

The Role of Leaders during Organizational Change Caused by Covid-19 and Digitalization

Genevieve Abigail Sookhoo, Desmond Maefa, Lawrance Seseni & Thato Mngomezulu

Department of Business Management

School of Management, College of Business and Economics

University of Johannesburg

Johannesburg, South Africa

sookhoo03@gmail.com, dmaefa@yahoo.com, lawrences@uj.ac.za, tdmngomezulu@uj.ac.za

Abstract

The purpose of this paper is to investigate the role that leaders play during organisational change caused by the Covid-19 pandemic and digitalisation. This is a conceptual paper and research findings are based on information gathered from previously researched topics of varying sources. A qualitative approach was taken in this study which is compatible with the interpretivist paradigm. An exploratory research design was used to understand the general idea of past research on Covid-19, change management, digitalisation, and leadership. 313 articles were considered. The authors have reviewed relevant literature and the research findings identified four main variables that influence leadership which are the context of change, change processes, leadership intelligence, and leadership support. Furthermore, findings suggest that leadership is more than just the behaviour of an individual, it is also a function that is distributed across the entire organisation during change management implementations. Leaders need to act as change agents and consultants during times of continuous transformation, they need to create and develop a culture that is conducive to continuous learning, constant innovation, and ongoing change as well as be supportive of employees during major digital transformations. The prevalence of Covid-19 has increased the need for more knowledge on how to lead and build effective virtual teams. Understanding the digital landscape and its strategic positioning will help in achieving effective results. The value of this paper is related to improving the understanding of how to effectively lead and manage complexities brought by change during times of digitalisation and Covid-19.

Keywords

Digitalisation, Leadership, Change management, Leadership change intelligence

1. Introduction

The Coronavirus pandemic (Covid-19) has forced organisations to adopt new strategies and procedures to stay afloat (Kinnunen & Georgescu, 2020). The impact of the pandemic may have long-term negative effects on the growth prospects of various industries and global economies (Apedo-Amah et al, 2020). Covid-19 demands that organisations adopt radical change measures such as innovation, decisiveness, and adaptability to address the challenges caused by the pandemic (Lateef et al., 2020). Change is inevitable; therefore, organisations must adopt a strategy to manage it. Leadership is becoming a highly complex managerial skill that requires extensive training and continuous improvement (Senior, 2002; Lautenbach et al., 2017; Al-Tahitah et al., 2018, Apedo-Amah et al., 2020), as new knowledge and technologies have significantly altered the way people work and live. This is evidenced by how digitalisation has affected society and businesses. The Digital revolution is expected to have a major impact on the way businesses operate globally and has been compared to the Fourth Industrial Revolution (4IR) on many accounts (Gous, 2021; International Trade Centre, 2020; Tihinen & Kääriäinen, 2016; Degryse, 2016; Schwab, 2015; Tihinen et al, 2016 & the Economist, 2012). In this study, the terms digitalisation and 4IR will be used.

Due to the Covid-19 pandemic, change has become more prevalent in our lives and the need for leaders to adopt a strong culture of flexibility and agility has become increasingly important. This may assist organisations in achieving effective change management (Hussain et al., 2016). The rapid emergence of digitalisation has intensified competition and organisations need to keep up with these changes to stay afloat (Velikova, 2019). According to Mansara (2019), leadership is perceived to be an integral component of successful organisational change. Given the challenges imposed by Covid-19 and the need for increased digitalisation in organisations, this claim needs to be revisited and requires a more comprehensive research approach.

There is little empirical evidence supporting the impact of change leadership. The evidence that exists shows a variety of approaches and measures used to consider leadership. Although the literature has shown that leadership can influence the implementation of change, it has been difficult to analyse the findings in a way that can provide precise conclusions (Ford & Ford, 2012, Battilana et al., 2010; Gilley et al., 2009; Herold et al., 2008; Higgs & Rowland, 2005, Denis et al., 1996; Denis et al., 2001; Gioia & Chittipeddi, 1991; Oreg & Berson, 2011, Oreg & Berson, 2019).

1.1 Problem Statement

According to the researchers' knowledge, there is insufficient empirical research surrounding the role of leaders during organisational change caused by covid-19 and digitalisation. According to Al-Tahitah et al., (2018), change directly affects employees within an organisation and how leadership is perceived. Managing change effectively is the main concern of every organisation, especially during an era of digitalisation and the Covid-19 pandemic. This presents the following research question:

- ✓ What role do leaders play in the implementation of organisational change caused by Covid-19 and digitalisation?

To address the research question, a set of primary and secondary objectives have been formulated.

1.2 Objectives

Primary objective

- ✓ To investigate the role of leaders during organisational change caused by Covid-19 and digitalisation.

Secondary Objectives

- ✓ Examine how Covid-19 forced a shift to digitalisation
- ✓ Explore the concepts of digitalisation and what it means for businesses
- ✓ Evaluate current digitalisation change management processes
- ✓ Determine leadership styles and traits required to lead change brought about by Covid-19 and digitalisation
- ✓ Determine the role leaders play during change management

2. Literature Review

The literature review for this study will focus on the effect of the Covid-19 pandemic and digitalisation on organisations and the role leadership plays in the implementation of organisational change that has become prevalent in recent months.

2.1 Covid-19 pandemic

The Covid-19 pandemic has dramatically forced change in the way people conduct themselves i.e., work, communicate, and socialise. The depth of change brought about by the pandemic varies widely across different countries and organisations (Sulkowski, 2020; Li et al., 2020). Li, Ghosh, & Nachmias (2020) in their research paper examined three challenges brought by the pandemic which relate to this study:

- ✓ The sudden change in the workplace and the possibility to work from home under flexible work policies which companies will use to attract new talents.
- ✓ The potential feeling of isolation and disconnectedness. Social distancing policies are important to minimising the spread of the Covid-19 virus.
- ✓ The increase in the speed of change and the reshaping of the future of the workplace. The rise of artificial intelligence (AI) and the surge in automation and machine learning amplified the speed of change prior Covid-19 pandemic (Li et al., 2020).

Organisations are now faced with this new wave of changes. The literature revealed that before the pandemic a different approach was already required for remote working and virtual teams. This approach is known as digitalisation (Lee, 2014). However, the pandemic has highlighted various limitations in current digitalisation implementation efforts. Most organisations, including tech pioneers, have failed to implement effective digital strategies due to the environment's complexities (Faraj et al., 2021). The next section will look into the literature on digitalisation.

2.2 Digitalisation

The idea of organisations changing drastically to accommodate for and leverage the potential of digital technologies has become predominant in various research areas and knowledge domains including, healthcare, information technology, and organisational and management studies. The term more commonly used in recent years is digital

transformation or digitalisation (Sebastian et al., 2017; Vial, 2019; Wessel et al., 2020). According to literature, digital transformation or digitalisation is defined as “*the changes associated with the application of digital technology in all aspects of human society*” (Stolterman & Fors, 2004). Brennen and Kreiss (2014) refer to digitalisation as “*the adoption or increase in the use of digital or computer technology by an organisation, industry, country, etc*”.

Literature on digitalisation is mostly derived from insights relating to episodic change management therefore it is considered a type of episodic change that plays a key role in change management. Digitalisation is viewed as an extremely challenging process that requires organisations to undergo radical operational changes (Madsen et al., 2020). Although the exact role of digital technology in shaping the future of organisations is not yet clear, their influence is already present in the transformation process. Various frameworks that explore digitalisation and disruptive technologies (Vial, 2019; Skog et al., 2018) evidence this. How digital technologies are used is more important than the types of digital technology used. Successful organisations should be able to adapt to changing conditions and adopt relevant technologies effectively to achieve their goals and objectives (Andriole, 2017; Orlandi, 2016; Pandza & Thorpe, 2009; Warner & Wager, 2019).

The literature on change management focuses on the various roles that organisations and leadership can play in supporting digital transformation, this includes (Bharadwaj et al., 2013; Hess, Matt, Benlian & Wiesbock, 2016), driving the digital journey (Weill & Woerner, 2013; Singh & Hess, 2017), developing an experimental mindset among all employees within the organisation (Kane, 2019), managing resistance to change, (Karimi & Walther, 2015; Selander & Jarvenpaa, 2016; Wessel et al., 2020), and developing a plan that considers the different phases of digital transformation (Valdez-de-Leon, 2016).

Despite the advantages of implementing digital transformation initiatives, many companies fail due to the complexity of their operations and difficulties in letting go of existing structures and practices (Klaus & Blanton, 2010; Svahn et al., 2017; Bhattacharjee et al., 2018). Digitalisation is a crucial component of organisations. This research focuses on how to use digital technologies for long-term organisational change processes to accelerate the digital transformation journey following unforeseen events such as Covid-19 (Bunduchi et al., 2019). Digital transformation can greatly improve a company's bottom line and cut costs by 90 percent. It can also significantly improve operations, turnaround time and address problems quickly before they worsen (Markovitch & Willmott, 2014). According to Sabbagh et al., (2012) digitalisation could boost economic growth by up to 20 percent in developed countries. However, digitalisation is expected to have a lesser impact on the economic growth of developing countries than in developed nations (Sabbagh et al., 2012). The next section will review change management.

2.2 Change Management

Kurt Lewin is regarded by many researchers to be a well-known and respected researcher on this topic. He described organisational change as a process with three phases (i) unfreezing, (ii) moving, and (iii) refreezing (Anderson, 2017). According to Anderson (2017), change can occur only when forces of change are greater than forces maintaining existing conditions. Change can happen in two ways: when forces promoting change increase or when forces maintaining existing conditions decrease (Anderson, 2017).

Green and Baron (2002) refers to organisational change as “*the planned or unplanned transformations in the structure, technology and/or people in the organisation*”. Planned change refers to strategies that involve altering the behaviour of individuals and an organisation at a set time, while unplanned change refers to strategies that are unpredictable and can arise from anywhere (Liebhart & Lorenzo, 2014). It is advantageous if organisations focus on adapting to rapid changes in the external environment and prioritise improving their performance as it will reduce stress, improve communication and collaboration as well as increase employee acceptance of the change (Pardo del Val and Fuentes, 2003).

There are a variety of reasons why organisations need to change, such as changing laws and regulations, increasing competition, and changing customer requirements. Change management advises organisations on how to implement and achieve various types of changes (Eggers & Park, 2018). Literature on change management can be divided into two main streams of research, episodic change, and continuous change. The former focuses on the subtle shifts that happen during a given period, while the latter refers to the changes that happen over time (Weick & Quinn, 1999).

The Covid-19 pandemic has resulted in organisations experiencing unexpected, episodic change and therefore, more attention will be placed on this type of change.

Literature on episodic change management prioritises strategic change initiated by top management. This type of change involves planning and implementing actions designed to improve an organisation’s performance. Although numerous models and methods exist, implementing this type of change can be challenging and time-consuming (Caldwell, 2003, Weick & Quinn, 1999). Extensive episodic change forces people to alter the way they work and interact. This is not an easy task and leads to high levels of resistance as people are not convinced that change is necessary (Koutsikouri et al., 2020; Ford et al., 2008, Del Val & Fuentes, 2003).

Although it is possible to plan for rapid transformation, most change managers cannot seem to get it right. This is largely due to the complexity of the environment and the lack of urgency (Wheeler & Holmes, 2017; Besson & Rowe, 2012). Understanding the factors that make a change succeed or fail can help leaders make informed decisions about how to implement it (Nielsen et al., 2020). Change leaders differ according to how they perceive the world. Their ideologies will influence their decisions (Anderson, 2017, Brunes et al., 2016). The next section will review leadership.

2.3 Leadership

2.3.1 What are leaders and leadership?

A leader is someone in a position of power overseeing how things can be improved and then rallying people to move towards a better vision. To be successful, leaders need to be sympathetic and connect with the people (Morgan, 2020). Leadership is the act of being a leader. Definitions of leadership are many and vary among different researchers. Demirtas & Karaca (2020), argue that the reason for these plenty definitions lies in the individual perspective of researchers and the characteristics of the phenomena that interest them.

Rost (1991) provided a definition for leadership as follows “*Leadership is an influence of relationship among leaders and collaborators who intend significant changes that reflect their mutual purposes*” (Rost, 1991). Army Doctrine Publication (ADP) 6-22, Army Leadership and the Profession (2019) defines leadership as “*the activity of influencing people by providing purpose, direction, and motivation to accomplish the mission and improve the organisation*”. McNitt (2021) summed up leadership as an activity and something that needs to be done. The definitions and summary of leadership stipulated above provide key elements to leadership activities. Table 1 below outlines keywords of leadership by various authors.

Table 1. Key Elements of leadership

Author(s)	Title	Year	Keywords of leadership
Joseph Clarence Rost	Leadership for the Twenty-first Century	1991	- influence relationship - leaders and collaborators - intend significant changes - mutual process
Army Doctrine Publication (ADP) 6-22 Department of Army	Army Leadership and the Profession	2019	- Influencing people - Providing purpose - Providing direction - Providing motivation - Accomplishing mission & - Improving organisation
Allyson McNitt	Leadership and Military Writing	2021	- An activity - A thing to be done

Source: Authors' construction

From the keywords provided on table 1 above, the concept of leadership can be summarised as the relationship between leaders and collaborators who are committed to making changes that reflect their mutual goals and intentions. A multitude of sources acknowledges that leadership is vital to the success of any change undertaking (Kotter, 1996; Tyler & Cremer, 2005; Kavanagh & Ashkanasy, 2006; Furst & Cable, 2008). Leaders are known as “Champions of Change”- as it is their responsibility to smoothly maintain an organisation's operations through continuous change processes (Nadler & Nadler, 1998). According to Reeves- Ellington (1998) leaders are the drivers of visualising and developing dynamic products and services in an organisation. To be successful, leaders must have a broad view of the organisation to be able to articulate a high level of change, take on risks, and motivate employees to support the transition (Stobierski, 2020).

2.4 Leadership Change Intelligence

Leadership Change intelligence (LCQ) refers to the ability of leaders to adapt their style to effectively lead change in various situations (Trautlein & Trowbridge, 2013). In today's world of 4IR where complexity and uncertainty arise, leaders must possess LCQ to effectively lead (Schwab, 2017; Oosthuizen, 2017; Oosthuizen, 2016). Schwab (2017) focuses on the four-type intelligence framework that assists leaders during 4IR change namely, contextual, emotional, inspired, and physical intelligence. However, Oosthuizen (2016) expanded the concept to include entrepreneurial intelligence in hopes of creating valuable and meaningful solutions toward realising 4IR's potential. Figure 1 below depicts a ten key LCQs.

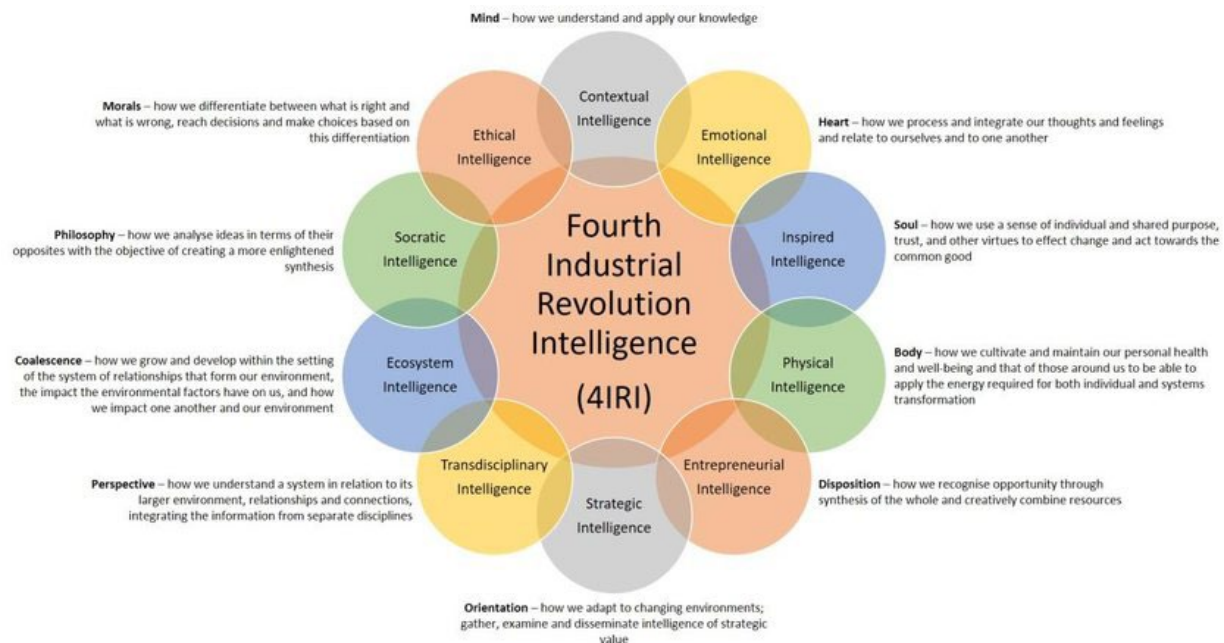


Figure 1. The Fourth Industrial Revolution Intelligence

Source: (Oosthuizen, 2017)

A more comprehensive 4IR-leadership intelligence framework, as shown in Figure 1 above was later developed by Oosthuizen (2017) to include ten key LCQs (Contextual, Emotional, Inspired, Physical, Entrepreneurial, Strategic, Transdisciplinary, Ecosystem, Socratic, and Ethical intelligence) which was designed to assist all types of leaders in various fields. The ten LCQs as depicted on figure 1 above are discussed as follows starting from Contextual intelligence:

- ✓ **Contextual intelligence (CI):** Tarun (2014) defines CI as *“the ability to understand the limits of our knowledge and to adapt that knowledge to an environment different from the one in which it was developed.”* Schwab (2016) further defines CI as *“the ability and willingness to anticipate emerging trends and connect the dots.”* This LCQ is essential for adaptation and survival during 4IR.
- ✓ **Emotional intelligence (EI):** Salovey and Mayer (1990) define EI as the *“ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions.”* Goleman (2004) suggests that EI is a significant trait that is shared by only the most effective leaders. Emotional intelligence consists of five components, Self-awareness, Self-regulation, Motivation, Empathy, and Social skill. Schwab (2017) suggests that these skills are critical to succeed in the 4IR era as it equips leaders with creativity and agility.
- ✓ **Inspired intelligence (II):** Schwab (2017) refers to II as a continued search for purpose and meaning. Leaders should have forward-thinking and constantly concerned with envisioning new possibilities and must be able to engage with and inspire the team toward achieving common goals (Kouzes & Posner, 2009, Horwitch & Whipple, 2014).
- ✓ **Physical intelligence (PI):** According to Schwab (2017) PI involves *“supporting and nourishing personal health and well-being.”* The rapid changes in the external environment urge leaders to keep themselves in good shape.

- ✓ **Entrepreneurial intelligence (EntI):** EntI is defined as “the ability to recognise opportunity through the synthesis of the whole and creatively combining resources that result in the creation or renewal of value that makes economic and/or social meaning” (Oosthuizen, 2017). Entrepreneurial Intelligent leaders can realise value creating opportunities.
- ✓ **Strategic intelligence (SI):** Wells (2012) refers to SI as “the ability and capacity to adapt to changing conditions and environments.” Leaders who possess SI can understand the environment and context in which they lead (Maccoby & Scudder, 2011).
- ✓ **Transdisciplinary intelligence (TI):** Oosthuizen (2017) refers to TI as one’s perspective and how we understand a system concerning its larger environment and relationships. TI integrates information from separate disciplines.
- ✓ **Ecosystem intelligence (EcoI):** Oosthuizen (2017) views EcoI as how we grow and develop within the complexities that form our relationships and environment as well as the impact the environment has on us and how we impact one another and our environment.
- ✓ **Socratic intelligence (SocI):** SocI is associated with the philosophy of how we analyse ideas in terms of their opposites to create more coalescence (Oosthuizen, 2017).
- ✓ **Ethical intelligence (EthI):** EthI refers to how individuals differentiate between what is right and what is wrong when making important decisions (Oosthuizen, 2017).

2.5 Change Leadership styles

Change leadership styles are influenced by the relationship between leaders and followers therefore many leadership styles were formulated based on these relationships (Antonakis & Day, 2017; Bass & Bass, 2009; Çelik et al., 2016). The research conducted shows that leaders are classified into one of the following categories: autocratic, democratic, transactional, transformational, charismatic, and strategic. The change leadership styles that were developed by Traut & Trowbridge (2013) are the most attractive since it shows the willingness of leaders to change their behaviour to accommodate different situations. Leaders are expected to have various roles in leading change such as coach, champion, visionary, driver, executor, facilitator, and adapter shown in figure 2 below and the discussion will follow thereafter.

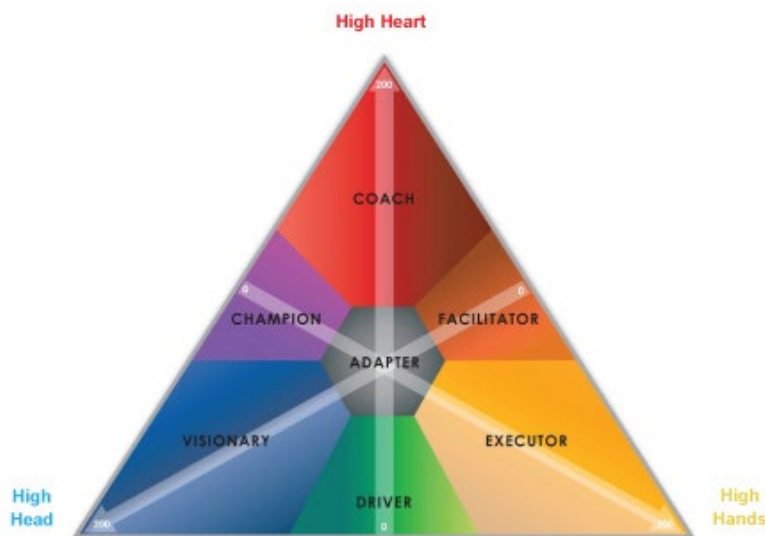


Figure 2. The Seven Change Leader Styles
Source: (Trautlein & Trowbridge, 2013)

As depicted on figure 2, Trautlein & Trowbridge, (2013) posit that adapter is a crucial variable that all other variables that are depicted should embrace. Adapter simply means that both the follower and the leader should be flexible when dealing with change. They argue that a driver should be a coach, a facilitator should be a visionary and a champion should be an executor when facilitating change. Below is further discussions that start with adapter then followed by driver, coach, champion, executor, facilitator and visionary.

- ✓ **Adapter:** The Adapter is flexible, adaptable in all situations, and collaborates with all employees to ensure a smooth transition during change (Trautlein & Trowbridge, 2013).

- ✓ **Driver:** The driver uses their skills and abilities to formulate a strategic plan towards realising an organisation's vision and goals (Trautlein & Trowbridge, 2013).
- ✓ **Coach:** The Coach engages with and supports employees through the change process using their skills to improve employee performance and motivation (Trautlein & Trowbridge, 2013).
- ✓ **Champion:** The Champion focuses on new and innovative ways of performing tasks, acquiring new skills, and keeping employees excited during change (Trautlein & Trowbridge, 2013).
- ✓ **Executor:** The Executor is responsible for implementing the strategic plans and is concerned with getting things done (Trautlein & Trowbridge, 2013).
- ✓ **Facilitator:** The Facilitator focuses on monitoring specific tasks that need to be performed on a day-to-day basis and motivating employees to complete these tasks (Trautlein & Trowbridge, 2013).
- ✓ **Visionary:** The Visionary is constantly looking forward, seeking new possibilities and opportunities (Trautlein & Trowbridge, 2013).

3. Methods

The nature of this study requires an interpretivist approach. Interpretivism focuses on in-depth and rich information that has been gathered rather than attempting to provide a definite answer that is generalised to everyone (Myers, 2008; Saunders et al., 2012; Bhattacharjee, 2012). The interpretive approach is suited for this study because it provides a holistic view of how Covid-19 has brought about a change in businesses which has resulted in increased digitalisation as well as impacted the role of leaders.

A qualitative approach was taken in this study which is compatible with the interpretivist paradigm. An exploratory research design was used to understand the general idea of past research on Covid-19, change management, digitalisation, and leadership and identify issues that can be focused on for future research. A desk review was conducted for this research and studies were located using electronic databases Google scholar, Emerald, and EbscoHost to gather a multitude of journals, articles, and conference papers. Literature on Change management, Leadership, Digitalisation, and Covid-19 were reviewed and explored to gain a deeper understanding of the concept. Various Leadership and Change management books were also consulted to validate the reliability of the information being used.

A total of 313 articles were considered for review. The articles were then delimited to research areas in Covid-19, change management, digitalisation, and leadership based on the purpose of this study. This delimitation resulted in a total of 99 articles with a distribution of 4 in Covid-19, 28 in change management, 37 in digitalisation, and 31 in leadership. The knowledge obtained through the literature review was used to define digitalisation, leadership, leaders, and change management. It was further compiled to focus on only the most important aspects of each category.

4. Data Collection

Table 2 below outline the databases that were used and the number of articles that are related to the study appeared. As has been discussed earlier, Google scholar, EbscoHost, and Emerald were databases that were used.

Table 2. Database sources

Search string	Google Scholar	EBSCOhost	Emerald
Change Management	25	16	21
Leadership Styles	15	14	12
Role of Leaders	25	15	9
Covid-19 Implications for businesses	11	5	2
Digitalisation	23	16	13
4IR	12	11	21
Leaders and Leadership	19	13	15

Source: Authors' construction

(Note: Database search for academic articles, research papers, and conference papers that were relevant and taken into consideration for this study. Duplicates were removed.)

Table 3 outlines books that were consulted in this study. Four books were consulted in this study.

Table 3: Books referenced

Books consulted	Author(s)	Publisher	Year
A Handbook of Leadership Style	Ozgur Demirtas & Mustafa Karaca	Free Press	2020
Changing Organisational Culture 2nd Edition	Mats Alvesson & Stefan Sveningsson	Prentice Hall	2016
Globalisation and Leadership in Africa Developments and Challenges for the Future	Okechukwu Ethelbert Amah	Palgrave Macmillan	2019
Leadership - The Key Concepts	Antonio Marturano & Jonathan Goslig	Rouledge	2007

Source: Authors construction

The articles and books that were used in the paper were grouped into the following categories:

- 1) Covid-19: This section covered the significant social and economic impact of Covid-19 and the implications for businesses.
- 2) Change management: This section defined change and change perspectives. It also showed the impact of change on organisations. Two main streams of change research were explored *episodic* and *continuous* change. As Covid-19 is a type of episodic change, greater attention was placed on it.
- 3) Digitalisation: The definition, role, and importance of digitalisation within organisations were explored in the section.
- 4) Leadership: The definition of Leaders and Leadership was explored to understand its true meaning. Two other subcategories were discussed, namely leadership change intelligence (LCQ) and leadership styles.

5. Results and Discussion

From the literature reviewed, it is evident that leadership is more than just the behaviour of an individual. It is also a function that is distributed across the entire organisation during change implementations. Therefore, the issue is not how well individuals can perform functions of leadership but rather how appropriately they can regardless of circumstances.

Context of change: leaders must first understand the context in which change occurs and the objectives that it aims to achieve. Organisations often neglect the foundation that supports their success. Most of the time, leaders fail to understand the goals of their organisations change implementation and the complexity of the task at hand.

Change process: research has shown that most recommendations given to leaders when dealing with change processes go back to Kurt Lewin's three stages of unfreezing, moving, and refreezing. Other suggestions that have been built on previous research originated from Kotter (1996) who outlined steps to follow during change. These include developing a compelling reason for the change, communicating the plan for the change implementation, building a coalition, and providing support.

Leadership intelligence: it is evident that leaders responsible for driving digitalisation and 4IR initiatives will need to have a combination of change leadership intelligence, change leadership styles, and 4IR leadership traits to effectively implement changes.

Support: successful leaders make sure that their behaviour supports the changes they are willing to make. They devote more of their time and effort to seeing the big picture. Unsuccessful leaders are often focused on the “what” behind a change, while successful leaders communicate the “why” and the “what” to their team to facilitate a smoother transition.

5.1 Graphical Results

Based on the results and discussion on the previous section, figure 3 below graphically illustrate the relationship between the

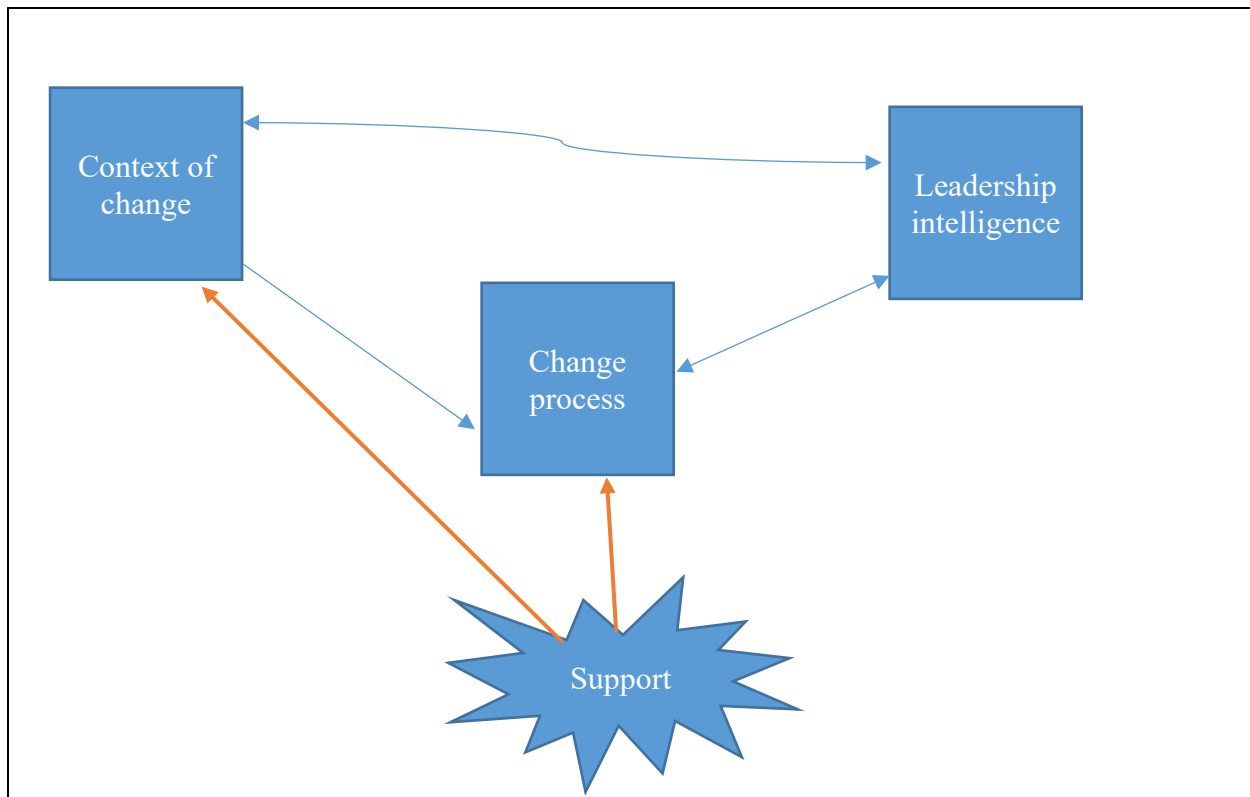


Figure 3. Change management

Figure 3 above illustrates the relationship between the context of change, process, intelligence, and support by leaders. This states that change starts with its context that dictates the change process that needs to be followed by employees. However, their leaders in the organisation must fully support them so that change can take place. Leaders must use the relevant intelligence for change management caused by digitalisation brought by 4IR and Covid-19. Leaders' role is that of support, choosing the relevant leadership intelligence, to understand the change context and to build a good change process.

5.2 Proposed Improvements

First: Leaders need to act as change agents and consultants during times of continuous transformation.

Second: Leaders need to create and develop a culture that is conducive to continuous learning, constant innovation, and ongoing change. Third: They must be supportive of employees during major digital transformations.

The prevalence of Covid-19 has increased the need for more knowledge on how to lead and build effective virtual teams. Organisations should start taking a proactive approach to digitalise their business instead of waiting for the inevitable changes to happen. It is strongly suggested that digitalisation can translate to success.

Digitalisation and 4IR are expected to bring about profound changes in society, and leaders must prepare themselves to lead in this new environment. Leaders must develop their capacity to engage with all stakeholder groups to successfully lead their organisations.

During change implementations, leaders must have the capacity to maintain their emotional intelligence. This will allow them to cope with the challenges that arise amid rapid change. Leaders need to shift their focus from the self to a common purpose to tackle challenges and secure the benefits of digitalisation. How leaders act and think about creating value in the workplace could affect the longevity of their organisations. Developing and reflecting on the

various intelligence constructs could help leaders and teams build a stronger foundation for influencing an unconstrained future.

Subsequently, leaders should focus on how they will influence others and build relationships with team members who will be affected by the 4IR changes. Being supportive and engaging employees will help the team members develop and adopt a 4IR-driven culture. This will also encourage smooth collaborations with other organisations. Leaders should also use evaluation tools and implement performance improvement activities or initiatives to promote efficiency within 4IR teams.

Change leaders should give individuals and opportunity to give their input and suggestions. Furthermore, leaders should inspire through vision and empower individuals by getting involved and having a more hands-on approach during change implementation.

Lastly, change leadership involves the participation of individuals from various levels of the organisation. Leadership will be able to increase participation and commitment from employees through open and transparent communication. Goals and visions must be clearly defined and understood throughout the entire organisation to facilitate effective communication and successful change implementation.

6. Conclusion

Recent work has revealed that to understand organisational changes one must first understand the dynamics of change, its content, and its interdependencies. Most organisations have people who are already adjusting to the changes brought about by the new environment. The challenge for them is to gain the acceptance of continuous change so that these isolated ideas can be widely used. With change comes a very high degree of uncertainty. The effectiveness of change is contingent on the degree to which it is planned. Understanding the digital landscape and its strategic positioning will help in achieving effective results. Leaders are expected to influence and drive employees through changes brought about by digitalisation as a team. A firm's awareness of other change leadership styles will assist in adapting to various situations. The effectiveness of digitalisation initiatives must be reflected in the decisions and actions of organisations. The right leadership can help manage the complexity of the situation and position the company for the future.

References

- Anderson, D. L. *Organisation development: The process of Leading Organisational Change*. Sage Publications, 2017
- Andriole, S. J. Five myths about digital transformation. *MIT Sloan management review*, 58(3), 2017
- Antonakis, J., Day, D. *The nature of leadership*. Sage publications, Los Angeles, 2017
- Al-Tahitah, A., Muthaliff, M. A., Abdulrab, M., & Al-Maamari, Q. A. Paper, 2018
- Review on the Relationship Between Transformational Leadership and Readiness for Change. *International Journal of Energy Policy and Management*.
- Alvesson, M., & Sveningsson, S. *Changing organisational culture: Cultural change work in progress*. Taylor & Francis Group, 2016
- Amah, O. E. *Globalisation and Leadership in Africa: Developments and Challenges for the Future*. palgrave macmillan, 2019
- Apedo-Amah, M. C., Avdiu, B., Cirera, X., Cruz, M., Davies, E., Iacovone, L., Tran, T. T. *Unmasking the Impact of COVID-19 on Businesses: Firm Level Evidence from Across the World*. World Bank Group, 2020
- Army, D. o. *ADP 6-22 Army leadership and the profession*. Washington dc, 2019
- Bass, B., Bass, R. *The Bass handbook of leadership: Theory, research, and managerial applications*: Free Press, New York, 2009
- Battilana, J., Gilmartin, M., Sengul, M., Pache, A.-C., & Alexander, J. A. Leadership competencies for implementing planned Organisational change. *The Leadership Quarterly*, 21(3), pp.422–438, 2010
- Besson, P., & Rowe, F. Strategizing information systems-enabled organisational transformation: A transdisciplinary review and new directions. *The Journal of Strategic Information Systems*, 21(2), pp.103-124, 2012
- Bharadwaj, A., El Sawy, O.A., Pavlou, P.A., & Venkatraman, N. Digital Business Strategy: Toward a Next Generation of Insights. *MIS Quarterly*, 37(2): pp.471-482, 2013
- Bhattacharjee, A. Social science research. USF Tampa Bay: Open University Press, pp.103 – 111, 2012
- Bhattacharjee, A., Davis, C.J., Connolly, A.J., & Hikmet, N. User response to mandatory IT use: a coping theory perspective, *European Journal of Information Systems*, 27:4, pp.395-414, 2018

- Brennen, S. and Kreiss, D. *Digitalisation and Digitization* [Online]. Available: <http://culturedigitally.org/2014/09/digitalisation-and-digitization/>, 2014
- Brunes, B., Hughes, M., & Todnem, R. Reimagining organisational change leadership. *Leadership Journals*, 2016
- Bunduchi R., Tursunbayeva, A. & Pagliari, C. Coping with institutional complexity: intersecting logics and dissonant visions in a nation-wide healthcare IT implementation project. *Information technology & People*. June 2019, 2019
- Caldwell, R. Models of change agency: a fourfold classification. *British Journal of Management*, 14(2), pp.131-142, 2003
- Çelik, S., Özkul, E., Tuna, P. The Relationship Between Strategic Decision-Making and Leadership Styles: An Application in 4 and 5-Star Hotels in Istanbul. *İşletme Araştırmaları Dergisi*, 8(1), pp.240-264, 2016
- Crown Publications Information. Retrieved from <http://crown.co.za/latest-news/construction-world-latest-news/8194-a-leadership-resetin-construction-for-the-fourth-industrial-revolution>, n.d
- Degryse, C. “Digitalisation of the economy and its impact on labour markets”, 2003
- Working paper 2016.02, Published by the European Trade Union Institute (ETUI), 2016
- Demirtas, O., & Karaca, M. *A Handbook Of Leadership Styles*. Cambridge Scholars Publishing, 2020
- Denis, J.-L., Lamothe, L., & Langley, A. The dynamics of collective leadership and strategic change in pluralistic Organisations. *Academy of Management Journal*, 44(4), pp.809–837, 2001
- Denis, J.-L., Langley, A., & Cazale, L. Leadership and strategic change under ambiguity [empirical]. *Organisation Studies*, 17(4), pp.673–699, 1996
- Eggers, J. P., & Park, K. F. Incumbent adaptation to technological change: The past, present, and future of research on heterogeneous incumbent response. *Academy of Management Annals*, 12(1), pp.357-389, 2018
- Ford, J.D., Ford, L.W., & D'Amelio, A. Resistance to change: The rest of the story. *Academy of management Review*, 33(2), pp.362-377, 2008
- Ford, J. D. Organisational change as shifting conversations. *Journal of Organisational Change Management*, 12(6), pp.1–39, 1999
- Furst, S. A., & Cable, D. M. Employee resistance to organisational change: Managerial influence tactics and leader-member exchange. *Journal of Applied Psychology*, 93(2), pp.453–462, 2008
- Gilley, A., McMillan, H. S., & Gilley, J. W. Organisational change and characteristics of leadership effectiveness. *Journal of Leadership and Organisational Studies*, 16(1), pp.38–47, 2009
- Gioia, D. A., & Chittipeddi, K. Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, 12(6), pp.433–448, 1991
- Goleman, D. What Makes a Leader? *Harvard Business Review*, 82(1):82-91, 2004
- Gous, I., Rethinking the past to manage the future: Participating in complex contexts informed by biblical perspectives. *HTS Theologiese Studies / Theological Studies*, 76(2), 2021
- Herold, D. M., Fedor, D. B., Caldwell, S., & Liu, Y. The effects of transformational and change leadership on employee commitment to change: A multilevel study. *Journal of Applied Psychology*, 93(2), pp.346–357, 2008
- Hess, T, Matt, C., Benlian, A. & Wiesbock, F. Options for Formulating a Digital Transformation Strategy. *MIS Quarterly Executive*, 15(2): pp.123-139, 2016
- Higgs, M., & Rowland, D. All changes great and small: Exploring approaches to change and its leadership. *Journal of Change Management*, 5(2), pp.121–151, 2005
- Horwitch, M. & Whipple, M. Leaders who inspire: A 21st-century approach to developing your talent. Bain & Company, Inc. [Web:] http://www.bain.com/Images/BAIN_BRIEF_Leaders_who_inspire.pdf. [Accessed: 16 August 2021], 2014
- Hussain, S. T., Lei, S., Akram, T., Haider, M. J., & Hussain, S. H. Kurt Lewin’s change model: A critical review of the role of leadership and employee involvement in Organisational change. *Journal of Innovation & knowledge*, 2016
- International Trade Centre SME Competitiveness Outlook 2020: COVID-19: The Great Lockdown and its Impact on Small Business. ITC, Geneva, 2020
- Kane, G. The technology fallacy: people are the real key to digital transformation. *Research- Technology Management*, 62(6), 44-49, 2019
- Karimi, J., & Walter, Z. The role of dynamic capabilities in responding to digital disruption: A factor-based study of the newspaper industry. *Journal of Management Information Systems*, 32(1), pp.39-81, 2015
- Kavanagh, M. and Ashkanasy, N. The Impact of Leadership and Change Management Strategy on Organisational Culture and Individual Acceptance of Change during a Merger. *British Journal of Management*, 17(S1), pp.81-103, 2006
- Kinnunen, J. and Georgescu, I. Disruptive Pandemic as a Driver towards Digital Coaching in OECD Countries. *Revista Romaneasca pentru Educatie Multidimensional*, 12(2Sup1), pp.55-61, 2020

- Klaus, T., & Blanton, J. E. User Resistance Determinants and the Psychological Contract in Enterprise System Implementations. *European Journal of Information Systems*, 19 (6): pp.625–636, 2020
- Kotter, J. P. *Leading change*. Harvard Business School Press, 1996
- Koutsikouri, D., Madsen, S., & Lindstrom, N.B. *Agile Transformation: How Employees Experience and Cope with Transformative Change*, 2020
- M. Paasivaara & P. Kruchten (eds.), *XP Conference Proceedings vol 2, Lecture Notes in Business Information Processing*, Springer, 2020
- Kouzes, J.M. & Posner, B.Z. To Lead, Create a Shared Vision. *Harvard Business Review*, 87(1): pp.20-21, 2009
- Lautenbach, P., Johnston, K., & Adeniran-Ogundipe. Factors influencing business intelligence and analytics usage extent in South African organisations. *South African Journal of Business Management*, 2017
- Lee, M. "Transformational Leadership: Is It Time for A Recall?", *International Journal of Management and Applied Research*, Vol. 1, No. 1, pp. 17-29, 2014
- Li, J., Ghosh, R., & Nachmias, S. In a time of COVID-19 pandemic, stay healthy, connected, productive, and learning: words from the editorial team of HRDI. *Human Resource Development International*, 2020
- Liebhart, M., & Lorenzo, L. G. Between planned and emergent change: decision maker's perceptions of managing. *LSE Research Online*, 2014
- Maccoby, M. & Scudder, T. Strategic intelligence: A conceptual system of leadership for change. *Performance Improvement*, 50(3): pp. 32-40, 2011
- Madsen, Haslam & Nielsen. Accelerated digital transformation *Selected papers of the Information systems research seminar in Scandinavia (IRIS), Issue 11, 2020*
- Mansaray, H. E. The Role of Leadership Style in Organisational Change Management: A Literature Review. *Journal of Human Resource Management*, 2019
- Markovitch, S. and Willmott, P. (2014). *Accelerating the digitisation of business processes* [Online], White paper, McKinsey&Company. Available: http://www.mckinsey.com/insights/business_technology/accelerating_the_digitization_of_business_processes
- Marturano, A., & Gosling, J. *Leadership The Key Concepts*. Roulledge, 2007
- McNitt, A. Leadership and Military Writing: Direct, Organized, Strategic. *Military Review*, 2021
- Morgan, J. *Chief Learning Officer*. Retrieved from [chieflearningofficer.com](https://www.chieflearningofficer.com/2020/01/06/what-is-leadership-and-who-is-a-leader/): <https://www.chieflearningofficer.com/2020/01/06/what-is-leadership-and-who-is-a-leader/>, 2020
- Myers, M.D. *Qualitative Research in Business & Management*, 2008
- Nadler, D., & Nadler, M. B. *Champions of change: How CEOs and their companies are mastering the skills of*, 1998
- Nielsen, K., Dawson, J., Hasson, H., & Schwarz, U. What about me? The impact of employee change agents' person-role fit on their job satisfaction during organisational change. *An International Journal of Work, Health & Organisations*, 2020
- Oosthuizen, C. *Entrepreneurial Intelligence: Expanding Schwab's Four-Type Intelligence Proposition to Meaningfully Address the Challenges of the Fourth Industrial Revolution*. Paper presented at the Proceedings of the 28th Annual Conference of the Southern African Institute of Management Scientists, 2016
- Oosthuizen, J. *The Determinants of Fourth Industrial Revolution Leadership Dexterity: A Proposed Framework for 4IR Intelligence and Subsequent 4IR Leadership Development*. Paper presented at the 4th International Conference on Responsible Leadership, At GIBS–Johannesburg, Conference paper, 2017
- Oreg, S., & Berson, Y. Leadership and employees' reactions to change: The role of leaders' personal attributes and transformational leadership style. *Personnel Psychology*, 64(3), pp. 627–659, 2011
- Oreg, S., & Berson, Y. Leaders' impact on Organisational change: Bridging theoretical and methodological chasms. *Academy of Management Annals*, 113(1), pp. 272–307, 2019
- Orlandi, L.B. Organisational capabilities in the digital era: Reframing strategic orientation. *Journal of Innovation & Knowledge*, 1(3), pp. 156-161, 2016
- Pandza, K., & Thorpe, R. Creative search and strategic sense-making: missing dimensions in the concept of dynamic capabilities. *British Journal of Management*, 20, pp. 118-131, 2009
- Pardo del val. M., Martínez Fuentes C. Resistance to change: A literature review and empirical study. *Manage. Decis.* 41(2), pp. 148-155, 2003
- Reeves-Ellington, R. *Leadership for socially responsible Organisations*. Leadership & Organisation Development, 1998
- Report, L. C. *Global Definitions of Leadership and Theories of Leadership Development: Literature Review*. University of Cambridge Institute for Sustainability Leadership, 2017
- Rost, J. C. *Leadership For The Twnty-First Century*. Praeger Publishers, 1991

- Sabbagh, K., Friedrich, R., El-Darwiche, B., Singh, M., Ganediwalla, S. & Katz, R. *Maximizing the impact of digitization (Strategy&)* [Online]. Previously published in *the Global Information Technology Report 2012: Living in a Hyperconnected World*, pwc, pp.68-73, Available: http://www.strategyand.pwc.com/media/file/Strategyand_Maximizing-the-Impact-of-Digitization.pdf, 2012
- Salovey, P., & Mayer, J. D. Emotional intelligence. *Imagination, Cognition and Personality*, 9(3): pp. 185–211, 1990
- Faraj, S., Renno, W., & Bhardwaj, A. *Unto the breach: What the COVID-19 pandemic exposes*. Information and Organisation, 2021
- Saunders, M., Lewis, P. & Thornhill, A. *Research Methods for Business Students*. 6th edition, Pearson Education Limited, 2012
- Schwab, K. *The Fourth Industrial Revolution (Foreign Affairs)* [Online]. Available: <https://www.foreignaffairs.com/articles/2015-12-12/fourth-industrialrevolution>., 2015
- Schwab, K. *The fourth industrial revolution: Currency*, New York, 2017
- Sebastian, I. M., Moloney, K. G., Ross, J. W., Fonstad, N. O., Beath, C., & Mocker, M. How big old companies navigate digital transformation. *MIS Quarterly Executive*, 16(3), pp. 197-213, 2017
- Selander, L., & Jarvenpaa, S.L. Digital action repertoires and transforming a social movement organisation. *MIS Quarterly*, 40(2), pp. 331-352, 2016
- Senior, B. *Organisational Change*, 2nd edn (London: Prentice Hall), 2002
- Singh, A. & Hess, T. How chief digital officers promote the digital transformation of their companies. *MIS Quarterly Executive*, 16(1), pp. 1-17, 2017
- Skog, D. A., Wimelius, H., & Sandberg, J. Digital disruption. *Business & Information Systems Engineering*, 60(5), pp. 431-437, 2018
- Stobierski, T. ORGANISATIONAL CHANGE MANAGEMENT: WHAT IT IS & WHY IT'S IMPORTANT. *Harvard Business School Online*, 2020
- Stolterman, E. and Fors, A. C. "Information Technology and the Good Life," in *Information Systems Research: Relevant Theory and Informed Practice*, B. Kaplan et al. (eds), London, UK: Kluwer Academic Publishers, 2004
- Sulkowski, L. Covid-19 Pandemic; Recession, Virtual Revolution Leading to De-globalization. *Sciendo*, 11, 2020
- Svahn, F., Mathiassen, L., Lindgren, L. and Kane, G. Mastering the Digital Innovation Challenge. *MIT Sloan Management Review*, 58 (3), 2017
- Tarun, K. Contextual Intelligence. *Harvard Business Review*, 92(9): pp. 59-68 the Economist. (2012). The third industrial revolution [Online]. Available: <http://www.economist.com/node/21553017>, 2014
- Tihinen, M., Iivari, M., Ailisto, H., Komi, M., Kääriäinen, J. and Peltomaa, I. "An exploratory method to clarify business potential in the context of industrial internet – a case study," in *Collaboration in a Hyperconnected World, 17th IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2016*, Hamideh, Afsarmanesh et al., eds. Springer, Porto, Portugal. pp. 469-478, 2016
- Tihinen, M. and Kääriäinen, J. *The Industrial Internet in Finland: on route to success?* Espoo, Finland: VTT, VTT Technology; 278. ISBN 978-951-38-8484-0, <http://www.vtt.fi/inf/pdf/technology/2016/T278>, 2016
- Trautlein, B. A. and Trowbridge, C. You know your IQ, but what's your CQ? develop your change intelligence to lead successful and sustainable transformation and results. Paper presented at PMI Global Congress North America, New Orleans, LA. Newtown Square, PA: Project Management Institute, 2013
- Tyler, T. R., & De Cremer, D. Process-based leadership: Fair procedures and reactions to organisational change. *The Leadership Quarterly*, 16(4), pp. 529–545, 2005
- Valdez-de-Leon, O. A Digital Maturity Model for Telecommunications Service Providers. *Technology Innovation Management Review*, 6(8): pp. 19-32, 2016
- Velikova, E. Innovation and Digitalisation in Tourism- Restriction or Development for Business in Bulgaria. *Trakia Journal of Sciences*, 17(Suppl.1), pp.252-258, 2019
- Vial, G. Understanding Digital Transformation: A Review and a Research Agenda. *Journal of Strategic Information Systems*, 28:118-144, 2019
- Warner, K. S., & Wager, M. Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), pp. 326-349, 2019
- Weick, K. E., & Quinn, R. E. Organisational change and development. *Annual review of psychology*, 50(1), pp. 361-386, 1999
- Weill, P., & Woerner, S. L. The future of the CIO in a digital economy. *MIS Quarterly Executive*, 12(2), pp. 65-75, 2013
- Weill, P., & Woerner, S. L. Optimizing Your Digital Business Model. *MIT Sloan Management Review*, 54 (3), 2013
- Wells, J.R. *Strategic IQ. Creating smarter corporations*. San Francisco, CA: Jossey-Bass, 2012

Wessel, L., Baiyere, A., Ologeanu-Taddei, R., Cha, J., & Jensen, T. Unpacking the difference between digital transformation and IT-enabled organisational transformation. *Journal of Association of Information Systems*, 2020
Wheeler, T. R., & Holmes, K. L. Rapid transformation of two libraries using Kotter's Eight Steps of Change. *Journal of the Medical Library Association: JMLA*, 105(3), 276-281, 2017