Master Thesis – Sustainable Business and Innovation

Changing company habitual and routine practices towards hybrid working post-COVID-19 from a social practice theory perspective

A case of RoyalHaskoningDHV

Student: Laurens Padding
Student number: 5721431
E-mail: l.e.padding@students.uu.nl

Supervisor UU: Verkade N.
Supervisor e-mail: n.verkade@uu.nl
Supervisor RHDHV: Smedts F.
Supervisor e-mail: frits.smedts@rhdhv.com

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Abstract

Introduction. Private organisations are increasingly concerned with their environmental sustainability. To make steps in sustainability related to organisational behaviour, rigid habits and routines need to be broken with. COVID-19 has had, and still has, a major influence in business operations of RoyalHaskoningDHV (RHDHV) in the Netherlands and broke through these rigid habits and routines. **Theory.** This research uses social practice theory to assess the extent to which the COVID-19 crisis affects business practices of RHDHV and how this can reduce carbon emissions through less travel and energy use. This theory distinguishes three elements of practices; materials, skills and meaning. By looking into work related practices when working from home and when working from the office, an image of hybrid working post-COVID can be composed. **Method.** Semi-structured interviews are conducted with employees of RHDHV with diverse functions within the company. The sample is formed through snowball sampling. **Results.** It became apparent that homeworking is going well and many employees got used to it. However, this is not how people want to keep on working. There is currently no balance between working from home and working at the office. This is something that is greatly desired in a hybrid working form post-COVID. Flexibility in workplace and working hours can create a pleasant balance post-COVID, therefore work should not be bound to certain hours or locations. This way, employees can perform practices during a workday when this is convenient to their schedule, as a result of this employees' private-work balance becomes more pleasant. **Conclusions.** To create a well-functioning hybrid working form post-COVID the application of social practice theory showed three important factors. First, digital tools need to keep on developing to ensure comfortable online contact with colleagues and good online and hybrid meetings. Second, skills need to be developed by meeting-leaders to better lead hybrid and online meetings and attendees need to keep focused within these meetings. Third and last, the traditional idea that a workday is from 9 and 5 and that work is done at the office should be broken with. When a hybrid working model is developed and implemented, travel will surely decrease which reduces carbon emissions. The reduction in energy use because of hybrid working, for example by reducing office space, is more difficult to assess because of the shift of energy use to employees' homes and can be a lead for future research.

Executive summary

Homeworking is not a new concept for RHDHV. Pre-COVID there was already flexibility in workplace. However, COVID-19 pushed homeworking to another level, fulltime homeworking became the standard. Only when something was needed from or at the office, employees left their home-workplace. This created an imbalanced working day and week. Working from home fulltime results in very little variation in surroundings and in work. Moreover, contact with colleagues decreased and employees only spoke colleagues needed for work. The spontaneous contact and informal interaction is lost when working from home fulltime. Therefore, in post-COVID times, employees will not work from home five days per week anymore.

When office related restrictions are lifted a hybrid way of working is maintained where employees possess the flexibility to choose their working location based on their activities. Because COVID-times have shown that working from home is possible, employees will partly keep working from home with most aiming for two days every week. This provides a pleasant private-work balance.

In order to shape a well-functioning hybrid way of working this research shows some points worth looking into. First, digital meetings and hybrid meetings can still be improved. New technologies for digital communication are developing quickly and new features are added to existing technologies in a rapid pace. Keeping up with the latest possibilities that digital platforms have to offer will help shaping and maintaining the hybrid way of working. Second, When working in a hybrid form, the office will be mainly functioning as meeting place. To support this functioning, the office needs to be structured and designed to fit social interaction and spontaneous contact. The degree of intervention on this point will differ among the offices of RHDHV. Third, hybrid working also requires certain skills. To stay in contact with colleagues and prevent situations similar to COVID-times, employees might learn communication skills from each other and share experiences. Trainings and workshops on this subject can be facilitated to serve this goal as well. The same counts for attending and leading hybrid or full-online meetings. There often is inequality in hybrid meetings and for full-online meetings it might be difficult for all employees to participate actively and stay focused. Fourth and last, For the hybrid way of working to function properly, employees are asked to stay flexible and break with traditional ways of working. For example the traditional nine-to-five structure or that work is done at the office, not at home. This mental component can be stimulated through management and company policy to create intrinsic motivation with employees.

The prospects for hybrid working are positive, the intentions of employees are to keep working from home part-time. As hybrid working takes shape, reduction in travel will become visible. Commuting travel and business travel can be reduced and as a result carbon emissions decrease. For the use of office space, this is more difficult to assess. When office occupancy stays below the levels of pre-COVID, office space can be reduced and save energy. However, energy use then makes a shift to employees houses. Therefore, the actual effect on energy use of working locations might need more research of quantitative nature.

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1. Introduction

Over the recent years, international and national agreements that address climate change made private companies incorporate sustainability in their businesses. In 2015, the Paris agreement was composed and today it is adopted by 189 countries (United Nations, 2020). This international agreement puts pressure on countries and its companies to reduce emissions in order to tackle global warming. The responsibility of companies towards climate change is connected to the concept of corporate social responsibility (csr), csr entails responsible operations towards people and the planet (Dahlsrud, 2008). The most frequently used definition of csr, according to Dahlsrud, is given by the European commission which sounds: *"A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.''* (Dahlsrud, 2008:7). The concept of csr is currently also named rsb (responsible sustainable business) (RoyalHaskoningDHV, 2019b). If companies want to make a difference towards people and planet, irresponsible or conventional company behaviour with the sole focus on profit needs to change. Changes can be focused on the sustainability of production, products and supply chain, for instance. However, this can also be focused on sustainable behaviour of the company itself and its habits and routines. This thesis focuses on the latter.

Companies' routines are formal processes and informal cultural norms. Study has shown that companies can get stuck in these routines and fail to change their organisational processes; this concept is called routine rigidity (Dooley, 2018). In short it refers to the inability to change the organisation's formal processes and informal cultural norms and thus hampers innovation. The phenomenon can be compared with organisational inertia. This occurs when an organisation is not able to keep up with a changing environment (Weick & Quinn, 1999). Inertia therefore is similar to maintaining existing habits and routines that do not fit with the changes in the company's environment. To be able to tackle this rigidity a company must be motivated to address the very basic principles on which the company is built. However, addressing such fundamental principles is not easily realised. An opportunity to do this might be a crisis; scholars have argued that crises have the power to bring a company back to its most basic concepts and affect managerial behaviour (Slatter, 1984). Disruptive events, or crises, might therefore have the ability to address rigid routines and habits. The current COVID-19 crisis might have the power to change locked-in habits and routines.

Social practice theory (SPT) is a lens through which these habits and routines can be analysed. In the last decade, practice theory has emerged as a new approach in the sociology of consumption (Mylan, 2015). The basic idea is that people use (or 'consume') many resources and products while they engage in routine activities. Whereas many economic theories of consumption focus on deliberate, conscious and rational considerations in purchase decisions, practice theorists focus on consumption that is less conscious, and shaped by habits and routines. This less conscious consumption affects corporate and personal sustainability in a way that is less visible. Practice theory offers the promise of a richer understanding of consumption, which goes beyond the economic and socio-psychological views by also accommodating practical and cultural aspects of use (Mylan, 2015; Shove, 2010). Because of this, SPT can be used as a lens to analyse the habits and routines that are rusted in an organisation.

The COVID-19 crisis has called for more working from home and less mobility (Chung, Seo, Forbes & Birkett, 2020), which might conflict with company routines and habits. It has asked to reform, and rethink, many practices. Many employers did not encourage work-from-home or even forbade it to some extent. The practices as they were, were sufficient at that moment in time and it was difficult to make changes because of rigidity in behaviour. COVID-19 forced change upon us, showing that work related practices turn out to be flexible and changeable. Working from home has become the norm under

restrictions of the crisis. These are changes that affect emissions and energy use through less travel and less use of offices. However, current literature has not reached consensus on whether the COVID-19 working circumstances are detrimental or beneficial for corporate sustainability. On the one hand, according to the World Health Organisation (WHO), COVID-19 has become an unparalleled global crisis and is challenging organisations, which ultimately can have a negative effect on corporate sustainability and business practices (Hakovirta & Denuwara, 2020). On the other hand, the COVID-19 era is seen as an opportunity by which organisations can rethink their sustainable business practices, concerning a shift in their manufacturing, supply chain, and sustainability strategies (Ikram, Zhang, Sroufe & Ferasso, 2020). Additionally, current literature speaks of possible acceleration of the energy transition. COVID-19 has underpinned the importance of electricity in society through the shift to digital modes of remote work, information sharing and communication. Some industries were forced to shut down due to COVID, which reduces electricity demand (Kanda & Kivimaa, 2020). However, in contrast, the electricity use of digital services might increase.

One of the short-term outcomes of the COVID-19 pandemic has been improved urban air quality and reduced greenhouse-gas emissions caused by less mobility and industrial activity (Kanda & Kivimaa, 2020). Following from this, Kanda and Kivimaa (2020) state that research is needed on how the new practices adopted during the pandemic will influence people's perceptions of, for example, different mobility options and needs. They also mention that previously dominant everyday user practices need to be broken with. Changes in habits and routines can, in these cases, improve sustainability of organisations, for instance by less mobility and less flying. However, the new circumstances are not easy to deal with, the new practices of working at home are still in development. There are things people want to keep and things people want to return to. What are the practices of work that are flexible? What are the practices that can be structurally changed to be done at a distance? What are the practices that cannot be changed? What are the elements of these practices that make it so? Kanda and Kivimaa (2020) identified two important research streams: first, changing patterns and stability or instability of practices as a result of COVID-19 and second, the impacts of the pandemic as an abrupt but gradually developing landscape influence on mobility transitions. This research is in line with these suggested research streams.

In light of this context and raised questions, RoyalHaskoningDHV (RHDHV) has offered the opportunity to carry out this research within their organisation in the form of an internship over a period of four and a half months (13th of Januari 2021 - 28th of May 2021). RHDHV is an international engineering consultancy for-profit organisation and is interested in these topics to increase its sustainability and flexibility of employees' practices. Accordingly, RHDHV's mission is to enhance society together. This can be seen in their aim to contribute to the sustainable development goals set by the United Nations to build a better future. RHDHV is a knowledge based company that has a progressive and output oriented culture based on flexibility and independence of employees. Together with their clients and partners RHDHV contributes to many SDGs (RoyalHaskoningDHV, 2019a). In its mission to reduce its carbon footprint, RHDHV has three focus areas: office buildings, business travel by car and business travel by plane. Figure 1 shows the performance of CO_2 emission reduction in recent years. COVID-19 circumstances have led to changes in RHDHV's policies, for example on business travel. The changes in these policies have created the ambition to reach net zero over the entire company by 2030, RHDHV aims to become carbon neutral. Changes in policies affect practices of employees, for example the practices of working from home.

Figure 1: Royal Haskoning carbon reduction development 2017-2019 (Royal Haskoning, 2019)

From the increasing focus on carbon emission reduction in combination with the possibility the COVID-19 crisis offers to change habitual and routine practices the following research question is proposed:

How has the COVID-19 crisis affected business practices of RHDHV and how can these changes influence the company's carbon emissions in The Netherlands?

A sub question to add to the main RQ sounds: *How will these changes in practices be sustained to help achieve sustainability goals?*

The first step of this research is to determine the practices that are changing due to the COVID-19 crisis to improve sustainability within RHDHV. This is done through interviews with employees of RHDHV. Once practices are identified these are more extensively analysed and asked about in following semi-structured interviews with employees in different positions to gather in-depth information on opinions towards these changes. Are the changing practices perceived as positive or negative and are employees willing to maintain them or not and why? Moreover, how fit these practices in a hybrid working form post-COVID. The research aims to contribute to science by making an addition to practice theories through the analysis of the changing of practices under crisis circumstances and a contribution to the sustainable business practices literature gap as mentioned by Kanda and Kivimaa (2020). This research has societal relevance by providing insight in possible carbon emission reduction of for-profit organisations during and after the COVID-19 restrictions by composing a hybrid way of working. The rationales of employees are to be addressed to in order to form carbon reducing policies that are aligned with these rationales.

The following section elaborates on the theory used in this research and concepts of routines, habits, inertia and rigidity. After this section the context of the COVID-19 crisis is explained and how this research involves this crisis. This is followed by the methodology, results with discussion and finally the conclusions.

2. Theory

2.1 Practices

Theories of practice differ greatly (Schatzki, 2011). The emergence of theories of practice in the late 1990s was a diverse response to fundamental and pressing problems of social theory such as structure and agency, the role of rules in social order, and the scientific status of social theories. This received more attention by 'the practice turn' in contemporary social theory (Schatzki et al., 2001). One key aspect of the reformulation of social theory was to give practices the status as fundamental for social analysis and to suggest that the recursive relationship between individual performances and social practices possessed great potential for empirical social science (Southerton, 2013). Since the 2000s, the concept of practice often occurs in social theory and it has been applied variously in empirical studies that have described, interpreted and explained social processes and behaviour in specific domains (Postill, 2010).

A practice as an act has to be carried out or performed as spoken about in existing literature. Practice as performance is the actual carrying out of a practice and practices have to be performed in order to be realised, sustained and reproduced. Practices as performances attend to daily activities on the micro level and how these are produced and reproduced. Individuals carry many different practices in routinised ways of understanding, knowing and desiring. Therefore, as Madsen & Gram-Hanssen (2017) call it, social practices are both individually performed and collectively shared. In order to address issues and make desired or necessary changes, SPT might want to focus on practice instead of the individual. Practice theory argues that the focus should be on changing practices themselves (Nash et al., 2017). In SPT, practices are recognized as dynamic entities that evolve gradually as practitioners develop new skills; as new materials or meanings are circulated throughout society; or as other related or connected practices evolve and change. Nicolini (2012) argues that organisations and institutions are maintained through the repeated performance of practices. Research should, in this regard, be aimed at the performed activities by which a phenomenon is enacted, rather than on the individual who performs it.

The idea that practices are social and shared is agreed on in scientific literature. However, the extent to which practices are shared is controversial, depending on whether practices are considered as entities in themselves or as similar performances repeated widely across time (Southerton, 2013). While there is no single agreed typology of elements, some combination of material objects, practical know-how and socially sanctioned objectives is widely used. According to Nash et al. (2017) and Verkade (2020) it can be said that a practise consists of three elements. First, the material element; all material things applied in a practice, including objects, infrastructure and the body. Second are the skills and know-how needed to perform the practice, so the physical act and mental know-how. Third is the meaning of the practice. This entails reasons behind a practice, so what is it for and what is a proper result. Multiple terminologies exist in current literature for the different elements; material, skill and meaning are for example also referred to as stuff, skills and images (Kuijer, 2014). This research uses the combination of material-skill-meaning. Performing a practise entails a combination of all three elements. Such elements and contexts both configure how practices are performed and make them identifiable to individuals familiar with the practice and individuals that are not.

2.2 Structural elements

The material element refers to the tangible, material elements used in a practice (Kuijer, 2014). There is no clear distinction between humans and things. Basically, everything not directly manmade, like air, bacteria are seen as materials in practices as well. Materials are socially shared because the same or similar things are available (although not equally accessible) to groups of people.

Skills are learned bodily and mental routines, including know-how, levels of competence and ways of feeling and doing. In this approach, ways of feeling about and appreciating things and situations is seen as part of the practice. Again, this model of practice makes no clear distinction between humans and things. Skills are distributed, and can be redistributed between people and products through what Latour (1992) refers to as delegation. Skills involve knowledge about what is good, normal, acceptable and appropriate and what is not (Kuijer, 2014).

Meanings are socially shared ideas associated with the practice that give meaning to it; reasons to engage in it, reasons what it is for, or as Shove et al. (2012) put it, 'the social and symbolic significance of participation at any one moment' (Shove et al., 2012:22). Meanings highlight concepts of association, norms, values and ideologies (Shove and Pantzar, 2005:47). For understanding practices, the links between the elements are just as important as the elements themselves. To Shove et al. (2012) practices consist of elements that are linked together in and through performance. Moreover, since 'practices emerge, persist and disappear as links between their defining elements are made and broken' (Shove et al. 2012:21), these links are important for understanding change in practices. Helpful to understanding the role of links in practices is the distinction between practice-as-entity and practice-as-performance.
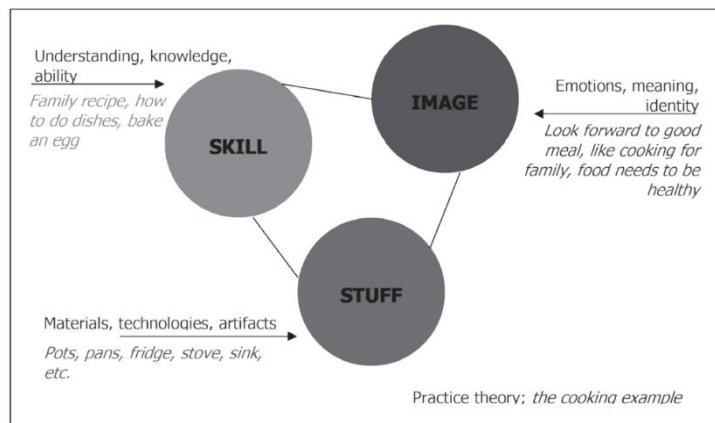

Figure 2: Structural elements of practice theory, cooking example (Kuijer, 2014)

The relationship between practices and performances is recursive. Practices configure performances, and in the other direction, practices are reproduced and stabilized and adapted through performances (Southerton, 2013). A critical theoretical question thus focuses on the tensions and dynamics between the reproduction (stability) of practices and adaptation in the performance of practices that generate social change. Practices as stable entities reproduced through faithful performances are often described as habitual and routine practices (e.g. Shove, 2012), and it is this faithful performance of practices that need to change when consumption patterns are desired to shift in more sustainable directions (Evans et al., 2012).

This view suggests that changing practices that have habitual or routine characteristics requires disrupting the allocation of time across those practices. Such an approach is new if it comes to understanding the formation and reproduction of habitual actions, but the idea of redistributing practices in time is not. Schor (2010) identifies changes to the working week as mechanisms for unlocking and recalibrating the relationship between time as a resource and everyday practices in ways that could lead to development of the economy, well-being and environmental sustainability.

In this sense of habitual or routinised practices a form of disruption is necessary for change. A disruptive event can cause a decrease in allocation of time to these practices and offer opportunities for change.

The current COVID-19 crisis can be such a disruptive event; it affects regular operations and conventional working habits because of restrictions on physical social contact.

2.3 Habits and routines

The terms of habits and routines have different meanings in scientific literature. 'Habit' is a word with many meanings according to the Oxford English Dictionary (OED): 'a settled or regular tendency or practice'; practices that are 'difficult to give up' and 'automatic reactions to a given situation'. Habit is often used interchangeably with 'routine', which can mean: 'a regular course or procedure'; 'a set sequence in a performance'; a duty; and a 'customary or standard' form of behaviour (Oxford, 2009). As such, the terms 'habit' and 'routine' capture the performance of everyday forms of action that appear to exhibit, in various combinations, shared cultural conventions and recurrent and non-reflexive behaviour (Southerton, 2013). Hodgson (1993) refers to habits as recurring activity patterns on an individual level, whereas Becker (2004) refers to routines as recurring activity patterns on a collective level. Becker (2005) argues that the core difference might be in the implication of routines, as activities that follow a particular or familiar sequence, recur with relatively predictable periodicity or, as is the case in the concept of organisational routines, represent institutionalized and tacit procedures that guide actions and produce 'recurrent interaction patterns'. Southerton (2013) argues that habits and routines are the observable patterns of action that result from the reproductive performances of stable practices. In the light of this view and SPT, organisational habits and routines are seen and spoken of as practices or as a bundle of practices and can therefore be habitual by nature.

2.4 Rigidity and inertia

Inertia is in literature referred to as the inability of an organisation to keep up with the rapidly changing environment (Weick & Quinn, 1999). In other words, organisations struggle to implement significant changes, thus they cannot keep up with the external environment resulting in inertia. In the case of this research the environment has rapidly changed due to COVID-19. The environment has suddenly put restrictions on traveling and physical contact, specifically for The Netherlands social distancing of 1.5 meters. These restrictions force RHDHV to adjust and change its routine practices in order to keep up with the external environment.

2.5 Needed shock

Another relevant literature stream is the one of practice driven institutionalism (PDI). This theory speaks of a needed ''exogenous shock'' to disrupt the dominant way of operations (Smets, Aristidou & Whittington, 2017). Institutional theory teaches us that organisations act conform to social expectations because it provides legitimacy. Which on the long term provides access to resources for the organisation. The search for legitimacy produces an "inexorable push toward homogenization" (DiMaggio & Powell, 1983: 148). This entails that individual responses to institutional forces collectively homogenize the field, reducing its organisational variety and increasing institutional stability (e.g., DiMaggio & Powell, 1983; Scott, 1995). This focus makes institutional theory in itself unable to conceptualise the conditions and mechanisms for change (e.g., Hirsch & Lounsbury, 1997; Oliver, 1991, 1992). Therefore, with social norms conceptualized as the objective 'way things are to be done', the only possible cause of change in stable organisations is some kind of exogenous shock. Such a shock that affects stable institutional arrangements that usually are taken for granted to create cognitive space to search for alternatives (Clemens & Cook, 1999: 447).

PDI helps to reconnect the "macroworlds" of institutions and the "microworlds" of the individuals within them. By doing this, PDI complements current literature strands exploring institutional work by addressing "micro foundations" of institutional dynamics. It avoids the separation of 'micro' and

'macro' and takes 'work' literally to explore the recursive influence through which the everyday work of practitioners constitute institutions dynamics, and the other way around. Therefore, the institutional component of PDI offers practice scholars richer insights into where local practices come from and are 'anchored' outside the organisation, offering also deeper insights into sources of change outside of the organisation.

2.6 COVID-19 crisis context

COVID-19 is a global crisis that has never occurred on this scale before. It is the first time in history more than 2.5 billion people have been placed in lockdown and its long-term consequences are still unknown. However, the virus COVID-19 itself is not the cause of the disruption in the company environment, similar viruses had major impact in the past. The global shutdown of the economy by escalation of decisions – and a lack of decisions – is what caused the unprecedented historic event (Fréry, 2020). For companies this large-scale lockdown can have drastic effects. In a large number of countries, the economic growth slows down as major financial and industrial markets experience significant decline, international supply chains break down, borders have closed, and tourism has come to a stop. In many parts around the world governments had to close down schools, restaurants, cinemas, sporting facilities, libraries and other institutions (Kanda & Kivimaa, 2020). In the most extreme cases companies had to file for bankruptcy, in other cases major changes in conventional practices had to be made.

In the case of the Netherlands the government has asked companies to work as much from home as possible. This affects mobility, communication and interaction of employees, many physical activities have become digital. Reduction of mobility and use of office space might save costs and have advantages for sustainability. For RHDHV COVID-19 has changed corporate policies (F. Smedts, persoonlijke communicatie, 2021). An example of changing policy is regarding working from home, RHDHV monitors the number of employees in the offices to make sure the occupation is kept to a minimum. The Netherlands was partly or completely in lockdown at the time this research was carried out. This research aims to help shape hybrid working post-COVID by researching homeworking experiences of employees during COVID-19 and what post-COVID times are expected and desired to look like.

3. Methodology

3.1 Practices as unit of analysis

The first step of shaping a methodology for analysis is defining practices as unit of analysis. Questions of why a practice has the level of resource consumption it has, and how this is related to the way it is constituted, form an important first step in identifying opportunities for change (Kuijer, 2014). To assess how practices are constituted, a dissection into relations between materials-skills-meanings elements is required. This way opportunities for forming carbon reduction policies can be found in one of the elements and be addressed more concrete. Kuijer (2014) mentions that historic perspective and changes of a practice are important to direct a practice to a target value. From a sustainability point of view, target values are of importance to reach the point of being carbon neutral. An example of target value for RHDHV is being carbon neutral by 2030.

The overview of relations between consumption indicators and the constitution of the practice forms the basis for the identification of three main sets of conclusions about target practices (Kuijer, 2014). First, a list of strong links and core elements that gives an idea of the inertia of the practice. Second, threats and trends of the practice regarding resource consumption, which highlight points of priority for intervention. And third, a set of tensions, indicating potential opportunities for intervention in the practice and possible ways of disrupting its current configuration.

3.2 Research strategy and design

This research uses qualitative research methods to answer its research questions. The research aim is to discover changes in practices and in which structural element these changes lie, reasons for these changes and their desirability to shape hybrid working post-COVID. Following research can be of a more quantitative nature, for example to assess the environmental impact of changes in certain practices like the actual reduction in emissions as a result of hybrid working, in this research this is not elaborately covered.

The first step of this research is to analyse the current state of knowledge regarding the impact of COVID-19 on business practices using desk research and interviews. This orientation provides insight into which practices appear to be affected by the COVID-19 crisis. Target practices are then identified for further in-depth analysis by conducting a larger number of interviews with employees of RHDHV. In this step the structural element of the practice where change has taken place is identified and whether this change is experienced as positive or negative in prospect of the future.

3.3 Data collection

In empirical studies regarding practice theories, interviews can be conducted for gathering data about bodily performances and underlying rationales (Kuijer, 2014). This research has a specific focus on the underlying rationales to indicate whether changes are desired and to be maintained when COVID-19 restrictions are lifted. The rationales can later be considered by organisations to form carbon reducing policies that are aligned with employees' rationales. Relevant for all types of interviews is that in the context of sustainable design, a particular goal of obtaining empirical data about practices is making a link between levels of resource consumption and the constitution of the practice. This particular goal should be reflected in the topic list the designer takes to interviews. Using Kuijers' (2014) approach for this research regarding mobility practices this could be: commuting frequencies, commuting distances, business trip frequencies and business trip distances. This research does not go into detail regarding frequencies and distances but addresses changes in frequencies or distances. For example, reduction of intercontinental business trips by 50%.

The assessment of the current state of changing practices is carried out through interviews with a small number of employees in positions that have an overview over larger numbers of employees like managers and more independent working employees. Here the change in practices is appointed to one of the structural elements and the view towards the change is addressed. Semi-structured interviews offer the opportunity to keep a list of topics and leave room for information on topics that were not foreseen (Bryman, 2016). Combined with the internship this took place within the department of RHDHV called *workplace solutions*. The internship supervisor Frits Smedts is director of this department. This department addresses everything connected to the workplace from desk to car, working conditions and facilities. This also entails working from home and, for example, a homework-agreement that can provide equipment for the workplace at home. Examples in mobility can be going to the office, business trips, organising meetings and parking. The interviews with employees in managerial positions have to point out the changes in practices that are most relevant and thus further analysed. This also raises the aspect of the iterative nature of the interview guide. When new insights arise from interviews and target practices are identified, the questions of the interview guide are adjusted. In the adjustments the questions are funnelled towards hybrid working post-COVID and the role of the office. The questions are adjusted two times and thus three different sets of questions are used and can be found in Appendix 1.

3.3.1 Sampling

RHDHV is an international company and because COVID-19 measures differ among countries, every country experiences different limitations and therefore different changes in practices. This limits the scope and the sample of this research to RHDHV within the Netherlands. Therefore, the sample exists of employees within RHDHV NL only. Snowball sampling is used to find appropriate interviewees. In this form of sampling the researcher initially samples a small group of people relevant to the research questions, these sampled participants propose other participants who have had the experience or characteristics relevant to the research (Bryman, 2016). The first interviewees can name other employees that might be relevant to interview and so on. To start the snowball sampling the internship supervisor proposed a number of employees. To make sure there is diversity in employees, interviewees are told in regard to their suggestions for following interviews that it is relevant to interview people on different positions in the organisation. A total of nine semi-structured interviews are conducted with employees within RHDHV. Interviewee 4 wishes to remain anonymous. Table 1 shows the interviewees and their job titles.

Interviewee	Job title
1. Henriko van de Pol	Manager Service Delivery
2. Jessica van Rijsbergen	Travel manager
3. Marie-Cecile Rossen	Director HRM NL
4. Interviewee 4	Consultant mobility and behaviour
5. Julian van Hummel	Teamlead digital studio
6. René Karreman	Global Market Director Corporate Real Estate, Industry & Buildings
7. Nancy Nonkes	Environmentmanager (Omgevingsmanager)
8. Marie-Cecile Rossen #2	HR manager NL
9. Addie Janssen	IT architect

Table 1: Interviewees and their functions

3.4 Data analysis

NVivo is used for the coding of the interviews to allow for qualitative analysis of large amounts of text (Bryman, 2016). The coding process consists of three parts: open, axial and selective coding. The first

step of open coding is to derive concepts from the data by looking at similar remarks. Similar frustrations or windfalls that were caused due to changing practices are identified. This is an iterative process with constant comparison to ensure minimum bias and subjectivity (Strauss & Corbin, 1990). The second step is axial coding; concepts that were created from the data are differentiated and related concepts are placed in categories. With the axial coding the remarks that belong under certain practices are grouped. The final step is selective coding, placing all categories under a 'core' category. This creates an overview of grouped practices in broader ''core categories'' than the axial coding.

This research uses a thematic analysis as described by Bryman (2016). Thematic analysis is based on deriving themes and subthemes from qualitative data. A theme can in this approach be similar to a code but can also be built up out of groups of codes. Bryman (2016) identifies four criteria for identifying themes, these are: a category identified by the analysis through the data; that relates to the research focus; that builds on codes identified in transcripts and/or field notes; that provides the researcher with the basis for a theoretical understanding of the data that can make a theoretical contribution to the literature relating to the research focus. This fits the research aim of identifying changes in business practices and their desirability. Themes are essentially recurring motifs in the text that are applied to the data, they are the product of reading (and rereading) the transcripts that make up the data. Thematic approach uses a framework to construct an index of central themes and subthemes, it is a matrix-based approach for ordering and synthesising data. The framework is initially organised into core themes and the data is displayed in terms of subthemes within the matrix. This can be applied on practices and sub-practices. An example of a framework is displayed in Table 1 with an example theme of negatives of going to the office.

	Getting up earlier	Takes time	Cost fuel
Interviewee 1	"I can sleep less if I need to go to the office in the morning, this makes me less productive during the day."		
Interviewee 2		"Going to the office takes some time, which I otherwise spend working."	

Table 2: Thematic analysis framework of negatives of going to the office

Identifying themes is often associated with repetition of remarks, repetition may refer to recurrence within a data source or across data sources. However, Bryman (2016) argues that repetition alone is an insufficient criterion for labelling something as a theme. It must be relevant to the research questions or research focus for it to be a theme. The identification of themes happens after the coding process of open coding.

During the coding process the changes in practices are appointed to one of the structural components; material, skill or meaning. This links the results to SPT, and guides the results to a structured outcome. This is an iterative process of going back to the data and constantly comparing remarks that indicate one of the structural components. Appointing structural components to the changes in practices helps addressing or stimulating this change. Table 2 displays an example of appointing structural components to changes in practices. The identified themes and subthemes identified combined with the structural components help organisations steer changes in directions that either improve sustainability or working conditions.

Practice	Material	Skill	Meaning
Online meetings	Online platform	Better concise communication	Sharing thoughts, discussion
…			
…			

Table 3: Structural component of changes in practices

3.5 Validity

Internal validity means whether there is a good match between researchers' observations and the theoretical ideas they develop (Bryman, 2016). This should be ensured by the coding process, there should be little room for personal influences and theories directly emerge from the data. External validity refers to the degree to which findings can be generalised across social settings. This is more difficult to accomplish because of the case study of RHDHV. However, changes in practices that emerge from the COVID-19 restrictions can be applicable to many other organisations and can therefore be generalised to some degree.

3.6 Reliability

Reliability entails the degree to which the research can be replicated and then would lead to similar outcomes. Therefore the methodological choices are clarified and the different interview guides that flow from the iterative process are included in this research. However, with qualitative research there is always a degree of personal influence and interpretation of the researcher. The coding process is difficult to replicate in detail but the essence is to a large degree replicable. To keep this to a minimum, the interview transcripts, coding process and results are discussed with the supervisor who is a published scholar in the used theory.

4. Results

From the coding of the interviews the following overarching themes were identified in descending order of number of references; Homeworking, contact with colleagues, flexibility, balance home- and office work, hybrid working, homework agreement, regulation office, sustainability, exercise, private-work balance, mobility, online meetings, COVID-19, Prevent going back to old behaviour, hybrid meetings and role of office. In table 3 below the number of interviews and references is displayed by theme, these are the results from coding program NVIVO. Some of these themes that have large overlap are combined and discussed under the same header for better understanding of all interactions. Three identified themes are placed under a larger work-related theme and three other themes are placed under a larger social-related theme.

Theme	Interviews	References
Homeworking	9	87
Contact with colleagues	9	55
Flexibility	9	50
Balance home- and office work	9	36
Hybrid working	5	25
Homework agreement	6	24
Regulation office	8	22
Sustainability	7	22
Exercise	7	22
Private-work balance	6	22
Mobility	6	21
Online meetings	5	21
COVID-19	7	20
Prevent going back to old behaviour	7	16
Hybrid meetings	6	15
Role of office	4	14

Table 4: Identified themes and number of references

Before these themes are discussed some context needs to be provided. First, the interviews are conducted between the 17th of February 2021 and the 22th of April 2021. During this period the Netherlands was in lockdown and RHDHV minimized office occupancy, most employees were working from home the entire week and had been doing so for a number of months. Second, RHDHV has created a homework agreement for its employees for working post-COVID-19. This entails that employees have the opportunity to keep working from home for one to three days per week. If they sign this agreement they are eligible for facilitation of equipment regarding their workplace at home. Third, the results have to be read in regard to RHDHV, this entails that the results are applicable on a knowledge-based company with little regulation and an output-oriented culture. Moreover, RHDHV is a company with mostly high educated employees that are able to work independently and, because of the output-oriented culture, are given a lot of freedom to do their work. The elements of practices that are highlighted in bold text are the elements that need a form of intervention or change from the current situation in order to improve the practice.

4.1 Work

4.1.1 Homeworking

The theme of homeworking is the largest theme that exists of multiple components and has some degree of overlap with other themes. In this section homeworking in general is discussed, in the following themes more detailed aspects of homeworking are addressed.

Many interviewees indicated that working from home goes well and works better than expected at first. It saves time and energy on a personal level and can be financially beneficial for the company whilst being more sustainable in terms of less travel and energy use at the office. Additionally, RHDHV employees were already familiar with part-time homeworking pre-COVID because of the output driven culture of RHDHV. This culture allows for flexibility and work that is less monitored and controlled as long as the results are positive. In this regard it is not relevant if the work is done at the office or at home.

> *"Let's take a look at us, when we were confronted with this last March, everyone was quite anxious about what it would do for us, and in the end we had a perfect year and eventually managed to do the same thing from home or do it even better than we did."* (Interviewee 6, 2021)

Despite the vast amount of positive remarks it cannot be said that homeworking works for everyone. It is mentioned multiple times that the functioning of homeworking largely depends on one's home-situation and life-stage. Homeworking can be more difficult with young children around or when you live in a small studio or apartment compared to a house (Interviewee 1, 2021). On top of that, to counter the sustainability component it can be said that homeworking only causes a shift in energy use instead of an actual reduction of energy use. One interviewee mentioned that the demand for datacentres, which need large amounts of cooling, increases because of increased use of digital tooling when homeworking or hybrid working. However, the increase in use of digital tools of RHDHV when working from home or in a hybrid form compared to the pre-COVID situation is according to facility managers of RHDHV not significant. The shift in energy use lies in the distinction between energy use at home and energy use at the office.

Most interviewees mentioned that they want to keep working from home for a few days per week post-COVID, of which six interviewees indicated two days from home. Which days of the week these are is not mentioned as relevant by the interviewees and can differ every week depending on working activities and presence of colleagues. Moreover, to standardise homeworking the terminology needs to be adjusted. Currently homeworking is seen as exception because of the separate term. When working at the office is called "officeworking" the concept of work and perception of homeworking might change (Interviewee 9, 2021). This points out that a change in meaning of the overarching practice of homeworking might help accelerate its acceptance. This section does not cover specific practices that might fall under homeworking. Therefore there is no relevance to the material and skill elements in this perspective. Practices related to homeworking like washing clothes and doing groceries, online meetings and others are discussed under multiple of the following themes.

Practice	Material	Skill	Meaning
Homeworking	Home workplace	Independent working	**Change terminology from homeworking to officeworking**

Table 5: Affected practices homeworking

4.1.2 Hybrid working and balance home-work and office-work

Hybrid working is the wider concept of working at different locations throughout the week or even during the day and comes back in a following theme of flexibility. This distinction can be made between home and office but can also be drawn further to working in public transport or at a client. If working takes on this hybrid form it affects meetings, mobility and more (Interviewee 1, 2021). How these

components are affected are discussed in following themes. Interviewees 1, 3, 4 and 6 think a hybrid form is a large or even the biggest challenge.

> *" Yess, because the rest is actually a result of that. Flying and traveling follow that way of working. So if you think about it more consciously and you decide together that a certain meeting can be done online and that you do not have to drive to Eindhoven for example. But you also don't have to fly to Vietnam for example."* (Interviewee 1)

To have an appropriate perspective on this theme it has to be noted that the interviewees were working from home almost fulltime at the time of conducting the interviews due to national COVID-19 restrictions. This is why interviewee 1, 3 and 4 state that there is currently no balance between home and office work because everything is currently from home. Additionally, interviewee 6 and 9 believe there is no single ideal balance between home and office work because there are too many variables to make this uniform. Interviewee 9 states that the balance depends on the individual, company, culture and department. An only condition for working at the office that the interviewees mentioned is that direct colleagues or a team is present at the office at the same time to collaborate with. This aspect raises the matter of distribution in office days in order to reduce office use. If the office is used as a place to meet with colleagues and teams it needs to be monitored that not all teams go to the office on the same day. This office occupancy issue is discussed under the theme of office regulation.

Despite the personal preference in this balance there seems to be some consensus about which kind of meetings are preferred be held physically at the office and which meetings can be held digitally and thus from home. Creative activities like brainstorming sessions and openings and closings of projects are preferred physical because of easier and better social contact. In contrast, interviewees 2, 4 and 8 mention that for example progress meetings and project updates can be held online just as well. The practices of online and hybrid meetings will follow under the themes of online and hybrid meetings, there the elements are elaborated on.

> *"And sometimes it's just nice to see each other face-to-face before a meeting. It's not always necessary, but it's nice every now and then. For example, also if you start a new project and you have a kick-off meeting or a kick-off of something. Or just a final meeting, those are really those benchmarks where you might rather sit together."*(Interviewee 4)

Work that requires focus like writing reports is better done from home because there is less distraction at home compared to the office. However, multiple interviewees have indicated that a homeworkday can sometimes consist entirely of online meetings. This makes for a very unbalanced workday in which it is more difficult to take a break and stay concentrated in meetings. Hybrid working also has influence on travel movements, less trips to the office for example. The practice of traveling to the office or other workplace can be a pleasant practice for some. Interviewee 4 and 9 mention that it is pleasant to start the day and think about something in the car or public transport before actually starting work. In this regard going to the office is preferred over working from home.

Practice	Material	Skill	Meaning
Travel to office	Car, public transport	Driving, schedule public transport trip	**Starting up, thinking**

Table 6: Affected practices hybrid working and balance home-work and office-work

4.1.3 Online meetings & Hybrid meetings

Meetings have undergone major changes due to the COVID-19 restrictions. Pre-COVID the standard was physical meetings, during COVID the standard became online or digital meetings. Online meetings differ in multiple aspects from physical meetings. Interviewee 7 states that online meetings are more formal compared to physical meetings, there is no small talk like in physical meetings. Connected to this is that the meetings are perceived as more efficient (Interviewee 7, 2021) while interviewee 4 experiences online meetings as more energy consuming.

Another form of meetings is hybrid meetings. In hybrid meetings a part of the attendees sit physically together and other attendees call in digitally. Six interviewees stated that there often is an imbalance in communication in hybrid meetings. The imbalance stems from easier interaction between people that sit physically together. This way people that join online cannot participate to the same degree. To counter this imbalance interviewee 7 indicates that skills need to be developed by leaders of hybrid meetings. Better skills can ensure the involvement and equal role of all attendees and keep the attention. Keeping the attention is applicable on online meetings as well. For both online and hybrid meetings the digital tools are currently sufficient but can still be improved, an example interviewee 9 mentioned is online whiteboard and visual collaboration platform Miro. Due to the pandemic the developments in digital communication accelerated. To stimulate hybrid working post-COVID, the best new features can make digital interaction much more attractive to employees and clients. The meaning of a meeting is essentially the same in every form and therefore not highlighted.

"When it comes to hybrid work I think the most important skills are actually in a hybrid meeting. So, some people online, some people in a room together, because that very much determines what you will do in the future. If I'm online and you are sitting at the table with some colleagues and I miss all your interaction, I will make sure I am there next time and I will go to the office anyway."(Interviewee 3)

Practice	Material	Skill	Meaning
Online meeting	**Digital tools**	**Leader needs to keep the attention**	Sharing insight and discussion
Hybrid meeting	**Digital tools, appropriate meeting rooms**	**Keep online attendees involved and provide equality**	Sharing insight and discussion

Table 7: Affected practices in online- and hybrid meetings

4.2 Social

4.2.1 Flexibility

Flexibility comes forward from the interviews in three different contexts: flexibility in workday, flexibility in working hours and flexibility in workplace. A flexible workday entails the ability to perform miscellaneous practices unrelated to work during the day. This is closely related to the flexibility in working hours which entails that work does not start or stop at a given hour in the day but can be spread out during the entire day if this is desired. Flexibility in workplace in the context of this research means being able to choose the location of work. This can be at the office, at home, at a client or in public transport.

Multiple practices are affected by flexibility in workhours, -days and -workplace. Interviewee 5 and 6 mentioned the practices of washing and doing groceries during the day. Which is only possible when working from home and being flexible in working hours. The shift of focus this causes is experienced as pleasant during the workday. Moreover, for a walk during the day the surroundings of the workplace matter. Interviewee 4 mentions that the surroundings of the office in Amersfoort work more stimulating to go for a walk compared to the own home surroundings because of the woods outside the office, this relates to the material element of walking. Additionally, interviewee 4 believes some degree of self-discipline is needed to go for a walk during the workday, which falls under the skill element.

> *"When the gyms were still open, I like going to the gym, I also regularly went at half past eleven till one to have the idea that you are taking a break and to take your mind off work. And I think that is a recurring theme. If you do indeed go shopping in between, go for a walk, run, cycle, it doesn't matter what happens, but that it is not so rigid."* (Interviewee 5, 2021)

The flexibility in workplace allows for choosing your workplace based on your work activities. Most ideally there is thought behind every activity about what is the best workplace to perform this activity (Interviewee 1). Interviewees 3, 4, 6, 7 and 9 mention that they can work more focussed at home and therefore focuswork like writing reports can be done from home. Interviewee 6 mentioned that it would be ideal if you can choose your working location from every moment in the day. This can also be to leave the office earlier to avoid traffic and work from home an extra hour. Another reason for moving to a different workplace is that your entire schedule consists of online meetings and calls. When this is the case there is no added value in working at the office because you do not interact with your present colleagues or surroundings.

From this data it shows that employees value flexibility in workplace and working hours. However, from a manager's perspective this might not be ideal. Interviewees 3, 5 and 7 indicate that it is difficult for managers to motivate employees and to maintain regular interaction with each other. Therefore some flexibility might have to be given up for the collective business. Moreover, if employees desire flexibility and this makes them more happy about their work and productive, this is also beneficial for managers.

Practice	Material	Skill	Meaning
Walking	Human body, **environment**	**Self-discipline and planning to ensure a walk during the day**	Break of work
Washing	Washing machine	Washing	**Letting go of 9 to 5 mindset**
Doing groceries	Supermarket, money	Doing groceries	**Letting go of 9 to 5 mindset**

Table 8: Affected practices flexibility

4.2.2 Contact with colleagues

Most interviewees mentioned that they miss the spontaneous contact at the office and informal interaction when working from home. This contact is different from home because contacts are limited to colleagues that are needed for work and are not spontaneous. If one is not needed for work, there is no contact online. Not many colleagues reach out to others for an informal conversation via a digital platform. This makes maintaining relationships with colleagues more difficult (Interviewee 1, 2021) and might even lead to social isolation (Interviewee 3, 2021) when much work is done from home.

> *"Only, if you have nothing to do with each other in terms of work, you don't speak to each other."*
> (Interviewee 6, 2021)

Another change in contact is that employees are less aware of the work of colleagues when working from home. At the office you get information through informal interaction with colleagues (Interviewee 7, 2021). This unasked information can speed up working processes. Not many people reach out to colleagues via online tools like Microsoft teams (Interviewee 7, 2021). This is especially challenging for new employees with no existing contacts. Because of less contact with colleagues from home it is more difficult to build and maintain contacts. Employees that are with the company for a longer period have less trouble maintaining contacts and relationships with colleagues.

For employees to stay in touch in a hybrid working form they need to see each other every now and then reach out to each other

Practice	Material	Skill	Meaning
Speaking with colleagues	Home-workplace, digital communications tools, phone	**Reaching out to colleagues**	Social binding

Table 9: Affected practices in contact with colleagues

4.2.3 Private-work balance

The concept of separating work and private life is well known and experienced as pleasant. In the context of this research the balance between private life and work is very relevant because working from home or working at the office can have a large influence on the private-work balance. When working at the office, or another location away from home, there is a certain amount of travel involved. Six interviewees mention that their private-work balance has improved because of homeworking because they have more time to relax after work, can sleep longer or have more relaxed mornings. The reduction in travel increases the hours at home before and after work. This also results in more time for cooking in the evenings which results in better wellbeing of employees (Interviewee 4). Interviewee 4 and 9 state that after a long workday at the office with travel to get home they are less motivated to cook a fresh healthy meal.

> *"Work-life balance is obviously much better. I step out of my office here and am home. I don't have to go by bike anymore and certainly not an hour in the car."* (Interviewee 3, 2021)

> *"Suppose you have to travel for a while after a long working day, you are tired, you are hungry. Who will be in the kitchen for a long time? Not me. Then you also have a little more time for yourself and your own well-being instead of throwing in a microwave meal."* (Interviewee 4, 2021)

Working from home can also remove the distinction between work and private life, this way is can be undesired. From a managers perspective it is also important that employees have a good private life that provides relaxation and makes them happy because that will reflect in their work. If the balance between private life and work is off, employees might be reluctant to go to work and become less productive.

Practice	Material	Skill	Meaning
Cooking dinner	Food, pans, oven, stove	How to bake or cook food	**Health, enjoy good food, relaxing**
Sleeping	Bed, sheets, pillow	Ability to sleep	**Gain energy, rest, less stress**

Table 10: Affected practices in private work balance

4.3 Role of the office and office regulation

Hybrid working and the balance between home-work and office-work directly affects the office occupancy and therefore the role of the office and its regulation. The main finding about the office is that a shift towards the office as meeting place instead of workplace is desired. Interviewee 4, 5, 6 and 9 all indicate that post-COVID the office will become a place to meet and interact with colleagues instead of a place to do all your work.

"So that the office becomes more of a meeting place and that you go there for very specific work activities or just to see people."(Interviewee 4, 2021)

To facilitate the office as a meeting place, the office has to change from the old fashioned quantitative or functional office towards a more qualitative or inspiring office. The design of the office has to be configured to this purpose. In order to make this shift the number of office days per employee per week is involved. If employees work at the office all week there is no distinction between work and meeting place. Eventually the reduction in office occupancy that might occur as a result of hybrid working can lead to reduction in office space and reduce energy use. To accomplish this the interviewees indicate that a distribution in office days is needed, also due to the fact that normally Tuesdays and Thursdays are the busiest days at the office. When there is no regulation this can occur once again and block the opportunity for reduction in office space. However, an obstacle for introducing some regulation is that many interviewees indicate that office occupancy should not be regulated or at least not yet. This stems from the culture of RHDHV, the freedom and independent structure does not match with strict rules in office occupancy. Additionally, some interviewees are convinced that people will keep working from home for a few days a week and thus no regulation is needed to keep employees away from the office. If some form of intervention is needed this should come from the business and the intentions of the executive board should be clear (Interviewee 9, 2021).

In this office occupancy matter lie difficulties for company management. On the one hand management wants to seize the opportunity for office reduction and therefore energy reduction by reducing office space. On the other hand, it is currently not prevalent to build strict policy on office occupancy because of the organisations culture and identity. RHDHV does not want to impose certain behaviour of employees regarding workplace. Company management therefore has to decide what energy saving is worth and what can be altered in order to reach this goal.

Practice	Material	Skill	Meaning
Seeing colleagues at the office	**Spaces for interaction with colleagues**	Interact and talk with colleagues	Stay in touch with colleagues, share information and experiences

Table 11: Affected practices role of the office and office regulation

4.4 Sustainability and mobility

Shaping a hybrid form of working post-COVID is mostly perceived as a functional evolution. However, perhaps the larger goal should be improving sustainability. For RHDHV's management sustainability is an actual goal and COVID-19 offers an opportunity for reduction in travel, office use and consumption of office supplies. In the short and long run this might save a large amount of greenhouse gas emissions. For employees the sustainability component is less leading. However, when asked, travel is something employees see as an opportunity to reduce emissions. Seven interviewees think that less travel as a result of homeworking is an opportunity for sustainability that should be seized. Interviewee 5 additionally thinks that the awareness for sustainability has increased by the COVID-19 crisis.

> *"When you don't have to go to the office and you don't have to cause CO2 emissions and make fewer kilometres by train, car and plane. Why wouldn't you want that as a company? When I look at our company, we have of course all set the goal to drastically reduce our CO2. How do you do that? Among other things by traveling less, making fewer travels so that the office becomes more of a meeting place and that you go there for very specific work activities or just to see people."*
> (Interviewee 6, 2021)

Regarding sustainable mobility most agreement seems to be in reduction of flying, seven interviewees mentioned this. The new digital way of communication has given a different meaning to necessary travel. It used to be normal to fly to the other side of the world to meet business relations. Because of videocalls this adds relatively less value than before. Interviewee 2 for example mentions instead of flying for a project four times a year can easily become two times per year. To realise this homeworking and digital meetings need to be accepted by the company, its employees and clients. Because of the forced use of digital platforms and online meetings most parties had enough time to get used to it (Interviewee 1, 2021). This is in line with the theory of a needed shock in order to make changes in rigid behaviour. Without the "COVID-shock" it is unlikely that an organisation would make such a large shift to digital modes of work. The next step will be to ask clients to meet online when they request the same amount of physical interaction. Interviewee 6 also thinks dialogue is always an option to convince a client that an online meeting is possible.

In addition to less travel, homeworking should lead to less office occupancy, which can lead to reduction in office space and therefore reduced energy use. However, this is not so easily realised. Because of the desired flexibility in workplace the office should be available at all times. Even though employees aim to work from home one to three days a week, the possibility exists that everybody comes to the office at the same time. Therefore, like mentioned before, a distribution has to be made in office days and some flexibility has to be sacrificed in order to reduce office emissions. Even if a decision is made to reduce office space companies are bound to contracts that spread over a number of years. As a result, a company cannot reduce the amount of office space at any desired moment in time.

5. Discussion

5.1 Theoretical implications

This research shines new light on business system innovation through the use of social practice theory with the aim of increased sustainability. SPT with the aim for sustainability applied in research on hybrid working adds to the current separate literature streams of SPT and hybrid working. Social practice theory is applied on an overarching level and shows that this application can be useful for more macro aimed questions. Detailed performance and the carrying out of practices with logbooks, a form of practice related research, are not used in this research, which shows another form of use for SPT. At this moment in time a lot of research is carried out on whether or not employees should return to the office post-COVID and how this might happen (Karreman, 2021a; Karreman, 2021b; Leesman, 2021). This research adds to this stream of research from a unique perspective by using social practice theory and sustainability as a target. The results of this research show that many workday-related practices are affected or will change if the shift to a hybrid way of working is made and can affect energy use and therefore carbon emissions. How the actual hybrid form should be shaped is difficult to assess because of personal preferences but employees are aware that COVID-19 has shown that changes are possible and offer opportunities for increased sustainability. Moreover, this research underlines crisis, innovation and disruption related literature by showing that an exogenous shock offers opportunity for radical change.

5.2 Limitations

The results from this research are bound to some limitations. At first, the iterative nature of the interview guide provides the research with better interview questions as the research progresses and the data is collected. However, this also causes differences in questions per interviewee. This might result in a different line of thought throughout the interview which might cause different answers on similar questions. The number of interviews is an additional limitation in this aspect. The scale of this research makes it difficult to generalise to the entire company and other companies that resemble RHDHV. If generalisable to some extent, it is towards other knowledge based companies with a similar independent, unregulated and output driven culture like RHDHV.

The interviewee selection could potentially contain some bias. The interviewee sample consists of employees recommended by the internship supervisor and suggestions from interviewees themselves. This limits the diversification of interviewees because of the limited networks and frames of reference. Moreover, the interviews were conducted digitally. This made the communication more difficult, because, like the data also indicated, long digital sessions are more energy consuming. This may have caused interviewees to give more concise, and less rich, answers compared to interviews that are conducted physically.

6. Conclusions

This research aims to answer the research question: *How has the COVID-19 crisis affected business practices of RHDHV and how can these changes affect the company's sustainability in The Netherlands?* To analyse how practices are affected their structural elements are analysed on changes and needs for good fulfilment. Table 12 displays the practices that are affected and in which a structural element is not fulfilled properly or needs change.

- The material element for most practices is well fulfilled and needs the least amount of intervention overall. The home-workplace is taken care of and works nicely according to the interviewees, digital meeting and brainstorming tools are well developed. The research confirms the used literature with the need for an exogenous shock in order to make changes in rigid or habitual practices or accelerate them. The homework-agreement and the forced working from home due to COVID-19 restrictions improved the workplace at home at a very high pace. However, there is still improvement possible for the digital tools for online and hybrid meetings. This is something for which RHDHV depends on other parties like Microsoft and thus RHDHV cannot directly influence this but investments can be made in order to ensure the newest technologies. Additionally, when the office becomes a meeting place post-COVID the office needs different design that is tuned to this purpose. This entails rooms for interaction and cooperation with colleagues rather than a large number of individual desks or rooms for digital meetings. For RHDHV, this differs greatly among their offices. Their head office in Amersfoort is already designed for meeting colleagues and has an inspiring design instead of a purely functional design. For other offices this might need more effort in order to make those offices suitable to function as meeting places.

- Some skills are required to make the switch to hybrid working. The results show that a very important skill is leading a hybrid meeting. Because of the imbalance in these meetings a leader has to equal this out and make sure that every participant has an equal share in the meeting. From a different perspective the participants need to develop skills in actively attending and keeping focus in online meetings. This might require certain training or workshops that can be organised by the company and facilitated by a third party. Another skill that is desired in a hybrid way of working is reaching out to colleagues digitally, to prevent social isolation when working from home. Currently this does not happen enough which results in loss of contacts and only maintaining contacts needed for work purposes. This skill might also be taught through workshops or tips provided by the company. The material element of digital tooling is connected to this, new digital tools can for instance be aimed at informal online interaction with colleagues.

- The meaning of certain practices turn out to be an important factor as well and in some practices the meaning element has to be altered in order to stimulate hybrid working. The meaning or idea of the workday plays a large role in the hybrid way of working regarding flexibility. The underlying idea of a workday is traditionally working from nine-to-five, which creates a hard distinction between work and private life. The results of this research show that in hybrid working the balance between the two becomes better and they are more intertwined because practices unrelated to work can be performed during traditional working hours. The balance between private life and work improves because people for example have more time to cook and enjoy dinner, can relax more and sleep longer. However, whether this is possible depends on the private living circumstances like the sort of housing and whether someone has young children to take care of. Another practice in which the meaning element needs to alter is the one of homeworking. Here the term in itself could have a negative connotation and be difficult to standardise. The use of a universal term that does not separate office work and working from home can be used, or as simple as just "work".

Perhaps the largest factor that can be derived from the results is time and location-bound work. When work becomes less bound to specified hours and a certain location this influences most identified practices. The workday becomes more flexible, the private-work balance improves and daily practices like washing and doing groceries can be performed when this is convenient.

Practice	Material	Skill	Meaning
Homeworking	Home workplace	Independent working	**Change terminology from homeworking to officeworking**
Travel to office	Car, public transport	Driving, schedule public transport trip	**Starting up, thinking**
Walking	Human body, **environment**	**Self-discipline and planning to ensure a walk during the day**	Break of work
Washing	Washing machine	Washing	**Letting go of 9 to 5 mindset**
Doing groceries	Supermarket, money	Doing groceries	**Letting go of 9 to 5 mindset**
Seeing colleagues at the office	**Spaces for interaction with colleagues**	Interact and talk with colleagues	Stay in touch with colleagues, share information and experiences
Speaking colleagues	Home workplace	**Reaching out to colleagues digitally**	Social involvement
Cooking dinner	Food, pans, oven, stove	How to bake or cook food	**Health, enjoy good food, relaxing**
Sleeping	Bed, sheets, pillow	Ability to sleep	**Gain energy, rest, less stress**
Online meeting	**Digital tools**	**Leader needs to keep the attention**	Sharing insight and discussion
Hybrid meeting	**Digital tools, appropriate meeting rooms**	**Keep online attendees involved and provide equality**	Sharing insight and discussion

Table 12: Affected practices and their relevant structural elements for hybrid working

To address the sustainability component of the research question a distinction can be made between practices directly and indirectly connected to sustainability. A few practices that arose from the research are directly connected to sustainability. However, most of them are indirectly connected. Like interviewees indicated, the mobility related practices, like driving to work or going on business trips, are obvious emission reduction opportunities for a hybrid way of working. The reduction of travel movements has a direct effect on the amount of emissions. When the intention of employees plays out, this reduction will take place. The reduction of office use is another, less energy is consumed at the office when a hybrid work form is implemented and therefore emissions are reduced. However, a filled office can be a much more energy efficient compared to a situation in which everyone works from their own house. Here it depends on the scope of emissions used and research is needed on the actual comparison of energy use between average homes and offices. Additionally, the practices that are at first instance not perceived as sustainability changes can also contribute to a more sustainable way of working. Practices associated with flexibility, practices that can be performed throughout the workday that otherwise would not be possible, can improve efficiency in use of resources. For example the traffic will spread out over the day reducing traffic jams, which in return reduces emissions. The results display that the sustainability benefits are appreciated but are not a primary motivation, functionality is still the

most important factor. If sustainability would be a higher priority, changes would have been made before the "shock" caused by COVID-19.

The formulated sub-question to build on the main RQ sounds: *How will these changes in practices be sustained to help achieve sustainability goals?* The answer to this question lies in the intention of the employees and the company together with regulation the company choses to implement post-COVID. The results show that employees have the intention to work from home an average of two days a week post-COVID. When asked if regulation is needed to actually realise this intention the answers indication is that this is not desired. This stems from the conviction that everybody sees the advantages that working from home offers for work and sustainability combined with the company culture of RHDHV that is built on freedom, trust and independence. If it is the case that employees keep working from home through intrinsic motivation, changes are sustained by itself and no regulation is required. However, this asks for trust in employees from the company and brings risks.

Most interviewees aim to prevent going back to old behaviour and have faith that a return to this behaviour will not occur, for themselves and the company. This indicates intrinsic motivation with the employees of RHDHV to continue working from home to some degree and gives a positive perspective for RHDHV on the developments of hybrid working post-COVID.

References

Becker, M. C. (2004). *Organizational routines: a review of the literature.* Industrial and corporate change, 13(4),   643-678.

Becker, M. C. (2005). *The concept of routines: some clarifications.* Cambridge Journal Economics, 29(2), 249- 262.

Bräuchler, B., & Postill, J. (Eds.). (2010). *Theorising media and practice* (Vol. 4). Berghahn Books.

Bryman, A. (2016). *Social research methods*. Oxford university press.

Chung, H., Seo, H., Forbes, S., & Birkett, H. (2020). *Working from home during the COVID-19 lockdown: Changing preferences and the future of work.*

Clemens, E. S., & Cook, J. M. 1999. *Politics and institutionalism: Explaining durability and change.* Annual Review of Sociology, 25(1): 441-466.

Dahlsrud, A. (2008). *How corporate social responsibility is defined: an analysis of 37 definitions.* Corporate social responsibility and environmental management, 15(1), 1-13.

DiMaggio, P. J., & Powell, W. W. (1983). *The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields.* American sociological review, 147-160.

Dooley, K. (2018). Routine rigidity and environmental sustainability: why rational innovations are regularly ignored. Business Strategy and the Environment, 27(1), 70-81.

Fréry, F. (2020). *Crisis, inertia, uncertainty and management.* Managing a Post-Covid19 Era, 64.

Frezza, M., Whitmarsh, L., Schäfer, M., & Schrader, U. (2019). *Spillover effects of sustainable consumption: combining identity process theory and theories of practice.* Sustainability: Science, Practice and Policy, 15(1), 15-30.

Gadeikienė, A., Dovalienė, A., Grase, A., & Banytė, J. (2019). *Sustainable consumption behaviour spill-over from workplace to private life: Conceptual framework*. Polish Journal of Management Studies, 19.

Hakovirta, M., & Denuwara, N. (2020). *How COVID-19 redefines the concept of sustainability.*

Hirsch, P. M., & Lounsbury, M. (1997). *Ending the family quarrel: Toward a reconciliation of "old" and "new" institutionalisms.* American behavioral scientist, 40(4), 406-418.

Hodgson, G. M. (1993). *Institutional economics: surveying the "old" and the "new".* metroeconomica, 44, 1-28.

Ikram, M., Zhang, Q., Sroufe, R., & Ferasso, M. (2020). *The social dimensions of corporate sustainability: an integrative framework including COVID-19 insights*. Sustainability, 12(20), 8747.

Kanda, W., & Kivimaa, P. (2020). *What opportunities could the COVID-19 outbreak offer for sustainability transitions research on electricity and mobility?*. Energy Research & Social Science, 68, 101666.

Karreman, R. (2021a). *Rethinking the purpose of workplaces How to ensure your offices are not just Covid-19 proof, but future proof too - White paper.* RoyalHaskoningDHV.

Karreman, R. (2021b). *Identifying an optimal strategy for real estate and workplaces post Covid-19 - White paper*. RoyalHaskoningDHV.

Kuijer, S. C. (2014). *Implications of social practice theory for sustainable design.*

Leesman. (2021). *Terug naar kantoor & toekomst van het kantoor.*

Madsen, L. V., & Gram-Hanssen, K. (2017). *Understanding comfort and senses in social practice theory: Insights from a Danish field study.* Energy Research & Social Science, 29, 86-94.

Mylan, J. (2015). *Understanding the diffusion of Sustainable Product-Service Systems: Insights from the sociology of consumption and practice theory.* Journal of Cleaner Production, 97, 13-20.

Nash, N., Whitmarsh, L., Capstick, S., Hargreaves, T., Poortinga, W., Thomas, G., Sautkina, E. & Xenias, D. (2017). *Climate-relevant behavioral spillover and the potential contribution of social practice theory.* Wiley Interdisciplinary Reviews: Climate Change, 8(6), e481.

Nicolini, D. (2012). *Practice theory, work, and organization: An introduction.* Oxford, UK: Oxford University Press

Oliver, C. 1991. *Strategic responses to institutional processes.* Academy of Management Review, 16(1): 145-179.

Oliver, C. 1992. *The antecedents of deinstitutionalization.* Organization Studies, 13(4): 563- 588.

Oxford, O. E. (2009). *Oxford English Dictionary.* Oxford: Oxford University Press.

RoyalHaskoningDHV. (2019a). *2019 Annual Report.*

RoyalHaskoningDHV. (2019b). *Responsible Sustainable Business (RSB) Update 2019.*

RoyalHaskoningDHV. (2020). *Royal Haskoning Paris Proof Commitment.*

Schatzki, T. (2011). *Theories of Practice.* Southerton D (ed.) Encyclopedia of Consumer Culture. Vol III, 1447–1551.

Schatzki, T., Knorr Cetina, K., and von Savigny, E., (2001). *The Practice Turn in Contemporary Theory.* Routledge.

Schor, J., & White, K. E. (2010). *Plenitude: The new economics of true wealth.* New York: Penguin Press.

Scott, W. R. 1995. *Institutions and organizations.* Thousand Oaks, CA: Sage.

Shove, E. (2010). Beyond the ABC: *climate change policy and theories of social change.* Environment and planning A, 42(6), 1273-1285.

Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes.* Sage.

Slatter, S. S. P. (1984). *The impact of crisis on managerial behavior.* Business Horizons, 27(3), 65-68.

Smets, M., Aristidou, A., & Whittington, R. (2017). *Towards a practice-driven institutionalism.* The Sage handbook of organizational institutionalism, 384-411

Southerton, D. (2013). *Habits, routines and temporalities of consumption: From individual behaviours to the reproduction of everyday practices.* Time & Society, 22(3), 335-355.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research.* Sage publications.

United Nations. (2020). *Climate change – Paris Agreement.* Retrieved on 21-11-2020 on: https://www.un.org/en/climatechange/paris-agreement

Verkade, N. (2020). *Distributing power in the smart grid: tracing the emergence of new energy management practices in homes, communities and other sites of grid management.*

Weick, K. E., & Quinn, R. E. (1999). *Organizational change and development.* Annual review of psychology, 50(1), 361-386.

Wesselink, R., Blok, V., & Ringersma, J. (2017). *Pro-environmental behaviour in the workplace and the role of managers and organisation.* Journal of cleaner production, 168, 1679-1687.

Appendix 1. Interview guides

Interview guide 1: Identification of changing practices

Starting protocol

- Welcome and thank interviewee for participation
- Introduce yourself
- This interview is conducted for my master thesis. I am studying sustainable business and innovation and for this thesis I am looking into working practices that are changing or have changed under COVID-19 restrictions. And additionally, whether these changes are desired to maintain and offer sustainability advantages when the restrictions are lifted.

1. **Confidentiality**
   a. This interview and your personal information will be treated purely confidential. The information will stay within the project (UU and RHDHV). Do you give your consent for using your personal information?
   b. If you want, your name will not be disclosed in the research. Would you like this?
   c. For transcription I would like to record the interview. Do you give your consent?
2. **Introduction**
   a. Would you please shortly introduce yourself?
   b. Can you tell me about your position in the company and what it is you do?
   c. Which company departments do you have insight on?
   d. How many employees are in these department(s)?
   e. What changes have you noticed in your own work due to COVID-19?
   f. What changes have you noticed RHDHV wide due to COVID-19?
   g. Which of these changes do you think affect sustainability?

Explain meaning of practices

Practices are everyday activities that people perform, big or small. For this research examples of practices can be meeting with colleagues, going to work, contact with business relations, consumption of office supplies, consumption of banqueting etc.

3. **Content**
   a. Which practices would you say are affected by the changes?
   b. Which changes do you think have the biggest impact and why?
   c. Which changes do you think offer the largest advantages and why?
   d. Have employees (or those working under you) mentioned that they like or dislike some changes? If yes, which?
   e. Which practices are most interesting and promising to dive into in your opinion?

Closing protocol

- Thank for cooperation.
- Do you have suggestions for other interviewees that might have relevant information?
- Can I reach out to you later on in this research for additional information?
- If you have any questions for me you can always contact me on my mail or in Microsoft teams.

Interview guide 2: Working from home or office practices

Starting protocol

- Welcome and thank interviewee for participation
- Introduce yourself
- This interview is conducted for my master thesis. I am studying sustainable business and innovation and for this thesis I am looking into working practices that are changing or have changed under COVID-19 restrictions. And additionally, whether these changes are desired to maintain and offer sustainability advantages when the restrictions are lifted.

1. **Confidentiality**
   a. This interview and your personal information will be treated purely confidential. The information will stay within the project (UU and RHDHV). Do you give your consent for using your personal information?
   b. If you want, your name will not be disclosed in the research. Would you like this?
   c. For transcription I would like to record the interview. Do you give your consent?
2. **Introduction**
   a. Would you please shortly introduce yourself?
   b. Can you tell me about your position in the company and what it is you do?
   c. What changes have you noticed in your own work due to COVID-19?
   d. What changes have you noticed RHDHV wide due to COVID-19?
   e. Which of these changes do you think affect sustainability?

Explain meaning of practices

Practices are everyday activities that people perform, big or small. For this research examples of practices can be meeting with colleagues, going to work, contact with business relations, consumption of office supplies, consumption of banqueting etc.

3. **Content**
   a. Do you prefer working from home or at the office and why?
   b. What are reasons for you to go to the office?
   c. Did you sign a home-working agreement? Why yes/no?
   d. What would motivate you to work from home more than you did or on a regular basis?
   e. Which practices differ between working from home or working at the office?
   f. How do these practices need to change in order to be more beneficial? Stuff/skill/meaning(image)?
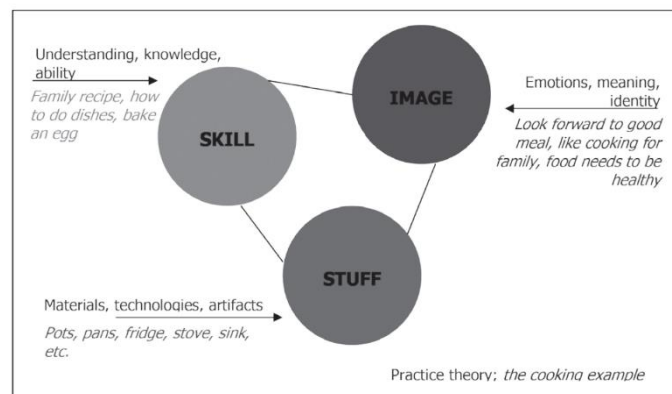
g. What sustainability advantages would you say are there to working from home?
h. What does your ideal working balance look like regarding working from home and working at the office?
i. How can returning to the old way of working be avoided and working from home be maintained?

Closing protocol

- Thank for cooperation.
- Do you have suggestions for other interviewees that might have relevant information?
- Can I reach out to you later on in this research for additional information?
- If you have any questions for me you can always contact me on my mail or in Microsoft teams.

Interview guide 3: Hybrid working post-COVID

Starting protocol

- Welcome and thank interviewee for participation
- Introduce yourself
- This interview is conducted for my master thesis. I am studying sustainable business and innovation and for this thesis I am looking into working practices that are changing or have changed under COVID-19 restrictions. And additionally, whether these changes are desired to maintain and offer sustainability advantages when the restrictions are lifted.

1. **Confidentiality**
   a. This interview and your personal information will be treated purely confidential. The information will stay within the project (UU and RHDHV). Do you give your consent for using your personal information?
   b. If you want, your name will not be disclosed in the research. Would you like this?
   c. For transcription I would like to record the interview. Do you give your consent?
2. **Introduction**
   a. Would you please shortly introduce yourself?
   b. Can you tell me about your position in the company and what it is you do?
   c. What changes have you noticed in your own work due to COVID-19?
   d. What changes have you noticed RHDHV wide due to COVID-19?
   e. Which of these changes do you think affect sustainability?

Explain meaning of practices

Practices are everyday activities that people perform, big or small. For this research examples of practices can be meeting with colleagues, going to work, contact with business relations, consumption of office supplies, consumption of banqueting etc.

3. **Content**
   a. Which practices differ between working from home or working at the office?

    b.   How do these practices need to change to be executed better? Skills/stuff/image?

Practice theory; *the cooking example*
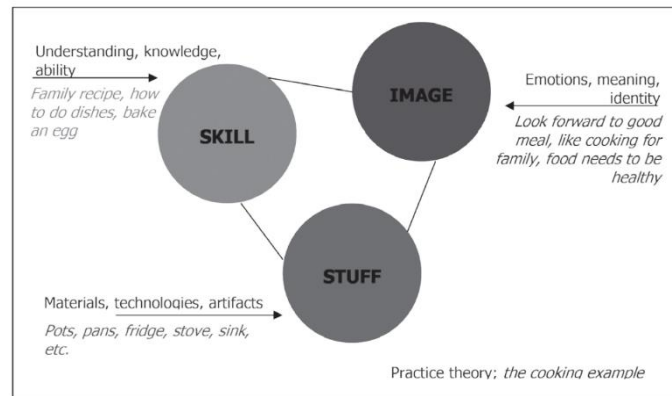
    c.   What perspectives are there on hybrid working post COVID? (employer, employee, manager, customer)
    d.   How do these perspectives differ?
    e.   What do you think hybrid working should look like post-COVID?
    f.   Is it desirable to prevent a return to the old way of working and to maintain working from home?
    g.   What needs to happen to form a good hybrid working system? Skills/Stuff/Image?

Closing protocol
- Thank for cooperation.
- Do you have suggestions for other interviewees that might have relevant information?
- Can I reach out to you later on in this research for additional information?
- If you have any questions for me, you can always contact me on my mail or in Microsoft teams.