Revitalizing Workspaces

How does Trust and Control, affect Remote Work Arrangement and Performance in a Post-Pandemic Era

Thomas Bjørnson Larsen

SUPERVISOR
Bjørn-Tore Flaaten

University of Agder,
School of Business and Law
Department of Management

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Glossary

RWA - Remote Work Arrangements
OC - Organizational Control
ICT - Information and Communication Technologies
IWP - Individual Work Performance Questionnaire
SEM - Structural Equation Modeling
PLS - Partial Least Squares
HOC - Higher-Order Constructs
LOC - Lower-Order Constructs
AVE - Average Variance Extracted
HTMT - Heterotrait-Monotrait
RMS - Standardized Root Mean Square Residual
GDPR - General Data Protection Regulation

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Abstract

Remote Work Arrangements (RWA) represent a significant shift in work dynamics, enhancing productivity, reducing commute, and improving work-life balance. However, RWA adoption has been mixed, partly due to concerns over trust and control. This thesis aims to understand how trust and control affect the adoption of RWA and the claims of its inefficiency. Surveying 283 US managers with staff responsibilities, the study seeks to find the influence between trust, control styles, the use of RWA, and managers' perceived output of their employees. The study provides insights into improving organizational policies and practices in the post-pandemic world where RWA is integral to many workplaces. The study is based on Sitkins et al.'s (2020) control literature review and research gaps, exploring formal and informal control and trust-control influence on RWA. The study also draws on Ouchi's (1977, 1979, 1980) framework to distinguish between principal-agent views and social control frameworks to understand organizational control's (OC) structural and human-centric aspects. The results show that trust has a positive impact on the adoption of RWA and a significant impact on the perceived performance of employees. It was also found that OC does not affect the adoption of RWA, and only informal control affects the perceived performance of employees. Last, trust shows a clear influence on control, supporting theories that suggest that trust and control work together to improve performance (Bijlsma-Frankema & Costa, 2005). This complementary view contradicts the principal-agent theories and supports newer research into this field. In conclusion, the results in this thesis emphasize the need for management to shift the focus from traditional control mechanisms to trust-centric approaches to better manage employees in RWAs. It highlights that traditional OC needs further research to comprehend the role of trust and control in the context of RWA. The findings lay the groundwork for more efficient and human-centric work environments as remote work expands across more industries and workplaces.

Introduction

Background

"The fight over remote working will heat up in 2024" (Rachana Shanbhogue, 2023, p. 1). Remote Work Arrangement (RWA) can revolutionize the workplace, promising increased productivity, reduced commuting, and enhanced work-life balance (J. M. Nilles et al., 1976; Ozimek, 2020). For businesses, RWA offers cost savings on office space and environmental benefits. However, despite these advantages, RWA adoption has yet to keep up with advances in information and communication technologies (ICT).

A central challenge to RWA is the issue of trust (Parker et al., 2020). Traditional Western management has long focused on formal styles of management utilizing direct observation and guidance of employees, ensuring efficiency, and preventing opportunistic use of work time (Sitkin et al., 2020). Using RWA creates a physical barrier for managers to inspect their employees' work and give feedback. This represents a paradigm shift many companies find difficult to adapt to (Downes et al., 2023). During the COVID-19 pandemic, the trust barrier to RWA had to be lowered when companies were forced to embrace RWA rapidly or risk a potential shutdown. This abrupt transition highlighted a shift from voluntary to mandatory use of RWA, which surprised many companies.

As the world emerges from the pandemic, the continued utilization of RWA is unclear in the US. While the use of RWA peaked during the pandemic, levels have now settled to three times as many full-time positions as before the pandemic (Gallup, 2023). Many companies have instead adopted hybrid policies, allowing employees to work from home some days. Other companies have reverted to co-located offices, notably Twitter, under the leadership of Elon Musk, stating concerns over workers' efficiency and lack of control over employees (Kurt Wagner, 2022). Several other CEOs and large corporations have declared similar

“return to office” policies for similar reasons, such as lack of trust, efficiency, and control (Shana Lebowitz et al., 2023).

This dilemma raises critical questions about why some companies thrive with remote work while others do not. Moreover, is this reversion back to co-located workspaces driven by the preference for a particular management style? Furthermore, what control style types are best suited when employees work remotely? This research aims to delve into these questions, exploring the relationship between trust and control within the context of RWA and how managers perceive employees' performance.

Problem and Research Questions

The central problem this study addresses is understanding the role of trust and OC in the adoption and efficiency of RWA. The research questions explore how managerial trust and control styles correspond with RWA utilization and managers' perceived performance of their employees. The rich literature on OC and trust is studied in the literature research. Sitkin et al.’s (2020) comprehensive review of control literature is an essential theoretical foundation within this field, especially highlighting the research gap in control–trust dynamics and the use of formal and informal control types. These insights are particularly relevant for exploring how the work dynamics change in the context of RWA. Further, we draw on Ouchi’s (1980) framework to understand the historical roots of OC and how control developed its structural and human-centric aspects. In the empirical research, we survey managers with staff responsibilities intending to discover whether there are relationships between trust levels, control styles, the extent of remote work adaptation, and the perceived performance of the employees. Based on this study's literature and empirical research, we expect to conclude which parameters give the most valuable insights into the best managerial style for RWA. Thus enhancing the managers’ perception of employee performance when managing the future workforce in a world with an increasing demand for remote work.

Theory

This chapter introduces the relevant theoretical foundations of remote work, Organizational Control (OC), and trust. First, the literature review method used will be discussed. Following this, the background for how remote work has evolved to its current state, along with the characteristic organizational challenges of remote work, will be examined. The theories on trust and organization control, including some of their foundational theories, are then presented. This chapter presents a holistic overview of relevant theoretical foundations for trust, OC, and performance within remote work. Finally, the research gaps identified by the thesis, the research question, and the hypothesis are presented.

Review Method

The Snowball technique (Bougie & Sekaran, 2019) collected the relevant literature. Abstracts were read and selected based on their relevance and journal ranking, and new articles were found in the reference lists of the chosen articles. The literature search began with exploring Google Scholar, Science Direct, and EBSCO, three well-established databases for academic literature. The initial search comprised “Remote Work,” “Trust,” and “Organizational Control.” The articles were analyzed using the software tool “Local Citation Network” (*Local Citation Network*, 2023) to generate citation graphs. The graphs were then used to find influential publications and authors within the research topic. This thesis also used ChatGPT, an advanced AI language model developed by OpenAI, to identify relevant sources for the thesis, inspire paragraph formulation, and investigate critical and opposing views on theory. Typical prompts include “Act as an academic journal reviewer” and “List up inconsistencies in this text.” This yields comparable results to a human proofreader but with the added benefits of fast delivery, low cost, and detailed feedback. While ChatGPT is of good service, it has been used with careful consideration and source criticism, as it is known

to produce false data; hence, all data has been checked with alternative sources. The author generated all text in this thesis; ChatGPT has been used as a supportive tool in adherence with the rules and requirements of the university. Extra care has been taken to validate the accuracy and relevance of all information obtained from ChatGPT, including cross-checking references and avoiding confirmation bias.

Context description

Before the Industrial Revolution, a wide range of tasks was performed by a single craftsman who would independently conduct all the processes needed to produce goods or services (Zahir & Aman, 2016). This meant that these single craftsmen would have a broad knowledge of all the processes and range of tools needed to assemble a complete product. During the Industrial Revolution, the way of working changed dramatically. Instead of learning many trades, workers specialized in one specific work process that could be mastered quickly and performed in an optimized way. This led to more efficient production by standardizing their work, meaning workers had to meet at specific co-located workplaces daily. Gathering a range of specialist workers into one workplace to make complex products is still the standard today (Kohnová & Salajová, 2019).

The idea of remote work was first proposed by Allan Kiron in 1969, a staff scientist at the US Patent Office (*Telework Annual Report*, 2013; *The Pioneers of Modern Remote Work*, 2020). Allan wrote in the Washington Post that "the combination of computers and communication tools could change the way of work and life forever" (*Telework Annual Report*, 2013, p. 38). Allan called his new way of working "dominetics" to draw a connection between domicile, connections, and electronics. While Allan wrote the first article describing Remote Work, Jack Nilles, the lead author of *The Telecommunications-Transportation Tradeoff*, received greater attention when he published the book in 1973. He coined the terms *telecommuting* and *teleworking* as alternatives to commuting. The timing was also the height

of the OPEC oil crisis, where gas prices were soaring, increasing the popularity of their new concept (J. Nilles et al., 1978; Vicky Gan, 2015). While Allan and his co-authors coined the terms, they were limited by communication technology at the time. Their suggestion to solve the communication problems was to use smaller satellite offices and communicate with the corporate offices using high-speed telecommunications.

Another influential visionary for remote offices was Frank Schiff. In 1979, he published an article in the Washington Post describing the future of teleworking, similar to Kiron and Nilles. Schiff also emphasized many of the concerns of that time, including the energy crisis, e.g., air pollution, traffic congestion, and reduced mental and physical stress for all (Schiff, 1979). One of Schiff's unique additions was that he envisioned a future with personal computers giving access to facilities and large quantities of data. He was also the first to suggest that remote work could be used by various work segments: engineers, programmers, scientists, lawyers, accountants, insurance, and sales could all be done from home. Schiff also describes one of the critical challenges of remote work: "If people work at home, how can one tell how well they are doing or whether they are working at all?" (Schiff, 1979, para. 21). Schiffel suggested a solution: work should focus on the output, "not the hours spent at the workplace" (Schiff, 1979, para. 22). In the seventies, personal computers (PCs) became accessible for home use, marking a time when computers and communication technology rapidly developed. The Internet appeared in 1983, and the World Wide Web appeared in 1990, drastically altering global communication and information access, reaching over 400 million users by 2000 (Andrei, 2022; Roser, 2018). By the end of the 1990s and 2019, information and communication technology (ICT) experienced rapid evolution rather than isolated events (Andrei, 2022). This period saw gradual improvements in internet speed and communication tools.

During the COVID-19 pandemic, many countries enforced social distancing policies and lockdowns, hindering people from leaving their homes to avoid spreading the virus. This forced a large number of companies to make RWA compulsory for their employees (Pianese et al., 2022; Toniolo-Barrios & Pitt, 2021). This gave rise to a rapid shift of the workforce from co-located workplaces to remote work to avoid disruption of their business. This can be seen in the Gallups graph in Figure 1, showing the percentage of the U.S. workforce working remotely before, during, and after the pandemic.

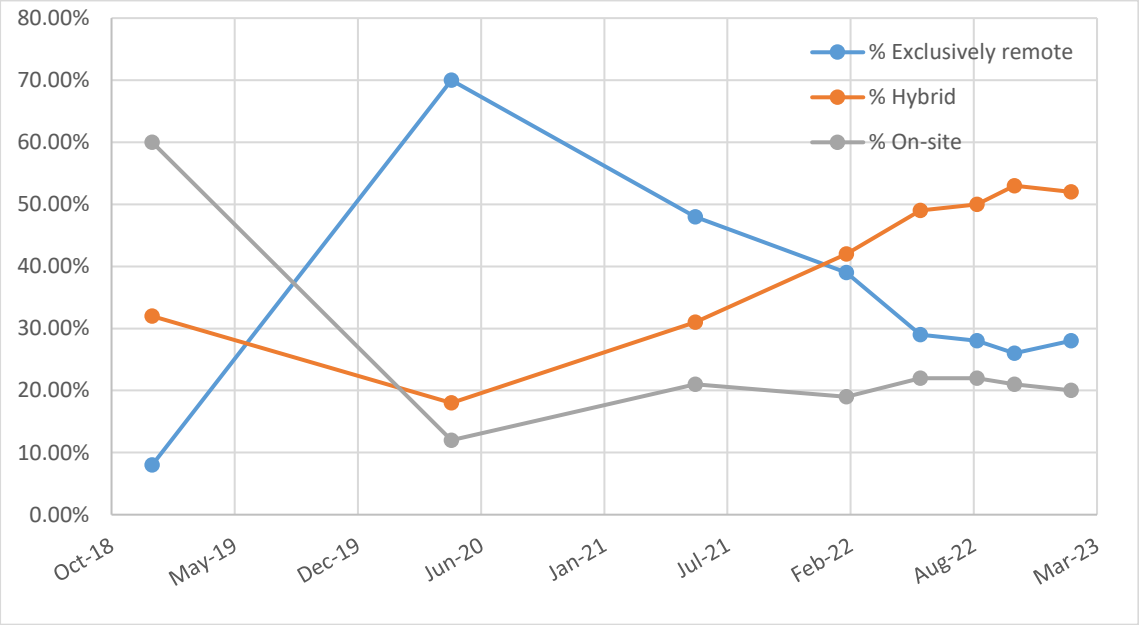


Figure 1. Show the rapid changes to RWA in the U.S. during the COVID-19 pandemic and a partial reversion after the pandemic. (Gallup, 2023)

Figure 1 also shows that there has been a return to co-located workspaces after the pandemic, but not to the same level as before. Another observable pattern is that while the amount of full-time remote workers has decreased, this has been replaced by hybrid work arrangements. While there has been a radical shift towards more remote work, some large U.S. companies have stated their withdrawal of RWA. Most famously, the CEO of Twitter, Elon Musk, required employees to return to their offices, or “They should pretend to work somewhere else” (Rushe, 2022, para. 1). Several other U.S. and international companies

followed noticeably, including Amazon, BlackRock, Disney, and JPMorgan (Shana Lebowitz et al., 2023). While the reasoning behind the strictening and withdrawal of RWA policies has been vague, some companies have given some hints. Elon Musk's "pretend to work somewhere else" statement points to mistrust and efficiency issues with RWA, while others point to the lack of attendance tracking. Mistrust is also pointed out as one of the critical issues in an internal survey of the management at Microsoft. The survey found that while their indicator for employee productivity has increased, "85% of leaders say that the shift to hybrid work has made it challenging to have confidence that employees are being productive"(*Hybrid Work Is Just Work. Are We Doing It Wrong?*, 2022, para. 1). Several others have also expressed similar terms, including Harward Business Review publishing the statement "Remote Managers Are Having Trust Issues"(Parker et al., 2020, p. 1).

Although the challenges with trust are not new, examining the roots and understanding why some companies flourish with RWA while others falter is essential. The challenges encountered in RWA, particularly the ones related to trust, underscore the necessity of understanding how control works. Trust and control in organizations are highly related and critical for organizational performance, yet a comprehensive understanding of OC and its relation to RWA is incomplete (Kurland & Egan, 1999). This leads us to examine OC's definition, importance, and evolution, which is essential to help us understand how employee performance is influenced by trust and control in the context of RWA.

Organizational Control

OC includes the methods, practices, policies, and procedures that ensure effective operation and achievement of organizational objectives (L. Cardinal et al., 2010; Sitkin et al., 2020). A controller establishes the control relationship, typically a manager or someone in an authoritative position. This individual is responsible for determining how control is applied to the controlee. The controlee, who usually represents an employee or subordinate in an

organizational context, is the recipient of the control actions. The controller aims to influence and guide the controlee toward achieving individual and collective performance goals (Jensen & Meckling, 1976; Williamson, 1975). The necessity for OC arises from the complexity and uncertainty within every organization. This need is also strengthened by external influence, such as competition, technological advancement, market shifts, and political developments (L. J. Kirsch, 1996).

The development of O.C. started during the Industrial Revolution as a tool to optimize large-scale production (Taylor, 1911; Weber, 1947). The initial control systems were characterized by rigid, stringent rules suited for the typical high production rate and quality, and the work process could be described well. Taylor described O.C. as necessary to optimize the production line, called Scientific Management, where management would be tasked with finding the one perfect way of production (Taylor, 1911). Taylor described management's role as planning, standardizing, training, monitoring work and resource allocation, and maintaining efficiency. While Taylor laid the foundation for management through scientific principles, Max Weber took his principles a step further. Weber developed the theory of bureaucracy, describing hierarchical structures and rules for efficient control (Weber, 1947). Weber established three authorial typologies: Traditional, Charismatic, and Rational-Legal authorities. The traditional authorities are those who are based on norms, customs, habits, and traditions. The authorities are usually passed down to descendants; an example of this is a monarchy. Charismatic authorities are based on a leader's charisma, charm, and attractiveness. Followers obey because they believe in the leaders' abilities. These are typical for prophets, revolutionary leaders, and some political leaders. Lastly, rational-legal authority is based on laws, rules, and regulations. This type of authority is based on appointing or electing members to their roles, while laws and bureaucratic regulations limit their authority.

Most modern companies operate under bureaucratic authority, which is the type of authority that OC is based on (Weber, 1947).

The academic roots of OC can be said to have started in the 60s and 70s (Sitkin et al., 2010). The initial research on control was on ideal and singular types of OC (Sitkin et al., 2020), leading up to the principal-agent theory. At the beginning of the 80s, Ouchi's seminal papers (Ouchi, 1977, 1979, 1980) contributed to control theory by adding social types of forms. These theories are essential for understanding the foundation of OC and will be explored in the following sections.

Principal-Agent Theory

The principal-agent theory describes one of the fundamental challenges with OC. The theory explains the problems connected to one party delegating tasks (principal) to another (agent). In OC., the manager has the principal role, and the employee has the agent role. This relationship also exists within wider contexts, where the agent is empowered to act and make decisions in the interest of the principal, a concept referred to as the Principal-agent theory (Jensen & Meckling, 1976). The theory builds on the assumption that humans have limited rationality and can behave opportunistically (Eisenhardt, 1989). The principal-agent relationship has many characteristic traits, information asymmetry, opportunism, and risk imbalance being some of the more important ones. Information asymmetry can be observed when an imbalance between the principal and agent's information opens up opportunism and risk (Jensen & Meckling, 1976). Asymmetric information arises when one party, in most cases the agent, has more or better information than the other, leading to an imbalanced decision-making process. Opportunism is the agent’s self-interest-seeking behavior that can further offset the challenges of asymmetric information. Last, there is a risk distribution issue where the agent allocates risk and rewards unevenly in the principal-agent relationship.

In OC, Principal-agent theory explains why control is needed. The theory shows how an agent might not perform according to the principal's expectations. The control system aims to correct misalignments between the principal and agent, ensuring optimal performance. The agent theory is criticized for only its narrow perspective that primarily sees humans as opportunistic and considers all actions as transactional. While this perspective has been validated in many contexts, critics argue it should be supplemented with alternative viewpoints (Eisenhardt, 1989). This is particularly relevant where trust, mutual respect, and collaborative norms play a significant role. Trust becomes an essential factor in the context of RWA (Mayer et al., 1995). As the ability to monitor employees is reduced and changed, shifting from strict control to trust-based management is often necessary. This requires one to shift away from the traditional view of Principal-Agent Theory, demanding a more holistic understanding of human behavior in organizations (Downes et al., 2023; Pianese et al., 2022).

Ouchi's Framework for Organizational Control

With more research into the social aspects of organizations and a broader acceptance of the significance of soft management skills, a better explanation of OC is needed (Sitkin et al., 2020). Ouchi's three types of OC are among the most influential and cited frameworks within OC (L. B. Cardinal et al., 2017; Sitkin et al., 2020). According to Ouchi (1980), OC can be split into Output, behavioral, and Clan Control. They each represent different types of control and how they coordinate activities to meet their objectives. Each of these control types will be explained below.

Market control is where the organization control relies on the external market to regulate the behavior and performance of employees in the organization. Prices, performance comparison, and market indicators create performance benchmarks and standards where controlees operate autonomously. Market control is often used in an organization with a market-driven focus, where one often incentivizes employees through rewards such as

bonuses based on sales or profitability. As a result, market control tends to be more instrumental and economical compared to other types of control (Sitkin et al., 2020)

Behavioral control, also known as action or process control, seeks to control employees by defining the rules and procedures that regulate the execution of a task. This type of control relies on monitoring and regulating their behavior rather than assessing the results. It involves direct supervision, well-defined processes, standard operating procedures, and rules to guide employee behavior. This type of control is most effective when the work is predictable, routine-based, and can be standardized (Sitkin et al., 2020). Behavioral control is also more effective if the work processes can be monitored for compliance and are aligned with the company's strategy.

Clan control, also known as social control or cultural control, is where OC is leveraged through shared values, beliefs, norms, and expectations in a group or organization. The control method guides behavior where marked forces or hierarchical supervision are unavailable (Sitkin et al., 2020). This is a self-imposed type of control where the driver is the individual's sense of belonging and identification with the organization and its goals. This type of control is used where the work is complex, not easily measured or monitored, requires a high degree of innovation, or involves a high degree of uncertainty.

Ouchi's framework provided a valuable lens for the study as he introduced Clan control to the OC theory, a type of control that strongly contrasts traditional control methods. Instead of relying on agency-based, behavioral, and output control, Clan control relies on shared values and beliefs in the organization, which might be more effective in guiding behavior in particular situations (Ouchi, 1980). This social form of control shifts the focus from external regulation and monitoring to internal motivation and self-regulation.

Ouchi argued that clan control is more effective than market or behavioral controls in situations where outcomes are difficult to measure, where the tasks are ambiguous, or when

there is a need for creativity and innovation. This is because it is hard to set strict guidelines, rules, or benchmarks, and the nature of the work might not be easily measurable. Instead, with clan control, workers identify with belonging to the organization, sharing values, and having mutual trust. Overall, Ouchi contributed by introducing a social aspect to the OC theory.

Formal and Informal Control

Recent research focus within OC has brought new perspectives on control methods, dividing it into two broad groups: formal and informal control (Downes et al., 2023; Kreutzer et al., 2016; Sitkin et al., 2020). These two groups explain how control is executed through either the principal-agent mechanisms or social control types. Formal control is exercised through official sanctions, written rules, standard procedures, or other explicitly stated or enforced rules. Informal control contrasts formal control, exerted through unwritten, unofficial, less objective, non-codified forms of control (L. B. Cardinal et al., 2004; Kreutzer et al., 2016). It is manifested through organizational culture, norms, values, and beliefs. Table 1 lists different examples of formal and informal control actions. It is important to note that both formal and informal control can have reprimanding and empowering characteristics, and it is wrong to assume that informal control is a softer form of control (Kreutzer et al., 2016; Sitkin et al., 2020).

Table 1. Categorisations of formal and informal OC actions.

Formal control	Informal control
Policies and procedures	Organizational Culture
Performances appraisals	Peer pressure
Standard operating procedures	Socialization processes
Budgets and financial reports	Leadership styles
Hierarchical structures	Norms and expectations
Legal Contracts	Relationship and network

Several authors have formulated the formal and informal control theory over time, but the initial focus has primarily been on formal types of control (Sitkin et al., 2020). Informal control has its roots in Ouchi's seminal papers (Kreutzer et al., 2016; Ouchi, 1977, 1979). Ouchi initially interpreted market and bureaucracy as formal types of control, while Clan control belonged to the informal group. Later research has shown that informal types of control exist in all of Ouchi's control groups. However, formal control is only prevalent in Market and Bureaucratic controls (L. Cardinal et al., 2010; L. B. Cardinal et al., 2004). Studying formal and informal control shows that formal control has been part of OC since the beginning, while research on informal controls is lacking (Downes et al., 2023; Sitkin et al., 2020). In the traditional view of control research, formal and informal control are substitutes, meaning that control would be either informal, formal, or somewhere in between. Newer research supports formal and informal control as independent and can complement each other to yield higher work performance (Kreutzer et al., 2016; Sitkin et al., 2020).

Monitoring

Monitoring control systems is essential for a manager's feedback to evaluate and improve the output through formal control (Bijlsma-Frankema & Costa, 2005). In the OC

context, monitoring is the observation of the controlees' actions based on controllers' commands. The monitoring ensures that the system works as intended and allows the controller to correct errors and deviations (Ferrin et al., 2007). From Ouchies' perspective, control is limited to what one can monitor (Ouchi, 1979). If this is correct, employees working in RWAs would be hard to control, behave opportunistically, and would have rendered RWA inefficient. Downes et al. (2023) research into OC under RWA noted that when monitoring is not possible, managers will either have to accept reduced control over employees or adapt to control methods better suited to RWA. Their research also observed that managers monitored employees' attitudes instead of observing their output or behavior. Essential managerial tasks, like observation of employees and attending to concerns and issues, have previously not been described in the existing control literature. Rather than relying on monitoring formal control, attitude monitoring attempts to monitor employees' attitudes towards informal control elements. This also aligns with Ouchi's seminal work, where he claimed that clan control "does not require explicit auditing and evaluation" (Ouchi, 1980, p. 137). This suggests that monitoring might hold not only formal control elements but also elements of informal control. In addition, trust is also considered a substitute for control, as the inability to monitor and control is a prerequisite for trust (Mayer et al., 1995; Tzafrir & Dolan, 2004; Zand, 1972). This opens the question of whether informal control or trust substitutes formal control when employees work remotely.

Trust

Trust is fundamental in RWA, where traditional monitoring and control methods are often impractical and difficult to achieve (Bijlsma-Frankema & Costa, 2005). Trust can be defined in the following way: "*Trust* is defined as a psychological state where the trustor mirrors a positive expectation of their behavior or intent to a trustee, which is their willingness, ability, or competence to pledge to the trustor"(Mayer et al., 1995, p. 712). In the

modern workspace, where technology plays an increasingly crucial role, trust has emerged as one of the critical factors for the effective functioning of organizations. Research has repeatedly shown that trust not only enhances employee performance (Mayer & Davis, 1999; Tzafrir & Dolan, 2004) and facilitates problem-solving (Tzafrir & Dolan, 2004; Zand, 1972) but also correlates with higher job satisfaction (Rich, 1997). Furthermore, trust is essential in OC., influencing how managers approach employee supervision and coordination (Bijlsma-Frankema & Costa, 2005).

Trust is often highlighted as a prerequisite for effective management in RWA. Critics of RWA have historically raised concerns about employment productivity in the absence of a directing manager (*Telework Annual Report*, 2013). Addressing these concerns, scholars like Downes et al. (2023) and Pianese et al. (2022) have explored the interplay between trust and control in remote work settings. They propose that trust acts as a complementary construct to control, particularly emphasizing that formal control mechanisms become less effective when employees work remotely. This research challenges the established theory of OC that states that trust and control are bipolar constructs, where formal control is employed in the absence of trust (Ouchi, 1979)

Newer research increasingly challenges this traditional singular perspective on trust versus control (Sitkin et al., 2020). Studies by Bijlsma-Frankema & Costa (2005) and Kreutzer et al. (2016) suggest that trust and control are not mutually exclusive but complementary. This shift in understanding is attributed to changes in work typologies where traditional monitoring and formal control methods are becoming less favorable. This new perspective proposes that control methods are more effective when coupled with high levels of trust. Supporting this view, Long (2018) demonstrated that trust can significantly reduce the need for excessive communication and monitoring in achieving goals and evaluating performance.

In summary, trust is recognized as necessary in work relationships, independently, and as a foundation for OC. However, it is suggested that trust is more important when working remotely and that trust and control work in tandem, especially for informal types of control.

Remote Work Arrangements

RWA refers to how employees can work from locations outside the traditional office environment, such as their homes, co-working spaces, etc., enabled by ICT (Pianese et al., 2022). RWA allows for flexible work arrangements in terms of location and schedules, for example, from home, a remote location, or while traveling (Smite et al., 2022). Remote work has become popular due to the advances in digital information access, where ICT enables more work to be conducted remotely.

RWA is considered a new organizational topology that has promised various benefits. Among the suggestions, it has a range of social and personal benefits: Among the social benefits, it promises a reduction in commuting, less money spent on offices and infrastructure, less pollution, and more worker efficiency(Ozimek, 2020). It also promises employees more personal time, better time flexibility, and fewer distractions. A meta-analytical study on remote work showed that remote workers perceived increased productivity, organizational commitment, and improved organizational performance (Harker Martin & MacDonnell, 2012). While RWA work has many proposed upsides, it also has its downsides. RWA can also lead to a loss of work-life balance, high stress, and social isolation (Ozimek, 2020). Companies are also challenged by increased cyber security threats when employees work remotely, and RWA presents challenges to the onboarding process of new hires. Another relevant challenge is that remote work requires new ways of leading employees. In traditional co-located work, managers often monitor employees' behavior to assess if they are doing the job correctly and putting enough effort in. RWA, on the other

hand, makes traditional monitoring more difficult, which challenges leadership and control methods.(Downes et al., 2023; Parker et al., 2020; Pianese et al., 2022).

Remote Work Definition

Throughout the academic literature on remote work, many terms are used to describe the different facets of remote work. In the review, Pianese et al. (2022) literature study on RWA and control has a comprehensive definition review of remote work. Their work grouped the terms into a general description of RWA and the terms that describe the RWA typology. These typologies can be virtual teams, an entirely remote team, or flexible work where the time or location can vary. A summary of the most popular terms used and in their respective groups is shown in

Table 2.

Table 2.

List of similar terms used for RWA in literature (Pianese et al., 2022)

Group	Type	Example
RWAs		virtual work, remote work, telework, telecommuting, distributed work, distributed environment, virtual organization, virtual workplace, dislocated work, physical distance, physical isolation, located mobility, hybrid workspace
RWA typologies	*Home-based telework*	home-based telework, homeworking, domestic workplace
	Virtual team	home-based telework, homeworking, domestic workplace Virtual team, intraorganizational virtual team, cross-functional virtual team, inter-organizational virtual team, hybrid virtual team, semi-virtual virtual team, virtual project team, virtual multilateral

Group	Type	Example
		development organization, distributed work team, distributed work group, distributed project team, globally distributed team, geographically distributed team, geographically dispersed team
	Mobile work	Mobile work, mobile work, nomadic work
	Flexible work	flexible work practices, flexible work arrangements

Typologies of Remote Work Arrangements

Different types of RWA sub-typologies describe their dimensions. Pianese et al. (2022) split these into four types: *Home-based telework, Virtual team, Mobile work, and Flexible work.* These typologies describe the primary feature of these sub typology of RWA, i.e., if it is from home, anywhere in the world (Mobile work), or work is asynchronous or independent from co-workers (Flexible work). Smite et al. (2022) offer a more straightforward framework for understanding remote work *after* they studied five big tech companies and present a simplification of the remote work topology. They identified three dimensions of RWA: *work location, work schedule, and schedule alignment*. The *work location* dimension is the degree of work done in the office vs. remotely from office mode to remote mode. The *work schedule* axis is the degree of a fixed vs. flexible schedule. The *work alignment* dimension is orthogonal to the two others, which measure the team alignment. Teams can have a synchronous schedule where all workers are present simultaneously or flexible schedules that allow them to work at their desired time. This is a significant parameter as it indicates whether employees are available for direct communication. Work location can vary from full-time work in the office while workers can work 100% remotely on the other end. These two locations are hybrid work arrangements that describe the mix between fully remote work and co-located work.

Summary

The theory chapter has gone through how remote work was created as a function of the Industrial Revolution and how the fast pace of ICT development enables the increasing use of remote work. With ICT enabling better communication methods and the COVID-19 pandemic that previously forced work-from-home policies, RWA is becoming increasingly common, even after the policies were removed. Statistics show that while the number of full-time remote workers has decreased after the pandemic, more companies are adopting hybrid policies as a common practice. This implies that we see more jobs with the possibility of working from home or outside the offices. Remote work offers several advantages for employees, companies, and society but presents several challenges. The issue of monitoring and controlling employees' work is complex when working remotely. The typical questions are, "How do we know that employees are working when they cannot be monitored?" suggesting that employees cannot be trusted and will behave opportunistically when no one is there to monitor them. To understand the problem, we have dived into the theory of trust and control. The traditional and well-researched theory of OC has usually preferred formal types of control; the importance of informal control and trust has become more evident in recent literature, especially when connected to environments with high complexity and uncertainty. We have investigated these constructs together to understand better how trust, formal and informal control, use of RWA, and perceived employee performance influence each other.

The traditional literature on control states that trust and formal control are substitutes, meaning one would find high formal controls where employees are not trusted. Formal control relies on monitoring employees to ensure that the work complies with the procedures and that employees do not behave opportunistically. In contrast, informal control does not rely on monitoring employees, with theory suggesting that trust in employees replaces this need. While the theory is unclear on the mechanism used to regulate employees' work, the

theory suggests that norms, values, peer control, and self-control are potential candidates. Newer literature on these subjects contrasts the traditional view of control as unitary with a nuanced view where trust and control can be integrated to create synergies not previously found when one had to choose between trust or control. A combination of formal and informal control is better than focusing on a single type. When considering the challenges of monitoring work when employees work in RWA, theory suggests that informal control would be the preferred control type. It is also aligned with several employee benefits of RWA, with its high degree of autonomy, perceived freedom, and commitment enhancement. Coincidentally, these are also indicators of achieving better work performance.

Research Gaps

The literature search found several calls for more research on the topic we will answer. First and foremost, Sitkin et al.'s (2020) literature review on the current state of control literature has pointed out that emerging control practices, control-trust dynamics, and informal control are research gaps. Emerging control practices include a range of phenomena, where new typologies like RWA are one. Secondly, in control-trust dynamics, there is a need for more research into how the combination of trust and control can function as complementary rather than substitutes. Third, there is a need for more research on formal and informal control and a need to better understand how informal control systems work. We also found a range of other calls for help, most notably a call for help to understand the changes in OC when employees work remotely (Downes et al., 2023; Pianese et al., 2022). All these calls for help identified within the research literature are the gaps that form the foundation on which this thesis` problem statement and research questions rest.

Research Question and Hypothesis

Based on the RWA, OC, and Trust theory in this chapter, the research question is proposed: *How does trust impact the selection of formal and informal organizational control*

and subsequently affect the use of RWA and employee output? Based on the literature presented, we propose six hypotheses with resonating arguments to be tested. The hypothesis contains a proposed causality, which comprises intermediate variables that will be tested.

H1. Argument: In the chapter on trust, we found that the established theory on OC states that trust is a substitute for formal control. This implies less need for formal control in a highly trusted work environment. High trust in the workplace also reduces the perceived risk that employees behave opportunistically. Therefore, there will be less need for stringent processes of overseeing, monitoring, formal rules, and procedures. This implies that a high degree of formal control might be excessive or even counterproductive in a work setting where trust is high. In the chapter on trust, we also learned that organizations with high levels of trust rely on informal types of control. The trust definition says that belief or confidence that a person or entity will act in a reliable, honest, and caring manner. While formal types of control rely on transactional actions, informal control relies on action through trust. Rather, it relies on internalized organizational goals and norms and control through social mechanisms. It was also established that employees working in RWA could not be trusted; hence, a higher adoption of RWA in high-trust environments is expected. The perceived performance of employees is primarily suggested to come from control; it is also interesting to see if trust has a direct influence.

H1a. Hypothesis: Trust is positively correlated with formal control.

H1b. Hypothesis: Trust is positively correlated with the degree of remote work.

H1c. Hypothesis: Trust is positively correlated with work performance.

H1d. Hypothesis: Trust is positively correlated with informal control.

H2. Argument: Formal controls are structured and tangible, requiring procedures, documentation, checking, and oversights. Jobs requiring monitoring, oversight, and

compliance might experience difficulties working in RWA. The current ICT limits the feedback processes used to monitor formal types of control. Therefore, it is likely that companies relying on a high degree of formal control do not allow RWA or have a considerable conflict between RWA and formal control policies. Regarding performance, high formal controls might be used where employees cannot be trusted, but it also gives managers control of their employees' processes and output. The increased visibility into employee's processes and output is believed also to increase the perceived performance of their employees.

H2a. Hypothesis: Formal control negatively influences the degree of remote work.

H2b. Hypothesis: Formal control positively influences the perceived employee performance.

H3. Argument: Instead of direct oversight, informal control relies on observing employees' attitudes or softer metrics such as attendance and attentiveness. The decreased need for monitoring of employees in combination with methods more suitable to the current ICT technology makes it easier for managers to accept RWA. Informal work also promotes commitment, overall job attitude, and self-discipline, which means managers can focus on the overall goals rather than the details of a work process.

H3a. Hypothesis: Informal Control positively influences the degree of remote work.

H3b. Hypothesis: Informal Control positively influences the perceived employee performance.

H4. Argument: Utilizing remote has a range of benefits for work efficiency. First, their employees have a range of benefits, including better work-life balance and less time for commuting and travel, all of which improve working conditions. There are also many benefits directly to the company, including less time needed for traveling and better communication flexibility.

H4. Hypothesis: There is a positive correlation between the degree of remote work and the perceived employee performance

H5. Argument: Measuring the ability to do remote work is essential. There is still much work that cannot be performed remotely and machinery that does not operate remotely. The hypothesis is that the more work that can be done remotely, the more work is performed.

H5. Hypothesis: The ability for remote work positively affects the degree of RWA.

The model is visualized based on the proposed hypothesis, as shown in Figure 2.

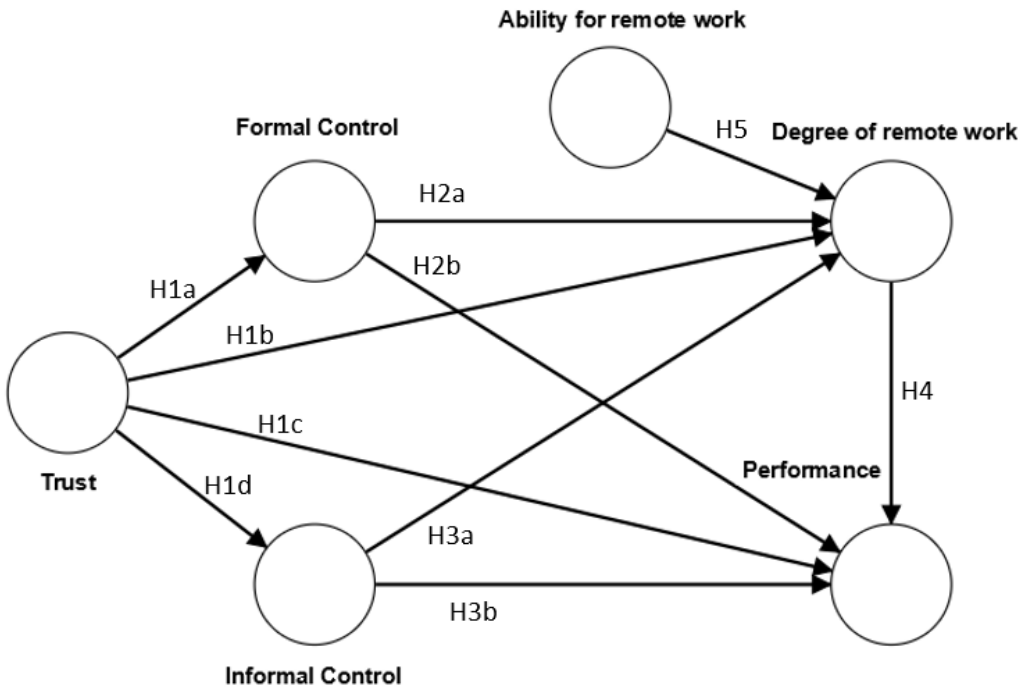


Figure 2. Shows the hypotesized relationship model of trust, control, RWA and performance.

Method

This chapter explains the research method to address the research problem and hypothesis. Grounded in the choice of research philosophy, we will first elaborate on the selected overarching methodologies. Following this foundation, we explain how the data is collected and how the survey was designed. As the robustness of research hinges on good validation and reliability, we have a subchapter that explains the measures of these aspects of the research. Finally, we will discuss the research design's ethical considerations and limitations before summarizing the method chapter. This chapter aims to convey how we have transparently gathered, analyzed and interpreted the data (Bougie & Sekaran, 2019).

Choice of Research Method.

Selecting the appropriate research method is an essential step of any academic research. It shapes how data is collected and analyzed and how the findings are interpreted (Bougie & Sekaran, 2019). From an ontological standpoint, this research is grounded in the philosophy of critical realism. The core idea of critical realism is that a "real world" exists independent of perceptions, beliefs, and social constructs. Any observation of this "Real world" is inevitably colored by the perspectives, subject to influence, and prone to errors. As researchers, we carry these flaws with us, but every bit of measurement will help us get closer to a common truth (Bougie & Sekaran, 2019).

An observational cross-sectional survey method has been selected for the study. An observational study means one researches a group without intervention and a cross-sectional means we do the research at one point. Observational studies allow us to make empirical observations and infer correlations between the observed phenomena without interfering with the participants' work. In contrast, experimental research is where participants are split into groups and assigned tasks. In this case, experiments would be difficult to administer in practice. The drawback of an observational study compared to an experiment setup is that

observational studies can only draw correlations and cannot infer causations (Bougie & Sekaran, 2019). A cross-sectional survey is selected because this allows us to perform the study within a limited timeframe. This type of design allows us to collect the necessary data at a specific time, providing a snapshot of the variables of interest (Bougie & Sekaran, 2019). In contrast, a longitudinal study collects information over time, allowing one to observe changes, making them suited for phenomena that vary over time. While a longitudinal design might be better suited to study how remote work changes the work environment, the data collection of such research needs to fit into the time constraints of this thesis. A retrospective study was also an alternative, a research type that asks participants to remember back in time, but the method is sensitive to participants' memory biases.

The study is based on a quantitative method chosen because of the abundance of qualitative research into these topics and the possibility of synthesizing many previously well-researched topics. A quantitative study gives the advantage that the research is often more generalizable due to large samples and measures. It also provides an explicit criterion for validating the research and getting reliable results. The alternative is to use a qualitative study, which yields a deeper understanding of the topic but may not be generalizable. While some of the constructs we have discussed could benefit more qualitative exploration, this was separate from the goal. To understand how trust affects OC, the use of RWA, and the perceived performance of employees, we have designed a quantitative survey, and the unit of analysis is managers with staff responsibilities, no matter the level they manage. The goal is to find the influence of trust and control on the use of R.W.A. and managers' perceived performance of employees. The choice of research methodology was selected based on the problem studies. OC, trust, and performance are well studied, and we found survey instruments available in most fields. The research contributes by bringing these fields together and in the context of remote work.

Data and Sample

The survey aims to capture responses from managers with staff responsibility. A panel of paid survey participants from SurveyMonkey was used to reach this audience. SurveyMonkey offers a service called SurveyMonkey Audience with a survey panel that has been pre-segmented, which allows sending the survey to the one closest to the target. The closest matching segment to the survey was "managers," which is close to the desired segment, "managers with staff responsibility." SurveyMonkey allows additional screening questions to ensure we reach managers with staff responsibility. The survey asks, "Do you directly oversee or manage any employees?" with a logic that ends the survey if the answer is "No" and progresses to the rest of the survey if the answer is "Yes."

The survey is designed to be used for an international survey panel so the data can be expanded in later research; only participants in the U.S. have been collected, including all 52 states. The U.S. was selected due to its high degree of remote work, and it is also where most evidence for the revision to co-located workplaces was found. The U.S. also has medium levels of trust (Ortiz-Ospina & Roser, 2016), which should provide distributed trust levels. Using the inverse square root method, it was estimated that the minimum number of 155 responses was necessary when using a power level of 80 % and significance level of 5% (J. Hair et al., 2022; Kock & Hadaya, 2018). A total of NOK 40277,60 was spent collecting the respondents, 50% of which was funded by the University of Agder and the rest by Assistance Systems AS. The grants were given for research purposes and were unconditional without specific terms, restrictions, or obligations imposed on the research methodology, findings, or subsequent publications.

Responses were collected over five days in two bulks; the first was a collection aimed at 100 respondents, and the second was a bulk aimed at 180 respondents. The second bulk was collected after a simple inspection of the response quality and even distribution of age

and gender, confirming that the survey worked as expected. Splitting the collection allowed for a risk reduction before spending the entire budget collecting the responses. Four additional responses were collected a month later, replacing low-quality responses. In total, the clean dataset contained 283 respondents.

Survey design

We have adopted previously established survey instruments from the literature to create a survey that answers the research questions. The survey uses an instrument from Keil et al. (2013) as the base for our measurement, measuring formal and informal control in IT projects. We have adapted the question by rephrasing it for the unit of analysis, extended their model with trust and RWA, and adapted the measurement scales.

Four types of measurements are available for quantitative analysis: Nominal, ordinal, interval, and ratio scales (Sekaran & Bougie, 2016). For most of the questions, we relied on the 7-point Likert scale, a rating scale. The Likert scale allows the respondents to score a question based on their level of agreeableness on a bipolar scale from 1-7, where one strongly disagrees to seven strongly agree (Naradi, 2003, p. 75). The Likert scale is popular in social science, and using this scale allows us to quickly adapt questions from previously validated survey instruments, also using ratio scales. A mix of nominal, original, and intervals is used for other questions, and their design choices are described in their subsequent sections. Based on the hypothesis and the general design principle above, we derived the following structure of the survey question groups:

1. Screening question
2. Degree of Remote Work
3. Trust
4. Formal control
5. Informal control
6. Perceived performance of employees
7. Control questions.

In the subsequent section, we will review each construct and the methods used to design and adapt their questions. The complete set of questions and data on the survey can be found in Appendix 1, and screenshots from the survey can be found in Appendix 2. Items on user and work risk have also been collected, intended for future research, and are not described in this study.

Screening Questions

To ensure the dataset only includes managers with staff responsibility, participants are asked an initial screening question: "Do you directly oversee or manage any employees?" If the answer is "No," the survey ends, while "Yes" will allow the participant to continue the rest of the questions. This screening question is essential as the survey is sent to managers in general, which can also include managers without staff responsibilities. Using a screening question also reduces cost, as the charge for screened-out participants is lower.

Degree of Remote Work

The theory chapter established that the primary dimension of remote work is the fraction of time spent working in co-located offices vs. the time spent working remotely. To measure this, we constructed two types of measurement instruments. The first type is a self-made question: "Over the past year, approximately what percentage of their work time have your employees worked remotely on average?" The questions are a ratio measure using a slider where the participants can select an integer between 0% and 100%. This question was self-constructed, and we opted to validate this with measurements grounded in literature. The second type of instrument for measuring the degree of remote work is based on five Likert scale questions based on best practices from Baines's publication on Work measurement principles (1995). These questions ask about the time their employees have spent working remotely, allowing us to use the Likert scale to measure the degree of remote work. Since this

type of measurement is not found in other measurement instruments, we will do an additional analysis of these observations and constructs to establish their validity.

Formal and Informal Control

To help design the survey, Keil. et al. (2013) survey instruments have been adapted where control and performance are studied among IT projects. The survey was modified to ask questions about the managers' opinions of their employees. For example, the "user expected the development team to follow an understandable written sequence of steps toward accomplishing project goals "(Keil et al., 2013, p. 43) changes to "I expected my employees to follow an understandable written sequence of steps toward the accomplishment of their work goals." The survey consisted of four constructs covering formal and informal control. Formal controls consist of behavioral and output control types, while informal control consists of clan control and self-control. These constructs will be aggregated to formal and informal control later in the analysis.

Trust

To construct the survey questions for trust, we used a survey instrument from Tzafrir Dolan (2004), which did not require any adaption. This instrument has an extensive collection of questions divided into three constructs: harmony, reliability, and concern behavior. The survey captured all these constructs, which will be aggregated to trust. We used the questions validated in the survey instrument, including 16 questions, five from affective, five from cognitive, and six from intended behavior.

Perceived Employee Performance

Questions were adopted from the Individual Work Performance Questionnaire (IWP) (Koopmans et al., 2013) to managers perceived employee performance. This survey contains various questions to measure how well an individual's performance meets their subjective work performance goals. The question was changed to questions aimed at measuring

managers' perceptions of employees rather than employees' self-assessments. IWP included four constructs: task performance, contextual performance, adaptive performance, and counterproductive work behavior that will be aggregated to perceived employee performance.

Control Variables

Control variables are included in research to control external factors influencing the outcome (Bougie & Sekaran, 2019). Using control variables helps increase the validity of the research and reduces the risk of drawing false conclusions. The control questions collected are age, gender, education, how many employees one is directly responsible for, work experience in current position, level of management, and what industry they work in. Additional control variables were included in the survey panel, including age and gender, the device type used to complete the survey, and the participant's residency state, where age and gender were collected twice. Age, gender, education, and management level were used to validate the model, while the remaining controls were used for descriptive analysis of the sample.

Ethical Considerations

Considering ethics when collecting data about subjects is an essential task of research. In this thesis, we have used the Universities of Agder and consolidated the EU's General Data Protection Regulation (GDPR)(*GDPR*, 2018; *Retningslinjer om personopplysninger i studentprosjekter*, 2023). The primary ethical consideration has been ensuring that the survey does not collect personal data. Through careful survey design and the collection method, the survey is kept anonymous for all participants. According to GDPR(2018), Personal data can be split into two parts: data that can, directly and indirectly, identify a person ("Personal Data," 2018). Direct identifiers are data such as name, social security number, email address, phone number, and other identifiers that can be tied directly to an individual. Indirect identifiers are information that does not directly reveal an individual's identity but can be

used to reveal an individual's identity through the combination of data. This type of data can, for example, be a combination of age, state, education, gender, and other information to be sufficient to identify an individual. While this information is often relevant for surveys, ensuring that individuals cannot be identified directly is essential.

While we do not collect personal data, the test panel participants have signed an agreement with SurveyMonkey, which collects and protects their data. The panelist fills out a pre-survey that allows SurveyMonkey's customers to send surveys to a specific audience. SurveyMonkey only shares some demographic information about their audience, allowing participants to stay anonymous to third parties. Another necessary authority to consider is Sikt, a government administrative body under the Ministry of Education. Sikt requires all Norwegian universities to report every survey containing personal information. Since the survey does not collect personal information, no report was sent to Sikt in agreement with the thesis advisor.

Analysis and Results

In this section, we will go through the process of analyzing the data and presenting the results. The analysis process includes several steps, including cleaning and preparing the dataset. After the dataset is ready, a descriptive analysis of the demographic and control is performed to inspect the quality and distribution. Next, additional inspection of the two-measurement constructed to measure the degree of remote work, checking its validity. After that, the process of setting up and validating a Structural Equation Model (SEM) analysis is performed. Lastly, the SEM results will be presented and summarized.

Analysis Method

Before the data can be analyzed, the data needs to be coded, cleaned, and inspected. We adopted four steps to prepare the data (Bougie & Sekaran, 2019): removing and coding

questions, adjusting scales, removing rows with partial answers, and addressing agreement bias.

The raw data was cleaned using Python 3.11 with Jupyter, using Pandas, Numpy, Matplotlib, and Seaborn libraries. In the first step, we remove all empty columns and convert the column names to their respective coding, as presented in Appendix 1. Next, we adjusted the scales where needed, where reverse-coded questions were inverted, and categorical questions were adjusted so the scale started at zero. Next, responses where the Likert scale question was partial were removed from the dataset. Some participants did not fill out the control questions and were grouped into a “Not answered” category. The last step in the cleaning is addressing agreement bias, which is a critical aspect of ensuring the validity of the research findings. Agreement bias Likert-scale questions occur when respondents return monotonic or inaccurate answers, skewing results and significance. An innovative method employed was calculating the Shannon entropy to assess the agreement bias of the Likert scale questions (Shannon, 1948). The entropy scores each answer randomness, where a lower value would correspond to a series with minimal variations. The entropy score was assessed against the standard deviation score and performed better. The SciPy library v.1.11.4 in Python was utilized to calculate Shannon’s entropy for all questions and remove responses with a score < 1.05, corresponding to 9 responses. The cut-off value was assessed by observing monotonic series in response to the questions and outliers of the entropy distribution shown in Figure 3.

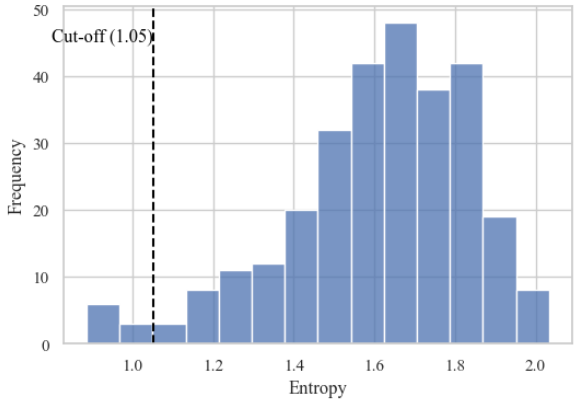


Figure 3. Distribution of Response Entropy

Descriptive Analysis

To validate the sample, we inspect the demographic and control data distribution. This allows us to reveal spurious distribution and outliers that might influence the primary analysis. We calculate the demographic and control variables distribution from the Python code. The table shows that the age distribution looks normally distributed, and the gender distribution is equal. The average age is 45.7 years, and the gender distribution is 45.9% female and 53.4% male. In comparison, statistics from managers in the US show an average age of 45.5 years and a gender distribution of 42.2% female and 57.8% male (*Management Occupations | Data USA*, 2021). This shows that the age and gender distribution is in proximity benchmarks on managers' demography. It is observed that all industries are represented, that retail trade is the largest industry, and that bachelor's degree is the largest group within education. It was also observed that the number of employees managed, where 41 respondents answered over 50, which is considered a high number of directly supervised employees. There is a near-even distribution between lower, mid, and top management for the management level distribution.

Structural Equation Model

Our primary analysis used Partial Least Squares (PLS) Structural Equation Modeling (SEM), a framework that links observational responses with latent constructs and examines construct correlations (J. Hair et al., 2022). This framework allows us to link observational responses with latent constructs and to examine the correlations between constructs in a unified model. SmartPLS 4.0.9.6, developed by SmartPLS gmbH (Ringle et al., 2022), was used for the SEM analysis. According to Hair et al. (2019), PLS-SEM is preferred over other popular SEM methods when the sample size is small, the model is complex, and the goal is to extend existing models. In SmartPLS, we applied bootstrapping with 10000 iterations, a one-sided percentile, and a 0.05 significance level, following established guidelines (Becker et al., 2022; J. Hair et al., 2022). The one-tailed percentile was chosen because the direction of the path influence is specified in the hypotheses. We utilized higher-order constructs (HOCs), such as trust, formal control, informal control, and performance, in the SEM analysis. HOCs are complex constructs that combine by aggregating several lower-order components (Becker et al., 2019; J. Hair et al., 2018). For example, trust in the survey is measured by the indicators of harmony, reliability, and concern (Tzafrir & Dolan, 2004). In the analysis, we utilize a reflective-formative model for HOCs. In this model, the LOC (harmony, reliability, and concern) are reflective, meaning they are expressions of the HOC (trust). Changes in the trust construct would be expected to manifest in all these reflective indicators. Therefore, the HOC (trust) is formative, formed by aggregating these lower-order constructs. Each of these indicators contributes individually to the overall concept of trust, but they do not necessarily correlate with one another. A disjointed two-step approach is used to construct a HOC model in SmartPLS (Becker et al., 2019). First, the LOC is estimated, and if the requirements for the LOC model are valid, an HOC model can be constructed utilizing the loadings from the LOC model. The first stage results and validation are shown in Table 3.

Table 3.

The factorial loading, Chronbach Alpha (Alpha), Construct reliability (CR), and Average Variance Extracted (AVE) for the first stage of the SEM model.

LOC	Code	Item	Loading	Alpha	CR	AVE
Degree of RWA (D)	D	During the last year, on average, how much time have your individual employees spent working remotely?	0.929	0.910	0.943	0.847
	D2	Over the past year, my employees primarily worked remotely (outside the office).	Not used			
	D3	For the majority of the past year, my employees were working remotely (outside the office).	Not used			
	D4	On average, my employees worked remotely (outside the office) less frequently throughout the past year. (reverse coded)	Not used			
	D5	A significant portion of my employees' work was conducted remotely (outside the office) over the past year.	0.942			
	D6	I believe that, in the past year, my employees had the flexibility to work remotely without strict limitations on hours.	0.890			
Harmony (TA)	TA1	My employees have a lot of knowledge about the work that needs to be done.	0.752	0.775	0.856	0.598
	TA2	My employees are known to be successful in the things they attempt to accomplish.	0.823			
	TA3	There is a lot of warmth in the relationships between the managers and workers in this organization.	0.716			
	TA4	My employees would make personal sacrifices for the organization. (reverse coded)	0.585			
	TA5	My employees express their true feelings about important issues.	0.733			
reliability (TB)	TB1	My employees' needs and desires are very important to me.	0.710	0.795	0.867	0.621
	TB2	My employees will keep the promises they make.	0.790			
	TB3	My employees really look out for what is important to me.	0.775			
	TB4	My employees' actions and behaviours are not consistent.	0.505			
	TB5	My employees take actions that are consistent with their words.	0.839			
Concern (TC)	TC1	I can count on my employees to help me if I have difficulties with my job.	0.802	0.81	0.875	0.637
	TC2	My employees would not knowingly do anything to hurt the organization.	0.789			
	TC3	My employees are open and upfront with me.	0.765			
	TC4	I think that the people in the organization succeed by stepping on other people. (reverse coded)	0.538			
	TC5	If I make a mistake, my employees are willing to "forgive and forget."	0.771			
	TC6	It is best not to share information with my employees. (reverse coded)	Not used			
behaviour (FCA)	FCA1	I expected my employees to follow an understandable written sequence of steps toward the accomplishment of their work goals.	0.871	0.785	0.875	0.699
	FCA2	I expected my employees to follow articulated written rules toward the accomplishment of their work goals.	0.814			

LOC	Code	Item	Loading	Alpha	CR	AVE
	FCA3	I assessed the extent to which existing written procedures and practices were followed by employees during their work.	0.823			
Outcome (FCB)	FCB1	I placed significant weight upon my employees' timely work completion.	0.789	0.741	0.838	0.566
	FCB2	I placed significant weight upon employee's work completion within budgeted costs.	0.809			
	FCB3	I placed significant weight upon employees' work completion to my satisfaction.	0.740			
	FCB4	I used pre-established targets as benchmarks for my employees performance evaluations.	0.663			
Clan (ICA)	ICA1	I actively participated in work meetings to understand my employees' goals, values, and norms.	0.769	0.726	0.827	0.547
	ICA2	I attempted to be a 'regular' member alongside my employees' team.	0.639			
	ICA3	I attempted to understand my employees' goals, norms, and values.	0.778			
	ICA4	I attempted to form a committee that frequently communicated with my employees.	Not used			
	ICA5	I actively joined my employees' team for crucial decision-making.	0.747			
Self-control (ICB)	ICB1	My employees autonomously set specific goals for their project without the involvement of me.	0.740	0.723	0.829	0.548
	ICB2	My employees autonomously made changes to their work without seeking my approval.	Not used			
	ICB3	My employees autonomously identified and addressed issues without my intervention.	0.742			
	ICB4	My employees autonomously took the initiative in most tasks without my directive.	0.734			
	ICB5	My employees functioned effectively without close supervision from me.	0.735			
Task Performance (PA)	PA1	My employees managed to plan their work so that it was completed on time.	0.831	0.687	0.827	0.616
	PA2	My employees were able to separate main issues from side issues at work.	0.783			
	PA3	My employees were able to perform their work well with minimal time and effort.	0.737			
Contextual Performance (PB)	PB1	My employees started new tasks when their old ones were finished.	0.855	0.663	0.855	0.748
	PB2	My employees took on challenging work tasks when available.	0.874			
Adaptive Performance (PC)	PC1	My employees worked at keeping their job knowledge up-to-date.	0.871	0.792	0.879	0.708
	PC2	My employees worked at keeping their job skills up-to-date.	0.861			
	PC3	My employees came up with creative solutions to new problems.	0.789			
Counterproductive work behaviour (PD)	PD1	My employees complained about unimportant matters at work.	0.880	0.811	0.875	0.639
	PD2	My employees made problems greater than they were at work.	0.823			
	PD3	My employees focused on the negative aspects of a work situation instead of on the positive aspects.	0.808			
	PD4	My employees often discussed the negative aspects of their work with colleagues.	0.672			

Validity and Reliability

Ensuring the validity and reliability of research is crucial to any research. The model consist of a higher-order model containing two stages where the second stage must also be validated (Becker et al., 2019). The analysis utilizes a disjoint two-stage approach, where the first stage calculates the models for the LOC, which is used as input to a separate second stage. For each of the two stages, the model calculation is run to evaluate the results. For the first stage with reflective measurement models, Hair et al. (2021) suggest four verifications: "indicator reliability, internal consistency reliability, convergent validity, and discriminant validity" (Hair Jr. et al., 2021, p. 76). Lastly, an additional check for the HOC models and the model fit is conducted.

The first phase evaluates the reliability of the indicator, examining the proportion of variance in the indicator that can be attributed to its associated construct. A value above 0.708 for each indicator is recommended, indicating that it accounts for over 50% of the variability observed in the indicator. A value below 0.708 can be permitted if the indicator is well-founded in theory and does not reduce the other validity or reliability measures. In the LOC analysis, TC6, ICA4, D4, and ICB2 had a significantly lower factorial loading than the required 0.7 for reflective constructs and were removed from subsequent analysis (J. F. Hair et al., 2019). We noted that the survey instruments we borrowed the question from did not have the exact stringent requirements for factorial loading. Several indicators were below the threshold but allowed as they were from a validated survey instrument. They did not deteriorate the convergent validity discussed later.

The second phase involves assessing internal consistency reliability. This refers to the degree to which indicators that measure the same construct are interrelated. To measure internal consistency reliability, Cronbach Alpha (Alpha) and Composite reliability rho_c (CR) were evaluated for each construct. Internal consistency reliability measures how much a

construct is associated with another (Hair Jr. et al., 2021). A value between 0.7 and 0.9 is considered satisfactory to sound, a value surpassed by all LOCs except the construct degree of remote work which scored above 0.9.

Convergent validity constitutes the third phase in the process of model validation. It examines how much a construct explains the variance from its related indicators. The average variance extracted (AVE) defines the overall average of the squared loadings for the indicators connected to the construct. A value above 0.5 is considered acceptable, corresponding to more than 50% of a construct's variance is explained by its indicators (J. Hair et al., 2022). The sample did not have any constructs with AVE lower than 0.5.

The fourth phase involves the assessment of discriminant validity. This process is undertaken to verify that the constructs are empirically unique compared to other constructs in the model. The preferred method of evaluating discriminant validity is the heterotrait-monotrait (HTMT) ratio. Two threshold values are suggested where below 0.85 is considered conservative, and 0.9 is more liberal. The HTMT values are presented in Table 4; values were observed to surpass the 0.9 threshold between LOC: PA and PB and TA, TB, and TC; the remaining values were The dataset was inspected for quality issues regarding these questions, where none was found. The cross-loadings of their indicators were also inspected, which showed valid results but indicated that all trust constructs had a high cross-loading, indicating that the LOCs vary closely. Constructing a single reflective construct of trust was also tested, which gives similar results to the aggregate approach, which then passes the HTMT requirements. It was decided to keep the aggregated model on trust and performance, as it adheres to the survey instrument design. This can be accepted as we also did not have any hypothesis directly connected to these constructs.

Table 4.

HTMT values for all LOC. ARW (Ability for Remote Work), DRW (Degree of Remote Work).

	ARW	FCA	FCB	ICA	ICB	DRW	PA	PB	PC	PD	TA	TB
FCA	0.044											
FCB	0.102	0.636										
ICA	0.17	0.571	0.431									
ICB	0.127	0.158	0.209	0.444								
DRW	0.746	0.101	0.094	0.282	0.21							
PA	0.249	0.307	0.166	0.51	0.581	0.303						
PB	0.252	0.181	0.178	0.55	0.714	0.271	**1.009**					
PC	0.133	0.357	0.279	0.579	0.727	0.267	0.878	**1.008**				
PD	0.128	0.125	0.175	0.243	0.375	0.227	0.58	0.513	0.443			
TA	0.15	0.42	0.358	0.758	0.707	0.239	0.709	0.711	0.742	0.406		
TB	0.158	0.342	0.282	0.668	0.675	0.287	0.781	0.827	0.724	0.593	**1.008**	
TC	0.118	0.354	0.239	0.597	0.623	0.255	0.657	0.691	0.63	0.529	**0.924**	**1.025**

Note: Values in bold correspond to HTMT > 0.9

The next part is validating the HOC part in the second stage of estimating the model. The bootstrapping method estimates the significance of all paths in the model, and validation follows J. Hair et al. (2022) for evaluating formative constructs, which considers the value of loading and significance. In the procedure, paths that are not significant and have a loading below 0.5 should be removed. There were several non-significant paths in the formative constructs, but none with loading above 0.5. The last part of the model validation consists of validating the model. PLSSEM does not have good indicators for model fit, but the Standardized Root Mean Square Residual (SRMS) less than 0.08 generally indicates a good fit (Henseler et al., 2015). The model had 0.044 for the full model and 0.045 for the pruned model.

In addition to validating the model, the measure of the degree of remote work was inspected, as these were self-made. The measurement consists of a rating scale question (D) and five Likert scale questions (D2-D5), both used to measure the degree of remote work. All

questions were aggregated together and assessed. Most questions had a high loading factor, except for D2, which used reverse coding, leading to poor loading, and was removed from the analysis. In addition, the Variance Inflation Factor value was checked to assess multicollinearity, which can give rise to type II errors. This revealed that D2 and D3 were above the recommended threshold of 5 (J. Hair et al., 2022), and only D, D4, and D5 were used in the subsequent analysis.

Results

The full model with all connections is drawn in Figure 4, where the control variables were not shown in the figure but are printed in Table 5.

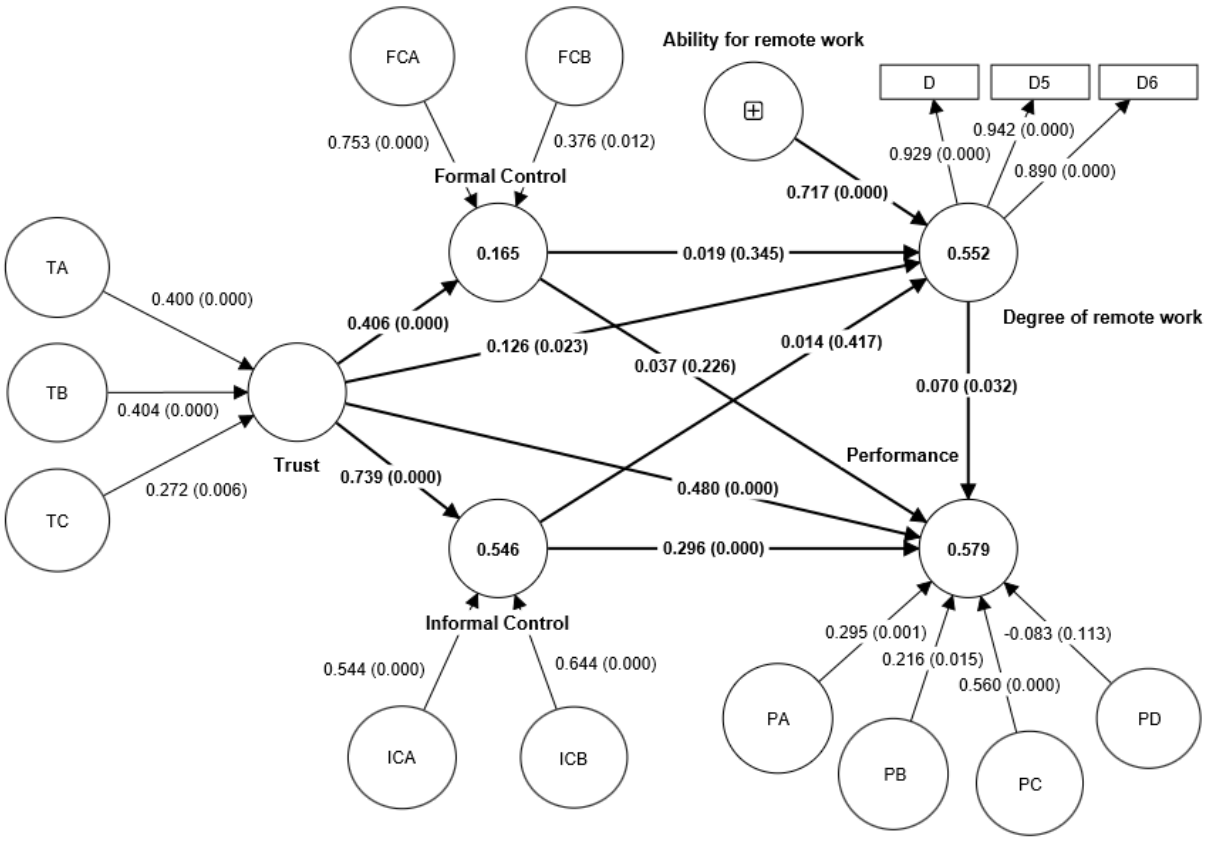


Figure 4. The SEM model, including loadings, is shown for all paths and significance in parentheses. The adjusted R-squared values are shown within the constructs.

Table 5.

Summary of hypothesis testing and estimation results. ARW (Ability for Remote Work), DRW (Degree of Remote Work).

Code	Hypothesis	Hypothesized Correlation	β	Result
		Results		
H1a	Trust -> Formal Control	Positive	0.417 (0.000)	Accepted
H1b	Trust -> Degree of Remote Work	Positive	0.109 (0.047)	Accepted
H1c	Trust -> Perceived Performance	Positive	0.474 (0.000)	Accepted
H1d	Trust -> Informal Control	Positive	0.746 (0.000)	Accepted
H2a	Formal Control -> DRW	Negative	0.016 (0.375)	Rejected
H2b	Formal Control -> Perceived Performance	Positive	0.041 (0.198)	Rejected
H3a	Informal Control -> DRW	Positive	0.014 (0.417)	Rejected
H3b	Informal Control -> Perceived Performance	Positive	0.297 (0.000)	Accepted
H4	ARW -> Perceived Performance	Positive	0.074 (0.027)	Accepted
H5	ARW -> Degree of Remote Work	Positive	0.726 (0.000)	Accepted
		Control		
Age -> DRW			0.061 (0.078)	Not significant
Gender -> DRW			0.007 (0.429)	Not significant
Education -> DRW			0.010 (0.407)	Not significant
Level of management -> DRW			-0.053 (0.096)	Not significant
Age -> Perceived Performance			0.021 (0.310)	Not significant
Gender -> Perceived Performance			-0.040 (-0.155)	Not significant
Education -> Perceived Performance			0.012 (0.391)	Not significant
Level of management -> Perceived Performance			0.018 (0.348)	Not significant

This study examines the interplay of trust, control, and remote work; the results in Table 5 demonstrate the results of the findings and control variables tested. Hypothesis H1b investigates the direct correlation of trust on remote work adaptations, revealing a small yet significant effect. Trust, therefore, seems to be the only significant factor in this model that managers can use to control the utilization of remote work. Hypothesis H5, assessing the ability of the work being done remotely, is significant and correlates strongly with the degree of remote work utilization. However, this factor is determined by factors outside the manager's control.

Contrary to expectations, neither formal nor informal control (H2a and H3a) significantly influenced remote work adaptation. Furthermore, the analysis confirmed solid

and significant correlations between trust and both forms of control (H1a and H1d), suggesting that trust complements both formal and informal control. Additionally, trust and information correlated positively with employee perceived performance (H1c and H3b), while formal control (H2b) did not. Intriguingly, we found that remote work, though to a small extent, positively impacts the perceived performance of employees (H4). None of the control variables significantly influence the degree of remote work or perceived performance.

Discussion

This thesis investigated the cause of several CEOs' recent withdrawal from work-from-home policies, claiming that employees cannot be trusted and do not perform well when working remotely. The influence of trust, OC, and RWA has been studied, focusing on how these factors affect the adoption of RWA and managers' perceived employee performance. The aim is to contribute to understanding organizational policies and practices where remote work is integral to the work environment.

The findings indicate that trust positively influences the adoption of RWA and the impact on the perceived performance of employees. Interestingly, OC does not significantly affect the adoption of RWA, and only informal types of control were found to influence the perceived performance of employees. The research also found the interplay between trust and control, suggesting they are complementary. Similar complementary influences of trust and control are seen for formal and informal control types, suggesting that trust plays a decisive role in organizational control.

Interpretation of Key Findings

The research made critical findings that align with and challenge existing theories of trust and OC. The first finding was that managers' trust is essential for adopting RWA, while neither formal nor informal control has any significant influence. This finding supports many

of RWA's long-standing concerns, from when RWA was first discussed (*Telework Annual Report*, 2013) to a recent news article (Parker et al., 2020) stating that trust is essential to enable remote work. This means managers with high trust in employees are more likely to allow employees to utilize RWA more. These findings are interesting as both Downes et al. (2023) and Pianeese et al.(2022) suggest that trust is essential to RWA, also supporting the view that formal controls would be difficult to monitor when employees work RWA and that informal types of control will be preferred. Contradictory to our hypothesis, no significant influence was found between control and RWA utilization, despite its support by research (Downes et al., 2023). Downes et al. suggested that informal types of control would be preferred, as monitoring employees becomes difficult when working in RWA. The study findings contradict that neither formal nor informal control influences the utilization of RWA and suggest that only trust has an influence. An explanation might be that managers have little control over adopting RWA, especially regarding optimizing the type of control used. Bijlsma-Frankema and Costa (2005) further explain that the workplace is changing, and trust is becoming an integral part of OC. Could another explanation be that rather than the managers driving the RWA adoption, it might be driven by the employees themselves? Given the current market situation where many companies are understaffed, the employees can take advantage when negotiating benefits, which might include RWA. This imbalance might take away the management's ability to control how much RWA would be optimal for the current work and the type of control utilized.

A similar relationship was found when analyzing managers' perceptions of employee performance. Trust seems to have a considerable influence, informal control less, but still significant influence. This indicates that managers focusing on trust and informal control perceive their employees to perform better. It was also found that formal control did not significantly influence the perceived performance. This implies that achieving a good

perception of employee performance is primarily achieved through trust in employees and by implementing informal types of control. This finding directly contradicts the established theory of organizational control, claiming that control enhances the performance of an organization (Sitkin et al., 2020). May the explanation be that formal control has become a hygiene factor for work environments rather than a tool to achieve performance? This is supported by Bijlsma-Frankema & Costa (2005), who state that too much control can be determinantal for trust, creating a mechanism stabilizing formal control. Too much formal control would deteriorate trust, while too little might cause opportunistic behavior from employees, both being suboptimal to work performance. Instead, an effect of trust and informal control can be found to strengthen managers' perception of their employee's performance. In addition, a high degree of RWA was found to have a small but significant effect on perceived employee performance. This might be explained by the benefit of RWA with better work-life balance, less commuting time, and more.

Another of the notable findings was the strong influence of trust on formal and informal control. It also challenges the traditional Agency-based theories (Jensen & Meckling, 1976; Ouchi, 1980; Sitkin et al., 2020), which depict trust and control as opposites. Instead, our results show that trust complements the control mechanism, suggesting a complementary relationship between these constructs. Notably, the strong relationship between trust and informal type of control suggests that trust plays a significant role in controlling work. This aligns with newer research on trust, suggesting that the role of organizational control is diminished and that trust is taking its place (Bijlsma-Frankema & Costa, 2005).

In addition, we measured the degree to which work could be performed remotely. The results show a strong correlation between the amount of work that can be done remotely and the utilization of remote work. This finding is probably not a cause of the utilization of

remote work; instead, it is a prerequisite for remote work. This measure was intended to be a mediator for control and trust, although as these variables yielded a low significance to RWA, it was decided to use the variable directly. The ability to do remote work is believed to be an essential mediator for future research exploring RWA drivers and causes. This measure is believed to be significant where the loadings between constructs are strong.

Lastly, the findings indicate that trust is the primary influencer of RWA and perceived employee performance. This finding diverges from the hypothesized relation of control as a mediator. It underscores trust as an integral component of control, RWA, and performance, suggesting that in the evolving work environment, trust may serve as an alternative mode of control (Bijlsma-Frankema & Costa, 2005). These insights suggest that trust has potentially emerged as a predominant mode of governance in present-day organizational contexts.

Implications for Current Practices

This survey's findings can have several implications for current practices in organizations. First, trust was shown to be an essential component supporting OC, utilization of RWA, and employee performance. This implies that managers should focus on trust to supplement good managerial practices. In addition to focusing on trust, utilizing informal control appears to strengthen how managers perceive the performance of employees. A shift like that could lead to more effective management practices in remote work environments with limited supervision and monitoring.

The low impact of formal control on RWA adoption can also challenge managers to reconsider using traditional control models in remote work contexts. The results suggest that the success of remote work might rely less on stringent control mechanisms and more on building a foundation of trust between managers and employees. This is especially important in the post-pandemic time when the use of RWA has increased and expanded. As workplaces

evolve, organizations should look to adapt and thrive in increasingly remote-centric work environments.

Limitations and Future Research Questions

This research offers valuable insights into RWA, yet it is essential to recognize its limitations. First, the scope of the study was narrowly focused, excluding factors such as work culture, work-life balance, technology, and more. While these are essential aspects of understanding RWA, they were beyond the study's boundaries, limiting the comprehensiveness of the findings. The study did not include the effects of monitoring, which is one of the managerial activities obstructed when employees work remotely. The rapid development of ICT and the wide adoption of RWA after the COVID-19 pandemic has also expanded the capabilities for remote monitoring, a field that is not yet understood.

Furthermore, the study relies on managerial perspectives, offering a subjective lens through which RWA is viewed. It is essential to acknowledge that the study captures managers' opinions and practices, which might not necessarily be a good representation of the objective reality. This subjective viewpoint must be considered when interpreting the results; for example, only trust from the managers is measured and is not nuanced with employees' opinions and practices. Another limitation is bound in the methodology used. Using a cross-sectional survey effectively captures current practices but does not account for the temporal dynamics of RWA. Such a snapshot restricts understanding external factors like the COVID-19 pandemic, technological advancement, or the evolvement of managerial practices. This is also relevant as work practices have changed since many established theories were founded. This limitation supports the need for longitudinal research better to comprehend the ongoing evolution and adaptation of RWAs and determine how organizational control changes.

In summary, while the thesis contributes valuable perspectives on the factors driving RWA, it also emphasizes the need for a more nuanced understanding of the relationship

between trust and control. The research has opened for further exploration, indicating the need for comprehensive and global studies in the future. To achieve a more holistic understanding of the drivers of adopting RWA, future research should extend to a broader scope, incorporating elements like work culture, technology, and work-life balance, and test these in an international context. Additional exploration can, for example, explore both managerial and employees' views of RWA in longitudinal studies to pave the way for more robust and general findings.

Conclusion

This thesis has contributed to understanding how trust, OC, and RWA relate in the context of current literature and managerial practices. The focus of the study was to examine how trust and control influence the adoption of RWA and managers' perceived performance of employees. The findings challenge OC's traditional formal control theories, highlighting the importance of trust in OC and adopting RWA. The results suggest a paradigm shift from traditional control mechanisms to trust-centric approaches.

The study's key findings found that trust is a primary factor in the adoption of RWA and in how managers perceive employee performance. Contrary to the hypotheses relations, formal and informal control did not significantly influence the adoption of RWA. However, informal control was found to influence the perceived performance of employees positively. These findings suggest that trust is the only controllable factor that managers influence on RWA, while trust and informal control influence managers' perceived performance of their employees.

These implications suggest significant findings for current organizational practices. Trust was the most critical factor in supporting RWA, the perceived employee performance, and control methods. This suggests that managers should shift managerial focus toward cultivating trust. Support was also found to work in tandem with trust and informal control,

suggesting that greater performance might be achieved by focusing on informal rather than formal types of control. This is especially important in the post-pandemic era, where the adoption of remote work has increased.

The study has limitations, including the survey focusing on managerial perspective, exclusion of factors such as work culture and technology, and cross-sectional research design. These limitations highlight the need for further research to better understand the dynamics of trust and control, both in an organizational context and RWA context. Further, a focus on capturing a broader perspective of OC, incorporating longitudinal studies and more variables can help improve our understanding of the dynamics of trust and control.

In conclusion, this thesis contributes to understanding the relationship between trust, control, and RWA in a managerial context. It signals a shift towards more trust-centric approaches in managing the workforce, challenging conventional control. As organizations change to more remote work, this research offers valuable insights into developing effective strategies for managers that balance trust, control, and the demand for remote work environments.

References

Andrei, D.-M. (2022). Remote Work and Technology. A Brief History and Evolutions in E.U and Romania. *Economic Sciences Series*, *XXII*(2).

Baines, A. (1995). Work measurement – the basic principles revisited. *Work Study*, *44*(7), 10–14.

Becker, J.-M., Cheah, J.-H., Gholamzade, R., Ringle, C. M., & Sarstedt, M. (2022). PLS-SEM's most wanted guidance. *International Journal of Contemporary Hospitality Management*, *35*(1), 321–346. https://doi.org/10.1108/IJCHM-04-2022-0474

Becker, J.-M., Hwa, C., Ringle, C., Sarstedt, M., & Hair, J. (2019). How to Specify, Estimate, and Validate Higher-Order Constructs in PLS-SEM. *Australasian Marketing Journal (AMJ)*, *27*. https://doi.org/10.1016/j.ausmj.2019.05.003

Bijlsma-Frankema, K., & Costa, A. C. (2005). Understanding the Trust-Control Nexus. *International Sociology*, *20*(3), 259–282. https://doi.org/10.1177/0268580905055477

Bougie, R., & Sekaran, U. (2019). *Research Methods For Business: A Skill Building Approach*. Wiley. https://books.google.no/books?id=nkv1xwEACAAJ

Cardinal, L. B., Kreutzer, M., & Miller, C. C. (2017). An Aspirational View of Organizational Control Research: Re-invigorating Empirical Work to Better Meet the Challenges of 21st Century Organizations. *Academy of Management Annals*, *11*(2), 559–592. https://doi.org/10.5465/annals.2014.0086

Cardinal, L. B., Sitkin, S. B., & Long, C. P. (2004). Balancing and Rebalancing in the Creation and Evolution of Organizational Control. *Organization Science*, *15*(4), 411–431. https://doi.org/10.1287/orsc.1040.0084

Cardinal, L., Sitkin, S., & Long, C. (2010). A configurational theory of control. *Organizational Control*, 51–79. https://doi.org/10.1017/CBO9780511777899.004

Choudhury, V., & Sabherwal, R. (2003). Portfolios of Control in Outsourced Software Development Projects. *Information Systems Research*, *14*(3), 291–314.

Cummings, L., & Bromiley, P. (1996). *The Organizational Trust Inventory (OTI): Development and Validation*.

Downes, R., Daellenbach, U., & Donnelly, N. (2023). Remote control: Attitude monitoring and informal control in distributed teams. *Journal of Business Research*, *154*, 113293. https://doi.org/10.1016/j.jbusres.2022.08.057

Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review*, *14*(1), 57–74. https://doi.org/10.2307/258191

Ferrin, D. L., Bligh, M. C., & Kohles, J. C. (2007). Can I Trust You to Trust Me?: A Theory of Trust, Monitoring, and Cooperation in Interpersonal and Intergroup Relationships. *Group & Organization Management*, *32*(4), 465–499. https://doi.org/10.1177/1059601106293960

Gallup. (2023, May 17). *Indicator: Hybrid Work*. Gallup.Com. https://www.gallup.com/401384/indicator-hybrid-work.aspx

General Data Protection Regulation (GDPR) – Official Legal Text. (2018, May 25). General Data Protection Regulation (GDPR). https://gdpr-info.eu/

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. https://doi.org/10.1007/978-3-030-80519-7

Hair, J., Ringle, C., Gudergan, S., Fischer, A., Nitzl, C., & Menictas, C. (2018). Partial least squares structural equation modeling-based discrete choice modeling: An illustration

in modeling retailer choice. *Business Research, 12*. https://doi.org/10.1007/s40685-018-0072-4

Hair Jr., J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*. Springer Nature. https://doi.org/10.1007/978-3-030-80519-7

Harker Martin, B., & MacDonnell, R. (2012). Is telework effective for organizations? A meta-analysis of empirical research on perceptions of telework and organizational outcomes. *Management Research Review*, *35*(7), 602–616. https://doi.org/10.1108/01409171211238820

Henderson, J. C., & Lee, S. (1992). Managing I/S Design Teams: A Control Theories Perspective. *Management Science*, *38*(6), 757–777. https://doi.org/10.1287/mnsc.38.6.757

Henseler, J., Ringle, C., & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling. *Journal of the Academy of Marketing Science*, *43*, 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hybrid Work Is Just Work. Are We Doing It Wrong? (2022, September 22). https://www.microsoft.com/en-us/worklab/work-trend-index/hybrid-work-is-just-work

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Keil, M., Rai, A., & Liu, S. (2013). How user risk and requirements risk moderate the effects of formal and informal control on the process performance of IT projects. *European Journal of Information Systems*, *22*. https://doi.org/10.1057/ejis.2012.42

Kirsch, L. J. (1996). The Management of Complex Tasks in Organizations: Controlling the Systems Development Process. *Organization Science*, *7*(1), 1–21. JSTOR.

Kirsch, L. J. (1997). Portfolios of Control Modes and IS Project Management. *Information Systems Research*, *8*(3), 215–239.

Kirsch, L., Sambamurthy, V., Ko, D.-G., & Purvis, R. (2002). Controlling Information Systems Development Projects: The View from the Client. *Management Science*, *48*, 484–498. https://doi.org/10.1287/mnsc.48.4.484.204

Kock, N., & Hadaya, P. (2018). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma-exponential methods. *Information Systems Journal*, *28*(1), 227–261. https://doi.org/10.1111/isj.12131

Kohnová, L., & Salajová, N. (2019). Industrial Revolutions and their impact on managerial practice: Learning from the past. *Problems and Perspectives in Management*, *17*(2), 462–478. https://doi.org/10.21511/ppm.17(2).2019.36

Koopmans, L., Bernaards, C., Hildebrandt, V., Buuren, S., van der Beek, A., & De Vet, H. (2013). Development of an Individual Work Performance Questionnaire. *International Journal of Productivity and Performance Management*, *62*, 6–28. https://doi.org/10.1108/17410401311285273

Kreutzer, M., Cardinal, L., Walter, J., & Lechner, C. (2016). Formal and Informal Controls as Complements or Substitutes? The Role of the Task Environment. *Academy of Management Proceedings*, *2016*, 11470–11470. https://doi.org/10.5465/AMBPP.2014.105

Kurland, N. B., & Egan, T. D. (1999). Telecommuting: Justice and Control in the Virtual Organization. *Organization Science*, *10*(4), 500–513. https://doi.org/10.1287/orsc.10.4.500

Kurt Wagner. (2022, November 10). Musk's First Email to Twitter Staff Ends Remote Work. *Bloomberg.Com*. https://www.bloomberg.com/news/articles/2022-11-10/musk-s-first-email-to-twitter-staff-ends-remote-work

Local Citation Network. (2023). https://localcitationnetwork.github.io/

Long, C. P. (2018). To control and build trust: How managers use organizational controls and trust-building activities to motivate subordinate cooperation. *Accounting, Organizations and Society*, *70*, 69–91. https://doi.org/10.1016/j.aos.2018.05.006

Management occupations | Data USA. (2021). https://datausa.io/profile/soc/management-occupations

Mayer, R. C., & Davis, J. H. (1999). The effect of the performance appraisal system on trust for management: A field quasi-experiment. *Journal of Applied Psychology*, *84*(1), 123–136. https://doi.org/10.1037/0021-9010.84.1.123

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An Integrative Model Of Organizational Trust. *Academy of Management Review*, *20*(3), 709–734. https://doi.org/10.5465/amr.1995.9508080335

Nilles, J., Gray, P., Hanneman, G., & Carlson, F. R. (1978). The telecommunications-transportation tradeoff—Options for tomorrow: Jack Nilles, F. Roy Carlson, Jr., Paul Gray and Gerhard Hanneman, Wiley, New York, 1976. *Transportation Research*, *12*(2), 142–142. https://doi.org/10.1016/0041-1647(78)90058-8

Nilles, J. M., Carlson, F. R., Gray, P., & Hanneman, G. J. (1976). *The Telecommunications-Transportation Tradeoff, Options for Tomorrow*. Wiley-Interscience.

North American Industry Classification System (NAICS) U.S. Census Bureau. (2022). https://www.census.gov/naics/?58967?yearbck=2022

Ortiz-Ospina, E., & Roser, M. (2016). Trust. *Our World in Data*.

Ouchi, W. G. (1977). The Relationship Between Organizational Structure and Organizational Control. *Administrative Science Quarterly*, *22*(1), 95–113. https://doi.org/10.2307/2391748

Ouchi, W. G. (1979). A Conceptual Framework for the Design of Organizational Control Mechanisms. *Management Science*, *25*(9), 833–848. https://doi.org/10.1287/mnsc.25.9.833

Ouchi, W. G. (1980). Markets, Bureaucracies, and Clans. *Administrative Science Quarterly*, *25*(1), 129. https://doi.org/10.2307/2392231

Ozimek, A. (2020). *The Future of Remote Work* (SSRN Scholarly Paper 3638597). https://doi.org/10.2139/ssrn.3638597

Parker, S. K., Knight, C., & Keller, A. (2020). Remote managers are having trust issues. *Harvard Business Review*, *30*, 6–20.

Personal Data. (2018, May 25). *General Data Protection Regulation (GDPR)*. https://gdpr-info.eu/issues/personal-data/

Pianese, T., Errichiello, L., & Vieira da Cunha, J. (2022). Organizational control in the context of remote working: A synthesis of empirical findings and a research agenda. *European Management Review*. https://doi.org/10.1111/emre.12515

Rachana Shanbhogue. (2023, November 13). The fight over remote working will heat up in 2024. *The Economist*. https://www.economist.com/the-world-ahead/2023/11/13/the-fight-over-remote-working-will-heat-up-in-2024

Retningslinjer om personopplysninger i studentprosjekter. (2023, January 17). Universitetet i Agder. https://www.uia.no/forskning/om-forskningen/retningslinjer-om-personopplysninger-i-studentprosjekter

Rich, G. A. (1997). The sales manager as a role model: Effects on trust, job satisfaction, and performance of salespeople. *Journal of the Academy of Marketing Science*, *25*(4), 319–328. https://doi.org/10.1177/0092070397254004

Roser, M. (2018, October 3). *The Internet's history has just begun*. Our World in Data. https://ourworldindata.org/internet-history-just-begun

Rushe, D. (2022, June 1). Elon Musk tells employees to return to office or 'pretend to work' elsewhere. *The Guardian*. https://www.theguardian.com/technology/2022/jun/01/elon-musk-return-to-office-pretend-to-work-somewhere-else

Schiff, F. W. (1979, September 2). Working at Home Can Save Gasoline. *Washington Post*. https://www.washingtonpost.com/archive/opinions/1979/09/02/working-at-home-can-save-gasoline/ffa475c7-d1a8-476e-8411-8cb53f1f3470/

Schmidt, R., Lyytinen, K., Keil, M., & Cule, P. (2001). Identifying Software Project Risks: An International Delphi Study. *J. of Management Information Systems*, *17*, 5–36. https://doi.org/10.1080/07421222.2001.11045662

Shana Lebowitz, Marguerite Ward, Emily Canal, Rebecca Knight, & Alexandra York. (2023, July 19). *Here's a list of major companies requiring employees to return to the office*. Business Insider. https://www.businessinsider.com/companies-making-workers-employees-return-to-office-rto-wfh-hybrid-2023-1

Shannon, C. E. (1948). A mathematical theory of communication. *The Bell System Technical Journal*, *27*(3), 379–423. https://doi.org/10.1002/j.1538-7305.1948.tb01338.x

Sitkin, S. B., Cardinal, L. B., & Bijlsma-Frankema, K. M. (Eds.). (2010). *Organizational Control*. Cambridge University Press. https://doi.org/10.1017/CBO9780511777899

Sitkin, S. B., Long, C. P., & Cardinal, L. B. (2020). Assessing the Control Literature: Looking Back and Looking Forward. *Annual Review of Organizational Psychology*

and Organizational Behavior, *7*(1), 339–368. https://doi.org/10.1146/annurev-orgpsych-012119-045321

Smite, D., Christensen, E. L., Tell, P., & Russo, D. (2022). The Future Workplace: Characterizing the Spectrum of Hybrid Work Arrangements for Software Teams. *IEEE Software*, 1–9. https://doi.org/10.1109/MS.2022.3230289

Taylor, F. W. (1911). *The principles of scientific management.* (p. 77). Harper and Brothers.

Telework Annual Report. (2013). United States Patent and Trademark Office. https://www.uspto.gov/sites/default/files/about/offices/cao/TeleworkAnnualReport2013-508.pdf

The Pioneers of Modern Remote Work. (2020, November 10). Wrkfrce. https://wrkfrce.com/the-pioneers-of-modern-remote-work/

Tiwana, A., & Keil, M. (2007). Does peripheral knowledge complement control? An empirical test in technology outsourcing alliances. *Strategic Management Journal*, *28*, 623–634. https://doi.org/10.1002/smj.623

Toniolo-Barrios, M., & Pitt, L. (2021). Mindfulness and the challenges of working from home in times of crisis. *Business Horizons*, *64*(2), 189–197. https://doi.org/10.1016/j.bushor.2020.09.004

Tzafrir, S., & Dolan, S. (2004). Trust Me: A Scale for Measuring Manager-Employee Trust. *Management Research*, *2*, 115–132. https://doi.org/10.1108/15365430480000505

Vicky Gan. (2015, December 1). What Telecommuting Looked Like in 1973. *Bloomberg.Com*. https://www.bloomberg.com/news/articles/2015-12-01/what-telecommuting-looked-like-in-1973

Wallace, L., Keil, M., & Rai, A. (2004). Understanding software project risk: A cluster analysis. *Information & Management*, *42*(1), 115–125. https://doi.org/10.1016/j.im.2003.12.007

Weber, M., 1864-1920. (1947). *Max Weber, the theory of social and economic organization*. New York : Free Press ; London : Collier Macmillan, [1947] ©1947. https://search.library.wisc.edu/catalog/999697724602121

Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications: A Study in the Economics of Internal Organization* (SSRN Scholarly Paper 1496220). https://papers.ssrn.com/abstract=1496220

Zahir, S., & Aman, J. (2016). Evolution of Home Based Work. *International Journal of Civil Engineering (IJCE)*, *6*, 1–8.

Zand, D. E. (1972). Trust and Managerial Problem Solving. *Administrative Science Quarterly*, *17*(2), 229–239. https://doi.org/10.2307/2393957

Appendix 1 – Survey questions and structure

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
		Screening (S)				
S1	Do you directly oversee or manage any employees?			Nominal, Binary	1. Yes, 2. No	Self-made
		Work Environment (Degree of remote work) (D)				
D	During the last year, on average, how much time have your individual employees spent working remotely?			Ratio	0% - 100%	Self made, (Baines, 1995)
D2	Over the past year, my employees primarily worked remotely (outside the office).			Ordinal, 7-point rating scale	1. Strongly disagree, 2. Disagree, 3, Slightly disagree, 4. Neural / Neither agree nor disagree, 5. Slightly agree, 6. Agree, 7. Strongly agree	
D3	For the majority of the past year, my employees were working remotely (outside the office).					
D4*	On average, my employees worked remotely (outside the office) less frequently throughout the past year.					
D5	A significant portion of my employees' work was conducted remotely (outside the office) over the past year.					
D6	I believe that, in the past year, my employees had the flexibility to work remotely without strict limitations on hours.					

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
		Trust (T)				
TA1	My employees have a lot of knowledge about the work that needs to be done.	Employees/managers have a lot of knowledge about the work that needs to be done.	Harmony	Ordinal, 7-point rating scale	1. Strongly disagree, 2. Disagree, 3, Slightly disagree, 4. Neural / Neither agree nor disagree, 5. Slightly agree, 6. Agree, 7. Strongly agree	(Tzafrir & Dolan, 2004)
TA2	My employees are known to be successful in the things they attempt to accomplish.	Employees/managers are known to be successful in the things they attempt to accomplish.				
TA3	There is a lot of warmth in the relationships between the managers and workers in this organization.	There is a lot of warmth in the relationships between the managers and workers in this organization.				
TA4	My employees would make personal sacrifices for the organization.	Employees/managers would make personal sacrifices for our group.				
TA5	My employees express their true feelings about important issues.	Employees/managers express their true feelings about important issues.				
TB1	My employees' needs and desires are very important to me.	Managers'/employees' needs and desires are very important to employees/managers.	Reliability			
TB2	My employees will keep the promises they make.	Employees/managers will keep the promises they make.				
TB3	My employees really look out for what is important to me.	Employees/managers really look out for what is important to the managers/employees.				
TB4*	My employees' actions and behaviors are not consistent.	Employees'/managers' actions and behaviors are not consistent.				
TB5	My employees take actions that are consistent with their words.	Employees/managers take actions that are consistent with their words.				
TC1	I can count on my employees to help me if I have difficulties with my job.	I can count on my employees/managers to help me if I have difficulties with my job.	Concern			
TC2	My employees would not knowingly do anything to hurt the organization.	Employees/managers would not knowingly do anything to hurt the organization.				

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
TC3	My employees are open and upfront with me.	My employees/managers are open and up front with me.				
TC4*	I think that the people in the organization succeed by stepping on other people.	I think that the people in the organization succeed by stepping on other people.				
TC5	If I make a mistake, my employees are willing to “forgive and forget.”	If I make a mistake, my employees/managers are willing to “forgive and forget.”				
TC6*	It is best not to share information with my employees.	It is best not to share information with my employees/managers.				

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
		Formal Control (FC)				
FCA1	I expected my employees to follow an understandable written sequence of steps toward the accomplishment of their work goals.	The user expected the development team to follow an understandable written sequence of steps toward the accomplishment of project goals.	Behavioral control	Ordinal, 7-point rating scale	1. Strongly disagree, 2. Disagree, 3, Slightly disagree, 4. Neural / Neither agree nor disagree, 5. Slightly agree, 6. Agree, 7. Strongly agree	(Keil et al., 2013; L. Kirsch et al., 2002; L. J. Kirsch, 1996, 1997)
FCA2	I expected my employees to follow articulated written rules toward the accomplishment of their work goals.	The user expected the development team to follow articulated written system development rules toward the accomplishment of project goals.				
FCA3	I assessed the extent to which existing written procedures and practices were followed by employees during their work.	The user assessed the extent to which existing written procedures and practices were followed during the development process.				
FCB1	I placed significant weight upon my employees' timely work completion.	The user placed significant weight upon timely project completion.	Outcome control			(Keil et al., 2013; L. Kirsch et al., 2002; L. J. Kirsch, 1996; Tiwana & Keil, 2007)
FCB2	I placed significant weight upon employee's work completion within budgeted costs.	The user placed significant weight upon project completion within budgeted costs.				
FCB3	I placed significant weight upon employees' work completion to my satisfaction.	The user placed significant weight upon project completion to the satisfaction of the user.				
FCB4	I used pre-established targets as benchmarks for my employees performance evaluations.	The user used pre-established targets as benchmarks for development team performance evaluations.				

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
		Informal Control (IC)				
ICA1	I actively participated in work meetings to understand my employees' goals, values, and norms.	The user actively participated in project meetings to understand the development team's goals, values, and norms.	Clan control	Ordinal, 7-point rating scale	1. Strongly disagree, 2. Disagree, 3, Slightly disagree, 4. Neural / Neither agree nor disagree, 5. Slightly agree, 6. Agree, 7. Strongly agree	(Choudhury & Sabherwal, 2003; Keil et al., 2013; L. Kirsch et al., 2002; L. J. Kirsch, 1997)
ICA2	I attempted to be a 'regular' member alongside my employees' team.	The user attempted to be a 'regular' member of the development team.				
ICA3	I attempted to understand my employees' goals, norms, and values.	The user attempted to understand the development team's goals, norms, and values.				
ICA4	I attempted to form a committee that frequently communicated with my employees.	The user attempted to form a committee that often communicated with the development team.				
ICA5	I actively joined my employees' team for crucial decision-making.	The user actively joined with the development team for important decision making.				
ICB1	My employees autonomously set specific goals for their project without the involvement of me.	The development team autonomously set specific goals for this project without the involvement of the user.	Self-control			(Cummings & Bromiley, 1996; Henderson & Lee, 1992; Keil et al., 2013)
ICB2	My employees autonomously made changes to their work without seeking my approval.	The development team autonomously made changes to the system without seeking the user's approval.				
ICB3	My employees autonomously identified and addressed issues without my intervention.	The development team autonomously identified and addressed issues without the user's intervention.				
ICB4	My employees autonomously took the initiative in most tasks without my directive.	The development team autonomously took the initiative in most tasks without the user's directive.				
ICB5	My employees functioned effectively without close supervision from me.	The development team functioned effectively without close supervision from the user.				

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
		Performance (P)				
PA1	My employees managed to plan their work so that it was completed on time.	I managed to plan my work so that it was done on time	Task Performance	Ordinal, 7-point rating scale	1. Strongly disagree, 2. Disagree, 3, Slightly disagree, 4. Neural / Neither agree nor disagree, 5. Slightly agree, 6. Agree, 7. Strongly agree	(Koopmans et al., 2013)
PA2	My employees were able to separate main issues from side issues at work.	I was able to separate main issues from side issues at work				
PA3	My employees were able to perform their work well with minimal time and effort.	I was able to perform my work well with minimal time and effort				
PB1	My employees started new tasks when their old ones were finished.	I started new tasks myself, when my old ones were finished	Contextual Performance			
PB2	My employees took on challenging work tasks when available.	I took on challenging work tasks, when available				
PC1	My employees worked at keeping their job knowledge up-to-date.	I worked at keeping my job knowledge up-to-date	Adaptive Performance			
PC2	My employees worked at keeping their job skills up-to-date.	I worked at keeping my job skills up-todate				
PC3	My employees came up with creative solutions to new problems.	I came up with creative solutions to new problems				
PD1	My employees complained about unimportant matters at work.	I complained about unimportant matters at work	Counterproductive Work Behavior			
PD2	My employees made problems greater than they were at work.	I made problems greater than they were at work				
PD3	My employees focused on the negative aspects of a work situation instead of on the positive aspects.	I focused on the negative aspects of a work situation, instead of on the positive aspects				
PD4	My employees often discussed the negative aspects of their work with colleagues.	I spoke with colleagues about the negative aspects of my work				

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
		Risk moderators (R)				
RA1	My employees work with continually changing scope and work requirements.	Continually changing scope and system requirements	Requirements Risk	Ordinal, 7-point rating scale	1. Strongly disagree, 2. Disagree, 3, Slightly disagree, 4. Neural / Neither agree nor disagree, 5. Slightly agree, 6. Agree, 7. Strongly agree	(Keil et al., 2013; Schmidt et al., 2001; Wallace et al., 2004)
RA2	My employees have unclear work requirements.	Unclear system requirements				
RA3	My employees have conflicting work requirements.	Conflicting system requirements				
RA4	My employees' work requirements are not adequately identified.	System requirements not adequately identified				
RB1	My employees are resistant to change in their work.	Users resistant to change	User Risk			
RB2	My employees exhibit negative attitudes toward their work.	Users with negative attitudes toward the project				
RB3	My employees lack participation in their work.	Lack of user participation				

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
RB4	My employees are not committed to their work.	Users not committed to the project				
		Control and demography (C)				
C1	How many employees do you directly oversee or manage?			Numerical		Self-made
C2	How many years have you worked in the current position			Numerical		
C3	How old are you?			Numerical		
C4	What is your gender?			Nominal	2. Male, 1. female, 3. Non-binary, 4. Other;	
C5	What is the highest level of school you have completed or the highest degree you have received?			Ordinal	1. Less than high school degree, 2. Heigh school degree or equvialent (e.g. GED),	

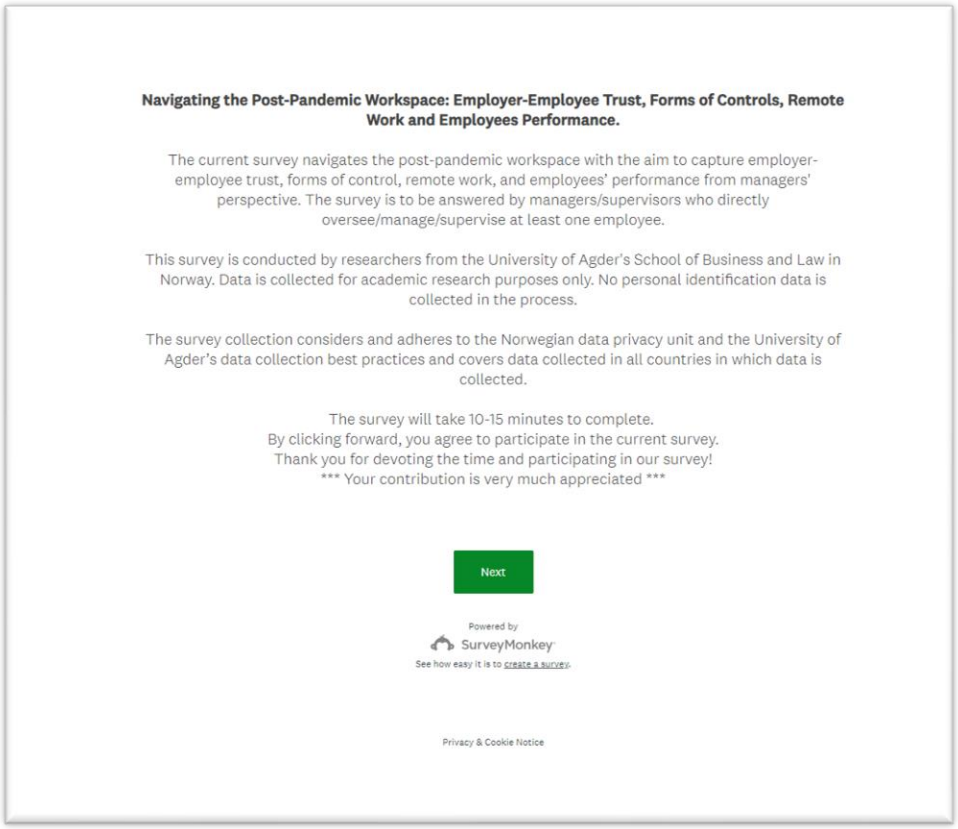
Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
					3. Some college, but no degree. 4. Associate degree, 5. Bachlor degree. 6. Graduate degree, 7. Doctorate	
C6	What is your level of management within your organization?			Ordinal	1. Team Lead/Supervisor, 2. Middle Management, 3. Senior, 4. Other (please specify)	
C7	What industry do you work in?			Nominal	1. Agriculture, Forestry, Fishing, and Hunting 2. Mining, Quarrying, and Oil and Gas Extraction 3. Utilities 4. Construction 5. Manufacturing 6. Wholesale Trade 7. Retail Trade 8. Transportation and Warehousing 9. Information 10. Finance and Insurance 11. Real Estate and Rental and Leasing 12. Professional, Scientific, and Technical Services 13. Management of Companies and Enterprises	(*North American Industry Classification System (NAICS)* *U.S. Census Bureau*, 2022)

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
					14. Administrative and Support and Waste Management and Remediation Services 15. Educational Services 16. Health Care and Social Assistance 17. Arts, Entertainment, and Recreation 18. Accommodation and Food Services 19. Other Services 20. Public Administration	
C8	Company Size (did not collect)			Numerical		Self-made
C9	What is your household income (SurveyMonkey)			Ordinal		SurveyMonkey
C10	Region in the us (SurveyMonkey)			Nominal	1. East North Central 2. East South Central 3. Middle Atlantic 4. Mountain 5. New England 6. Pacific 7. South Atlantic 8. West North Central 9. West South Central	
C11	Device type (SurveyMonkey)			Nominal		
C12	Age (binned) (SurveyMonkey)			Ordinal		

Code	Adapted question	Original question	Sub construct	Scale type	Items	Source
C13	Do you believe the primary responsibilities of your employees can be effectively performed remotely?			Ordinal, 4-point rating scale	1 Yes, all of their responsibilities. 2, Yes, most of their responsibilities. 3, Only a few of their responsibilities. 4 No, none of their responsibilities.	
C14	Gender (SurveyMonkey)			Nominal		

* Indicated reverse-coded question

Appendix 2 - Survey Form



Navigating the Post-Pandemic Workspace: Employer-Employee Trust, Forms of Controls, Remote Work and Employees Performance.

The current survey navigates the post-pandemic workspace with the aim to capture employer-employee trust, forms of control, remote work, and employees' performance from managers' perspective. The survey is to be answered by managers/supervisors who directly oversee/manage/supervise at least one employee.

This survey is conducted by researchers from the University of Agder's School of Business and Law in Norway. Data is collected for academic research purposes only. No personal identification data is collected in the process.

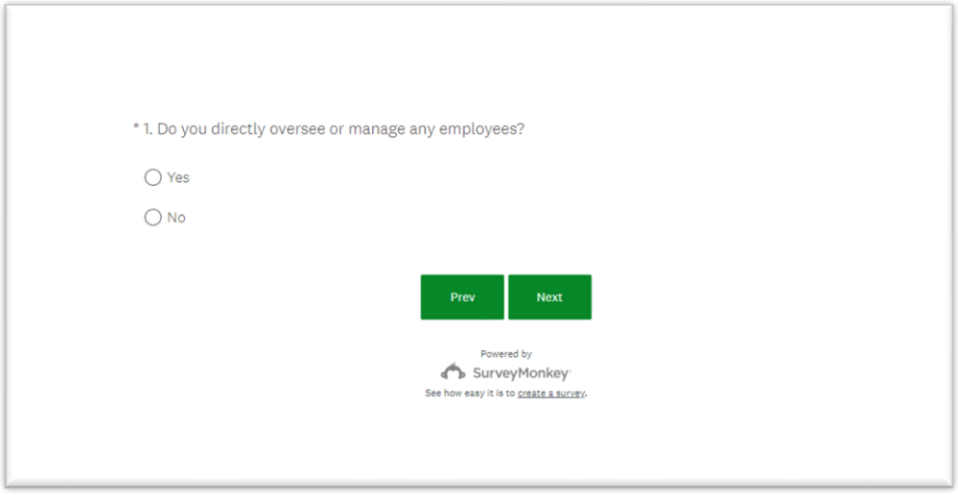
The survey collection considers and adheres to the Norwegian data privacy unit and the University of Agder's data collection best practices and covers data collected in all countries in which data is collected.

The survey will take 10-15 minutes to complete.
By clicking forward, you agree to participate in the current survey.
Thank you for devoting the time and participating in our survey!
*** Your contribution is very much appreciated ***

Next

Powered by SurveyMonkey
See how easy it is to create a survey.

Privacy & Cookie Notice



* 1. Do you directly oversee or manage any employees?

- ◯ Yes
- ◯ No

Prev Next

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* 2. Do you believe the primary responsibilities of your employees can be effectively performed remotely?

- ◯ Yes, all of their responsibilities.
- ◯ Yes, most of their responsibilities.
- ◯ Only a few of their responsibilities.
- ◯ No, none of their responsibilities.

* 3. During the last year, on average, how much time have your employees spent working remotely?

0% - Employees are working in the office at all times | 50% | 100% - Employees are working Remote at all times

When responding to the following statements, please think about a specific core employee(s) that you manage during post Covid-19 pandemic. For each statement, please indicate between "1" and "7" where "1" means "strongly disagree" and "7" means "strongly agree".

* 4. Please indicate the extent to which you agree or disagree with each statement

	Strongly disagree	Disagree	Somewhat disagree	Neutral / Neither agree or disagree	Somewhat agree	Agree	Strongly agree
I believe that, in the past year, my employees had the flexibility to work remotely without strict limitations on hours.	◯	◯	◯	◯	◯	◯	◯
For the majority of the past year, my employees were working remotely (outside the office).	◯	◯	◯	◯	◯	◯	◯
A significant portion of my employees' work was conducted remotely (outside the office) over the past year.	◯	◯	◯	◯	◯	◯	◯
On average, my employees worked remotely (outside the office) less frequently throughout the past year.	◯	◯	◯	◯	◯	◯	◯
Over the past year, my employees primarily worked remotely (outside the office).	◯	◯	◯	◯	◯	◯	◯

Prev Next

* 5. Please indicate the extent to which you agree or disagree with each statement

	Strongly disagree	Disagree	Slightly disagree	Neutral / Neither agree nor disagree	Slightly agree	Agree	Strongly agree
My employees are known to be successful in the things they attempt to accomplish.	○	○	○	○	○	○	○
My employees' actions and behaviors are not consistent.	○	○	○	○	○	○	○
My employees would make personal sacrifices for the organization.	○	○	○	○	○	○	○
There is a lot of warmth in the relationships between the managers and workers in this organization.	○	○	○	○	○	○	○
It is best not to share information with my employees.	○	○	○	○	○	○	○
I think that the people in the organization succeed by stepping on other people.	○	○	○	○	○	○	○
My employees' needs and desires are very important to me.	○	○	○	○	○	○	○
My employees are open and upfront with me.	○	○	○	○	○	○	○
If I make a mistake, my employees are willing to "forgive and forget."	○	○	○	○	○	○	○
My employees will keep the promises they make.	○	○	○	○	○	○	○
My employees would not knowingly do anything to hurt the organization.	○	○	○	○	○	○	○
My employees really look out for what is important to me.	○	○	○	○	○	○	○
My employees take actions that are consistent with their words.	○	○	○	○	○	○	○
My employees have a lot of knowledge about the work that needs to be done.	○	○	○	○	○	○	○
My employees express their true feelings about important issues.	○	○	○	○	○	○	○
I can count on my employees to help me if I have difficulties with my job.	○	○	○	○	○	○	○

Prev Next

* 6. Please indicate the extent to which you agree or disagree with each statement

	Strongly disagree	Disagree	Slightly disagree	Neutral / Neither agree nor disagree	Slightly agree	Agree	Strongly agree
I used pre-established targets as benchmarks for my employees performance evaluations.	○	○	○	○	○	○	○
I assessed the extent to which existing written procedures and practices were followed by employees during their work.	○	○	○	○	○	○	○
I expected my employees to follow articulated written rules toward the accomplishment of their work goals.	○	○	○	○	○	○	○
I expected my employess to follow an understandable written sequence of steps toward the accomplishment of their work goals.	○	○	○	○	○	○	○
I placed significant weight upon employees' work completion to my satisfaction.	○	○	○	○	○	○	○
I placed significant weight upon my employees' timely work completion.	○	○	○	○	○	○	○
I placed significant weight upon employee's work completion within budgeted costs.	○	○	○	○	○	○	○

Prev Next

* 7. Please indicate the extent to which you agree or disagree with each statement

	Strongly disagree	Disagree	Slightly disagree	Neutral / Neither agree nor disagree	Slightly agree	Agree	Strongly agree
My employees autonomously made changes to their work without seeking my approval.	○	○	○	○	○	○	○
My employees functioned effectively without close supervision from me.	○	○	○	○	○	○	○
I attempted to be a 'regular' member alongside my employees' team.	○	○	○	○	○	○	○
I attempted to form a committee that frequently communicated with my employees.	○	○	○	○	○	○	○
I actively participated in work meetings to understand my employees' goals, values, and norms.	○	○	○	○	○	○	○
My employees autonomously set specific goals for their project without the involvement of me.	○	○	○	○	○	○	○
My employees autonomously identified and addressed issues without my intervention.	○	○	○	○	○	○	○
My employees autonomously took the initiative in most tasks without my directive.	○	○	○	○	○	○	○
I attempted to understand my employees' goals, norms, and values.	○	○	○	○	○	○	○
I actively joined my employees' team for crucial decision-making.	○	○	○	○	○	○	○

Prev Next

* 8. Please indicate the extent to which you agree or disagree with each statement

	Strongly disagree	Disagree	Slightly disagree	Neutral / Neither agree nor disagree	Slightly agree	Agree	Strongly agree
My employees were able to separate main issues from side issues at work.	○	○	○	○	○	○	○
My employees came up with creative solutions to new problems.	○	○	○	○	○	○	○
My employees worked at keeping their job skills up-to-date.	○	○	○	○	○	○	○
My employees focused on the negative aspects of a work situation instead of on the positive aspects.	○	○	○	○	○	○	○
My employees started new tasks when their old ones were finished.	○	○	○	○	○	○	○
My employees were able to perform their work well with minimal time and effort.	○	○	○	○	○	○	○
My employees managed to plan their work so that it was completed on time.	○	○	○	○	○	○	○
My employees worked at keeping their job knowledge up-to-date.	○	○	○	○	○	○	○
My employees often discussed the negative aspects of their work with colleagues.	○	○	○	○	○	○	○
My employees made problems greater than they were at work.	○	○	○	○	○	○	○
My employees complained about unimportant matters at work.	○	○	○	○	○	○	○
My employees took on challenging work tasks when available.	○	○	○	○	○	○	○

Prev Next

* 9. Please indicate the extent to which you agree or disagree with each statement

	Strongly disagree	Disagree	Somewhat disagree	Neutral / neither agree or disagree	Somewhat agree	Agree	Strongly agree
My employees work with continually changing scope and work requirements.	○	○	○	○	○	○	○
My employees have unclear work requirements.	○	○	○	○	○	○	○
My employees have conflicting work requirements.	○	○	○	○	○	○	○
My employees' work requirements are not adequately identified.	○	○	○	○	○	○	○
My employees are resistant to change in their work.	○	○	○	○	○	○	○
My employees exhibit negative attitudes toward their work.	○	○	○	○	○	○	○
My employees lack participation in their work.	○	○	○	○	○	○	○
My employees are not committed to their work.	○	○	○	○	○	○	○

Prev Next

* 10. How many employees do you directly oversee or manage?

* 11. How many years have you worked in the current position

* 12. How old are you?

* 13. What is your gender?

- ◯ Female
- ◯ Male
- ◯ Non-binary
- ◯ Other
- ◯ Prefer not to say

* 14. What is the highest level of school you have completed or the highest degree you have received?

- ◯ Less than high school degree
- ◯ High school degree or equivalent (e.g., GED)
- ◯ Some college but no degree
- ◯ Associate degree
- ◯ Bachelor degree
- ◯ Graduate degree
- ◯ Doctorate

* 15. What is your level of management within your organization?

- ◯ Team Lead/Supervisor
- ◯ Middle Management
- ◯ Senior Management/Executive
- ◯ Other

* 16. What industry do you work in?

Prev Done

Appendix 3 – Demography and control variables

Category	Count	Percentage
Age		
<18	1	0.3%
18-24	8	2.7%
25-34	47	16.1%
35-44	87	29.8%
45-54	66	22.6%
55-64	65	22.3%
65-74	14	4.8%
75+	2	0.7%
Not answered	2	0.7%
Education Level		
Less than high school	3	1.0%
High school degree or equivalent	33	11.3%
Some college, but no degree	61	20.9%
Associate degree	29	9.9%
Bachelor degree	112	38.4%
Graduate degree	47	16.1%
Doctorate	7	2.4%
Gender		
Male	156	53.4%
Female	134	45.9%
Other	2	0.7%
Industry		
Accommodation and Food Services	16	5.5%
Administrative and Support and Waste Management and Remediation Services	1	0.3%
Agriculture, Forestry, Fishing, and Hunting	7	2.4%
Arts, Entertainment, and Recreation	10	3.4%
Construction	15	5.1%
Educational Services	6	2.1%
Finance and Insurance	16	5.5%
Health Care and Social Assistance	28	9.6%
Information	10	3.4%
Management of Companies and Enterprises	12	4.1%
Manufacturing	31	10.6%
Mining, Quarrying, and Oil and Gas Extraction	5	1.7%
Other Services	22	7.5%
Professional, Scientific, and Technical Services	8	2.7%
Public Administration	16	5.5%
Real Estate and Rental and Leasing	11	3.8%
Retail Trade	52	17.8%
Transportation and Warehousing	12	4.1%
Utilities	9	3.1%
Wholesale Trade	5	1.7%

Category	Count	Percentage
Management Level		
Team Lead/Supervisor	92	31.5%
Middle Management	112	38.4%
Senior Management	85	29.1%
Other	3	1.0%
Number of Employees Managed		
1-5	55	18.8%
6-10	60	20.5%
11-20	74	25.3%
21-50	62	21.2%
51-100	19	6.5%
101+	19	6.5%
Not answered	3	1.0%
Region		
East North Central	46	15.8%
East South Central	17	5.8%
Middle Atlantic	42	14.4%
Mountain	26	8.9%
New England	14	4.8%
Pacific	37	12.7%
South Atlantic	59	20.2%
West North Central	19	6.5%
West South Central	31	10.6%
Not answered	1	0.3%
Years in Current Position		
<1	1	0.3%
1-3	46	15.8%
3-5	45	15.4%
5-10	89	30.5%
10-15	39	13.4%
15-20	22	7.5%
20-25	20	6.8%
25+	28	9.6%
Not answered	2	0.7%