

# Virtual Organization Designs as Panacea for Covid-19 Workplace Adjustments

EKEZIE, Chibueze Macrae David  
Department of Management

GABRIEL, Justin Mgbechi Odinioha  
Department of Management  
Email: gabriel.justin@ust.edu.ng

EKWEOZOR, Uche  
Department of Office and Information Management  
Faculty of Management Sciences, Rivers State University, Port Harcourt, Nigeria

## Abstract

The impacts of COVID-19 pandemic on business organisations across the globe have been dramatic and unprecedented. While some organisations have collapsed, others have managed to survive and maintained stability; whereas some others have flourished tremendously. The determinant of what happens to any organisation is predominantly a function of her response to the covid-19 imposed challenges. In this paper, we present a broad review of literature rooted in work and organizational psychology, and related fields, for making sense of the implications for employees, teams, and work organizations. In so doing, virtual organisation is projected as the panacea for corporate adjustments. The use of virtual platforms, telematics, and computer procedures enable working without physical presence was observed to have received a boost especially as governments across the world adopted lockdown measures in a bid to stem the tide of the spread of the pandemic. The paper concludes that the future of business belongs to those organisations that have developed or are willing to develop capacity for virtual operation.

**Keywords:** Virtual Organizations, Virtual Teams, Collaboration, Communication, COVID-19

**DOI:** 10.7176/NCS/13-01

**Publication date:** May 31<sup>st</sup> 2022

## INTRODUCTION

COVID-19 has continued to trend as both a global health crisis and economic threat since its outbreak in the city of Wuhan in China and its subsequent ubiquitous spread within a short period of time. The near worldwide lockdown of businesses and other human activities that accompanied Covid-19 pandemic was intended to curb its spread but it eventually generated a wide array of peculiar and fundamental challenges for business organisations across the globe. Some of these challenges ranges from (i) total business failures, (ii) accelerated trends that were already underway in others, and (iii) opened opportunities for novel industries to emerge, as typically happens in times of wars and natural disasters (Sine & David, 2003).

One of the quickest survival responses by several organisations was that of remote working structures, otherwise referred to as virtual organizations design. Virtual organisations have been described as those that can be assembled and dissembled depending on the needs of the organization (Wong & Burton, 2000). The ability to do so enables organizations to quickly take advantage of opportunities whenever they arise. Virtual work practices are likely to spread as organizations realize the cost-savings from structuring labor with fewer full-time employees and more contractors connected technologically (Spreitzer, Cameron & Garrett, 2017) – and perhaps with less office space in light of the health risks known to be associated with conventional open-plan offices (Pejtersen, Feveile, Christensen & Burr, 2011).

The challenges for individuals working in this manner are clear: more of us will need to learn to work in ways far different than how people did in previous generations. In this respect, COVID-19 makes clear how vulnerable we are as employees and employers. As many businesses around the world will be restructured or disappear due to the pandemic, workers will be retrained or laid-off and the economic, social-psychological, and health costs of these actions are likely to be immense.

Virtuality allows organizations to stay flexible and to position themselves for success in an environment where competition is very high (Mwaniki, 2014). Organizations benefit immensely from the adoption of virtual offices as they are able to source talent from different geographical locations, minimize travel costs in addition to saving the organization expenditure on office space which has been seen to be on the rise especially in the Kenyan market. Given that organizations are growing geographically and engaging in diverse businesses and alliances, the adoption of virtual offices could be deemed inevitable (Larson, Leung & Mullane, 2017). The outbreak of Covid-19 has now made this inevitability unignorable because the future of work can no longer be

guaranteed without virtual structures. This paper is aimed at espousing the potency of virtual organisation designs, especially through virtual teams and virtual leadership in curbing the challenges of COVID 19 workplace adjustments.

## LITERATURE REVIEW

### Theoretical Foundation (Social learning theory)

This paper adopts the social learning theory (Orta-Castañon, 2018) as its theoretical foundation for building its position on the relationship between virtual organizations and COVID 19 workplace adjustments. The social learning theory describes learning outcomes on individuals as well as organizations that, based on their experiences and the context of their operations are able to learn and modify their practices or forms to effectively suit the changes and prevailing issues in their environment (Strong, 2012). The theory in particular drives the position of virtual organization as a learning outcome especially in the bid to addressing and tackling the COVID 19 challenges.

### Virtual Organizations

According to Owiti (2015), a virtual organization is seen as a group of workers spread organizationally and/or geographically that gather to work together on a common project, via communicational and informational technology. A virtual organization makes almost all their interactions by electronic means (Borgatti and Foster, 2013); having only few face-to-face meetings or none.

Townsend, De Marie and Hendrickson (1998) cited in Alibhai (2017) defines Virtual organizations as groups of geographically and/or organizationally dispersed co-workers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task. Virtual organizations rarely, if ever, meet in a face-to-face setting. They may be set up as temporary structures, existing only to accomplish a specific task, or may be more permanent structures, used to address 2 ongoing issues, such as strategic planning; membership is often fluid, evolving according to changing task requirements.

The term “virtual workplace” has been coined to describe the environment in which this “work anywhere” workforce operates. It is an increasingly globalized environment in which mobile and remote workers are able to leverage technology to stay connected, access applications on demand, and remain productive. These “work-anywhere” workers are judged on results, not hours in the office, and thrive on flexible schedules and new ways of doing work. While there is a great deal of variety within the work-anywhere workforce, one thing these workers have in common is a dependence on technology and a thirst for new devices and solutions (IDC Executive brief, 2001)

Bertalanffy (2012) contends that virtual organizations have progressed and continue to grow as modern organizations platforms of operations due to two reasons; first, the emergence of virtual organizations was a response to various challenges organizations of the 21st century faced and still face. Cummings and Cross (2013) also comments that the rapid changes in the business environment, globalization of the marketplace, a glowing popularity of inter-organizational alliances combined with tendency to design more flexible and versatile organization structure, accelerated the need for organizations to coordinate work across geographical, functional, intra – and inter-organizational as well as temporal boundaries. As for Cohen and Mankin (2015) the rapid development of communication technology during the last decades, made the distribution and the coordination of work much easier and much faster across time and across different geographical locations.

Despite the benefits experienced from the use of virtual offices, the challenges experienced have also been immense. E-leaders are facing a new set of challenges compared to the traditional managers (Lilian, 2014). The ability of the team to coordinate their work from different locations is a challenge as the ability to build trust from teams that may be miles apart with different languages, and cultural affiliations are difficult. It translates to a situation where the team lack synergy and the effectiveness of work become low (Orta-Castañon, 2018). People in different countries have different manners of doing things meaning that they all have different manners of handling different situations.

Security is a major challenge for organization venturing into the use of virtual communication (Lipińska, 2015). There is immense sharing of confidential information when people are working virtually meaning that organizations need to understand how to manage the risk to avoid litigations that would arise if data was leaked to outside sources. Among the named principles of success when working with virtual teams is ensuring security (Duarte & Snyder, 2006). Volker Rieger, a director of SAP, created a platform where the entire workforce of the organization was incorporated and could communicate virtually through a secure platform. The system has eliminated the complexities of online meetings by allowing it to be only one click away for every employee. It is through this virtual platform that it's over 60,000 employs are able to connect and work together (SAP, 2018).

Overcoming the challenges presented in a virtual working environment requires the teams to stay in constant communication on the tasks they are handling, the challenges they are experiencing and the progress they are making (Lacerenza, Reyes, Marlow, Joseph & Salas, 2017). It calls for having regular video meeting

that is scheduled in a manner to incorporate every member of the team. Video meetings are considered a better mode of communication as they enable the members to read into the team, the moods, and create an environment for discussion and additionally contribute to trust (Ferrazzi, 2014). Organizations should consider having a safe online chat platform that keeps everyone in the loop on what each member is doing. Chat rooms are an informal communication platform compared to emails that are considered serious. The use of online chat rooms creates a community mood and provides an opportunity to create a common culture for the employees of the organization despite their being miles apart.

Successful implementation of virtual offices requires proper structures and purpose. Organizations need to set out clearly the goals they intend to achieve through virtual leadership and virtual teams (Ferrazzi, 2014). Virtual organizations need application in every department of the organization to ensure that there is a smooth flow of work including finance, marketing, sales, and production. It requires creating a pathway that the organization follows in a bid to attain the vision of the organization effectively. It is these structures that ensure that there is an improved productivity. Obtaining virtual organizations is not an end to the management of the organization but should be a strategic plan for the organization. It should be based on the fact that organizational functions are constantly reviewed through the lens of whether the existing systems are working or not (Warner & Witzel, 2004).

In the 21st century, the most valuable organizational resource is how it communicates, knowledge sharing among workers and their productivity, replacing the most valued asset of capital and equipment in the 20th century (Cottrill, 2013). According to Havey (2014), for virtual organizations to operate effectively, it must be supported by extensive dissemination of data and circulation of information. Similarly, Trivedi and Desai (2012) hold that the most valuable asset firms have is the communication of their employees.

Two types of virtual platforms are discussed in this paper as follows:

- i. **Virtual Teams:** Aver (2012) defines virtual teams as small temporary groups of geographically, organizationally and/or time dispersed knowledge workers who coordinate their work, mainly with electronic information and communication technologies to carry out one or more organization tasks. Carley (2015) describes virtual teams as the modern set of organizations workgroups that employ the digital communications, video and audio links, electronic whiteboards, e-mail, instant messaging, websites, chat rooms, as substitutes for physical collocation of the team members.
- ii. **Virtual leadership:** Prior research shows that successful leaders are those skilled to make the right decisions and provide reassurance through a balanced mix of optimism and realism regarding the future. Virtual leadership describes a form of control geared towards the harmonization of virtual work and roles that drive the functions and interactions of virtual organization. In other words, virtual leaders strive (in any time period) to project vision – a symbolic state of affairs with which the collective identifies with (Antonakis, Bastardo, Jacquart & Shamir, 2016). Additionally, research indicates that the absence of traditional physical cues of dominance and status in virtual settings (Antonakis & Atwater, 2002) can foster more participatory relationships.

### **COVID -19 workplace adjustment**

While COVID-19 abruptly upended normal work routines, it also caused an acceleration of trends that were already underway involving the migration of work to online or virtual environments. A key difference when considering research on practices such as Work from Home (WFH) prior to the pandemic, though, is that WFH was previously often responsive to employee preferences but COVID-19 forced many into Mandatory Work from Home (MWFH). Work from Home (WFH). A Gartner (2020) survey of 229 Human Resources (HR) departments showed that approximately one-half of the companies had more than 80% of their employees working from home during early stages of the COVID-19 pandemic – and estimated substantial long-term increases for remote work after the pandemic.

The need for millions of workers to WFH in response to COVID-19 has accelerated recent remote work trends facilitated by the rise of connectivity and communication technologies. While “remote work” is a broader category since it can include Work from Anywhere (i.e., not necessarily home), we do know that some – such as professionals who need to perform complex tasks that require little interaction with peers – actually prefer and are more productive if they WFH (Allen, Cho, & Meier, 2014). Yet as large numbers of workers are forced to work from home, many face challenges due to such fundamental issues as not having space in one's home to attend to work. Employees who live with others also face a larger set of challenges than those who live alone since they need to navigate others' space as well (see later section on Family Status).

Given the likelihood that COVID-19 will accelerate trends towards WFH past the immediate impacts of the pandemic (Gartner, 2020), it is clear that the variable ways in which people work outside of traditional workplace settings will warrant growing amounts of attention for both research and practice. Future research should examine whether and how the COVID-19 quarantines that required millions to work from home affected work productivity, creativity, and innovation. Given that the quarantine period entailed a literal window into the

homes of co-workers as well as subordinates and superiors, research is also needed to examine the implications of WFH for topics such as motivation and authenticity at work, particularly when it becomes normal again to work in co-located workplace settings.

Independent from challenges that individuals can face when WFH, it is also notable that (a) the reluctance of many employers to adopt WFH before COVID-19 stemmed from a perceived lack of control that employers would have over employees who were out-of-sight and –reach and (b) there is ample reason to expect that new modes of surveillance will accompany various WFH arrangements. Indeed, even before COVID-19, employers were adopting and developing technologies to monitor employees' whereabouts (e.g., with sociometric sensors) (Bhave, Teo & Dalal, 2020). Although managing-by-walking-around, one of the most efficacious management orientations when it comes to staff monitoring is not feasible when people are working remotely, the rapidly expanded usage of videoconferencing has allowed for virtual sight-lines. Yet these virtual sight-lines are fraught with a risk: they can increase perceived stress through continuous monitoring and feelings of privacy invasion.

As a key drawback, there is also evidence that such remote and automated monitoring can increase the centralization of management and (in the absence of countervailing action) likely contribute to an adverse dampening of creativity among employees working in lower organizational levels (Nell, Foss, Klein & Schmitt, 2020).

### **Virtual Organizations and COVID 19 workplace adjustments**

As COVID-19 has accelerated the expansion of virtual teams, it will be valuable for researchers to track and study innovations that may enable such teams to function optimally. For example, the intersection of remote work with a global crisis brings up questions of how emotions, such as anxiety and stress, can best be communicated and regulated in the unique setting of virtually connected work where social and emotional cues are relatively limited (Lindebaum, Geddes & Jordan, 2018). On the other hand, there are prior studies showing that teams operating online tend to be more effective at brainstorming than face-to-face teams (DeRosa, Smith, & Hantula, 2007) at the same time that research focusing on individual performance has shown that remotely-interacting teammates appear to miss the creative benefits that can flow from frequent face-to-face interactions (Allen, Golden, & Shockley, 2015). The rapid growth in virtual teams offers an opportunity to examine new questions as well as develop interventions to help improve teamwork in virtual settings; and, in that pursuit, close attention needs to be paid to the multidimensional ways in which virtuality varies among remote teams (Mak & Kozłowski, 2019).

**Virtual Teams and COVID 19 workplace adjustments:** As Mak and Kozłowski (2019) observed before the pandemic, “Virtual teams are growing in number and importance.” Rather than assume uniformity in virtual team characteristics, though, it is valuable to recognize that “team virtuality” is a multi-faceted concept and encompasses multiple dimensions including the geographical distribution of team members and the relative amounts of (a)synchronous e-communication (Hoch & Kozłowski, 2014). Indeed, a nuanced conceptualizing of virtuality – as a continuous variable, given that teams are not simply either face-to-face or virtual – has already been developed (Mak & Kozłowski, 2019) and should prove helpful for future researchers who work to classify the myriad forms of virtual teamwork that have been thrust on workers via COVID-19.

Prior research shows that virtual teamwork tends to lack the communication richness available to face-to-face teams (Martins, Gilson, & Maynard, 2004) and that traditional teamwork problems such as conflict and coordination can escalate quickly in virtual teams (Mortensen & Hinds, 2001). Building structural scaffolds to mitigate conflicts, align teams, and ensure safe and thorough information processing are key recommendations for virtual teams. For example, prior work has shown the need – especially in virtual teams – to formalize team processes, clarify team goals, and build-in structural solutions to foster psychologically safe discussions (Gibson & Gibbs, 2006)

Increased team virtuality as a result of COVID-19 may also affect helping and prosocial behavior. While physical distancing among co-workers may reduce helping behaviors in the near term, we know that people should be bolder to request help from others since people do tend to be more willing to help, and give better-quality help, than we usually assume (Newark, Bohns, & Flynn, 2017), perhaps especially during crises. Normal impediments to requesting help center on the feeling that it can be uncomfortable, awkward, and embarrassing (Bohns & Flynn, 2010), but “best practices” in helping can assist help-seekers in overcoming these psychological barriers by maintaining personal privacy (Cleavenger & Munyon, 2017), reducing stigmatization (Ben-Porath, 2002), and instilling hope that things will get better once help is received (McDermott, et al., 2017).

**Virtual Leadership COVID 19 workplace adjustments:** The role of leaders to determine organizational outcomes that have a broad impact on employees at all levels is especially clear in the crucible of a crisis and certainly vital in fundamental ways (Antonakis & Day, 2017). With the COVID-19 crisis requiring millions of employees across different hierarchical levels to work from home, it is encouraging to note that leadership can also work well from a distance (Antonakis & Atwater, 2002).

Research on the effectiveness of leaders during and after the COVID-19 crisis should examine an array of

activities, including the degree to which remote leaders are persuasive if they (a) clearly state their values that will guide institutional actions; (b) understand and openly discuss the travails and hopes of their organizations; (c) clearly communicate an ambitious vision of the direction that the unit will head toward; and, (d) demonstrate confidence that strategic goals can be achieved. These skills are referred to as charisma (Antonakis, et al., 2016; Grabo, Spisak, & Van Vugt, 2017) and require training and investment. Indeed, crises can bring about changes in leadership styles (Stoker, Garretsen, & Soudis, 2019); thus, firms can expect to be better prepared by ensuring they have adequately invested in professional development. In this respect, future research should estimate if and how organizational commitments to employees' professional development during the COVID-19 crisis pay later dividends.

Among the more specific leader-subordinate activities that will be important to consider in relation to COVID-19 is how assessment and appraisal systems will function. For example, without being able to directly monitor subordinates in the way that office settings allow, there may be a shift to results-focused assessment, which prior research shows to be generally effective (Pritchard, Harrell, DiazGranados, & Guzman, 2008). Over longer spans of time, though, working remotely may reduce the opportunities for subordinates to gain feedback from leaders and prior research suggests that a lack of learning opportunities is associated with lower organizational commitment and higher risk of turnover (Vandenberghe, Landry, Bentein, Anseel, Mignonac, & Roussel, 2019). In addition, future research should examine how trust can be built remotely with online interactions so that newcomers are not disadvantaged due to the lack of face-to-face interactions with their leaders (Dunbar, 2018).

## CONCLUSION

Virtual work practices are likely to spread as organizations realize the cost-savings from structuring labor with fewer full-time employees and more contractors connected technologically (Spreitzer, Cameron & Garrett, 2017) – and perhaps with less office space in light of the health risks known to be associated with conventional open-plan offices (Pejtersen et al., 2011). The challenges for individuals working in this manner are clear: more employees will need to learn to work in ways far different than how people did in previous generations. In this respect, COVID-19 makes clear how vulnerable employees and employers are. As many businesses around the world will be restructured or disappear due to the pandemic, workers will be retrained or laid-off. Team members need to pay attention to the structure and nature of communication flows in order to manage them effectively. Organizations should provide opportunities for non-task interactions among employees to allow emotional connections and bonding to continue among team members. The conclusion from the review of literature study shows that, the exchange of ideas through virtual platforms; staff sharing of work experiences through virtual platforms; staff networking; staff dissemination of data and information through virtual platforms lead to improved teamwork performance.

## Recommendations

This paper affirms to the imperatives of virtual organizations through virtual teams and leadership in the addressing the need for workplace adjustments during the COVID 19 pandemic. In line with its conclusion, the following recommendations are stated:

- i. Virtual teams should be structured in such a way that emphasis is placed on meeting times, quality of interactive sessions and creative ideas and opinions geared towards addressing work related issues
- ii. Virtual leadership should be patterned to allow for coordination and also promote shared responsibility in decision-making and active involvement in the activities of teams or the organization as a whole.

## REFERENCES

- Alibhai, A. (2017). The influence of virtual platforms on teamwork performance at the united nations: a case of the United Nations Office For Project Services, East Africa Hub (Unops-Eah). Thesis submitted to The United States International University (USIU)
- Allen, T. D., Cho, E., & Meier, L. L. (2014). Work–family boundary dynamics. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 99-121.
- Allen, T. D., Golden, T. D., & Shockley, K. M. (2015). How effective is telecommuting? Assessing the status of our scientific findings. *Psychological Science in the Public Interest*, 16(2), 40-68.
- Antonakis, J., & Atwater, L. (2002). Leader distance: A review and a proposed theory. *The Leadership* Grabo, A., Spisak, B. R., & van Vugt, M. (2017). Charisma as signal: An evolutionary perspective on charismatic leadership. *The Leadership Quarterly*, 28(4), 473-485.
- Antonakis, J., Bastardoz, N., Jacquart, P., & Shamir, B. (2016). Charisma: An ill-defined and ill measured gift. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 293-319.
- Aver, B. (2012). An empirical analysis of cost factors of the Slovenian banking system: *Managing Global Transitions*, 6(3), 317-334.

- Bertalanffy, L., (2012). *General Systems Theory: Foundations, Development, Applications*. Rev. ed. New York: George Braziller.
- Bhave, D.P., Teo, L.H., & Dalal, R.S. (2020). Privacy at work: A review and a research agenda for a contested terrain. *Journal of Management*, 46, 127-164.
- Bibow, J. (2015). Some Reflections on Keynes Finance Motive for the Demand for Money: *Cambridge Journal of Economics*, 19(5), 647-66
- Bohns, V. & Flynn, F. (2010). Why didn't you ask? Overestimating the willingness to seek help and underestimating discomfort in help-seeking. *Journal of Experimental Social Psychology*, 46, 402-409.
- Borgatti, S. P., & Foster, P. C. (2013). The network paradigm in organizational research: A review and typology. *Journal of Management*, 29(6), 991.
- Carley, K. M. (2015). Communication technologies and their effect on cultural homogeneity, consensus, and the diffusion of new ideas. *Sociological Perspectives*, 38(4), 547 - 571.
- Cascio, W. F. (2014). Managing virtual workspace. *Academy of Management Executive*, 14(3), 81-90.
- Cleavenger, D., & Munyon, T. (2015). Overcoming the help-seeker's dilemma: How computer-mediated systems encourage employee help-seeking initiation. *Organization Studies*, 36(2), 221-240.
- Cohen, S. & Mankin, D. (2015). Collaboration in the virtual organization: *Trends in Organizational Behavior*, 6, 105 - 120.
- Cottrill, K. (2013). Knowledge management: networking for innovation. *Chemical Week*, 160(7), 1.
- Crosse, A. (2012). Managing communication within virtual intercultural teams. *Business Communication Quarterly*, 65, 22-38.
- Cummings, J. N. & Cross, R. (2013). Structural properties of work groups and their consequences for performance. *Social Networks*, 25(3), 197 - 210.
- Davis, D. D. (2012). The Tao of leadership virtual teams. *Organizational Dynamics*, 33(1), 47-62.
- DeRosa, D. M., Smith, C. L., & Hantula, D. A. (2007). The medium matters: Mining the long promised merit of group interaction in creative idea generation tasks in a meta-analysis of the electronic group brainstorming literature. *Computers in Human Behavior*, 23(3), 1549- 1581.
- Duarte, D. L., & Snyder, N. T. (2006). *Mastering virtual teams: Strategies, tools, and techniques that succeed*. John Wiley & Sons
- Dunbar, R. I. (2018). The anatomy of friendship. *Trends in Cognitive Sciences*, 22(1), 32-51.
- Ferrazzi, K. (2014). How successful virtual teams collaborate. *Harvard Business Review*, pp. [Online] Available at: <https://hbr.org/2012/10/how-to-collaborate-in-avirtua>. retrieved October 24
- Furst, R. Teece, D. Pisano, G. & Shuen, A. (2012). On the role of subjectivity in establishing, using, operating and evaluating information retrieval systems: *Treatise II on retrieval system theory*. *Information Storage and Retrieval*, 9(7), 353-372.
- Gartner. (2020). Gartner HR Survey Reveals 41% of Employees Likely to Work Remotely at Least Some of the Time Post Coronavirus Pandemic. News Release, April 14.
- Gibson, C. B., & Gibbs, J. L. (2006). Unpacking the concept of virtuality: The effects of geographic dispersion, electronic dependence, dynamic structure, and national diversity on team innovation. *Administrative Science Quarterly*, 51(3), 451-495.
- Havey, C. S. (Eds.). (2014). *Virtual teams that work: Creating conditions for virtual team effectiveness*. San Francisco, CA: Jossey-Bass.
- Kozlenkova, I. V., Samaha S., & Palmatier R. W. (2014). Resource-Based Theory in Marketing. *Journal of the Academy of Marketing Science*, 42 (1), 1-21.
- Larson, B., Leung, O., & Mullane, K. (2017). Tools for teaching virtual teams: a comparative resource review. *Management Teaching Review*, 2(4), 337-347.
- Lilian, S. C. (2014). Virtual teams: Opportunities and challenges for e-leaders. *Procedia Social and Behavioral Sciences*, 110, 1251-1261.
- Lindebaum, D., Geddes, D., & Jordan, P. J. (editors) (2018). *Social Functions of Emotion and Talking About Emotion at Work*. Edward Elgar Publishing.
- Lipińska, A. (2015). Knowledge management in a virtual organization. *Jagiellonian Journal of Management*, 1, 65-76.
- Majchrzak, A. Malhotra, A. Stamps, J. & Lipnack, J. (2012). Can absence make a team grow stronger? *Harvard Business Review*, May, 137-144
- Majchrzak, A. Malhotra, A. Stamps, J. & Lipnack, J. (2012). Can absence make a team grow stronger? *Harvard Business Review*, May, 137-144
- Mak, S., & Kozlowski, S. W. J. (2019). Virtual teams: Conceptualization, integrative review, and research recommendations. In R. Landers, (Ed.), *The Cambridge handbook of technology and employee behavior*. Cambridge, UK. The Cambridge University Press
- Malhotra, A. & Majchrzak, A. (2012). Enabling knowledge creation in global virtual teams: Best practices for IT

- support and knowledge sharing. *Journal of Knowledge Management*, 8(4), 75
- Malhotra, A. & Majchrzak, A. (2015). Virtual workspace technologies: Enabling virtual teams. *Sloan Management Review*, 46(2), 11-14.
- Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where do we go from here? *Journal of Management*, 30(6), 805-835.
- McDermott, R., Cheng, H., Wong, J., Booth, N., Jones, Z., & Sevig, T. (2017). Hope for help seeking: A positive psychology perspective of psychological help-seeking intentions. *The Counseling Psychologist*, 1-29.
- Mwaniki, M. F. (2014). *Virtual Workforce in the Kenya's Higher Education and Research service Sector* (Masters Thesis). Nairobi: University of Nairobi.
- Nell, P. C., Foss, N. J., Klein, P. G., & Schmitt, J. (2020). *Avoiding Digitalization Traps: Tools for Top Managers*. Business Horizons, in press.
- Newark, D., Bohns, V., & Flynn, F. (2017). A helping hand is hard at work: Underestimating help quality. *Organizational Behavior and Human Decision Processes*, 139, 223-226.
- Orta-Castañon, P. U.-C.-G.-d.-M.-M. (2018). Social collaboration software for virtual teams: case studies. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 12(1), pp. 15-24.15-24.
- Owiti, J. (2015). *Fragile alliances: negotiating global teaming in a turbulent environment*: Unpublished Ph.D, dissertation, Wayne State University, Detroit, MI.
- Pejtersen, J. H., Feveile, H., Christensen, K. B., & Burr, H. (2011). Sickness absence associated with shared and open-plan offices—a national cross sectional questionnaire survey. *Scandinavian Journal of Work, Environment & Health*, 37, 376-382.
- Pontefract, D. (2016). *The Purpose Effect: Building Meaning in Yourself, Your Role and Your Organization*. Elevate Publishing.
- Pritchard, R. D., Harrell, M. M., DiazGranados, D., & Guzman, M. J. (2008). The productivity measurement and enhancement system: A meta-analysis. *Journal of Applied Psychology*, 93(3), 540.
- SAP. (2018). SAP Success Story: Using Virtual Meetings to Connect Global Workers Simply and Securely | PGI. Web Conferencing, Audio Conferencing & Collaboration Solutions. From <https://www.pgi.com/resources/case-studies/sapsuccess-story-using-virtual-meetings-connect-global-workers-simply-securely/>.
- Sine, W. D., & David, R. J. (2003). Environmental jolts, institutional change, and the creation of entrepreneurial opportunity in the US electric power industry. *Research Policy*, 32(2), 185- 207.
- Stoker, J. I., Garretsen, H., & Soudis, D. (2019). Tightening the leash after a threat: A multi-level event study on leadership behavior following the financial crisis. *The Leadership Quarterly*, 30(2), 199-214.
- Strong, G., W., (2012). Adaptive systems: the study of information, pattern and behaviour. *Journal of the American Society for Information Science*, 33(6), 400-406.
- Teece, D., Pisano, G., & Shuen, A., (2012). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509–533.
- Townsend, A. M. De Marie, S. M. & Hendrickson, A. R. (2016). Virtual teams: Technology and workspace of the future. *Management Executive*, 12(3), 17- 29.
- Trivedi, A. & Desai, J. (2012). *A Review of Literature on E-Leadership*, Shri Chimanbhai Patel Institutes, Ahmedabad: Working Paper No., CPI/MBA/2012/0004.
- Vandenbergh, C., Landry, G., Bentein, K., Anseel, F., Mignonac, K., & Roussel, P. (2019). A dynamic model of the effects of feedback-seeking behavior and organizational commitment on newcomer turnover. *Journal of Management*. <https://doi.org/10.1177/0149206319850621>
- Watkins, M. (2013, June 27). Making virtual teams work. Ten basic principles, pp. Retrieved from <https://hbr.org/2013/06/making-virtual-teams-work-ten>.
- Zaccaro, S. & Bader, P. (2014). E-leadership and the challenges of leading ETeams: Minimizing the bad and maximizing the Good. *Organizational Dynamics*, 31, 377–387.