT in the organizational context. There is a distinction between IT governance and IT management. Weill is speaking primarily of IS when he develops his IT governance framework, it does not focus on the technological solutions to business problems rather it focuses on principles of technologies as it relates to corporate businesses. "IS" is a term used primarily by academics, while "IT" is the term used in practice to speak of IS, in this case, IT governance includes IS. According to Weill, IT governance is not about specific decisions about IT but about who makes what decisions, who has input, and how the decision-makers are held accountable for the decisions. IT governance encompasses five major decision domains. IT principles comprise the high-level decisions about the strategic role of IT in the business. IT architecture includes an integrated set of technical choices to guide the organization in satisfying business needs. IT infrastructure consists of the centrally coordinated, shared IT services that provide the foundation for the enterprise's IT capability and were typically created before precise usage needs were known. Business application needs are the business requirements for purchased or

internally developed IT applications. Last, prioritization and investment decisions determine how much and where to invest in IT. There are six archetypal approaches to IT decision-making, ranging from highly centralized to highly decentralized. Most companies employ a variety of them, using different approaches for different decisions (Weill and Ross, 2004). To our knowledge, there is no empirical validation of Weill's IT governance framework in the context of an organizational culture that enhances IS resilience during an uncertain situation, this will be an important contribution of this research.

2.6. Research Conceptual Framework

As shown in Figure 1, the research is directed through the conceptual framework to find out which type of organizational culture can be suitable for each of the IT governance outcomes during volatile and uncertain pandemic situation. The organizational culture types in the networks are identified using the OCAI model and the IT governance performance is distinguished using four IT governance outcomes introduced by Weill and Ross, 2004.
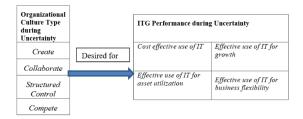

Figure 1. Research conceptual framework.

3. Research Methodology

This research was conducted as a case study to explore the dynamics of the studied phenomenon. Yin [39] recommends a case study when investigating "how" or "why" research questions and when the phenomenon is new. The case study is a suitable method to respond to our research questions, how does the involuntary working from home requirement due to COVID-19 affect team collaboration and performance? What are the enabling factors to design and implement a hybrid way of working in knowledge organizations? And how does organizational culture influence IT governance performance in global virtual teams in a large organization during a volatile and uncertain situation? Our phenomenon, global virtual teams, as an organizational design is new and has not received extensive attention. Also, the Covid

pandemic situation which caused the global disruption is very new.

The case study was performed in Jade Software, which is a large global Information Technology company. In such case studies, a variety of data resources such as interviews, archival data, and observations are used (Yin, 2009).

The main source of data for this case study was semi-structured interviews and white papers and presentations supplied by the company. Also, we have used extensive discussion from in-house communication channels and a qualitative survey of all employees. Most of the interview questions were open-ended questions and focused on the leadership and culture of an organization and the role of IT in facilitating virtual teams' performance. A total of 15 face-to-face interviews were conducted with the key leaders including the BoDs of Jade Software between February 2020 and May 2022. All interviews were recorded and transcribed. After conducting 15 interviews and analyzing the survey results of the entire organization (N = 211) there was no more new information revealed and the data collection ended.

To boost the validity and reliability of this research, triangulation was done between interviews, Jade Software Employee feedback and survey results, and internal documents and channel communications via Teams.

A qualitative approach is more likely to obtain unexpected information than the quantitative approach, which is more structured and detailed from the beginning. First, all interviews were recorded, transcribed, coded, and then themes emerged from the interview data analysis of the interviews. The categorization of the initial codes was mainly based on the concepts of virtual networks, IT governance performance (Weill and Ross, 2004), and organizational culture dimensions.

4. Case Description: Jade Software

It is crucial in designing case study research to carefully select case study site. As the research aims to answer, how does the involuntary working from home requirement due to COVID-19 affect team collaboration and performance? What are the enabling factors to design and implement a hybrid way of working in knowledge organizations? And how does organizational culture influence IT governance performance in global virtual teams in a large organization during a volatile and uncertain situation? The focus is on theory building rather than theory testing. Towards this goal, we have selected Jade Software Corporation because it is an exemplar of the theoretical concepts, we would expect in the context

of IS resilience, and as such is an ideal organization for case research whose purpose is theory development (Yin, 2009).

Jade Software Corporation Limited was founded in 1978 and is headquartered in Christchurch, New Zealand. Jade provides digital products and services to industries including banking, insurance, manufacturing, and retail. With a portfolio of products, supported by services, Jade changes clients' real-world experiences with appropriate technology to suit the situation. Jade has thousands of clients around the world and offices in the United Kingdom, Dunedin, Auckland, Christchurch, Sydney, and Melbourne.

Jade experienced several challenges because of several manmade and natural disasters. Jade's primary business operations are located within the disaster zone of the 2010 and 2011 Christchurch earthquakes and as a result, suffered an unsettling blow to business operations. Jade had in place a full-bodied and carefully strategized IS resilience plan, and had set up special control rooms, as well as established a task list and contact tree for emergencies. As they were well organized, they quickly adapted to the changing environment and successfully met all contractual requirements throughout the crisis. Jade's decade-long transformation towards a more participative organization has motivated us to select them to study during the Covid-19 crisis.

Experience told us that self-managed organizations should be well-positioned to handle disruption. They rely heavily on employees' initiative, entrusting them and nurturing their autonomy and responsibility – key features of any resilient organization. Furthermore, they tend to have senior employees who adopt a mentoring attitude (rather than command and control); empowering and collaborative decision-making processes; a strong, shared sense of purpose; and significant investment in employees' personal development, far beyond instrumental technical skills. Jade challenges the traditional hierarchical model by distributing responsibility to every employee.

With this in mind, we spoke with senior executives of Jade, an exemplary self-managed organization to explore whether and how their structure equipped them to deal with the current COVID-19 crisis. Moreover, we wanted to reflect on how traditional organizations could incorporate aspects of self-management – not just into their processes but also into essential elements of their culture. As all members of the Top Management Team (TMT) at Jade have already experienced a crisis scenario, we expect to observe a full, rich range of IS resilience planning and decision-making. Also, we

sought to learn from their experience as to how people learn to adapt and how lessons acquired during the crisis can make a difference in the future.

The TMT is the link between the board of directors of a firm and the managers entrusted with the day-to-day functioning of the firm. Consistent with the description, Fama and Jensen (1983) have described them as the "apex of the firm's decision control system". Thus, the TMT is an elite workgroup with a crucial role in the firm's decision-making and faces complex, multifaceted tasks that involve both strategic and technical issues. The TMT is responsible for not only decision-making but also for implementing and administering those decisions (Fama and Jensen, 1983). Jade has a steering committee that is responsible for risk management and IS resilience planning. The committee consists mostly of members of the executive management team responsible for the various areas of the company. They work together to ensure that all prospective risks are identified, mitigated, and planned for in advance. The TMT's direct involvement and decision-making before, during, and after the crisis will add a dimension of "real world" insights to this study. As mentioned previously in the definition of IT governance, it is crucial to have the roles and responsibilities defined unambiguously for an effective IT governance framework, which implies the same should be true for IS resilience.

5. Analysis and Discussion

During the months when Jade's full workforce worked remotely due to lockdown, they uncovered some real benefits of working in new ways but also recognized there were pieces of Jade's culture and behavior that were missing while working from home.

As New Zealand looked like it was preparing to move down the alert level system, Jade recognized they had two options. Either they could return to their various offices and back to how things had always been, or they could be first movers and reimagine their ways of working, embracing what they had missed as a culture while in lockdown but retaining the positive aspects of remote working for their people.

They also believed that lockdown had accelerated the future of work and challenged the previously well-held negative beliefs that existed within the working world about remote working. Those organizations that didn't develop and change would likely find themselves struggling to attract talent in the future and to adapt to the "new normal" of a post-COVID-19 world.

Jade saw huge benefits in breaking down barriers and "leveling the playing field" for all of their people

regardless of location. No longer did the teams in the satellite offices have to be the only ones on screen – there were real benefits for their culture in everyone having a similar experience. They reimagined their "way of working" to put their people at the heart of the work week, embracing their three values: (1) People first; (2) Dare to be different; and (3) Live for the future.

The whole organization was involved in the design and implementation of this initiative. Feedback points to test out ideas and evolve the model involved everyone's voice to ensure they created something right for Jade, fit for purpose, and aligned to their values. Jade's senior leadership ensured everyone had a say rather than this being a top-down initiative. Key Stakeholders were:

• CEO & Senior Team – initial design and thought process

• IT and Business Operational Managers (People Leaders) – to test and adapt the initiative to suit their teams

• All People – to provide feedback and ultimately decide if the initiative was something, as a culture, they collectively wanted to trial

• Jade Board of Directors - were informed and had an overview of the initiative

The initiative is called "*Hybrid Way of Working*" or HWoW. It is a way of working which has evolved, and will continue to evolve, since its inception in May 2020. The HWoW is a reimagined way of working, tailored to Jade, in line with their values and where they are evolving their culture to. It enables their people to define where they work from and have a level of flexibility on when they do their hours, to better enable them to balance their lives. Emphasis shifted from an expectation of an 8.30am to 5pm working day to ensuring employees complete their work but in a way that works for them, and their team.

Communication became essential as they balance the good of the individual vs the good of the team (collectivism). Jade would measure the success of this change and knew there will be an element of trial and error as they began. Transparency of what's working and what's not was critical so they could test, learn and adjust.

The central idea on which Jade HWoW was designed:

"To enable our people to balance the demands of work and life. Allowing people flexibility to put their wellness and self at the centre of their working week which enables better engagement and productivity.

Creating a culture that "levels the playing field" and that is "connected no matter where we are, one company."

How it was designed?

Initially Jade Senior Leaders were tasked with seeking insights from their teams on:
1. What do you enjoy/not enjoy about remote working?

2. What do you enjoy/not enjoy about working in our offices

Those insights were workshopped, using Miro (see Figure 2: Miro Board), and key themes were surfaced. These were:
• Connection,
• Visibility,
• Focus, And
• Levelling the playing field for satellite offices.

Figure 2. Miro board Jade Senior Leaders used to initially workshop

From here the themes were expanded on to create a strawman of a model on how a new way of working could look which could be workshopped with Jade People Leaders across the organisation. A remote workshop was held, based on the strawman, to gain feedback. Jade People Leaders challenged the strawman and made the amendments they wanted to see. This was a critical part of the process to ensure it was not a top-down initiative and that it was something Jade People Leaders could own.

In the next stage the model was presented to the wider organisation *(see Figure 2)* and feedback sought on what might need to change. This feedback was then categorised into key insights and further tweaks to the model were made. Post this, a final model was presented, and employees were asked if they would like to trial the HWoW and 89% of the employees said yes, they would like to trial a HWoW, 7% were happy to try but also happy to resume the old way of working and 2% did not want to trial a HWoW.
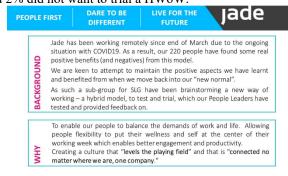
Figure 3. A Snippet of Hybrid way of working (HWoW) Strawman Figure

The strawman figure has the following parts: background, why it is essential, what is the model, how it will be implemented, how the success of the model would be measured. This clear view helped the employees and the people leaders to make a decision based on the detailed implementation and monitoring plan.

How the initiative was implemented

Once there was the buy in to the model and its various aspects, the HWoW was piloted on the 15 June 2020. The intention was to run a 3-month trial with a review date scheduled for 1 month into the trial. Teams were then given the framework and resources to bring to life the HWoW for them. Conversations were held within each team to define expectations of one another, how they would work while still delivering to their customers of key stakeholders. Central to this were the team charters.

Team Charters

All teams were supplied with the "pillars" of the model and principles on how to make a HWoW successful. Teams were expected to workshop a HWoW Team Charter to agree on what level of flexibility and ways of working together they would adopt so that the customer and the team/individual needs are met. The template was sent out alongside the Senior Leaders completed Charter *(see Figure 4)* so Senior Leaders were leading by example. The Charters are a core piece of the HWoW to ensure expectations within teams were clear from the start of the trial. Charters were then stored in a central place so all teams could see and access other teams.

Regular review of the charters is encouraged to ensure they are still relevant and fit for purpose. At the organisational level, Jade acknowledged they needed to evolve their communication to support the HWoW.

Figure 4. An Example of Team Charter Template of Hybrid way of working

Communication

Internal communication needed to be re-scoped, so people still felt connected and informed into the organisation without so much in person interaction. Alongside already in place monthly All Hands meetings and quarterly strategy updates Jade have implemented two new communication channels. The first is "Cuppa with the Senior Leaders" which is a weekly, virtual 30 minutes where the Senior Leaders attend and is an open invite to all their people. The intention is to be an unstructured format that is open to everyone to come along and ask any questions that people may have or get information on hot topics. Jade now has a minimum of 40% of the organisation dialled in to these and then multiple views of the recording post session.

The second is "From the Jeep Seats" which is a monthly video which Jade's CEO hosts, from her Jeep, a team member to get to know them, hear what they are working on and what they enjoy about their work. This is a casual chat and provides a chance to celebrate and discuss our successes and build connections across Jade.

Review is critical for them in the HWoW to enable them to test, trial and tweak what's working and not working for the teams:

Check in and review:

After 1 month of the trial, Jade surveyed the entire workforce on what was working and what might they like to change. Post this review, changes to the model were made, in particular to the "Connection Days". Based on feedback Jade moved from having two consecutive days together in the office to spreading them out during the week to see if this would reduce the "business" their people felt when they were in the office. At the end of the trial a final review was run to understand the impact HWoW has had, what might change and if it should be their permanent mode of working. This review saw 85% of people wanting to adopt the HWoW as their permanent way, 14% happy to adopt it or not, and only 1% wanting to return to the old way of working.

Outcomes and impacts from the initiative

The outcomes from this have been considerable. The Jade senior leadership team has seen positive impacts in various ways for all their people and culture.

Overall Organizational Cultural Impacts in 2022

At an overall level, in what has been a tough and trying year, Jade have seen significant positive shifts with their culture. This has been measured through the annual Dension Culture Survey. Comparing results from 2019 and 2020, we can see significant improvement across all measures of the survey including doubling the engagement score against their own benchmark. While these results cannot be solely attributed to the innovation in ways of working, they do reflect the significant change and impact it has had

on the people and culture. In particular, the factors that showed the biggest improvement are:

- 33% increase in Agreement: This suggests employees feel more like the organisation can reach agreement on important issues and can reconcile differences in a constructive way.
- 24% increase in Creating Change: This suggests employees feel like they can better read the external environment, react to trends/changes, and look for new/improved ways to do their work.
- 20% increase in Core Values: Do employees share a set of values that create a strong sense of identity and a clear set of expectations? Do leaders model and reinforce those values?
- 20% increase in Coordination and Integration: Eliminating silos, promoting actions that are best for Jade Software as a whole, sharing a common perspective/working across organisational boundaries.
- 20% increase in Goals and Objectives: Short-term goals that link employees' day-to-day roles to organisational strategy/vision. Do employees understand how their jobs fit in?
- 20% increase in Team Orientation: Encouraging & practicing teamwork, employees valuing collaboration & feeling mutually accountable for common goals.

Direct impacts for Jade Employees

Jade polled their people for their thoughts and perceptions on the HWoW at the end of the trial period. What we heard was significant:

1. Work-Life Balance

One of the key focuses for them was to enable their people to be able to focus on their wellness, in whatever form this took for them. They saw that 56% of people, when polled have rated Work-Life balance as the primary benefit they have received or gained from the HWoW.

2. Productivity

When polled, 34% of the people rated an increase in their productivity as the biggest benefit they have gained. Most of the comments are in line with this comment made by one of the employees: "I save one hour on my commute (plus the strange - getting ready to leave the house time) every day we WFH. I have clients in Perth and in the UK - working from home makes it so much easier to manage my day and my workload. I have always tended to work beyond my work hours and still do but the impact feels minimal and generally I am improving on this over time.

I can also incorporate general wellness - exercise and healthy eating - much more easily into my day."

3. Culture of collaboration

Most of the members of each network belong to a matrix organizational structure and that is why integration between these networks became so important. The emphasis and importance on the culture of collaboration is embedded in the following comment.

"Both productivity and work-life balance has improved drastically. Collaboration between multiple people, while never as good as face-to-face communication, is easy with Teams."

As derived from the extensive interview and data gathering exercises, the create and collaborate culture during the volatile and uncertain time was prevailing in Jade, with the focus on collaboration improves team dynamics. "The collaboration culture provides an environment for discussing new IT solutions, finding the best practices and ways to innovate. IT managers get informed about different processes and make better decision in process changes and evaluations".

6. Conclusions, limitations, and future research

This research provided an explanatory study to answer the following research questions: how does the involuntary working from home requirement due to COVID-19 affect team collaboration and performance? What are the enabling factors to design and implement hybrid way of working in knowledge organizations? And how does organizational culture influence IT governance performance in global virtual teams in a large organization during volatile and uncertain situation?

This topic was approached in this research by performing a case study in a large organization with complex functional global networks. The networks in this organization are lead in diverse ways, have different priorities, and align with different organizational culture types.

The main conclusion of this research is that organizational culture does influence the performance outcomes of IT governance. The case study indicated that the networks need different organizational culture types based on the priorities they have for IT governance outcomes. It revealed that the clan organizational culture characteristics such as teamwork, collaboration and member commitments influence the effective use of IT for asset utilization and cost-effective use of IT. On the other hand, it was evident from the thematic analysis that the culture of adhocracy with a focus on innovation, open communication, and finding new solutions is

prioritized, when the focus is on the strategic role of IT. Specifically, during a volatile situation the leaders of the processes and IT decision making that prioritizes the effective use of IT for business growth highlighted this type of organizational culture. The center of excellence and the network mobilizers are the supporting assets of the adhocracy culture. The last theme revealed that when the networks focus on the effective use of IT for business flexibility, they prefer to foster a combination of market and hierarchy organizational culture type. The market culture focuses on customer satisfaction and quick responses to business needs, while the hierarchy organizational culture focuses on control and monitoring of the outcomes.

While there may be a combination of organizational culture characteristics existing in an organization, different networks may foster one type of culture based on their priorities and that influences the outcomes of their IT governance.

As with any other research, this research has some limitations. First, this case study was conducted in one organization. This organization included several virtual working teams with different types of organizational cultures making this case complicated. On a positive side, the findings are based on the opinions of the network leaders as well as the network members.

Directions for future research could be more detailed studies on the organizational culture of global virtual teams from multiple organizations and how it influences the decision making around Hybrid way of Working. Furthermore, the findings of this study can be used for future research on suggestions for organizational culture changes to improve IT governance performance in organizations.

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