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The relationship between motivational climates and change readiness: the mediating roles of digital mindsets.

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We hope the people reading this master thesis find it interesting and valuable, acknowledge the importance of digital mindset, and see the necessity to do more research on this topic.

Thank you.

Abstract

Technology is a central part of the changes occurring in organisations, and the employees are the ones who will need to adapt and allow the digital changes and new technology to be put into practice. The motivational climate may contribute to how individuals accept digital changes. In this thesis, we explore the individual's digital mindset and the relationship between motivational climate and digital mindset. The study also aims to investigate the possibility of an individual's digital mindset to mediate a relationship between perceived motivational climate and readiness to change. The data is gathered from 5 Nordic countries and various companies under a corporate group, within consulting, recruitment and staffing industries, with a total of 140 respondents. Participants were asked to self-report their perceived motivational climate, digital mindset and change readiness, separated at two different time points. The collected data were analysed using a multilevel method.

The results indicated a significant and positive relationship between perceived performance climate and digital zero-sum mindset. At the same time, there was no significant relationship found between a perceived mastery climate and digital growth mindset. The results did not provide any evidence in support for digital mindset performing as a mediator between perceived motivational climate and readiness for change. Based on the findings of this study, it is further suggested to research the role and importance of digital mindset, also, in other aspects of organisations, such as engagement and performance, and motivational climate and change readiness.

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1.0. Introduction

Technological developments are changing faster than ever before. Organisations are required to change to keep up with the continually moving society and new technologies emerging (Cascio & Montealegre, 2016; Colbert, Yee & George, 2016; Piccinini, Hanelt, Gregory & Kolbe, 2015). Research argues that the degree of which individuals of organisations are prepared and willing to adapt to changes is crucial for the change processes to succeed and to be able to deal with unforeseen changes (Miller, Johnson & Grau, 1994). From earlier research, it has been found a relationship between how an employee's perception of their psychological workplace climate and how they handle organisational changes (Martin, Jones & Callan, 2005), and that some climates will better prepare the employees for the upcoming changes. The literature distinguishes, predominantly, two types of motivational climates, namely mastery- and performance climate. Motivational climate encompasses how individuals perceive success and failure. Success is based on collaboration in a mastery climate, and in contrast, competition is more prominent in a performance climate (Nerstad et al., 2013).

Studies have suggested that there is a relationship between motivational climate and an individual's mindset (Ommundsen, 2001). Mindset can be defined as underlying beliefs people may hold about learning and intelligence (Dweck, 2008; Dweck & Leggett, 1988). Employees' mindsets are conceptualised in line with fixed and growth mindset literature (Dweck, 2008). It is proposed that mindset is essential when approaching and adapting to technological changes in the organisations, thereby a digital mindset (Solberg, Traavik & Wong, 2020). Digital mindset involves a fixed versus growth mindset, and a zero-sum versus expandable-sum mindset (Solberg et al., 2020). The former refers to the belief individuals hold to their ability to learn and use new technology, namely digital fixed/growth mindset. Whereas the latter refers to how individuals view the resources of a situation, and technological change as zero-sum or expandable (Solberg et al., 2020). Earlier research shows that those who perceive their work climate as a mastery climate often hold or are likely to develop a growth mindset (Ommundsen, 2001). Also, the employees' perception of their work climate as being collaborative and the importance of the learning process, which is similar to that of a mastery climate (Nerstad et al., 2018), may positively influence the reaction to the implementation of organisational changes (Armenakis, Harris, & Mossholder, 1993).

As a result of the rapidly changing environment, there is a need to expand on this research within modern organisations, that have already experienced technological changes. Today organisations are at a higher risk of being prone to unforeseen and unplanned changes, with 2020 as an example. The virus Covid-19 has caused a pandemic and forced a lot of organisations and employees to change. It has also called for the need to take existing and new technology into use, and force new technology to develop faster than was needed before (Steffanini, 2020). Therefore, it becomes essential to expand on the relationship between how the work climate affects how people view and accept new technologies and try to detect how individuals' digital mindset influences the way we adapt to situations. No known study addresses how digital mindset might mediate a relationship between perceived motivational climate and readiness to change. Through the investigation of motivational climate, digital mindset and change readiness, the study will respond to demand to ensure a greater understanding of what underlying factors, as mindset and motivational climate may influence employee's readiness to change (Martin et al., 2005, Canning, et al., 2020).

To address this gap in the literature, we intend to investigate the new dimension to mindset, including zero-sum/expandable-sum digital mindset (Solberg et al., 2020). Specifically, we intend to research the relationship between perceived motivational climate and digital mindset. This investigation may expand on the knowledge of digital mindset in a work setting and how motivational climate may have a relationship with digital mindset. Earlier studies have mostly been conducted in sport and educational settings (Harwood, Keegan, Smith, & Raine, 2015; Ntoumanis & Biddle, 1999; Ommundsen, 2001), and we see a need for expanding the research within an organisational setting. The research will contribute to expand the research and theory already existing on mindset from educational level by employing it in an organisational setting. Moreover, we aim to investigate the possibility of digital mindset mediating the relationship between perceived motivational climate and change readiness. Therefore, the study was conducted within a modern organisation, that have newly experienced some technological changes.

In this thesis it is assumed that there will be a positive relationship between a mastery climate and change readiness, while a negative relationship between performance climate and change readiness. Digital mindset may contribute as a mediator to these relationships, where digital growth mindset will

be a mediator between mastery climate and change readiness. Digital zero-sum mindset will be a mediator between performance climate and change readiness.

This research contributes to three various fields of theories. This research may contribute to expanding on the literature regarding psychological climates relation to change through the investigation of mastery and performance climate. By adding the variable of change readiness, the research will expand upon previous research indicating a relationship between motivational climate and mindset (Ommundsen, 2001). As well as the literature indicates that motivational climate may influence employee's adaptation to changes (Canning et al., 2020; Schein, 2010; Weiner, 2009). To expand on the current understanding of the relationship between the two types of motivational climate and readiness this study proposes and investigates the two different digital mindsets as psychological mechanisms. The research implicates the mindset literature as it contributes to understanding employee's digital mindsets' relationship to perceived motivational climates and change readiness. In what follows, the research will contribute to gain a greater practical understanding of how to deal with organisational changes. Moreover, the study aims to give leaders, recruiters and organisations more insight and knowledge within the field of digital mindset and change readiness in different perceived work climates. It is crucial to understand how the organisational members accept new technology and their willingness to make an effort to learn and grow in the change process.

1.1. Research question and conceptual model

Given this background, the current thesis aims to investigate the following research question: *To what extent does digital mindset have a mediating role on the relationship between perceived motivational climate and change readiness?* The research model applied for addressing this question includes five core variables; mastery climate, performance climate, digital growth mindset, digital zero-sum mindset and readiness for change.

Figure 1. portrays the conceptual model:

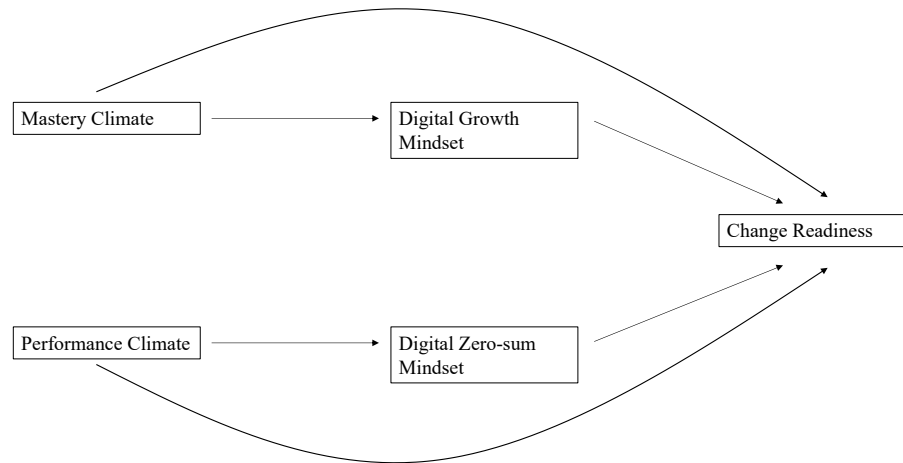


Figure 1. *Research Model*

2.0. Theoretical background and hypothesis

2.1. Technology and digital changes in organisations

Technology in today's society moves faster than we ever could imagine. One technological breakthrough today can tomorrow be further transformed. Although it always has been like this in the modern society, it is now changing faster than ever, making it hard to imagine how the future will look ("How fast is technology changing", n.d.). Humankind is on edge to a fourth industrial revolution that will fundamentally change how we live and will be different from ever experienced before (Schwab, 2017). For instance, comparing the history of technological development, in the early 1900s it took decades for households to hold a telephone. While it in 1990 took less than five years to accomplish the same (McGrath, 2020). This comparison shows how fast technology is being adopted today. And modern consumers are not afraid to adopt new technology that may improve their lives (Desjardins, 2018).

While new technology is constantly developed, organisations are presented with enormous changes (Colbert et al., 2016). Digital technology is changing a wide range of activities, and digital technologies have been implemented in our daily life in different ways. It has influenced how we work, how we communicate, and in many ways, how we behave (Piccinini, Hanelt, Gregory & Kolbe, 2015). As well as it is changing how organisations create and capture value (Casco & Montealegre, 2016).

In addition, there are different views on digitisation, some view it as a threat, in a world where robots will take over, as illustrated in "rise of the robots" (Ford, 2015), or that artificial intelligence will lead to an unfamiliar world consisting of an unemployed nation (Susskind & Susskind, 2015). In comparison, others view it as a possibility to finally solve problems efficiently with high accuracy and quality (Plesner, Justesen & Glerup, 2018). Viewing this change in technology as an opportunity or a threat may drive different willingness to change in people in the workplace.

However, none of these assumptions can be considered to be wrong. According to some research, several jobs, currently performed by humans, are proposed to be taken over by robots or digital agents by 2020 (Cascio & Montealegre, 2016). At the same time, it is suggested that jobs will more likely be transformed, rather than eliminated. And the consulting firm, McKinsey and co., predicts that investment in technology, especially with a focus on artificial intelligence and automation, can create 20 to 50 million jobs globally within the year 2030 (Hernandez, 2018).

Further, change sometimes appear faster than expected, and organisations can be forced to take new technology in use to handle unplanned events. That is what happened in 2020, as a result of Covid-19 spread like a pandemic, and caused a lot of digital changes to the world ("Rolling updates on coronavirus disease (Covid-19)", 2020). And this have required people to change to keep up with the crisis the best possible way.

Covid-19 has made the role of technological change, and employees in organisations have had to be creative to secure that the organisation grows and are able to survive under this time. This has accelerated the development of Artificial Intelligence (AI), with the goal to be able to identify possible disastrous events in the future (Steffanini, 2020). Such developments can again change the work structure in organisations and affect the employees experiencing the changes, as this crisis have demanded people to change and work under different circumstances.

Despite this, organisations will most likely continue to develop and implement new technology, and employees will continue to experience organisational changes in the future. And as changes continue to appear there will always be challenges that follow. Employees may be unwilling to accept the changes which again will negatively influence the success of the organisation

(Aslam, Musqadas, Imran and Rahman, 2018). Therefore, for organisation to successfully implement changes, it is crucial to analyse how the perceived motivational climate and individual mindset of the organisational members matter to be prepared for the changes, as they may serve as underlying psychological mechanisms. Moreover, research suggests that organisations that are viewed as collaborative and trusting experience growth more easily than those organisations who are viewed as competitive and non-trusting (Canning et al., 2020). Such research implies that the individuals' experiences of their organisations environment and climate may be of importance for the organisation to grow and develop. As well as to be able to welcome external and internal changes, especially under extraordinary circumstances like crises are.

2.2. Perceived Motivational Climate

Perceived psychological motivational climate can be defined as "employees' perceptions of the extant criteria of success and failure, which is emphasised through the policies, practices, and procedures of the work environment" (Nerstad, Roberts & Richardsen, 2013, p. 2232). There are several perspectives concerning motivational climate. The current study will focus on the theoretical approach of Achievement Goal Theory (AGT, Ames, 1992a; Nerstad et al., 2018; Nicholls, 1984). The theory is regarded to provide a suitable framework for researching the relationship between employees and the environment. The motivational climate in the workplace refers to how the employees perceive how success is defined, according to AGT (Ames, 1992a; Nicholls, 1989).

Moreover, there is an essential distinction between psychological motivational climates and organisational motivational climates. The psychological climate represents the individuals' perception of their work environment, while how the group of employees perceives their work environment is referred to as organisational climate (Parker et al., 2003; Schulte, Ostroff, & Kinicki, 2006). These two are assumed to be connected, as a shared organisational climate occurs if the individuals within the group hold the same perception of the environment (Schulte et al., 2006). In this study, the motivational climate at an individual level will be necessary, as we are interested in each employee's experience of their environment. Therefore, the emphasis will be on psychological motivational climates.

Research suggests that employees' perception of change is positively formed by individuals' perception of their psychological work environment (Martin et al., 2005). More specifically, those who viewed their psychological work climate more positively also experienced less distress by the changes and more in control and certain how the change would affect them (Martin et al., 2005). Suggesting that a favourable psychological climate influences employees' response to changes.

Moreover, employees' perception of how success and failure are defined, based on practices and procedures at work, further explains motivational climate in line with achievement goal theory (Nerstad et al., 2013; Nerstad et al., 2018). Employee's perception of the work environment and situations will ultimately affect the motivational climate, which again may affect employees' achievement evaluation, goal setting, and expectations to relate to work-related tasks as well as their colleagues (Ames, 1992ab).

There are two types of perceived psychological motivational climate: mastery and performance climate. The individual's perception and subjective experience of the workplace environment determine how the workplace motivational climate is considered as mastery or performance climate (Nicholls, 1984; Černe, Nerstad, Dysvik, & Škerlavaj, 2014).

2.3. Mastery Climate and Digital Growth Mindset

A mastery climate is perceived when individuals experience that their efforts, learning and collaboration are valued (Roberts & Nerstad, 2020). Here, employees understand the work process in view of learning and development, and motivation grows by mastery (Černe et al., 2014). Mastery climate is proposed to stimulate more adaptive behaviour, for instance, in improved effort in challenging situations (Ntoumanis & Biddle, 1999; Roberts & Nerstad, 2020), as a mastery climate value learning and collaboration. Research has also found that positive outcomes as engagement, intrinsic interest, performance and well-being are facilitated by mastery climate (Harwood et al., 2015). Similarly, another research found that psychological motivational climate at work can predict attitudes related to work. Precisely, psychological motivational climate can predict employee outcomes as job engagement, turnover intention and performance. A perceived mastery climate can be expected to promote positive attitudes among employees

(Nerstad et al., 2018). These studies thereby indicate that a mastery climate may facilitate positive attitudes and provide an emphasis on the learning process.

Theories propose that personal resources of employees' belief to learn and use technologies may be a prerequisite to the acceptance and embrace of new technologies and changes in their work environment (Solberg, Wong & Traavik, 2019). Mindset can be defined as the self-theory or self-perception someone may hold about themselves (Dweck, 2008). Dweck (2008) explains mindsets as fixed versus growth. She proposes that individuals' mindsets are involved in how people make decisions and approach problems and challenges. For instance, those with a fixed mindset believe that intelligence is static, while those with a growth mindset believe intelligence can be developed (Dweck, 2008; Dweck, 2016). Those with a growth mindset tend to achieve more than those with a fixed mindset and are more likely to continue working despite setbacks (Dweck, 2008; Dweck, 2016; Solberg et al., 2020).

It is proposed that individuals can adopt a growth mindset through the facilitation of the right methods of encouragement. Praising someone for the process instead of the result is an example of fostering growth-mindset (Dweck, 2008; Dweck, 2010). This encouragement can be related to mastery climate, as individuals effort, and the learning process is also valued in a mastery climate (Nerstad et al., 2018; Roberts & Nerstad, 2020). Interestingly, motivation, well-being, attitudes, and performance may be affected by how the individuals perceive psychological motivational climate (Parker et al., 2003). This research may indicate a possible relationship between a perceived mastery work climate and a growth mindset.

The various mindsets greatly influence individuals' abilities and beliefs in what they can learn and develop, for instance, those with a growth mindset trust that their qualities and competencies can be developed by practice and effort (Dweck, 2008; Dweck & Leggett, 1988). Therefore, employees having a growth mindset tend to acknowledge an association between working hard and achieving results. Additionally, having a growth mindset inclines to be open to and seeking challenges, as they view them as opportunities and a natural part of learning (Dweck, 2008). It has been suggested that motivational climate can influence individuals' mindsets, and a perceived mastery climate is assumed to support the development of a growth mindset. Such climate encourages growth mindset as individuals in such a climate often experience being in control of their learning

process (Ommundsen, 2001). Variation in tasks and getting feedback regarding effort and progress could increase the likelihood of individuals viewing their abilities as flexible and thereby making individuals more able to mobilise the necessary effort in learning (Dweck, 2008; Nerstad et al., 2018). Those working in a mastery climate are more inclined to understand the importance and value of effort and development, similar to those holding a growth mindset.

This study indicates the importance of mastery climate in ensuring positivity towards learning, thereby developing a growth mindset (Ommundsen, 2001). A growth mindset can be developed and the emphasis on learning and not the end mean is believed to be an essential way to foster a growth mindset (Dweck, 2008). Research suggests that interventions may modify individuals' mindset (Roberts & Nerstad, 2020). As a mastery climate encourages learning and effort such as a growth mindset values, it is therefore proposed that there is a relationship between the two constructs. Based on the findings presented by Ommundsen (2001) and the theoretical implications of mindset and its role in how people view situations, this study proposes that employee's view of their motivational climate as a mastery climate and digital growth mindset have a positive relationship. It is therefore hypothesised that:

H1: There is a positive relationship between a perceived mastery climate and a digital growth mindset.

2.4. Performance Climate and Digital Zero-Sum Mindset

As opposed to a mastery climate, a performance climate can be characterised by more egocentric motivation, and social comparison is a crucial distinction (Roberts & Nerstad, 2020; Nerstad et al., 2013). Besides, health issues, burnout, and stress are reported to be associated with performance climates (Nerstad et al., 2013). A performance climate is linked with an increase in employees' attentiveness to others' achievements and comparing their achievements with others (Černe et al., 2014). Moreover, in a performance climate, employees are likely to perceive co-workers as competition (Nerstad et al., 2018). Undesirable behaviour, such as avoiding challenging tasks and looking for an easy way out, may be promoted through performance climates (Ames,

1992ab). Additionally, contrary to a mastery climate, a performance climate is thought to promote negative attitudes (Nerstad et al., 2018).

In a conceptual article, Solberg and colleagues (2020) propose that employee's fundamental beliefs or mindset about technology and changes are likely to override situational beliefs about technological attributes in influencing employees' acceptance and usage of new technologies, namely digital mindset. Solberg and colleagues (2020) present various mindset combinations and how they could influence employee response to new technology. Thereby, a new method of measuring an individual's digital mindset is presented.

In addition to base the conceptual model on growth and fixed mindset, the model also includes mindset terms derived from game theory. Zero-sum and expandable-sum mindset is based on how people "either cooperate or compete when outcomes are interdependent and the resources are limited" (Solberg et al., 2020). In situations referred to as zero-sum, resources are fixed, meaning that gains for one coincide with loss or losses for another, thereby zero-sum. In expendable-sum situations, resources can be increased, indicating that gains are possible for all parties involved. A zero-sum mindset is an individual's general belief that situations are comprised of finite resources, thereby a gain of resources for someone implies a correlated resource loss (Sirola & Pitesa, 2017, as cited by Solberg et al., 2020).

As described, performance climates tend to emphasise the comparison of results, and this is of higher value than the process (Ames, 1992ab). Similarities in behaviour of those perceiving their workplace as a performance climate or holding a zero-sum mindset, it appears that the concepts may relate to one another. The opportunity to maintain control by being empowered to develop a sense of capability based on personal and task criterion reference norms diminishes in a performance climate (Ommundsen, 2001). As performance climates emphasise social comparison, competition and provoke expectancies for performance, this may reflect how individuals view their situations and thereby limited resources of the situation. Perceiving a performance climate might also contribute to viewing situational resources as limited, and thereby a point of view that gains for someone include a loss for another (Solberg et al., 2020). Moreover, viewing colleagues as competition may foster a view of sharing resources as a disadvantage (Nerstad et al., 2018). Similarly, it is expected that those holding a zero-sum mindset would be reluctant towards new technologies as they see new

technology as competition in their workplace (Solberg et al., 2020). Based on the presented literature, it is proposed that there will be a positive relationship between a perceived performance climate and a zero-sum mindset. It is therefore hypothesised that:

H2: There is a positive relationship between a perceived performance climate and a digital zero-sum mindset.

2.5. Change readiness

It has been argued by Miller, Johnson and Grau (1994) that several factors can cause the failure of successful change implementation. However, no factor is as critical as employees' preparedness to change. Readiness can be defined as "willingness or a state of being prepared for something" (Finch, 2012). Change readiness is defined as an individual's "beliefs, attitudes and intentions regarding the extent to which changes are needed and the organisation's capacity to successfully undertake those changes" (Armenakis et al., 1993, p. 681). Some of the earliest research on change management done by Coch and French in 1948 was with change readiness. Their idea was to reduce employee resistance to changes that are perceived as imminent within an organisation (Finch, 2012).

Readiness for organisational change can be present at the individual level and can be defined as the "organisational members change commitment and change efficacy to implement organisational change" (Weiner, 2009, p. 2). This definition follows the first language use of the term "readiness", which refers to being psychologically and behaviourally prepared to take action (Weiner, 2009). Organisational readiness for change varies in regard to how the people of the organisation value the change. When the level of organisational readiness for change is high, it is more likely that organisational members will initiate change, utilise higher effort, express higher persistence and show more cooperative behaviour. Which again will lead to a more successful change implementation (Weiner, 2009).

Change readiness consists of two elements: cognitive and affect, and it is essential to consider both of these aspects (Rafferty, Jimmieson & Armenakis, 2013). Affective components of change readiness consist of emotions such as hate, sadness, happiness, anger, acceptance and joy. The affective component is

not addressed in Armenakis and colleague's (1993) definition. However, recent studies have shown that this component is an essential part of the concept of change readiness (Rafferty et al., 2013). Holt, Armenakis, Field and Harris (2007, p. 235) show this as they define change readiness as "the extent to which an individual or individuals are cognitively and *emotionally* inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo". The cognitive component of change readiness from Armenakis and colleague's (1993) definition consists of two central beliefs: that change is needed and that the individual and the organisation can undertake change (Rafferty et al., 2013). The cognitive component is the main focus in this thesis, as we aim to investigate how individuals are willing to accept new technology and changes in the organisation.

When organisations implement complex changes, they often involve collective actions by many different people, and each effort contributes and is a predictor for a successful implementation. Since changes depend on many organisational members, problems can be caused when some feel committed to the implementation, and others do not (Weiner, 2009). Therefore, it becomes crucial to detect each organisational member's mindset before conducting changes. Moreover, we argue that change readiness's cognitive components can be viewed as having a positive mindset towards change, thereby a growth mindset. An individual who welcomes technological change can be said to hold a positive digital mindset.

Schein (2010) has researched cultural norms within organisations, and he explains that organisations consist of some "core beliefs". Core beliefs describe the importance of organisations and influence the behaviour, with both perceptions and suggestions to group members about preferred thinking and behaviour (Schein, 2010). Canning and colleagues (2020) propose that one of these beliefs is related to an organisation's mindset, or individual's perception of the organisations beliefs of what is preferred between a fixed and a growth mindset. Moreover, because the perceived organisational mindset shapes the employee's mindset about what is valued, it will influence how individuals behave and their motivation (Canning, et al., 2020).

However, when it comes crises, organisations are often forced to change. Which involves difficulties for the employees, as it becomes hard to prepare for the changes. It becomes essential to find opportunities and be able to use them (Laurie & Herreld, 2009). For instance, Covid-19 has caused difficult times for

many organisations and employees. Within such a situation, it will be more important than ever to have a functioning work environment and culture. Research proposes that when there is a belief of a growth mindset within the organisation, it is more likely that the organisation who holds such a mindset will succeed and reach their goals (Canning et al., 2020). Individual's mindset beliefs can be a predictor in influencing the employees' goals, motivation and behaviour, because a growth mindset is associated with individuals being more open to changes within their organisation due to a foundation of trust and collaboration (Canning et al., 2020). And those employees who are open for organisational changes tend to show a more adaptive behaviour (Griffin, Parker, & Mason, 2010). Individuals who view their organisation as holding a growth mindset, are also more likely to see failure as a learning process (Canning et al., 2020). The study results also showed that the perceived organisational climate creates the standard for the organisational culture, which again predicts the organisation's growth and success (Canning et al., 2020). As a mastery climate may help the change process to succeed, as such a climate will support structures that focus on effort, collaboration and learning (Roberts, Treasure and Conroy, 2007). It is, therefore, proposed that individuals of an organisation will show similar results. A digital growth mindset encompasses an individual's view of their ability to adapt and use the new technology emerging in their organisations. Moreover, people inhabiting a digital growth mindset are more likely to have faith in their abilities in learning new technologies and be ready to take on the challenges in the learning process to learn and grow (Solberg et al., 2020). Therefore, it may be reasonable to believe that individuals having a growth mindset and at the same time are exposed to a mastery climate are more willing to accept the implementation of digital changes in an organisation, and the change is more likely to be successful.

Subsequently, individuals experiencing changes in a perceived mastery climate and at the same time perceive the changes as positive will especially view the changes as positive when holding a digital growth mindset. Therefore, based on the presented literature, we proposed that there will be a positive relationship between a mastery climate and change readiness with a growth mindset as a positive mediator. It is hypothesised that:

H3: Digital growth mindset will positively mediate the positive relationship between mastery climate and change readiness.

Research proposes that a performance climate characterised by a competitive environment between employees, and being prone to such a climate, can promote undesirable behaviour and negative attitudes (Nerstad et al., 2018). Research has shown that rivalry and a competitive culture between employees have been harmful to the trust between employees, and lack of trust can negatively affect openness in communication. These factors will thereby affect job satisfaction and the organisational climate (Probst & Raisch, 2005). This lack of trust may also affect how the employees respond to change.

It is suggested that those being part of a performance climate are unwilling to participate in challenging tasks (Ntoumanis & Biddle, 1999). Change is explained to be challenging and difficult to handle (Ames, 1992a). Participants of a performance climate may therefore avoid or be unwilling to change, thereby suggesting a relationship between perceived performance climate and readiness to change.

Those employing a zero-sum mindset are likely to compete with other colleagues when the outcomes are interdependent, and the resources are limited. Individuals who view situations as zero-sum also view resources as limited (Solberg et al., 2020). They interpret situations as gains that coincide with loss or losses for another (Solberg et al., 2020). Changes in organisations are often viewed as facing something unknown (Lines, 2005), and may require more effort from the employees (Armenakis et al., 1993). Digital zero-sum mindset may thereby serve as a psychological mechanism contribute to explain the relationship between perceived performance climate and readiness to change.

Based on this, and that employees with a zero-sum mindset may view resources as limited when facing challenges, one may assume that employees holding a zero-sum mindset will be more disposed to demonstrate a negative readiness to change. Individuals who have a zero-sum mindset and thereby view their resources as limited (Solberg et al., 2020) and perceive their motivational climate as a performance climate, will also view their resources as limited when facing changes. It is supposed that individuals with a digital zero-sum mindset believe that technological change may provide challenges at their workplace (Solberg et al., 2020). Similarly, those who perceive their workplace as a performance climate are reluctant to approach what they experience as challenging (Nerstad et al., 2018). Therefore, it is proposed that those holding a

zero-sum mindset will show a similar negative belief towards change. Having a zero-sum mindset will negatively mediate the negative relationship between a performance climate and change readiness. It is, therefore, hypothesised that:

H4: Digital zero-sum mindset will negatively mediate the negative relationship between performance climate and change readiness.

3.0. Method

The study collaborates with Otiga Group AS, a company that offers several staffing, recruitment and consultant services within the Nordics. They have over 400 full-time employees in four Nordic countries; Norway, Denmark, Sweden and Finland, and Lithuania. The background for sending out surveys to organisational members under Otiga Group is due to the company's newly implemented digital survey tool, where the questions were analysed using artificial intelligence. The company is also going through several change processes, such as structural changes throughout the company.

3.1. Research Design

To be able to investigate the research question, and to test the hypothesis, we used Qualtrics, which is an online survey software. We used this software to create the electronic questionnaire we used in the surveys. In this thesis, we used a cross-sectional research design, which was structured to find a relationship between different variables. The main goal was to determine if the variables are related to each other and determine whether the variables influence each other. We have designed four hypotheses to answer our research question (Johannesen, Christoffersen & Tufte, 2011).

Moreover, a quantitative method approach was used to test our hypothesis and gather data. It was desirable to receive as many answers as possible, in order to possibly generalise the findings, as well as to be able to investigate several elements (Yilmas, 2013). Therefore, a quantitative method was assessed. Besides, the responses needed to be quantifiable to draw statistical relationships (Dahlum, 2017).

3.2. Participants

The participants were employees of the Otiga Group, which consists of several companies within recruitment, staffing and consulting. The participants were recruited through e-mail containing information about the study, a question to contribute to the study, and the link to the survey (See appendix 1-5). The first survey was distributed at the end of February, while the second was distributed in mid-March. We conducted two surveys at two different time-points to the same participants, based on the literature to test our research question and hypothesis. The questionnaires were two folded, and data were gathered at two different time points. The various data-gathering points were assessed to minimise the influence of possible measurement errors. At time one, motivational climates, the MCQW, were measured. Digital mindset and change readiness were assessed three weeks later. In the first time of data collection, the participants were asked to answer demographics, such as age, gender, tenure, and employment type.

In the first step of the data collection process, the employees received the first research survey, and the second time, they received the second research survey. Both surveys were presented through Qualtrics. More specifically, we sent both of the surveys to the participants by e-mail, which included a link to the surveys.

A total of 365 employees of Otiga Group were invited to take part in the study. 27 of originally 141(19,14%) participants were removed due to incomplete responses. A total of 114 participants (53 females (46,49%), 50 males (43,85%), 11 did not answer their gender (10,52%)) of 4 various nationalities contributed to the study. There were 47 (41,22%) employees in managerial positions, and 55 (48,24%) who did not hold a managerial role, 4 (3,50%) employees were unsure of this, while 8 (7,01%) did not respond. The companies the participants are employed in are located mainly in Norway, but also in Sweden, Finland, and Lithuania (Lithuania did not have any respondents). The average age for the participants is between 35-44 years old, and the average length of employment (40% of the participants) is 1-2 years. 5 (4,39%) participants reported that they work part-time and 101 (88,6%) full-time, 8 (7,01%) did not respond. 10 (8,77%) participants reported "High School" as their highest level of education, 17 (14,91%) employees reported "Some college credit, no degree", 4 (3,51 %) participants reported "Vocational school/technical training", 39 (34,21%) participants reported having a "Bachelor's degree", while 36 (31,58%) reported

having a "Master's degree" as their highest level of education. 8 (7,02%) participants did not report their highest level of education. In regards to duration of employment in the company, 19 (16,67%) participants reported "Under 1 year", 40 (35,09%) reported "1-2 years", 22 (19,30%) reported "3-4 years", 9 (7,90%) reported "5-6 years", 4 (3,51%) reported "7-8 years", 4 (3,51%) reported "9-10 years", 8 (7,02%) reported "Over 10 years", while 8 (7,02%) did not report their duration in the company.

3.3. Measures

To ensure consistency in the measurement, the survey was conducted in English as the employees of Otiga Group are from various countries. This choice of language may propose a limitation to the study, as participants will not be answering questions in their mother tongue (Kahneman, 2013). E-mail and Qualtrics were used to distribute the survey. To be able to answer the questionnaires, the participants were presented with an information sheet and a consent form they had to agree to (Appendix 1-2). All measures, apart from the control variables, were scored on a 5-point Likert scale, ranging from 1= Strongly disagree to 5= Strongly agree.

A reliability analysis was performed to find the Cronbach alpha values, to test the reliability of each measure. The Cronbach alpha measures the internal consistency of a scale/test and is between 0 and 1. The internal consistency, in which the Cronbach's alpha measure is used to describe to what extent the items in a scale measure the same concept/construct and how the items in the scale/test are related (Tavakol & Dennick, 2011). The Cronbach alpha value tends to differ between different researchers; however, the main rule is that the value needs to be between .7 and .9 (Tavakol & Dennick, 2011). On the other hand, when the scale consists of less than ten items, it tends to be reliable even on .5 (Pallant, 2016).

All our item scales had a high Cronbach's alpha value, and our items are therefore reliable and measure what they are supposed to. The Cronbach's Alpha coefficients were between .712 and .891, demonstrating good internal consistency on all the measures (Tavakol & Dennick, 2011). The measure for motivational climate showed a Cronbach alpha of .89 for both performance and mastery climate. For the digital mindset measure, the Cronbach alpha was .71 for digital zero-sum mindset and .80 for digital growth mindset. Lastly, for the change readiness measure, the Cronbach alpha was .82.

The perceived organisational climate was measured by using the Motivational Climate at Work Questionnaire (MCWQ; Nerstad et al., 2013., Appendix 4). This scale was developed and validated by Nerstad and colleagues (2013). It consists of 8 statements concerning the participants' perception of a performance climate, such as; "In my department/work group, it is important to achieve better than others" (Nerstad et al., 2013, p. 2237). Moreover, including 6 statements regarding how the participants perceive the mastery climate, such as; "In my department/work group, cooperation and mutual exchanges of knowledge are encouraged" (Nerstad et al., 2013, p. 2237).

The survey included questions to map individuals' digital mindset based on the conceptual model proposed by Wong and colleagues (2020., Appendix 5). This questionnaire was assessed to map whether participants have a fixed/growth mindset and zero-sum/expandable sum mindset combination. The participants responded to ten statements, such as; "When technological changes are introduced in organisations, employees often lose out.", "A person's level of technological savviness is something basic about them, and there isn't much that can be done to change it.". Six of the statements measure zero-sum/expandable sum mindset, while four statements measure fixed/growth mindset.

Change readiness was measured using the Readiness for Change construct developed and validated by Kwahk and Lee (2008), and consists of a 7 item scale questionnaire (Appendix 3). The participants responded to statements such as "I find most change to be pleasing" and "Other people think that I support change".

3.3.1 Demographics and Control Variables

To provide a description of the participants contributing to the study, and to control sociodemographic differences that may influence the results, the participants were asked to provide some information about their demographics. Age was included to discover possible differences between people of different stages of development. Previous research on mindset and its relation to motivational climate has been investigated in an educational setting, with ninth graders (Ommundsen, 2001). The employees were asked about gender because gender was previously found to be related to how motivational climate is perceived, were males tended to show a stronger ego orientation compared to women (Murcia, Gimeno & Coll, 2008). Moreover, they were asked if they have any leader responsibility, as previous research has indicated that leaders are the

most influential promoters for motivational climate at the workplace (Nerstad et al., 2013). Age was measured by using a scale of clusters. Leader responsibility was on a yes or no scale, the gender scale consisted of female/male.

3.4. Procedure and ethical considerations

Before starting the data collection, we received approval from The Norwegian Centre for Research Data (NSD) to ensure that we were following given ethical guidelines and to protect the participant's anonymity. The employees were informed about the research study through e-mail from the HR-department. They then received an e-mail with the invitation to complete the first survey.

Before the participants were able to access the survey questions, they were informed of this research's objectives. The data collected is kept confidential and only used for research purposes. The participants were informed about the procedure, anonymity, the ability to withdraw their response, and the possibility to have more information regarding the study. In a debrief sheet received after completing the second survey, the participants were informed about the purpose of the study.

3.5. Statistical Analysis

We conducted two different regression analyses on our hypotheses. Hypothesis 1, which expresses that: "*There is a positive relationship between a perceived mastery climate and a digital growth mindset*", and hypothesis 2 expresses: "*There is a positive relationship between a perceived performance climate and a digital zero-sum mindset*". Both of these hypotheses were tested using linear regression analysis in Statistical Package for the Social Sciences (SPSS) version 26.

To test hypothesis 1 the dependent variable degenerated into the independent variable (digital growth mindset) as well as we included two control variables, namely Gender and Leader Role. When performing the regression analysis, we are interested in the relationship between Y and X. We chose to include Gender and Leader Role as control variables (X2), even if we are not interested in X2 on Y. The reason for including these two control variables was based on research that expresses the importance of controlling for the confounding influence on X and Y (Frölich, 2008). Also, in hypothesis 1, we express that we

will look into the relationship between a perceived mastery climate and digital growth mindset. Therefore, we reversed the original constructs, which were measuring a fixed mindset into a growth mindset. Based on this, we will accept hypothesis 1 if the results are significant, and there is a positive relationship between a perceived mastery climate and a digital growth mindset. Before performing the linear regression analyses, the constructs were mean-centered to avoid multicollinearity (Dalal & Zickar, 2012).

To test the direct effect between a perceived performance climate and a digital zero-sum mindset with linear regression, the dependent variable was regressed into the independent variable (digital zero-sum mindset), for hypothesis 2. Additionally, we included the same two control variables Gender and Leader Role (Frölich, 2008). To accept hypothesis 2, we will look for significant results and a positive relationship between a perceived performance climate and a zero-sum digital mindset.

To test the indirect/mediation effect on hypothesis 3, which elaborate on: *"There is a positive relationship between mastery climate and change readiness with digital growth mindset as a mediator*, and hypothesis 4, which elaborate on: *"There is a negative relationship between performance climate and change readiness with digital zero-sum mindset as a mediator"*, we used Process Macro for SPSS (version 3.5 v by Andrew F. Hayes (2020), model 4, (<http://processmacro.org/index.html>). The process macro allows us to simultaneously test the whole mediation model as well as using bootstrapping techniques to create bootstrap confidence intervals for searching and estimate any indirect effect (Baron & Kenny, 1986). Our constructs were mean-centered, apart from the outcome variable, change readiness (Dalal & Zickar, 2012). In research of an extensive set of simulations, MacKinnon, Lockwood and Williams (2004) recommended using a distribution of the product approach or bootstrapping method over the Sobel test strategies, as well as over more traditional approaches, to detect mediation/indirect effects of a relationship (Baron & Kenny, 1986; Preacher & Hayes, 2008). The reason to recommend this method over others is due to that the former has high power while at the same time controlling for type 1 error (Preacher & Hayes, 2008). Type 1 error is a problem in statistics, that can occur during the hypothesis testing process, and causes that a null hypothesis is rejected, even though it actually should not be rejected and is accurate (Kenton, 2020).

A process analysis provides us with a calculation of whether or to what degree the independent variable (X) influences the dependent variable (Y), with the use of one or more intervening variables or mediators (M) (Preacher & Hayes, 2008). In our study, we have one primary mediator, which is Digital Mindset. However, this mediator consists of two constructs/measurements, digital zero-sum mindset, and digital growth mindset, therefore we run the process analysis with both of the mediators as two separate analysis. Our analysis model will be a simple mediation analysis (see figure 2). We also included our two control variables, Gender and Leader Role in the analysis. Besides, we again proceeded with the same growth digital mindset construct on hypothesis 3, where we explore the relationship between the perceived mastery climate and change readiness, with the digital growth mindset as a mediator. Therefore, a positive relationship between the perceived mastery climate and change readiness, a positive effect between the perceived mastery climate and the digital growth mindset, and if there is a positive relationship between the digital growth mindset and change readiness will determine if hypothesis 3 is supported. Together with the significant level, these values will support if we accept or reject hypothesis 3 and find support for an indirect effect between a perceived mastery climate and change readiness through digital growth mindset.

A negative relationship between the perceived performance climate and change readiness, a positive effect between the perceived performance climate and the zero-sum digital mindset, and a negative relationship between the zero-sum digital mindset and change readiness will provide support for hypothesis 4. Together with the significant level, these values will determine if hypothesis 4 is supported and find support for an indirect effect between a perceived performance climate and change readiness through digital zero-sum mindset. Although, all our analysis is conducted with a 95 % confidence interval, with bootstrapping that contains 5,000 resampling's. Bootstrapping can be explained as a method where the data is repeated, and in our dataset, it is repeated 5000 times, to create confidence intervals for the indirect effect (Hayes, Montoya & Rockwood, 2017; Preacher, Rucker & Hayes, 2007).

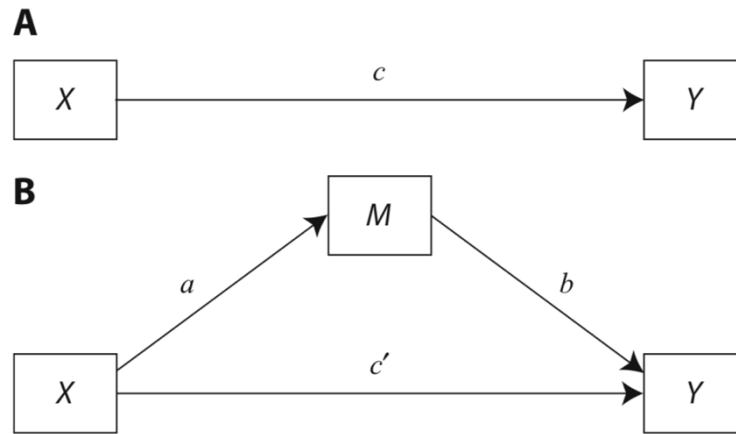


Figure 2: Model retrieved from Preacher and Hayes (2008). (A) shows the direct effect where X affects Y . (B) shows a simple mediation where X has an indirect effect on Y , through M .

4.0. Results

4.1. Factor analysis

The analysis was conducted in several steps. As a first step, factor analysis was conducted in order to ensure that the measures used in the study have acceptable levels of convergent and discriminant validity (Pallant, 2016). The measures used in the study had already been tested and have obtained substantial psychometric support (Kwahk & Lee, 2008; Nerstad, Roberts & Richardsen, 2013). However, the digital mindset measure has not been frequently tested, as it is relatively new (Solberg et al., 2020). Further, we proposed an exploratory principal component analysis with Varimax rotation, and this was conducted on all items. The Varimax rotation was executed to evaluate the factor structure, determine item retention, and identify the dimensions of the construct (Tavakol & Dennick, 2011).

Principal component analysis (PCA) is one of the most common and oldest used methods, and it works by reducing the dimensionality of the dataset, while at the same time preserving a high degree of variability (Jolliffe & Cadima, 2016). A PCA is important in order to have an understanding of the variable and sample relationship, as well as to understand the complexity and structure of the data and model, in order to be able to identify potential outliers and establish potential clusters (Kutz, 2016). The factor analysis executed at our dataset included 31 items from 5 different scales. The items originated from the perceived motivational climate scale, including Performance Climate (PC) and Mastery Climate (MC). We included the Digital Mindset Scale, which includes digital

zero-sum (DZM) and digital fixed mindset (DFM). Lastly, we included the Change Readiness Scale (CR). The factor analysis was done using SPSS version 26. In the analysis, items with loadings higher or equal to .5 on the primary factor were retained. In contrast, items with cross-loadings of .35 or greater were removed to follow the rules of well-known researchers (Lai & Kapstad, 2009).

We experienced some cross-loadings on our items, and in order to reduce and remove cross-loadings, we removed three items from the Performance Climate construct (PC). Item 1 was removed as it showed a cross-loading value of .570, along with item 5, which showed a cross-loading value of .437, and item 6, which showed a cross-loading value of .460. We also removed one item from the Change Readiness (CR) construct, namely, item 6, which showed a cross-loading onto two other items and had a cross-loading value of .383 and .382. All the items we removed cross-loaded onto the Digital Zero-sum Mindset construct (DZM).

The rotated Varimax solution, together with removing the items that cross-loaded, revealed that the components showed several strong loadings and all variables loading substantially on only one component (*See appendix 6-7*).

The Master Performance Climate construct (MC) had a factor loading between .703 and .795. The Performance Climate construct (PC) had a factor loading between .746 and .909. Further, the Change Readiness construct (CR) had factors loading between .529 and .843. The Fixed Digital mindset construct (DFM) had a factor loading between .703 and .819. Lastly, the Zero-sum Digital mindset construct (DZM) had factors loading between .559 and .779. All these factor loadings on the different constructs have a fair number, as research state that a number higher than .40 is acceptable (Peterson, 2000). Further, KMO and Barlett's test showed significant results. Kayser-Meier-Olkin measure of Sampling Adequacy showed a result of .756, this result is acceptable, and it should preferably be over .5 (Kainth & Verma, 2011). As well as the Barlett's test of Sphericity showed a significance level of .000, which shows the result we want and can be explained as a value of .01.

4.2. Descriptive statistics

After that, we conducted a descriptive analysis. This analysis was conducted to estimate means, standard deviation, as well as the correlation between our variables.

Table 1 reports descriptive statistics, the correlations between variables and controls. It also includes measures of reliability. None of the correlations between the variables exceeds .70. This value is critical, as it may indicate multicollinearity (Meyers, Gamst, & Guarino, 2016). However, as the correlation between the variables does not exceed this value, it suggests that it is not multicollinearity.

Moreover, as presented in Table 1, digital zero-sum mindset positively correlates with performance climate ($r=0.25$, $p < .01$). Digital growth mindset and digital zero-sum mindset show a negative correlation ($r=-0.23$, $p < .05$). A positive correlation was found between change readiness and growth mindset ($r=0.25$, $p < .05$). Additionally, mastery climate shows a weak and non-significant correlation with both zero-sum ($r=-0.10$, $p > .05$) and growth mindset ($r=0.01$, $p > .05$). The correlation between mastery climate and mindset is, therefore, suggested to be low and non-significant.

Nevertheless, the correlation matrix presented in Table 1 only provides indications of the relationships in the dataset. To test the hypotheses, regression analysis is necessary.

Table 1.
Descriptive Statistics, Correlations and Reliability Estimates

<i>Variable</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12
1 Gender	0.49	0.50												
2 Age	3.13	0.99	0.22*											
3 Country of residence	1.80	1.23	-0.19	-0.10										
4 Education	4.70	1.34	-0.11	-0.16	0.62									
5 Employment status	1.05	0.21	0.05	-0.30***	0.00	0.08								
6 Employment duration	2.84	1.70	-0.01	0.32**	-0.25***	-0.24*	-0.19							
7 Leader responsibility	1.48	0.57	-0.32**	-0.79	0.0	0.02	0.05	-0.04						
8 Performance climate	2.65	1.04	0.16	0.16	-0.13	0.08	-0.08	0.063	-0.03	(0.89)				
9 Mastery Climate	4.07	0.69	-0.09	-0.02	0.05	-0.07	-0.03	0.114	-0.28**	-0.32**	(0.89)			
10 Zero-sum Mindset	2.39	0.61	-0.11	0.06	0.08	0.10	-0.02	0.036	0.12	0.25**	-0.10	(0.71)		
11 Growth mindset	3.49	0.83	-0.10	-0.08	-0.00	0.03	0.23*	-0.05	-0.06	0.10	0.01	-0.23*	(0.80)	
12 Change readiness	3.93	0.49	-0.10	-0.09	0.03	0.10	-0.18	-0.17	-0.19	0.11	-0.02	-0.05	0.25*	(0.82)

N = 114. Cronbach's' Alpha coefficients are shown on the diagonal, in parentheses.

P* < .05. *P* < .01.

4.3. Hypothesis testing

The results from the process analysis are presented in table 2. Because both regression and process analysis were used, we decided to report the unstandardised coefficients when referring to the results to ensure transference between both the analyses (Pallant, 2016; Tabachnick et al., 2007). A simple linear regression was useful to check the relationship between performance climate and digital mindset. The control variables gender, and leader responsibility were included, as they had a significant correlation ($r=-0.316$, $p<.01$), and leader responsibility correlated with mastery climate ($r=-0.2777$, $p<.01$)

In step 1, the two first hypotheses were tested using linear regression. Regarding hypothesis 1, H1: *There is a positive relationship between a perceived mastery climate and digital growth mindset*, the findings indicate that the relationship between mastery climate and digital growth mindset was negative, and not significant ($B= -.080$, $SE= .123$, $p>.05$). Hypothesis 1 is, therefore, not supported. See Table 2.

Table 2.

Simple Linear Regression Analysis for the relationship between Mastery Climate and Digital Growth Mindset

Variable	B	95 % CI	β	t	P
(Constant)	4.172	[2.879, 5.465]		6.402	.006
MCT1	-.080	[-.324, .165]	-.068	-.646	.520
Gender	-.228	[-.573, .118]	-.140	-1.308	.194
Leader role	-.160	[-.472, .153]	-.112	-1.013	.313

Note. R^2 adjusted = -.009.

Dependent variable (Constant): Fixed Digital mindset, MCT1: Mastery Climate Time 1, Gender: What is your gender?, Leader Role: Do you have a leader role?

For hypothesis 2, H2: *There is a positive relationship between a perceived performance climate and digital zero-sum mindset*. The findings indicate that the relationship between performance climate and digital zero-sum mindset is positive and significant ($B= .173$, $SE= .057$, $p<.01$). Hypothesis 2 is, therefore supported. See Table 3.

Table 3.

Simple Linear Regression Analysis for the relationship between Performance Climate and Digital Zero-Sum Mindset

Variable	B	95% CI	β	t	p
(Constant)	2.361	[1.962 – 2.759]		11.757	.000
PC	.173	[.060 - .286]	.293	3.031	.003
Gender	-.171	[-.426 - .084]	-.136	-1.332	.186
Leader Role	.071	[-.149 - .291]	.065	.642	.522

Note. R² adjusted: .073.

Dependent variable (Constant): Zero-Sum Digital mindset, PCT1: Performance Climate Time 1, Gender: What is your gender?, Leader Role: Do you have a leader role?

In step 2, To investigate the research question, a simple mediation analysis was performed using PROCESS analysis (Baron & Kenny, 1986; Hayes, 2020). We explored the two last hypotheses, that predicted that digital mindset would mediate the relationship between employees' perceived motivational climate and change readiness. When testing these hypotheses, we specified the outcome measure of change readiness from the second survey as the dependent variable. The independent variables were motivational climate, mastery, and performance, while the mediators were digital mindset, fixed, and zero-sum. Table 4 provides the results of the process analysis.

Table 4.

Influence of Motivational Climate on Change Readiness through Digital Mindset

Independent Variable (IV)	Mediating Variable (M)	Dependent Variable (DV)	Influence of IV on M (a)	Influence of M on DV (b)	Total influence (c)	Direct influence (c)	Point estimate/Indirect influence (a x b)	95% CI		
								SE	Lower	Upper
1.MC →	Growth DM	CR	.0796	-.1120*	-.0278	-.0189	-.0089	.0180	-.0491	.0266
2.PC →	Zero-sum DM	CR	.1730**	-.0204	.0660	.0695	-.0035	.0143	-.0337	.0254

5000 bootstrap samples; PC= Performance Climate; MC=Mastery Climate; DM = Digital Mindset; CR = Change Readiness
 *p<.05, **p<.01, ***p<.001

First, we refer to the findings of hypothesis 3, *H3: Digital growth mindset will positively mediate the positive relationship between mastery climate and change readiness*. See figure 3 for a summary of those results. Results related to hypothesis 3 indicate that path a, the influence mastery climate on digital growth mindset was positive and not significant ($B=.0796, SE=.1223, p>.05$). The results also indicate that the influence of digital growth mindset on change readiness was negative and significant ($B=-.1120, SE=.0553, p<.05$). More, the indirect effect of the employees perceived mastery climate (IV) on change readiness (DV) through digital growth mindset (M) was negative ($B=-.0089, SE=.0180$) and not significant, as suggested by the confidence interval did include zero [$CI\ 95\% (-.0491, .0266)$]. According to Preacher and Hayes' (2004) two assumptions, path c', the direct influence of perceived mastery climate on change readiness, is dissimilar from zero ($B=-.0189$). However, the indirect effect is not significant. Therefore, the findings indicate that there is no significant indirect effect between perceived mastery climate and change readiness, with a digital growth mindset as mediator. Therefore, Hypothesis 3 is not supported.

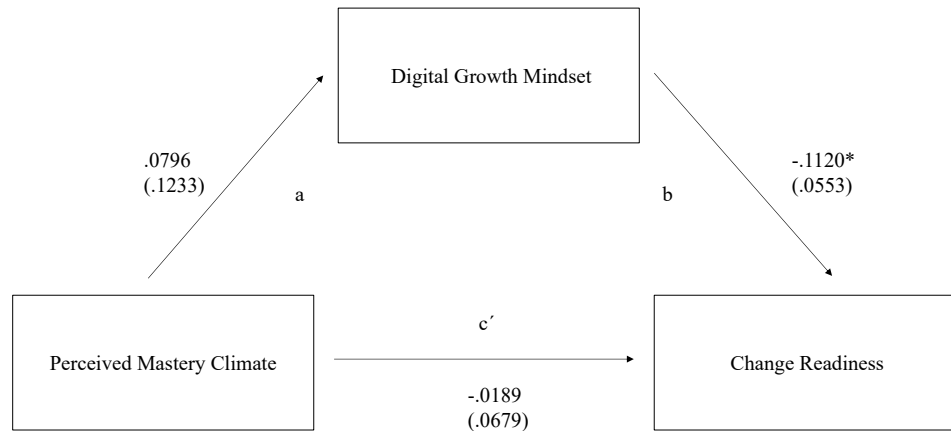


Figure 3. Unstandardised coefficients and standard errors (in the parentheses) for the indirect effects of employees' perceived mastery climate (time 1) on employees' readiness to change (time 2) through digital growth mindset (time 1) ($n=114$), $p>.05$; * $p<.05$; ** $p<.01$; *** $p<.001$

Lastly, hypothesis 4, *H4: Digital zero-sum mindset will negatively mediate the negative relationship between performance climate and change readiness*, was explored. The results can be seen in figure 4. The findings related to hypothesis 4 indicate that path a, the influence of perceived performance climate on digital zero-sum mindset was positive and significant ($B=.1630, SE=.0594, p<.05$). Also, path b, the influence of digital zero-sum mindset on change readiness was negative, however, not statistically significant ($B=-.0094,$

$SE=.0722, p>.05$). Moreover, the indirect effect of employees perceived performance climate (IV) on change readiness (DV) through digital zero-sum mindset (M) was positive ($B=.0015, SE=.0136$), although not significant, as indicated by the confidence interval that did include zero [$CI\ 95\% (-.0329, .01236)$]. Regarding Preacher and Hayes' (2004) two assumptions, path c' , the direct influence of perceived performance climate on change readiness, is different from zero ($B=.0675$). Nevertheless, the indirect effect is not significant. Therefore, the results indicate that no indirect effect occurs between employees' perceived performance climate and change readiness with digital zero-sum mindset as a mediator. Thus, hypothesis 4 is not supported.

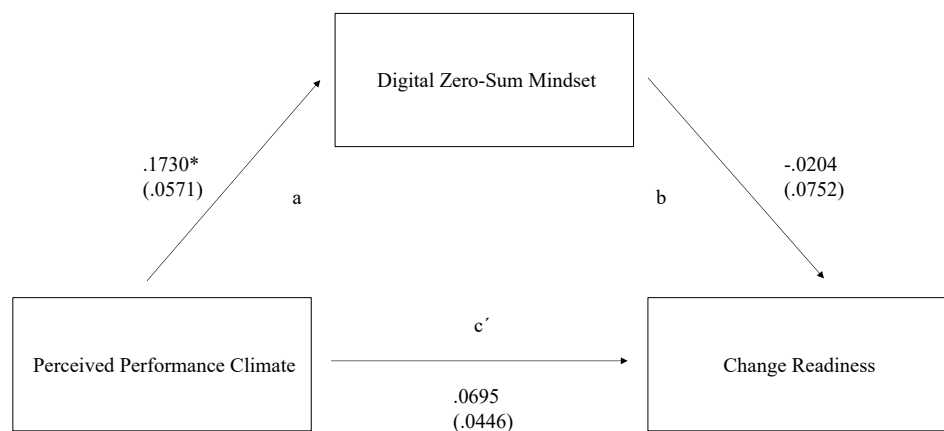


Figure 4. Unstandardised coefficients and standard errors (in the parentheses) for the indirect effects of employees' perceived performance climate (time 1) on employees' readiness to change (time 2) through digital zero-sum mindset (time 1) ($n=114, p>.05; *p<.05; **p<.01; ***p<.001$).

5.0 Discussion

The research question, "*To what extent does digital mindset have a mediating effect on the relationship between perceived motivational climate and change readiness?*" investigates the relationship between employees' perceived motivational climate, digital mindsets and readiness to change. This research has explored whether there is a relationship between employees' perceived motivational climate at work and digital mindset. Further, the study has explored whether an employee's mindset mediates the relationship between perceived motivational climate and change readiness. Perceived performance climate shows to be positively related to digital zero-sum mindset, therefore we found support for hypothesis 2. While perceived mastery climate did not show a significant relationship to digital growth mindset, indicating that hypothesis 1 is rejected.

Nevertheless, the study did not find support for the mediation analyses and hypotheses 3 and 4 and thereby suggesting that digital mindset does not mediate the relationship between the employees' perceived motivational climate and their readiness for work-related change. Although lack of evidence of the mediation hypotheses, the research provides outstanding theoretical contributions.

Firstly, the study contributes to extend the literature on motivational climate by establishing the relationship between perceived performance climate and digital zero-sum mindset. There was found support for hypothesis 2 in the current study and thereby indicating that there is a negative relationship between performance climate and digital zero-sum mindset. As digital zero-sum mindset has not been investigated in relation to performance climate in previous research, these findings contribute to expanding the literature. Moreover, it may suggest that experiencing a performance climate and having a digital zero-sum mindset may influence one another.

The current study contributes to the mindset literature by exploring whether digital mindset mediated the relationship between perceived motivational climate and change readiness. However, the mediation hypothesis was not supported, as the results provided no statistical evidence for a mediating influence. Nevertheless, the results indicated that mindset is somewhat related to the perceived motivational climate. The second hypothesis, *H2: "There is a positive relationship between a perceived performance climate and digital zero-sum mindset"*, was supported. Therefore, it suggests that those who perceive their motivational climate as performance climate also are prone to have a zero-sum mindset. This finding is consistent with former theory, which proposes that those who perceive their motivational climate as performance climate are more prone to have a zero-sum and thereby view their surrounding as zero-sum (Dweck, 2008; Dweck, 2010; Solberg et al., 2020). This finding may further contribute to gain an understanding of how performance climate interacts with mindset. Performance climate is characterised by egocentric motivation and is result-oriented (Nerstad et al., 2018), and may thereby facilitate a zero-sum mindset as a consequence. The findings of this study indicate that a performance climate may foster a zero-sum mindset. However, the non-causal relationship found in this study should be further investigated to explore the causality of the relationship.

However, the results suggested that the relationship between a mastery climate and digital growth mindset is weak and non-significant. This finding is

contrary to previous studies, which suggest that motivational climate influence employees' mindsets (Ommundsen, 2001). The non-significant result of hypothesis 1, is not in accordance with previous research and theory regarding motivational climate and growth mindset. Previous research indicates that those with a growth mindset believe that their abilities can be developed through effort and practice (Dweck & Legget, 1988; Dweck, 2010). Therefore, those who hold a growth mindset recognize the relationship between hard work and getting results, consistent with theory and research of mastery climate presenting an environment where the process and learning are emphasised over results (Nerstad et al., 2018).

Nevertheless, there can be several explanations for these conflicting results. One of the causes can be related to the situational context and developmental stages as Ommundsen's (2001) research was conducted in an educational setting among ninth graders. Most research on mindset has been done in education and classroom settings (Dweck, 2010). In contrast, the current study was situated in a work setting with working adults. Age was excluded as a control variable in our study as it was found not to have a significant impact on the model. Nevertheless, these contrasts in developmental stages and situational contexts are quite profound, as the current study only included adults in a non-educational focus setting, and may contribute to explain the contradictory findings from these studies.

When it concerns the theory of change readiness, our results did not show any significant results or statistical evidence that the digital mindset mediates the relationship between the employees' perceived motivational climate and readiness for work-related change. However, the positive and significant relationship between growth digital mindset and change readiness indicates a relationship. This relationship should be further explored as previous studies indicate that an individual's mindset will affect how successful the implementation of organisational changes will be, and how ready the employees will be for the changes (Miller, Johnson & Grau, 1994). Nevertheless, the study also contributes to the readiness for change literature by addressing possible influences of how employees respond to possible changes.

The results from the current study did not show significant results concerning change readiness. However, an explanation for why an individual mindset may influence the readiness for change in an organisation can be explained by the characteristics of the different digital mindset and the factors that

determine the perceived motivational climate an individual is exposed to. This may also be explained by Madsen, Miller and John's (2005) research, which has confirmed that for organisational readiness, it is necessary that the employees of the organisation are also open, prepared and ready for the changes. Also, a mastery climate tends to focus on learning and development (Černe et al., 2014), which is vital a context where change is prominent.

Arguably, the study's findings may indicate that there is no relationship between perceived motivational climate and change readiness and that individuals' digital mindset does not mediate such a relationship. Therefore, this study may challenge previous research and literature that proposes a relationship between perceived motivational climate and readiness to change (Dweck, 2008; Nerstad et al., 2013; Nerstad et al., 2018; Solberg et al., 2019), and should be further explored.

5.1 Limitations and Directions for Future Research

Although the study provides important theoretical implications, some limitations should be considered when interpreting the results. Due to the research method that has been applied, the study results do not suggest anything regarding causality (Bell, Bryman & Harley, 2018), which means that it is not possible to determine the direction of the relationships. Therefore, the employee's mindset may influence motivational climate, as well as the other way around. This causality could be explored in future research.

One limitation of the data collection could be the time of data collection. The data was collected at two time-points, at the end of February and at the end of March. Unfortunately, during this time, the Covid-19 spread rapidly in Europe, and quarantine and work from home policy was a result of this. This virus and quarantine affected the company we sent our survey to, and several of the employees were temporarily laid off (Høgseth, Johnson, Buggeland & Haugan, 2020). Among 140 participants took part in the first survey, while around 80 participants took part in the second. We believe this reduction of participants could be due to the temporary layoffs and prioritisation among the individuals during this time. Reprioritisation is a consequence among employees during a crisis (Halkos & Bousinakis, 2017). However, as the layoffs may persist and the Covid-19 presents uncertainties for the future, we decided not to collect data at another time-point to ensure the completion of the thesis.

Another limitation, as a result of the data collection, is the low number of final participants in our study. Moreover, some participants only answered one of the surveys and others only partially completed the surveys. However, the data was collected from various countries in the Nordics. Therefore, it can be assumed that the findings can be generalised to other European countries (Bell et al., 2018). Moreover, the participants are from various companies and various business groups, positions and management levels, which provides the possibility of good external validity to the study, and may generalise the study to other business sectors (Bell et al., 2018).

Besides, as the study relies merely on employee self-reports, common method variance (CMV) is a likely outcome, which may provide concern for the validity of our findings (Chang, Van Witteloostuijn, & Eden, 2010). Similarly, social desirability bias provides another concern for the reliability of the study. Social desirability bias concerns people wanting to be perceived positively. Therefore, participants may understate less favourable things or overemphasising the good (Bell et al., 2018). Nevertheless, to aim to reduce CMV and social desirability bias, all participants were informed that their confidentiality was ensured. Moreover, the participants were encouraged to provide honest responses.

A limitation of the survey is the language, as the survey was sent out to 5 countries it was decided to send out the survey in English to ensure that everyone received the same survey. However, this is a limitation as the respondents were not given the survey in their mother tongue, and this might increase the risk of misunderstandings, which may decrease the reliability of the results (Kahneman, 2013). However, as translation may harm the quality of the items (Berkanovic, 1980), we decided not to translate the questions as we are unable to ensure sufficient quality in five languages. Nor were we able to find previously translated questions.

Another possible issue is the scale we used to measure the fixed versus growth mindset construct. The questions are built up as quite general in the approach and are expressed like "Whether or not a person will be quick and skilled at using new technology is deeply ingrained in the kind of person they are. It cannot be changed very much". This example is not specially adapted to a job situation and can be perceived as vague, and the respondents' answers can have been imagined in another context. However, to avoid the respondent being biased

and influenced by positively and negatively loaded questions when answering the survey, we conducted two surveys at two different time points (Rogelberg, 2017). Therefore, we separated the mindset construct and the perceived motivational climate constructs and recorded the answers at two different time points. This separation might have improved the answers and avoid some influence from the different construct. However, according to research about the situational strength in a situation, the respondent can, regardless of this, have been influenced (Meyer et al., 2010; Dalal et al., 2015). Future studies should be aware of this common issue and try to avoid the respondents being biased and influenced.

To extend the findings of the current study an aim could be to determine causal directions. A suggestion could be to include an intervention study. Through facilitating motivational climate into specific groups and thereby see how this influences digital mindset, it will be possible to locate the changes and detect causal relationships. Moreover, as some significant relationships were evident in the study, future research should aim to explore these relationships, both in regard to perceived motivational climate and digital mindset, as well as digital mindset and change readiness. It will be of importance to examine the direction of such relationships. Also, by replicating the study in a larger sample, such a relationship may be more prominent.

Further, to expand on the literature regarding the digital mindset in individuals, future research should emphasise differences in leaders' digital mindsets and how this may affect the organisation's approach to new technology and performance (Roe, 2018). Moreover, leaders' digital mindsets are important and foster a digital mindset in the organisation and employees (Roe, 2018). To ensure that the organisation has a digital mindset the leaders should foster such a mindset in their employees, and should, therefore, have a digital mindset themselves (Kamath, 2019).

Also, as digital mindset incorporates growth/fixed mindset from learning theory, zero-sum/expandable-sum mindset from game theory, with an emphasis on new technology in the workplace, it could be of importance to further explore digital mindset in relation to various aspect of work-life (Solberg et al., 2019). For instance, concerning learning and development, performance as well as engagement.

5.2. Practical Implications

Even though there are limitations in this study, earlier research and our findings will have important implications for organisations going through changes, especially digital changes. It will also be important for leaders and subordinates that are highly involved in change processes. Our findings show that a perceived performance climate have a significant relationship to digital zero-sum mindset. Even though the results do not show a significant relationship between a perceived mastery climate and growth mindset, we can see from the findings about a performance climate and zero-sum and compare it with previous studies, indicating that a mastery climate is a more recommended work climate compared to a performance climate. Therefore, organisations should strive to have a mastery climate to keep their employees engaged and increase the chance for a positive attitude towards change. Also, as there is a relationship between performance climate and zero-sum mindset, organisations should strive not to have a performance climate as a zero-sum mindset will decrease the acceptance of new technologies. Based on this we recommend organisations to focus on leaders that wants to foster a mastery climate and have organisations focus on collaboration, openness and learning. As well as avoid internal competition and egocentric behaviour and motives. Moreover, it is crucial to have employees that are willing to accept change and new technology, and it is especially important in today's society, where the world is changing fast. Organisations need to cope and adapt to all the changes in order to survive (Rafferty et al., 2013). A mastery climate will then possibly be a crucial factor for success.

Digital changes and development of new technology are crucial in today's society, as organisations are constantly challenged and transformed (Colbert et al., 2016), and employees need to accept new digital tools. Moreover, several new technologies are unfamiliar to most employees, which can be difficult for some employees to accept. It is especially hard for people that inhibit a digital fixed mindset and a digital zero-sum mindset, and see new technologies as a threat to their existing work position and believe that gains for one coincide with losses for another (Solberg et al., 2020). Handling changes and having a fixed workforce may be conflicting in order for the necessity for organisations to adapt to new digital tools and implement changes in order to survive. Therefore, it can be crucial for organisations to employ and focus on new employees that show characteristics of a growth and an expandable-sum mindset, compared to a fixed

and zero-sum mindset. Hence, it can be possible to influence existing employees in an organization as research has shown that perceiving a mastery climate in organisations can reduce a zero-sum mindset among the employees (Solberg et al., 2019). This influence on employees will be essential to focus on for the leaders in the organisations to improve the work climate and influence the employees to see the new changes as necessary and valuable. To ensure that organisations handle and approach the digital changes and new technology, it is essential to understand that individuals' mindsets contribute to how they approach and adopt emerging technology (Kamath, 2019; Solberg et al., 2020).

6.0. Conclusion

This study contributes to the literature about digital mindset and perceived motivational climate as well as it contributes to the organisational change literature. Our ambition with the study is to fill the gap between how a digital mindset may affect organisational changes and the importance of the motivational climate the individuals experience in their organisations. Our research extends the literature by investigating the possibility of a relationship between a perceived performance climate and zero-sum mindset and a perceived mastery climate and a growth mindset. Beyond this, the research explores the possible relationship between individuals' perceived motivational climate and readiness to change, with the employees digital mindset as a mediator.

The study provides evidence for a negative relationship between a perceived performance climate and a digital zero-sum mindset. However, there were no significant results for any other relationships or the mediation hypotheses. Thereby, these findings will somewhat challenge theory and previous research. Nevertheless, there are still strong arguments for focusing on a mastery climate in organisations, especially to be ready for changes and for employees to develop a digital growth mindset.

References

- Ames, C. (1992a). Achievement goals and the classroom motivational climate. *Student perceptions in the classroom*, 327-348.
- Ames, C. (1992b). Classrooms: Goals, structures, and student motivation. *Journal of educational psychology*, 84(3), 261.
- Armenakis, A. A., Bernerth, J. B., Pitts, J. P., & Walker, H. J. (2007). Organizational change recipients' beliefs scale: Development of an assessment instrument. *The Journal of applied behavioral science*, 43(4), 481-505.
- Armenakis, A. A., Harris, S. G., & Mossholder, K. W. (1993). Creating readiness for organizational change. *Human Relations*, 46(6), 681–703.
<https://doi.org/10.1177/001872679304600601>
- Aslam, U., Muqadas, F., Imran, M.K. & Rahman (2018), "Exploring the sources and role of knowledge sharing to overcome the challenges of organizational change implementation", *International Journal of Organizational Analysis*, Vol. 26 No. 3, pp. 567-581.
- Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Bell, E., Bryman, A., & Harley, B. (2018). *Business research methods*. Oxford university press.
- Berkanovic, E. (1980). The effect of inadequate language translation on Hispanics' responses to health surveys. *American Journal of Public Health*, 70(12), 1273-1276.
- Canning, E. A., Murphy, M. C., Emerson, K. T., Chatman, J. A., Dweck, C. S., & Kray, L. J. (2020). Cultures of genius at work: Organizational mindsets predict cultural norms, trust, and commitment. *Personality and Social Psychology Bulletin*, 46(4), 626-642.
- Cascio, W. F., & Montealegre, R. (2016). How Technology Is Changing Work and Organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 3, 349–375. <https://doi.org/10.1146/annurev-orgpsych-041015-062352>
- Černe, M., Nerstad, C. G., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity. *Academy of Management Journal*, 57(1), 172-192.
- Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the editors: Common method variance in international business research.

- Colbert, A., Yee, N., & George, G. (2016). The digital workforce and the workplace of the future. *Academy of Management Journal*, 59(3), 731–739.
<https://doi.org/10.5465/amj.2016.4003>.
- COVID-19 impact on the European air traffic network.(April,2020). In *Eurocontrol.int.*
<https://www.eurocontrol.int/covid19>.
- Covid 19: As cities go for lockdown, out of nowhere Zoom has become the video calling app of choice. (Mars 30, 2020). In New York Times.
- Dahlum, S. (2017). Kvantitativ analyse. In Store norske leksikon.
http://snl.no/kvantitativ_analyse
- Dalal, Dev. K., & Zickar, M. J. (2012). Some Common Myths About Centering Predictor Variables in Moderated Multiple Regression and Polynomial Regression. *Organizational Research Methods*, 15(3), 339–362.
<https://doi.org/10.1177/1094428111430540>.
- Dalal, R. S., Meyer, R. D., Bradshaw, R. P., Green, J. P., Kelly, E. D., & Zhu, M. (2015). Personality Strength and Situational Influences on Behavior: A Conceptual Review and Research Agenda. *Journal of Management*, 41(1), 261–287.
<https://doi.org/10.1177/0149206314557524>.
- Desjardins, J. (2018). The Rising Speed of Technological Adoption. Retrieved 23 June 2020, from https://www.visualcapitalist.com/rising-speed-technological-adoption/?fbclid=IwAR0OotODVp5jQJwetpplQOnqYoBbX5hI-vw_qov3_PnumLaOawJX4P_8nI8.
- Dweck, C. S. (2008). *Mindset: The new psychology of success*. Random House Digital, Inc.
- Dweck, C.S. (2010). "Even Geniuses Work Hard". *Educational Leadership*. 68(1): 16-20.
- Dweck, C. (2016). What Having a “Growth Mindset” Actually Means. Retrieved 14 November 2019, from <https://hbr.org/2016/01/what-having-a-growth-mindset-actually-means>.
- Dweck, C. & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological review*, 95(2), 256.
- Finch, E. (2012). Change Readiness. In *Facilities Change Management* (pp. 17–25). Wiley-Blackwell. <https://ebookcentral-proquest-com.ezproxy.library.bi.no/lib/bilibrary/reader.action?docID=829979>
- Ford, T. (2015). Technology and the Threat of Mass Unemployment. I *The Rise of the Robots*. Oneworld Publications.

<https://pdfs.semanticscholar.org/5f00/e403fc9495f5ce11988324c4529e403feabe.pdf>.

- Frölich M. (2008). Parametric and Nonparametric Regression in the Presence of Endogenous Control Variables. *International Statistical Review*, 76(2), 214–227. <https://doi.org/10.1111/lj.1751-5823.2008.00045>.
- Griffin, M. A., Parker, S. K., & Mason, C. M. 2010. Leader vision and the development of adaptive and proactive performance: a longitudinal study. *Journal of Applied Psychology*, 95: 174–182.
- Halkos, G., & Bousinakis, D. (2017). The effect of stress and dissatisfaction on employees during crisis. *Economic Analysis and Policy*, 55, 25–34. <https://doi.org/10.1016/j.eap.2017.04.002>.
- Harwood, C. G., Keegan, R. J., Smith, J. M., & Raine, A. S. (2015). A systematic review of the intrapersonal correlates of motivational climate perceptions in sport and physical activity. *Psychology of Sport and Exercise*, 18, 9-25.
- Hayes, A.F. (2020). *PROCESS macro for SPSS and SAS*. The PROCESS macro for SPSS, SAS, and R. Retrieved 9 June 2020, from <http://processmacro.org>.
- Hayes, A. F., Montoya, A. K., & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal*, 25, 76–81. <http://dx.doi.org/10.1016/j.ausmj.2017.02.001>.
- Hernandez, D. (2018). *Seven Jobs Robots Will Create—or Expand*. Wall Street Journal. Retrieved 11th March 2020, from <https://www.wsj.com/articles/seven-jobs-robots-will-create-or-expand-1525054021>. https://search-proquest-com.ezproxy.library.bi.no/docview/2032327194?rfr_id=info%3Axri%2Fsid%3Aprimio.
- Holt, D. T., Armenakis, A. A., Feild, H. S., & Harris, S. G. (2007). Readiness for organizational change: The systematic development of a scale. *The Journal of applied behavioral science*, 43(2), 232-255.
- How Fast is Technology Accelerating?. (N.D). *In The Atlantic*. Retrieved 23 June 2020, from https://www.theatlantic.com/sponsored/prudential-great-expectations/how-fast-is-technology-accelerating/360/?fbclid=IwAR0XNU2utEORYQK1yLb98AARrXT-yOE_sz-IZpZoIPABcU9hIuZZozbk7SI

- Høgseth, M., Johnsen, A., Buggeland, S., & Haugan, B. (2020). *Over 400.000 helt og delvis ledige i Norge*. E24.no. Retrieved 20 April 2020, from <https://e24.no/i/K3mLj6?referer=https://www.aftenposten.no>.
- Jolliffe, I. T., & Cadima, J. (2016). Principal component analysis: a review and recent developments. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 374(2065), 20150202.
- Kahneman, D. (2013). *Thinking, fast and slow*. Penguin.
- Kamath, S. (2019). *What is a digital mindset and why is it important?*. KNOLSKAPE. Retrieved 27 May 2020, from <https://www.knolskape.com/blog-what-is-a-digital-mindset-and-why-is-it-important/>.
- Kainth, J. S., & Verma, H. H. (2011). Consumption values: Scale development and validation. *Journal of Advances in Management Research*, 8(2), 285–300. <https://doi.org/10.1108/09727981111175993>.
- Kenton, W. (2020). *Type I Error*. Investopedia. https://www.investopedia.com/terms/t/type_1_error.asp.
- Kutz, M. (2016). Exploratory data analysis. I *Handbook of Measurement in Science and Engineering*. (Bd. 3, s. 2317–2323). John Wiley & Sons, Inc.
- Kwahk, K. Y., & Lee, J. N. (2008). The role of readiness for change in ERP implementation: Theoretical bases and empirical validation. *Information & Management*, 45(7), 474-481. <https://doi.org/10.1016/j.im.2008.07.002>.
- Lai, L., & Kapstad, J. C. (2009). Perceived competence mobilization: An explorative study of predictors and impact on turnover intentions. *The International Journal of Human Resource Management*, 20(9), 1985–1998. <https://doi.org/10.1080/09585190903142423>.
- Laurie, D. B., & Herrald, B. (2009). New mindset. For Growth During Crisis. *Financial Executive*, 25(5).
- Lines, R. (2005). The Structure and Function of Attitudes Toward Organizational Change. *Human Resource Development Review*, 4(1), 8–32. <https://doi.org/10.1177/1534484304273818>.
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence Limits for the Indirect Effect: Distribution of the Product and Resampling Methods. *Multivariate Behav Res.*, 39(1), 99. https://doi.org/10.1207/s15327906mbr3901_4.

- Madsen, S. R., Miller, D., & John, C. R. (2005). Readiness for organizational change: do organizational commitment and social relationships in the workplace make a difference?. *Human Resource Development Quarterly*, *16*(2), 213-234.
- Martin, A. J., Jones, E. S., & Callan, V. J. (2005). The role of psychological climate in facilitating employee adjustment during organizational change. *European Journal of Work and Organizational Psychology*, *14*(3), 263-289.
- McGrath, R. (2020). The Pace of Technology Adoption is Speeding Up. Retrieved 25 September 2019, from https://hbr.org/2013/11/the-pace-of-technology-adoption-is-speeding-up?fbclid=IwAR1CdasdfxU3XceLX6I9sxUOz3n5t6HcZ_LWzDkSVoZysY0h_NNl8yoGpPA
- Meyer, R. D., Dalal, R. S., & Hermida, R. (2010). A Review and Synthesis of Situational Strength in the Organizational Sciences. *Journal of Management*, *36*(1), 121–140. <https://doi.org/10.1177/0149206309349309>.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2016). *Applied multivariate research: Design and interpretation*. Sage publications.
- Murcia, J. A. M., Gimeno, E. C., & Coll, D. G. C. (2008). Relationships among goal orientations, motivational climate and flow in adolescent athletes: Differences by gender. *The Spanish journal of psychology*, *11*(1), 181-191.
- Nerstad, C. G., Roberts, G. C., & Richardsen, A. M. (2013). Achieving success at work: development and validation of the Motivational Climate at Work Questionnaire (MCWQ). *Journal of Applied Social Psychology*, *43*(11), 2231-2250.
- Nerstad, C. G. L., Searle, R., Černe, M., Dysvik, A., Skerlavaj, M., & Scherer, R. (2018). Perceived mastery climate, felt trust, and knowledge sharing. *Journal of Organizational Behavior*, *39*, 429-447 Doi: <https://doi.org/10.1002/job.2241>
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological review*, *91*(3), 328.
- Ntoumanis, N., & Biddle, S. J. (1999). A review of motivational climate in physical activity. *Journal of sports sciences*, *17*(8), 643-665.
- Ommundsen, Y. (2001). Students' implicit theories of ability in physical education classes: The influence of motivational aspects of the learning environment. *Learning Environments Research*, *4*(2), 139.
- Pallant, J. (2016). *SPSS Survival Manual* (6 th Edition). McGraw-Hill Education.
- Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., Lacost, H. A., & Roberts, J. E. (2003). Relationships between psychological climate perceptions

- and work outcomes: a meta- analytic review. *Journal of organizational behavior*, 24(4), 389-416.
- Peterson, R. A. (2000). A Meta-Analysis of Variance Accounted for and Factor Loadings in Exploratory Factor Analysis. *Marketing Letters*, 11(3), 261–275.
- Piccinini, E., Hanelt, A., Gregory, R. W., & Kolbe, L. M. (2015). *Transforming Industrial Business: The Impact of Digital Transformation on Automotive Organizations*.<https://pdfs.semanticscholar.org/ea87/b659e573ccd0b6e267c2ca30a1a0d3d98393.pdf>.
- Plesner, U., Justesen, L., & Glerup, C. (2018). The transformation of work in digitized public sector organizations. *Journal of Organizational Change Management*, 31(5), 1176–1190. <https://doi.org/10.1108/JOCM-06-2017-0257>.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior research methods, instruments, & computers*, 36(4), 717-731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing Moderated Mediation Hypotheses: Theory, Methods, and Prescriptions. *MULTIVARIATE BEHAVIORAL RESEARCH*, 42(1), 185–227. <https://doi.org/10.1080/00273170701341316>.
- Probst, G., & Raisch, S. (2005). Organizational crisis: The logic of failure. *Academy of Management Executive*, 19(1).
- Roberts, G., & Nerstad, C. (2020). Motivation - Achievement Goal Theory in Sport and Physical Activity. In D. Hackfort & R. Schinke, *The Routledge International Encyclopedia of Sport and Exercise Psychology: Volume 1: Theoretical and Methodological Concepts*. Routledge.
- Roberts, G.C., Treasure, D.C., & Conroy, D. (2007). Understanding the dynamics of motivation in sport and physical activity: An achievement goal interpretation. In G. Tenenbaum & R. Eklund (Eds). *Handbook of research in sport psychology*, (pp. 3-30), N.Y:Wiley.
- Roe, D. (2018). *Why a Digital Mindset Is Key to Digital Transformation*. CMSWire.com. Retrieved 27 May 2020, from <https://www.cmswire.com/digital-workplace/why-a-digital-mindset-is-key-to-digital-transformation/>.

- Rolling updates on coronavirus disease (COVID-19)*. (2020, June 17). In World Health Organization. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>.
- Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.
- Schulte, M., Ostroff, C., & Kinicki, A. J. (2006). Organizational climate systems and psychological climate perceptions: A cross-level study of climate satisfaction relationships. *Journal of Occupational and Organizational Psychology*, 79(4), 645-671
- Schwab, K. (2017). *The fourth industrial revolution*. Currency.
- Solberg, E., Wong, S., & Traavik, L. E. M. (2019). *When Employees See Digital Transformation as a Threat*. BI Business Review. Retrieved 27 May 2020, from https://www.bi.edu/research/business-review/articles/2019/01/when-employees-see-digital-transformation-as-a-threat/?fbclid=IwAR1ozwMYC-WTqKJofqZIDQgekNwC7dm2V5NoOuo-_cKYhOa3ELIVZKwgtol.
- Solberg, E., Traavik, L. E., & Wong, S. I. (2020). Digital Mindsets: Recognizing and Leveraging Individual Beliefs for Digital Transformation. *California Management Review*, 0008125620931839.
- Steffanini. (2020). Coronavirus Pandemic: Watching the Role of Technology Change. *Steffanini group*.
- Susskind, R., & Susskind, D. (2015). *The Future of the Professions: How Technology will Transform the Work of Human Experts*. Oxford University Press. <https://global.oup.com/academic/product/the-future-of-the-professions-9780198713395?cc=no&lang=en&>.
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5). Boston, MA: Pearson.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>.
- Johannessen, A., Christoffersen, L., & Tufte, P. A. (Eds.). (2011). Gjennomføring av undersøkelser- forskningsdesign. In *Forskningsmetode for økonomiske-administrative fag* (3rd edition). Abstrakt forlag AS.
- Miller, V. D., Johnson, J. R., & Grau, J. (1994). Antecedents to willingness to participate in a planned organizational change. *Journal of Applied Communication Research*, 22, 59–80.

Rafferty, A. E., Jimmieson, N. L., & Armenakis, A. A. (2013). Change Readiness: A Multilevel Review. *Journal of Management*, 39(1), 110–135. <https://doi.org/10.1177/0149206312457417>

Rogelberg, S. G. (2017). *Industrial and Organizational Psychology*. (2nd Edition). SAGE Publications.

Weiner, B. J. (2009). A theory of organizational readiness for change. *Implementation Science*, 4(1), 67. <https://doi.org/10.1186/1748-5908-4-67>.

Appendices

Appendix 1: Information sheet

Would you like to participate in our research project “How does people perceive technological changes in their work climate?”

Written consent to participate in “How does people perceive technological changes in their work climate?”

This is a question to take part in a research project where the purpose is to explore technological change and work climate.

Purpose

The purpose of the research is to explore whether people vary in how they perceive technological change in their work climate. You will also be asked about some demographics. This is a master thesis in cooperation with Handelshøyskolen BI and Otiga Group As.

Responsible

Handelshøyskolen BI and Otiga Group AS are responsible for the project.

You are asked to join this research as you are an employee or have been employed by one of the Otiga Group companies.

If you choose to take part in this study you will be asked to complete two questionnaires, one now, and in three weeks. Each questionnaire will take approximately ... minutes. Your questions will be registered electronically. If you choose to take part in this study, your information will be used to the master thesis.

The survey involves questions regarding your view on change and your work climate.

It is volunteer to take part in the project. If you choose to contribute, you are free to withdraw from participating in the project until March 1 st 2020.

Your data will be kept confidential and anonymous and any identifiers will be removed from any publications and reports that use your data. The two researchers and our supervisor mentioned below are the only people who will have access to your data from this survey.

Your rights

As long as you can be identified in the data material, you are entitled to:

- insight into what personal data is registered about you,
- to have your personal information corrected,
- get deleted personal information about you,
- get a copy of your personal data (data portability), and
- to submit a complaint to the Privacy Ombudsman or the Data Inspectorate regarding the processing of your personal data.
- What gives us the right to process personal information about you?
- We process information about you based on your consent.

You should feel free to ask the experimenter any questions you might have.

On behalf of Handelshøyskolen BI, NSD - Norwegian Center for Research Data AS has considered that the processing of personal data in this project complies with the privacy Regulations.

Where can I find out more?

If you have questions about the study, or wish to exercise your rights, please contact:

- Handelshøyskolen BI by Sut I Wong, sut.i.wong@bi.no
- Our Privacy Ombudsman at Handelshøyskolen BI: personvernombud@bi.no
- NSD - Norwegian Center for Research Data AS, by email (personvernt services@nsd.no) or by phone: 55 58 21 17.

Kind regards,

Sut I Wong, sut.i.wong@bi.no
Supervisor

Matilde N. Carlsen, matilde.carlsen@otigagroup.com
Student

Kristine G. Kloven, kristine.goakloven@gmail.com
Student

Online agreement:

I have received and understood information about the project “Engagement and attitudes”,

and have gotten the opportunity to ask questions. I agree to

- Take part in the surveys
- I agree that my information will be processed until the project is completed, approximately July 1st.

Appendix 2: Debrief sheet

Thank you for participating in our study.

The master thesis aims to investigate the following research question: *Does digital mindset have an (mediating) effect on the relationship between perceived motivational climate and change readiness?* The research model which is applied for addressing this question includes three core variables; the employees perceived motivational climate, the employee’s mindset, as well as their readiness for change.

Based on the current literature we predict that those individuals that perceive their motivational climate as a mastery climate will have a positive relationship with those who have growth digital mindset. In addition, the positive relationship between mastery climate and change readiness will be influenced by a growth digital mindset. Moreover, those perceiving their work climate as a performance climate will have a positive relationship between a zero-sum digital mindset. And

the negative relationship between performance climate and change readiness will be influenced by a zero-sum digital mindset.

We removed the full title of our title study from the information sheet so that it would not have an influence on your performance on both the questionnaire and the tasks.

Feel free to contact any of the researchers if you wish to have more information regarding the study. You can withdraw your results from the study before 1st March 2020, if you wish to do so, please send an email to the researchers (see list below). Please note that confidentiality and anonymity of your results will still remain after this date.

Your participation is highly valued, thank you.

Best wishes,

Sut I Wong, sut.i.wong@bi.no
Supervisor

Matilde N. Carlsen, matilde.carlsen@otigagroup.com
Student

Kristine G. Kloven, kristine.goakloven@gmail.com
Student

Appendix 3: Readiness for change (RFC) scale from Kwahk, K. Y., & Lee, J. N. (2008). The role of readiness for change in ERP implementation: Theoretical bases and empirical validation. *Information & Management*, 45(7), 474-481. <https://doi.org/10.1016/j.im.2008.07.002>.

First, please indicate how strongly you agree with each of the statements below. All items should be rated on a 5-point scale, such that 1 = strongly disagree and 5 = strongly agree.

RFC1: I look forward to changes at work.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

RFC2: I find most change to be pleasing.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree

5. Strongly agree

RFC3: Other people think that I support change.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

RFC4: I am inclined to try new ideas.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

RFC5: I usually support new ideas.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

RFC6: I often suggest new approaches to things.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

RFC7: I intend to do whatever is possible to support change.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Appendix 4: Perceived motivational climate MCWQ scale from Nerstad, C. G., Roberts, G. C., & Richardsen, A. M. (2013). Achieving success at work: development and validation of the Motivational Climate at Work Questionnaire (MCWQ). *Journal of Applied Social Psychology*, 43(11), 2231-2250.

Performance climate

First, please indicate how strongly you agree with each of the statements below. All items should be rated on a 5-pointing scale, such that 1 = strongly disagree and 5= strongly agree.

PC1: In my department/work, it is important to achieve better than others.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

PC2: In my department/work group, work accomplishment are measured based on comparisons with the accomplishment of coworkers.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

PC3: In my department/work group, an individual's accomplishments are compared with those of other colleagues.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

PC4: In my department/work group, rivalry between employees is encouraged.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

PC5: In my department/work group, one is encouraged to perform optimally to achieve monetary rewards.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

PC6: In my department/work group, only those employees who achieve the best results/accomplishments are set up as examples.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

PC7: In my department/work group, internal competition is encouraged to attain the best possible result.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

PC8: In my department/work group, there exists a competitive rivalry among the employees.

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Mastery climate

First, please indicate how strongly you agree with each of the statements below. All items should be rated on a 5-point scale, such that 1 = strongly disagree and 5 = strongly agree.

MC1: In my department/work group, one is encouraged to cooperate and exchange thoughts and ideas mutually.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree

5. Strongly agree

MC2: In my department/work group, each individual's learning and development is emphasized.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

MC3: In my department/work group, cooperation and mutual exchange of knowledge are encouraged.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

MC4: In my department/work group, employees are encouraged to try new solution methods throughout the work process.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

MC5: In my department/work group, one of the goals is to make each individual feel that he/she has an important role in the work process.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

MC6: In my department/work group, everybody has an important and clear task throughout the work process.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Appendix 5: Digital Mindset Survey from Solberg, E., Traavik, L. E., & Wong, S. I. (2020). Digital Mindsets: Recognizing and Leveraging Individual Beliefs for Digital Transformation. *California Management Review*, 0008125620931839

Zero-sum construal

First, please indicate how strongly you agree with each of the statements below. All items should be rated on a 5-pointing scale, such that 1 = strongly disagree and 5= strongly agree.

In general, I believe that:

1. When technological changes are introduced in organisations, employees often lose out.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

2. New technologies reduce the opportunities for current employees to succeed in their current jobs.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

3. The more jobs that technology takes over in an organisation, the fewer good jobs there are for employees.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

4. Resources used for technological changes take away resources from existing employees.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

5. For every new technology, there are people losing their jobs.

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

6. Employees will have less influence in organisations the more technology takes over.
1. Strongly disagree
 2. Disagree
 3. Neutral
 4. Agree
 5. Strongly agree

Fixed mindset beliefs

Further, please indicate the extent to which you agree with the statements below. All items should be rated on a 5-pointing scale, such that 1 = strongly disagree and 5 = strongly agree.

In general, I believe that:

1. A person's level of technological savviness is something basic about them, and there isn't much that can be done to change it.
 1. Strongly disagree
 2. Disagree
 3. Neutral
 4. Agree
 5. Strongly agree

2. Whether or not a person will be quick and skilled at using new technology is deeply ingrained in the kind of person they are. It cannot be changed very much.
 1. Strongly disagree
 2. Disagree
 3. Neutral
 4. Agree
 5. Strongly agree

3. Not much can be done to change how well a person will keep pace with technological change. Everyone is a certain kind of person, and some will fare better with technological changes than others.
 1. Strongly disagree
 2. Disagree
 3. Neutral
 4. Agree
 5. Strongly agree

4. Though people can sometimes learn new things, you can't really change people's basic talent for adapting to new technology.
 1. Strongly disagree
 2. Disagree
 3. Neutral
 4. Agree
 5. Strongly agree

Appendix 6: Factor analysis before moving items

Factor Analysis:

Rotated component matrix before removing items.

Rotated component matrix (before removing items)

Components	1	2	3	4	5	6	7	8
PC: In my department/work group, work accomplishment are measured based on comparisons with the accomplishment of co-workers.	.885							
PC: In my department/work group, an individual's accomplishments are compared with those of other colleagues.	.815							
PC: In my department/work group, there exists a competitive rivalry among the employees.	.809							
PC: In my department/work group, internal competition is encouraged to attain the best possible results.	.771							
PC: In my department/work group, rivalry between employees is encouraged.	.761							
PC: In my department/work group, only those employees who achieve the best results/accomplishment are set up as examples.	.669							-.437
PC: In my department/work group, one is encouraged to perform	.647					.460		

optimally to achieve monetary rewards.		
PC: In my department/work group, it is important to achieve better than others.	.641	.570
MC: In my department/work group, cooperation and mutual exchange of knowledge are encouraged.	.830	
MC: In my department/work group, employees are encouraged to try new solution methods throughout the work process.	.818	
MC: In my department/work group, one of the goals is to make each individual feel that he/she has an important role in the work process.	.804	
MC: In my department/work group, one is encouraged to cooperate and exchange thoughts and ideas mutually.	.800	
MC: In my department/work group, each individual's learning and development is emphasized.	.794	
MC: In my department/work group, each individual's learning and development is emphasized.	.763	
CR: I look forward to changes at work.	.841	
CR: I intend to do whatever is possible to support change.	.795	

CR: I find most change to be pleasing.	.778		
CR: Other people think that I support change.	.679		
CR: I usually support new ideas.	.571		.465
CR: I often suggest new approaches to things.	.495	.383	.382
FDM: In general I believe that: Whether or not a person will be quick and skilled at using new technology is deeply ingrained in the kind of person they are. It cannot be changed very much.	.823		
DMF: In general I believe that: Not much can be done to change how well as person will keep pace with technological change. Everyone, is a certain kind of person, and some will fare better with technological changes than others.	.797		
DFM: In general I believe that: A person's level of technological savviness is something basic about them, and there isn't much that can be done to change it.	.781		
DFM: In general I believe that: Though people can sometimes learn new things, you can't really change people's basic talent for adapting to new technology.	.729		
DZM: In general I believe that: The more jobs that technologies takes over in an organization, the fewer jobs there are for employees.	.787		

DZM: In general I believe that:Resources used for technological changes take away resources from existing employees.	.744	
DZM: In general I believe that:Employees will have less influence in organizations the more technology take over.	.720	
DZM: In general I believe that:New technologies reduce the opportunities for current employees to succeed in their current jobs.	.629	
DZM: In general I believe that:When technological changes are introduced in organizations, employees often lose out.	.679	
DZM: In general I believe that:For every new technology, there are people losing their jobs.	.396	.600
CR: I am inclined to try new ideas.		.812

Cross-loadings removed. PC: Performance Climate, MC: Mastery Climate, DZM: Digital Zero-Sum Mindset, DFM: Digital Fixed Mindset, CR: Change Readiness

Appendix 7: Factor analysis after removing Q1PCT1, Q5PCT1, Q6PCT1, Q6CRT2

Rotated component matrix (after removing items).

Components	1	2	3	4	5	6
MC: In my department/work group, each individual's learning and development is emphasized.	.795					
MC: In my department/work group, employees are encouraged to try new solution methods throughout the work process.	.771					
MC: In my department/work group, one of the goals is to make each individual feel that he/she has an important role in the work process.	.770					
MC: In my department/work group, everybody has an important and clear task throughout the work process.	.745					
MC: In my department/work group, cooperation and mutual exchange of knowledge are encouraged.	.731					
MC: In my department/work group, one is encouraged to cooperate and exchange thoughts and ideas mutually.	.703					

PC: In my department/work group, work accomplishment are measured based on comparisons with the accomplishment of coworkers.	.909
PC: In my department/work group, an individual's accomplishments are compared with those of other colleagues.	.803
PC: In my department/work group, there exists a competitive rivalry among the employees.	.800
PC: In my department/work group, internal competition is encouraged to attain the best possible results.	.753
PC: In my department/work group, rivalry between employees is encouraged.	.746
CR: I intend to do whatever is possible to support change.	.843
CR: I look forward to changes at work.	.769
CR: Other people think that I support change.	.743
CR: I usually support new ideas.	.704

CR: I find most change to be pleasing.	.695
CR: I am inclined to try new ideas.	.529
DFM: In general I believe that:Whether or not a person will be quick and skilled at using new technology is deeply ingrained in the kind of person they are. It cannot be changed very much.	.819
DFM: In general I believe that:Not much can be done to change how well as person will keep pace with technological change. Everyone, is a certain kind of person, and some will fare better with technological changes than others.	.789
DFM: In general I believe that:A person's level of technological savviness is something basic about them, and there isn't much that can be done to change it.	.777
DFM: In general I believe that: Though people can sometimes learn new things,	.703

you can't really change people's basic talent for adapting to new technology.	
DZM: In general I believe that:Resources used for technological changes take away resources from existing employees.	.779
DZM: In general I believe that: The more jobs that technologies takes over in an organization, the fewer jobs there are for employees.	.750
DZM: In general I believe that:Employees will have less influence in organizations the more technology take over.	.712
DZM: In general I believe that:New technologies reduce the opportunities for current employees to succeed in their current jobs.	.559
DZM: In general I believe that:For every new technology, there are people losing their jobs.	.660
DZM: In general I believe that:When technological changes are	.588

introduced in
organizations,
employees often
lose out.

PC: Performance Climate, MC: Mastery Climate, DZM: Digital Zero-sum
Mindset, DFM: Digital Fixed Mindset, CR: Change Readiness

Appendix 8: Control variables

Description of the study participants based on control variables excluding missing values

<i>Control variable</i>		<i>Number (N)</i>	<i>Percent (%)</i>
Gender	Female	53	51.5
	Male	50	48.5
Age	18-24	2	1.9
	25-34	30	28.3
	35-44	36	34.0
	45-54	28	26.4
	55-64	10	9.4
Country of residence	Norway	55	51.9
	Sweden	27	25.5
	Finland	19	17.9
	Lithuania	0	0.0
Highest education	Other	5	4.7
	High School	10	9.4
	Some college credit, no degree	17	16.0
	Vocational school/technical training	4	3.8
	Bachelor's degree	39	36.8
	Master's degree	36	34.0
	Doctorate degree	0	0.0
Employment status	Full-time employee	101	95.3
	Part-time employee	5	4.7
Tenure	Under 1 year	19	17.9
	1-2 years	40	37.7
	3-4 years	22	20.8
	5-6 years	9	8.5
	7-8 years	4	3.8
	9-10 years	4	3.8
	Over 10 years	8	7.5
Leader role	Yes	47	44.3
	No	55	51.9
	Unsure	4	3.8