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# LEADERS' SENSEMAKING IN THE FACE OF PANDEMIC-DRIVEN DIGITAL TRANSFORMATION

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## ***Developmental Paper***

### **Abstract**

*Drawing on the sensemaking perspective, this study explores how business leaders with responsibility for digital related programmes, have made sense of digital transformation before and during the Covid-19, and examines the impact of this on on the wider organisational structure including their own position in the organisation. The study is qualitative in nature and is based on a series of case studies with organisations across different sectors. Analysis so far shows that as a result of the pandemic there has been a wider acceptance of the possibilities provided by digital technologies and the opportunities for digital transformation. Further, findings show that digital leaders' commitment, resources and expectations have contributed to accelerating the process, though this has differed across different organisations. The theoretical and practical implications of the study are explored.*

**Keywords:** digital transformation, digital leaders, CIOs, sensemaking, qualitative

## **1.0 Introduction**

Digital transformation has been receiving an overwhelming attention by both academics and practitioners alike. Pre-Covid-19 pandemic, studies placed digital transformation high up on the business agenda (Hess et al, 2016) with a report positing that the Global Digital Transformation Market expected to exceed more than US\$ 462 billion by 2024 (MRE Report, July 2019). This forecast of course did not take account of Covid-19 and its impact on digital transformation. Due to the pandemic, the pace of digital transformation has accelerated even in sectors that were previously seen as slow adopters of digital transformation such as healthcare and education.

Despite these trends, scholars agree that the concept of digital transformation is far from being clearly defined, theorised or understood (Hanelt et al. 2021, Markus and Rowe 2021, Wessel et al. 2020). Digital transformation has been described in the literature in different ways: 1) the application of digital technologies that can fundamentally change business operations (Gruman, 2016); 2) the effects of several digital innovations (Hinnings et al, 2018); and 3) a process where technologies create disruptions triggering strategic responses from organisations (Vial, 2019).

More recently, researchers have acknowledged the structural disruption that organisations go through as a result of digital transformation initiatives. In particular, what is argued to be new with digital transformation as opposed to other IT-enabled change programmes, is that this not only supports current value proposition, but define or redefine it, whilst is also linked to the emergence of a new organisational identity (Wessel et al. 2020) and organisational agility (Hanelt et al. 2021, Warner and Wäger 2019). Similarly, Baptista et al. (2020) have posited that digital transformation is more than just using technology for operational improvements or even transforming work, but about transforming the organisation with changes to core capabilities and structures, and even identity, culture and strategic positioning. Engesmo and Panteli (2021) support this by showing that digital transformation influences the organisational structure and leadership of the IT function.

It follows that organisations respond differently to the paradoxical tensions dealing with established and new technology usage following activities of technology renewal during digital transformation (Wimelius et al. 2021) or related concepts such as bimodal IT (Haffke et al. 2017; Engesmo and Panteli, 2021) and ambidexterity (Gregory et al. 2015). These changes to ‘deep’ organisational structures is the result of managerial work that is essential and important, but often invisible and not well understood (Baptista et al. 2020).

In this study, we draw on a sensemaking perspective (Maitlis and Christianson 2014, Christianson and Barton 2021) with the aim to investigate how business leaders with responsibility for digital initiatives, make sense of digital transformation before and during the covid-19 crisis, and how, based on their understanding of digital transformation these digital leaders take action to manage structural changes in their organisations.

## **2.0 Sensemaking Perspective**

Sensemaking has been defined as ‘the process through which people work to understand issues or events that are novel, ambiguous, confusing, or in some other way violate expectations’ (Maitlis and Christianson, 2014, p. 57). However, at times of crisis such as the Covid-19 pandemic, sensemaking ‘is made more difficult because action that is instrumental to understanding the crisis often intensifies the crisis’ (Weick, 1988, p305). When faced with unexpected situations of a large scale such as the pandemic, leaders’ actions may be shaped by their pre-conceptions which coupled with limited information may be insufficient to provide appropriate action. Weick’s (1988) position is that commitment, capacity, and expectations affect sensemaking during crisis and the severity of the crisis itself. As he put it: “If we can understand the process of sensemaking during a crisis, then we can help people to prevent larger crises by smarter management of small crises” (Weick, 1988, p.308). Our position is that as a consequence of leaders’ sensemaking during the pandemic, there is a renewed understanding of digital transformation which would contribute to an interplay between sensemaking and actions, ultimately affecting the digital transformation process.

## **3.0 Methodology and Research Design**

The empirical study is based on a qualitative approach with its main dataset deriving from a series of case studies using semi-structured interviews in pre-digital organisations across both public and private sectors, and includes industries such as financial, education, energy, retail, consultancy and recruitment. Pre-digital organisations as opposed to those that are born as a result of digital technologies are facing more challenges in implementing digital initiatives due to cultural, structural and other constraints that may be embedded in the history of the organisation. Participants in the study were interviewed over a two phased period (pre-Covid-19 i.e. May-June 2019, and approximately 18 months into the pandemic period i.e. August-September 2021) and were people with direct responsibility for digitalisation and digital transformation in their respective organisations and had roles such as Chief Digital Officers (CDOs), Heads of digital, Chief information Officers and Chief Technology Officers. Interviews in the first phase aimed to initially examine the organisation’s approach towards digital transformation. In the second phase,

interviews sought to examine how the organisation's approach towards digital transformation was influenced by the crisis caused by the Covid-19 pandemic. In this phase, data collection was based on a multiple-case study approach. During this phase we carried out further interviews with a selection of the initial participants from four different organisations. This has allowed us to examine as well as compare digital transformation processes pre-pandemic and during the pandemic, enabling us to add a longitudinal perspective to our findings.

#### **4.0 Discussion and Implications**

Our findings from the first phase of the study pointed to 'digital' as being a nebulous word and showed that in the pre-Covid period digital and other organisational leaders were found to take time to understand what digital transformation meant for their organisation. In doing so, they were found to embark on a process of learning, exploring and unpacking the opportunities of digital transformation for themselves. During this process, they would rethink their strategies, structures, role of IT department, skills and digital capabilities. Following the Covid-19 pandemic, digital transformation has been accelerated in an unprecedented rate across all of our participating organisations. We are currently in the process of analysing data from this phase based on a sensemaking perspective whilst taking account of digital leaders' noticing, interpreting and enacting as suggested by the advocates of this perspective (e.g. Maitlis and Christianson 2014).

Table 2 shows indicative findings of our sensemaking analysis during the Covid-19 pandemic in one of the cases studied. In particular, we have identified four patterns of noticing, interpreting and enacting. For this company the Covid-19 pandemic was a catalyst for moving forward with digital fitness services. In the beginning of the pandemic, physical fitness services were not possible and customers were offered online and digital services within their existing memberships. When fitness centres reopened, most customers went back to physical fitness services, but the company decided to develop their digital services further. The CDO became the chief executive officer (CEO) of the start-up, both developing digital devices, content and a platform for delivering digital fitness services within a new membership arrangement. The ability to do this without being restricted by existing business strategies or digital architecture was perceived to be a key success factor:

*"...we have established this outside [name of parent company], we are still a part of [name of parent company], but we have our own office with our own employees to have a 100% focus on this... to not be disturbed or disturb of what [name of parent company] does, and also considering that this can be in competition of what [name of parent company] does today, but with the perspective that if we are not doing it there will be others doing it" (CEO of new start-up company, ex CDO).*

Moving on with this strategic initiative, experiences were made, both internally from their own organisation and employees, and externally, from their customers. First, they were noticing the emergence of more operational tasks following the launch of their digital services for larger number of customers, requiring operational stability and security. However, at the same time, it was necessary to maintain creativity and innovation both to ensure future growth and maintain motivation with developers. This was enacted through working with agile methods, high degree of autonomy and arranging regular hackathons. Second, they were also noticing signals externally from their customers, with data from usage as well interviews with pilot groups showing new patterns of use. Together with their internal resources, they would use this in interpreting new opportunities, e.g. with more customisation of digital services for groups and individuals. This was interpreted as being digital transformation, and not only digitalisation of customer processes as had been mostly in focus previously.

*"To me digitalisation... for example we are not using a physical membership card, but a QR-code on the mobile... so we have removed a physical product to a digital product or service to solve this... this is digitalisation and not digital transformation. But what we do now [in the start-up] is more digital transformation, where service and customer experience change altogether" (CEO).*

	<b>Noticing</b>	<b>Interpreting</b>	<b>Enacting</b>
<i>Case 2: Fitness/Health</i>	People not having access to, having time to or are not comfortable going to a fitness center  Closing fitness centers during pandemic, and more customers experiencing digital services	There is a market for home fitness  Covid19-pandemic as a catalyst for new strategic move  Having the resources and position to making strategic move	Making strategic move of creating digital product and services of health and fitness
	Strategic and technical bindings within company	Necessary to be free of bindings for sufficiently flexibility	New “start-up” outside parent company
	More operational tasks	Need to continue being innovative in addition to ensuring operational stability  Maintain developers freedom, motivation and creativeness	Maintain freedom for developers to choose problems and tasks to solve  Arranging hackathons and organizing work in agile sprints
	New patterns from customers using digital services of home fitness	New opportunities for innovation in digital services and market  Digitalisation as becoming more efficient using digital tools. DT to bring about more deep changes	Working with content and service development

Table 1. Sensemaking in case analysis

Following from this case, we argue that as a result of the pandemic, on the one hand that there was a wider acceptance of digital technologies and the role of the IT function in the organisation, contributing to more clarity around the possibilities of digital transformation, whilst on the other hand, the pandemic became a catalyst for new initiatives not previously considered before, such as a new digital start-up independent from the organisation. These findings provide an explanation on the growth of digital transformation as well as the wider structural changes that have accompanied this process.

Furthermore, drawing on Weick (1988), we contribute to the literature by showing how leaders’ enactment of the crisis caused by the pandemic, has been influenced by their own commitment to digital transformation, the resources they had available and expectations of the opportunities provided by digital technologies during this challenging period. The organisations studied reacted differently to the possibilities of pandemic-driven digital transformation and as a consequence the role of digital leader has evolved in different ways across the different organisations. Nevertheless, a common theme evolves around the digital leaders’ relation to the IT function and the

wider organisation. Close connection to the IT has been found to hold them back; being seen as part of the IT function may give a negative connotation to the strategic role they want to undertake in the organisation. Therefore, digital leaders might choose to be independent from the rest of the organisation and to be given the opportunity to lead a newly developed digital start-up in order to show their full potential and competencies.

The study has implications for the future of digital leaders in organisations and their relation to IT and other senior management of the organisation. Our cases have shown that organisations that want to fully embrace the potentials of digital transformation give the opportunity to digital leaders to push digital transformation initiatives with more loose alignment or even to act in roles that are completely separate from the existing business. The purpose of this is so that they do not face cultural and structural barriers which may hinder their progress and the innovation process. Further, though it may be seen that the role of CDOs may not be sustainable at the individual level (as in the Case 2 presented), at the organisational level the need for digital leadership has not only continued, but grown, thus depicting that there is a need for these types of leadership as organizations embrace digital transformation.

Finally, the study is not without limitations. Due to the focus on digital transformation, we have chosen to focus on Weick's sensemaking theory; other sensemaking approaches e.g. macro-cognitive (Klein et al. 2010) could have potentially provided a different perspective to the study, and we acknowledge this as a limitation of the study, but also an opportunity for further research.

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## References

- Baptista, J., Stein, M. K., Klein, S., Watson-Manheim, M. B., & Lee, J. (2020). *Digital work and organisational transformation: Emergent Digital/Human work configurations in modern organisations*. *Journal of Strategic Information Systems*, 29(2), 101618. <https://doi.org/10.1016/j.jsis.2020.101618>
- Christianson, M. K., & Barton, M. A. (2021). *Sensemaking in the Time of COVID-19*. *Journal of Management Studies*, 58(2), 572–576. <https://doi.org/10.1111/joms.12658>
- Engesmo, J., & Panteli, N. (2021). *Digital leaders and the transformation of the IT function*. *Scandinavian Journal of Information Systems*, 33(1), 4.
- Gregory, R. W., Keil, M., Muntermann, J., & Mähring, M. (2015). *Paradoxes and the nature of ambidexterity in IT transformation programs*. *Information Systems Research*, 26(1), 57–80. <https://doi.org/10.1287/isre.2014.0554>
- Gruman, G. (2016). *What digital transformation really means*. InfoWorld . Retrieved November 20, 2017, <http://www.infoworld.com/article/3080644/it-management/what-digital-transformation-really-means.html>
- Haffke, I., Kalgovas, B., & Benlian, A. (2017). *Options for transforming the IT function using bimodal IT*. *MIS Quarterly Executive*, 16(2), 101–120.
- Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). *A Systematic Review of the Literature on Digital Transformation: Insights and Implications for Strategy and Organisational Change*. *Journal of Management Studies*, 58(5), 1159–1197. <https://doi.org/10.1111/joms.12639>
- Hess, T., Matt, C., Benlian, A., & Wiesböck, F. (2016). *Options for formulating a digital transformation strategy*. *MIS Quarterly Executive*, 15(2).
- Hinings, B., Gegenhuber, T., and Greenwood, R. (2018). *Digital innovation and transformation: An institutional perspective*. *Information and Organisation*, 28(1), 52-61.
- Klein, G., Wiggins, S., & Dominguez, C. O. (2010). *Team sensemaking*. *Theoretical Issues in Ergonomics Science*, 11(4), 304-320.
- Maitlis, S., & Christianson, M. (2014). *Sensemaking in Organisations: Taking Stock and Moving Forward*. *Academy of Management Annals*, 8(1), 57–125. <https://doi.org/10.1080/19416520.2014.873177>
- Markus, M. L., & Rowe, F. (2021). *Guest editorial: Theories of digital transformation: A progress report*. *Journal of the Association for Information Systems*, 22(2), 273–280. <https://doi.org/10.17705/1jais.00661>
- Sandberg, J., & Tsoukas, H. (2014). *Making sense of the sensemaking perspective: Its constituents, limitations, and opportunities for further development*. *Journal of Organisational Behavior*, (April). <https://doi.org/10.1002/job>
- Vial, G. (2019). *Understanding digital transformation: A review and a research agenda*. *The Journal of Strategic Information Systems*, 28 (2), 118-144
- Warner, K. S. R., & Wäger, M. (2019). *Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal*. *Long Range Planning*, 52(3), 326–349. <https://doi.org/10.1016/j.lrp.2018.12.001>
- Weick, K. E. (1988). *Enacted sensemaking in crisis situations*, *Journal of management studies*, 25(4), 305-317.
- Wessel, L., Baiyere, A., Ologeanu-Taddei, R., Cha, J., & Jensen, T. B. (2020). *Unpacking the Difference between Digital Transformation and IT-enabled*

*Organisational Transformation*. Journal of the Association for Information Systems, (March), 1–57.

Wimelius, H., Mathiassen, L., Holmström, J., & Keil, M. (2021). *A paradoxical perspective on technology renewal in digital transformation*. Information Systems Journal, 31(1), 198–225. <https://doi.org/10.1111/isj.12307>