HAPPY AT HOME

A QUALITATIVE STUDY OF EMPLOYEE WORK SATISFACTION RELATED TO TEAM COMMUNICATION IN VIRTUAL ADMINISTRATIVE WORK

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Abstract

We have been forced into a new reality and new ways of working due to the Covid-19 pandemic, during which remote work has become the new normal in many workplaces. Working in virtual teams creates many opportunities for organizations to develop with society using modern technology. Nonetheless, many still argue that face-to-face communication is a richer medium for organizations to coordinate their teams and to develop high quality transactive memory systems within the teams rather than communicating in digital channels. There is a lack in previous research that indicates the effects of virtual teams on the outcomes of transactive memory systems. In the thesis, we focus on the affective outcomes, explicitly employee satisfaction, which is lacking in research, both regarding transactive memory systems and a disruption such as the COVID-19 pandemic that forced virtual teams onto organizations. Through a qualitative study in a complex administrative department of a large multinational retail bank which came up with a hybrid solution for their employees, 12 in-depth interviews were conducted. Our findings imply that while the transactive memory systems are affected by virtual teams, generally stalled in a team with an already functioning transactive memory system, the employee satisfaction still remained rather high, leading us to believe it might be the bearings of the COVID-19 pandemic that has employees easier comply with the new ways of working. Findings from the study contribute new insights to theory and practice to the field of research and broaden the perspective on how to manage virtual teams to foster transactive memory systems and employee satisfaction.

Keywords: Transactive Memory Systems, Affective outcomes, Team communication, Virtual team work, Disruption

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Malin & Anna-Johanna

DEFINITIONS

Concept	Definition		
Affective outcomes	Consists of team members' feelings or attitudes toward the team and it work, certain aspects such as satisfaction, efficacy, viability, intuition and member friendship quality ((Chou, Lin et al. 2012);(Dayan, Elbann 2011);(Huang, Liu et al. 2013);(Iannone, McCarty et al. 2017)).		
Spillover effects	Feelings and experiences in one "life" spill over to the other		
Sensitive knowledge	Knowledge categorized as sensitive to share as spreading of this can cause disruption to the brand		
Interpersonal Communication	An exchange of information, occurring through verbal/ nonverbal channels, between two or more people		
Communication tools	Sametime chat, email, Skype, DM, Face-to-Face		
Crisis	Experiencing a time of great difficulty, danger, or suffering		
Disruption	Going through a rapid change because of an unforeseen event		
Group	Collection of individuals that share a common social categorisation and identity (Raes, Kyndt et al. 2015)		
Knowledge	Explicit knowledge - knowledge that can be articulated, codified and accessed by means of verbal communication and written communication		
Sametime	A communication tool, a chat function in the e-mail system frequently used by employees at the back-office		
Teams	A distinguishable collection of individuals, who identify themselves as a team and interact as a team to reach certain shared goals for which they share responsibility and hold themselves mutually accountable. Members are jointly committed to the common purpose and task and are		

	interdependent in their tasks and outcomes (Vangrieken, Dochy et al. 2015)
Team communication	Communication within a team for collaboration and knowledge sharing using different kinds of communication tools
Transactive Memory System (TMS)	A shared cognition that people in relationships develop for encoding, storing and retrieving information about different substantive domains (Hollingshead 1998b, Lewis 2004, Ren, Argote 2011)
Virtual teams	A team in which the team members are working in different geographical locations and rely on communication technology, such as chats, e-mails, phones and video conference tools.
Team members	Employees within each teams contributing to a transactive memory system.

ABBREVIATIONS

Abbreviation	Definition
TMS	Transactive Memory Systems
MRT	Media Richness Theory
СМС	Computer Mediated Communication
FTF	Face-to-Face

Table of content

ACKNOWLEDGEMENT	2
DEFINITIONS	3
ABBREVIATIONS	4
INTRODUCTION	7
1.1 Background	7
1.1.1 Human relation management perspective	7
1.1.2 New ways of working	7
1.2 Prior research & research gap	8
1.3 Purpose & research question	9
1.4 Primary focus & delimitation	10
1.4.1 Information technology & administrative work	10
LITERATURE REVIEW	11
2.1 Transactive Memory Systems & Media Richness Theory connected to virtuality	11
2.2 Communication and socialisation for knowledge sharing	12
2.3 Disruption	12
THEORETICAL FRAMEWORK	13
3.1 Transactive memory systems & affective outcomes	13
3.2 Media Richness Theory	14
3.3 Berlo's SMCR communication model & Ostrom's ABC model for attitudes	14
3.4 Theoretical discussion	15
3.4.1 What theory says	15
3.4.2 Updated theory relevance	16
метнор	17
4.1 Choice of method	17
4.1.1 Constructivist ontology view	17
4.1.2 Explanatory emergent case study	17
4.1.3 Abductive qualitative research with semi-structured interviews	17
4.2 Sample	18
4.2.2 Thematic analysis	18
4.3 Formulation of interview guide	19
4.4 Ethical dilemma	19
EMPIRICS	20
5.1 Work settings	20
5.2 Quality of communication channels & tools	21
5.3 Communication within groups	21
5.4 Knowledge within teams	22
5.5 Team members satisfaction	23
5.6 Managerial perspective	24

ANALYSIS & DISCUSSION	25
6.1 Immediate response on TMS and affective outcomes from virtual teams	25
6.2 Inflexible use of ideal media	27
6.3 Confusion and increased acceptance followed the disruption of environmental turbulence	28
CONCLUSION	29
7.1 Answering the research question	29
7.2 Contribution	29
7.3 Limitations	30
7.4 Further Research	30
7.4.1 Prompting empirical research for further understanding of pandemics effect and virtu opportunities	al 30
7.4.2 Norms blocking acceptance of work virtuality	30
REFERENCES	32
APPENDIX	36
Exhibit 1 Table of Interviews	36
Exhibit 2 Interview Guide	37
Exhibit 3 Coding schedule	39
Exhibit 4 Ren & Argote (2011)	41

1. INTRODUCTION

1.1 Background

1.1.1 Human relation management perspective

The human relation perspective is one aspect to create success in an organization. While it may be underestimated, we believe a key aspect of an organization is the factor of employee satisfaction. To comply with the needs of an organization, one must understand the needs of the employees. As society exists in the process of digitalization, managers may face challenges of affective connection and difficulties in engaging in employee satisfaction. Therefore, it is central to generate new studies to aid managers tackle the ever-evolving challenges of the external environment for organizational performance and for the sake of all employees' well-being.

1.1.2 New ways of working

In January 2020, the first COVID-19 case was confirmed in Sweden (Folkhälsomyndigheten, 2020). Concurrently, the Swedish Health Authorities recommended managers to comply with policies regarding social distancing and enabling remote settings (Finansdepartementet, Socialdepartementet, 2021). Resulting in organizations restructuring everyday work to virtual settings, meaning employees around Sweden moved their work desk home. Virtual teams is a term used for teams that work together although dispersed across organizational levels and locations, using telecommunication and digital technologies to communicate to in turn perform on their daily tasks.

The disrupted work-life left employees facing new challenges, such as interacting with colleagues digitally and managing the work-life boundary in the home office. The social aspects of work-life changed, leaving many employees feeling lonely. Following principles of management, employees' emotional state is evident for identifying know-hows of strategically communicating encouragement to contribute to organizational performance (SHRM, 2017). With the disruption of entering digital settings, keeping track and finding new ways of employee contentment is essential to keep everyone on board (KPMG, 2017). Blurred boundaries of private and work-life risk causing conflict and negative spillover effects (Pemer, 2022), creating higher demands on managers to engage more in social communication. Communication is key for collective thinking in teams, by taking advantage of individual specific knowledge. The quality of the teams' communicative capabilities determines whether the teams can coordinate and therefore benefit from a shared understanding of its knowledge resources (Runsten, Werr et al., 2022). Therefore, we will make a study of employees' work satisfaction related to team communication in virtual administrative work during the COVID-19 pandemic.

1.2 Prior research & research gap

Managing information and knowledge within the organization is crucial but complex. In the complex administrative work of back-offices in the banking industry, teams consist of fairly differentiated individuals with specialized knowledge in a chain of processes among which no team is independent, creating a dependency throughout the organization on identifying and coordinating these knowledge resources.

The Transactive Memory Systems Theory (TMS) is notably common but rarely mentioned regarding cumulative knowledge and refers to shared memory systems developed among a group of people encoding, storing, and retrieving their different knowledge domains (Zhou, Pazos 2020a). Particularly, describing activities on *"who knows what"*. Prior research focuses on group performance, while few studies identify the relationship between TMS and outcomes, as team behavioral and member affective outcomes. However, existing research presents a strong relationship specifically between TMS and affective outcomes, known as team members' feelings or attitudes, such as satisfaction, toward the team and work. Furthermore, to our knowledge, research focusing on extension of affective outcomes, for instance, circular influence on TMS via communication, is lacking. Even so, regarding established communication models, such as Berlo's SMCR, integrating the dependence of source, i.e. attitude. The relationship is significant for TMS research as communication is a central factor. Further, empirical studies exploring TMS and outcomes can be beneficial in understanding how to promote team effectiveness from the perspective of cognitive processes (Zhou, Pazos 2020a).

Suggested by Zhou, Pazos (2020), another area for further research is moderators of the relationship between TMS and outcomes, such as environmental turbulence. I.e. the COVID-19 pandemic can be considered a crisis (Cambridge Dictionary, 2022) disrupting the normal ways of working. The banking industry, as well as other industries, are burdened with the dilemma of retrieving employees' useful knowledge thus improving the existing TMS, while also protecting them and society from the COVID-19 virus. The emergence of TMS theory assumes stable times, and there is yet to be correlational research on TMS, affective outcomes and virtual teams in unstable times.

Current team virtuality literature lacks a fundamental aspect; the literature implicitly assumes that the virtuality of a team remains constant and spans the entire life cycle of the team (Chen, X., Carpenter et al. 2021). Due to alternating restrictions following the course of the pandemic, virtuality is not constant.

In terms of managerial importance, identifying employees' attitudes are essential in organizations, partly for enabling satisfaction. Virtual work settings increase the importance of contentment, employees must be engaged to continue contributing to the organization and perform their best without direct supervision of a manager. Hence, research contributing to affective outcomes in a virtual setting is explicitly demanded for managers to make deliberate decisions. Moreover, there is little research on the extent to which the COVID-19 affects people, and existing research is limited due to the lack of a

nationally representative sample. Prior research provides evidence supporting the need to pay attention to people's health.



Figure 1.2: Visualization of research gap and contribution Borgudd Nilsson (2022)

1.3 Purpose & research question

The thesis aims to gather implications from complementing theory and empirics, investigating if possible changes in affective outcomes could be a result of changes in TMS or solemnly changes in moderators such as virtual settings, and environmental turbulence. Thus, we wish to contribute to research by filling the empirical gap of dynamic use of virtual settings and disruptions as moderating effects in the relation of TMS leading to changes in satisfaction among employees, meaning affective outcomes. Due to the pandemic causing environmental turbulence, the study can further contribute to implications from managers actions, in terms of how employees feel when work settings are changed to virtual teams as a responsible action to abrupt regulations set by national governments.

The thesis observes a specific context and aspect for affective outcomes, following the definition of *'employee's satisfaction toward administrative work in virtual settings'*. Complying with the aim to analyze affective outcomes from virtual settings during the COVID-19 pandemic, we have constructed the following research question;

How has employees' work satisfaction been affected by shifting to virtual administrative work?

1.4 Primary focus & delimitation

The primary focus of the thesis is on TMS and affective outcomes of team members and managers in a Swedish multinational retail bank, particularly in the back-office department where administrative work is being conducted. The focus of study is restrained to overall TMS influence on outcomes as employees' satisfaction, and include antecedents and components of TMS to underlie an analysis and relationship between variables. However, affective outcomes later influence the antecedents of TMS as part of team-level input in form of communication in the framework by Ren, Argote (2011) (Exhibit 4). In order words, affective outcomes, proven to possess the strongest relationship to TMS (Zhou, Pazos 2020a), is also interrelated to TMS (see figure 3.5). Stressing an important assumption of the thesis '*TMS is strongly linked to affective outcomes as an interdependent variable'*. The thesis analyzes disruptions in TMS with moderating effects that directly influence changes in affective outcomes. Further discussion is found in the theoretical framework.

The target group is defined as a combination of '*teams and groups*' and is further addressed under a common word, '*teams*'. These teams are interesting in terms that a majority possess prior experience of the everyday work pre-pandemic as well as new-entry colleagues. By this distinction, a reference point can be received to base the analysis.

The traditional definition of teams is challenged due to changes in the environment, i.e. virtual settings (Wageman, Gardner et al. 2012), leading to a continuum-based conception of teams (Vangrieken, Boon et al. 2017). In this thesis, groups and teams will be used interchangeably.

1.4.1 Information technology & administrative work

Information technology is of great importance for the process of handling and use of information and knowledge within an organization. The complexity of the operations and products, sensitivity of information and risks requires a need for highly competent staff and satisfactory team communication.

Back-office does operational work that supports the front office in most corporations. While the front office is the face of the company, the departments that make sales, meet and communicate with clients, the back-office holds all the resources in production, services and labor that are not seen by the client. The work usually involves administration and is a key contributor to the business' success, even though it rarely is prominent.

2. LITERATURE REVIEW

2.1 Transactive Memory Systems & Media Richness Theory connected to virtuality

Today virtuality in organizations is increasing, which corresponds to academic research. (Kohn 2021) suggests the effects of COVID-19 on work-related processes is in a developing phase, and TMS promises further research for organizations to adapt. Ren & Argote (2011) published an integrative framework summarizing all relevant studies explaining antecedents, components and consequences of TMS (Exhibit 4) following research in its prime from the past three decades. The development of TMS came from the factor of communication. Once established, TMS becomes essential for performing tasks effectively in virtual teams as demonstrated by (Kanawattanachai, Yoo 2007). In times of COVID-19, the essence of looking into virtual communication connected to TMS is accentuated. Notably, there is a congruence among researchers that teams with full virtuality, i.e. solely digital communication, are inferior to teams with zero virtuality, i.e. solely face-to-face communication (Hislop 2002).

In the early days of TMS research, face-to-face communications was suggested by Hollingshead (1998a) to be crucial, not only in the development of TMS, but also in its utilization. We believe this to be outdated as digitalization has formed society in recent decades, and the factors influencing TMS should have both changed in nature and impact. Further, Martins, Gilson, and Maynard (2004) suggested that, since in some situations virtuality can be detrimental, while at other times, it can be beneficial to the performance of the team (e.g (Barnwell, Nedrick et al. 2014);(Tortorella, Narayanamurthy et al. 2021)), team virtuality may best be thought of as a "double-edged sword". Not only do communication media affect the development of TMS but also the degree to which TMS can be leveraged to enhance performance. As there is an emerging opinion about how virtuality may actually benefit performance, Tortorella, Narayanamurthy et al. (2021) argues work implications caused by COVID-19 does not harm the organizational learning process in service organizations.

Studies contributing to virtual team communication in terms of outcomes from TMS are lacking. Some scholars are still in the belief that virtual settings will always be inferior, but as digitalization is rapidly evolving this outdated view should be questioned to match today's society. Highlighted by Ren & Argote (2011), studies concerning outcomes of TMS are in need of empirical evidence, which still is relevant today. Furthermore, few could have foreseen the environmental turbulence of COVID-19. In order for managers and society to become prepared for unthinkable events requiring virtual settings, studies concerning this matter are needed. We wish to contribute to the field of the affective outcomes, employee satisfaction, of TMS shifting to virtual settings within the context of a pandemic.

2.2 Communication and socialisation for knowledge sharing

Knowledge sharing is the activity of exchanging task-related knowledge between employees within an organization, bridging individual knowledge with the collective (Ahmad 2018) and is considered a key intangible asset (Buunk, Smith et al. 2019) within a firm. Well-functioning knowledge sharing is fundamental for an organization's success in knowledge intensive industries (Haas, Hansen 2007). Further, knowledge sharing has been revealed to have a positive effect on team climate, augmented socialization and building trust (Ahmad, Karim 2019). How knowledge is created and shared between employees is an important aspect of examining knowledge management within an organization. Knowledge transfer processes build on the concepts of tacit and explicit knowledge, which, according to (Nonaka, Takeuchi et al. 1996), is created through a continuous and dynamic interaction between tacit and explicit knowledge during socialization, externalization, combination and internalization. The different approaches to knowledge sharing are either more hands-on, explicit knowledge, and the tacit, socially oriented knowledge (Reihlen, Werr 2012), of which the latter will be our focus. The process that moves tacit knowledge between individuals (Desouza, Awazu et al. 2006) and where tacit knowledge is brought together through shared experiences (Nonaka, Takeuchi et al. 1996) is the building block of socialization. Sharing experiences through joint activities is the key to developing tacit knowledge due to its specificity to a particular context and is difficult to articulate.

In knowledge-focused organizations, knowledge sharing is highly dependent on effective ongoing communication. Across organizations, communication for collaboration is recognised as positive, something that not only helps to add value, but can also create new value (Collins, Smith 2006). For the benefits of collaborative communication to be realized, its different elements need to be factored in. Factors such as collaborative partners and the impact of change should be considered for a well managed collaboration, since there exists both potential pitfalls and benefits.

2.3 Disruption

The underlying characteristics of disruption vary among political, economic, environmental and social aspects. During the past decade, the banking sector has gone through a rapid transformation with emerging new technologies, bringing unprecedented disruption in financial services (Meena, Ganesan 2019). Similarly, the disruption of adopting virtual settings due to COVID-19 is further thought to have caused harm. Moreover, reviewing papers of disruptions, some transformative potential may be at hand. Technology has great transformative potential and is often revolutionary (Davison 2020). The punctuated equilibrium theory (Gould, Eldredge 1972, Gersick 1991) suggests that disrupting the underlying structures of a stable situation may create the potential for the introduction of radical changes that enhances the status quo.

3. THEORETICAL FRAMEWORK

The research question will be answered from a theoretical positioning of two combined theories, *Transactive Memory Systems*, TMS, and *Media Richness Theory*, MRT. Whereas Berlo's SMCR Communication model and Ostrom's ABC model for attitudes lies a foundation for interrelation between the theories and its variables.

3.1 Transactive memory systems & affective outcomes

The concept of TMS was first introduced in a study regarding cognitive interdependence back in 1985 by (Wegner, Giuliano et al. 1985), primarily with the aim of describing how couples divide and share knowledge for processing information (Wegner 1995), but has been extended to groups and teams. The concept is popular in multiple fields; management, psychology, and communication. Interest accelerated in early 2000 and later stagnated due to reification (Zhou, Pazos 2020).

(Wegner 1995) explained TMS as consisting of two components, organized knowledge in the group members' minds, and a set of transactive processes occurring among group members. These components highlight the core of the theory; interpersonal communication, which is defined as 'an *exchange of information, occurring through verbal/ nonverbal channels, between two or more people'*. This enables members to know 'who knows what' and develop an interdependent cognitive division of labor in which members are experts in different domains (Hollingshead 1998, Hollingshead, Brandon 2003, Littlepage, Hollingshead et al. 2008, Palazzolo 2005, Su 2012, Wegner, Vallacher et al. 1986, Wegner 1995, Ren, Argote 2011). Hence, leading to the common definition:

"A TMS is defined as a shared cognition that people in relationships develop for encoding, storing and retrieving information about different substantive domains" (Hollingshead 1998, Lewis 2004, Ren, Argote 2011)

Alongside explaining the theory, Wegner (1995) identified three processes related to the development and application of TMS: (1) learning who knows what, (2) learning from one another, and (3) retrieval coordination, knowing when to apply particular expertise. Emphasizing the dependency of TMS is that all members are willing to share their expertise, hence engaging in an open communication setting.

Based on Ren and Argote (2011) (Exhibit 4) qualitative review of TMS, where findings between 1985-2010 were summarized, there were three classified outcomes: team performance behaviors, team performance outcomes, and affective outcomes (Mathieu, Maynard et al. 2008). This thesis further explores the affective outcomes. Affective outcomes consists of team members' feelings or attitudes toward the team and its work, aspects such as satisfaction, intuition, and member friendship quality (Chou, Lin et al. 2012, Dayan, Elbanna 2011, Huang, Liu et al. 2013, Iannone, McCarty et al. 2017).

3.2 Media Richness Theory

The negative view on virtuality is based largely on the theory of media richness (Daft, Lengel 1986), in which mediums of communication are 'ranked'. According to the theory, a face-to-face communication channel is regarded as the 'richest' medium because of the prosperity of the information processed (Suh 1999), i.e. immediate mutual feedback, personal focus, language variety and various nonverbal cues, which consists of tone of voice, facial expression, and body movement (Trevino, Lengel et al. 1987). The medium is considered 'richer' the more of these characteristics are incorporated (Suh 1999). However, even though the theory intuitively creates indications that lean media is inferior to rich media in every context, it is incorrect (Chen, K., Yen et al. 2008). Since, MRT argues that media characteristics affect media richness which in turn affects media choice, there is no intrinsic superiority. The ideal medium for any task depends on the type of information to be processed and the purpose of the communication. In order words, whether which media is used, the effectiveness of a particular media depends on the situation at hand, i.e. in terms of clarifying uncertainty, lean media is preferred but in cases of equivocality, richer media is favored.

3.3 Berlo's SMCR communication model & Ostrom's ABC model for attitudes

Explaining the interdependent relationship with TMS and affective outcomes, Berlo's SMCR communication model and Ostrom's ABC model (Ostrom 1969) for attitudes are used. Berlo's model (1960) (Berlo, 1977) takes into account the emotional aspect of the message, and emphasizes the process of communication. Source and receiver include several factors for the transfer, with attitude as one of them (Juneja, Unknown). Affective outcomes influence communication in terms of attitude (Ren, Argote, 2011) (Exhibit 4). Meaning, the output as affective outcomes will also serve as input for TMS, emphasizing on interdependence as these variables will build on one another inductively.



Figure 3.3: Combined framework of Berlo (1960) and Ostrom (1969) by Borgudd Nilsson (2022)

The ABC model explains three interactive components of attitude: affective, behavior, and cognition (Ostrom, 1969). Whereas satisfaction is affect, and willingness in behavior. Incorporating this in the SMCR model, attitude for willingness to communicate and how to communicate is emphasized. Further, the affective outcomes of employees will show to have influence on the willingness, as the three components interact. Concluding, affective outcomes influence TMS.

3.4 Theoretical discussion

3.4.1 What theory says

By combining MRT and TMS with the background of Berlo's SMCR model, Ostrom's ABC model and disruptions, we can conclude theoretical implications for affective outcomes. Based on SMCR Model and ABC model, an interdependence exists between output from affective outcomes to communication, an antecedent for utilizing TMS. A number of relationships between theory and empirics are examined, using reference indicators of TMS pre-pandemic. Emphasizing the assumption, stating a strong interdependent relationship between TMS and affective outcomes.



Figure 3.4: Combined framework by Borgudd Nilsson (2022)

- (1) $TMS \rightarrow Affective Outcomes$
- (2) Purpose and choice of Media \rightarrow Virtual Work \rightarrow Affective Outcomes
- (3) Disruption \rightarrow Environmental Turbulence \rightarrow Affective Outcomes

Following the framework of (Ren, Argote 2011), virtual settings and environmental turbulence moderates the relationship between TMS to affective outcomes. Virtuality implies less social gatherings, and for many the social aspect is an important factor of work. This implies reduced employee satisfaction as an affective outcome. In MRT, depending on what type of media is used and reason for that choice, help determine whether this moderation effect from virtual teams negatively influences affective outcomes. Since COVID-19 disabled the flexibility of using different media, implicating it forced the use of lean media for all purposes. Particularly, suboptimal choice of such media would mean, according to MRT, that virtual settings negatively influence affective outcomes. Furthermore, virtual settings is unbeneficial for TMS due to the exchange of information in virtual teams is constrained due to a reduction in types and quality of cues available (Driskell, Radtke et al. 2003), resulting in less complete, slower, and onerous information exchange (Cramton 2001).

Moreover, COVID-19 causes environmental turbulence which also moderates the relationship between TMS and affective outcomes. Since this turbulence takes the form of work uncertainty and virtual work settings, affective outcomes will be negatively influenced per prior paragraph. The nature of affective outcomes will later influence TMS based on antecedents in Ren, Argote 2011 (Exhibit 4), thus highlighting the interdependence between these variables.

3.4.2 Updated theory relevance

Although TMS and MRT have received a great deal of attention in research, drying out research opportunities, the surroundings forming the emergence of the theories has drastically changed which suggests the theories require an empirical update to match the contextual factors of today's environment. Especially during COVID-19 and the digitalization era, which enables rapid disruption in terms of digital communication. The barriers to communication may no longer be provoked by virtual settings, but rather enhanced by it. In order to answer these speculations, the thesis prompts a further discussion by primarily looking into an extension of TMS with an human relation perspective, as theory supports the crucial aspect of employee satisfaction for willingness to communicate, the evident foundation for TMS.

4. METHOD

4.1 Choice of method

4.1.1 Constructivist ontology view

The research takes a constructivist ontological view, aiming to understand individuals' satisfaction due to disruption of moving into virtual settings. This describes the construction of reality by social interaction between social actors with partially shared meanings and realities. Adopting a constructivist view is applicable as interaction and communication in different formats, virtual and face-to-face communication, is compared following a subjective epistemology approach of interpretivism.

4.1.2 Explanatory emergent case study

The thesis is built upon the chosen research strategy, namely case study. In order to eliminate factors of difference in aspects such as culture, industries, and relational task complexity, the study delimits to a single department of one retail-bank in the banking industry. The department consists of cirka 150 employees sectioned into multiple groups and levels, which ensures a broad sample for the study, as well as representative cases during COVID-19. The strategy enables an in-depth understanding of the issue the thesis aims to solve (see figure 1.2), and generates action-oriented solutions for the case study in practice, as well as serve as inspiration for other companies in similar transition to remote work, thus providing a revelatory dimension. A case study is appropriate as to answer the research question *'how'* with focus on real-life situations, with no control over occurence of events (Yin, 2018), (Ridder et al. 2014). Being explanatory, the key feature fits with that of being emergent, *"to remain open to new discoveries"* (Harder, 2010) but still enabling preparation in advance of the start to guide us as to what topics are explored. Due to this preparation, the emergent nature is not evidently distinct but as we engaged in the specific department, theories were added and the core focus changed from communication processes to employees affections (Lee and Saunders, 2017).

4.1.3 Abductive qualitative research with semi-structured interviews

The study has been conducted using a qualitative method to collect stories and narratives to capture human behavior and create a thorough understanding of individuals' experiences and opinions about disruptions the COVID-19 pandemic brought. Due to moving back and forth between theory development and adding empirics with the aim of saturation, this study has been developed using an abductive research process. In the beginning, an inductive approach was initiated but as reading prior

academic work, the interview guide was moderated to accurately capture useful data simultaneously as adding theory and changing core focus. See Exhibit 2.

The data collection design is semi-structured interviews in either natural habitat setting or using video conferencing. We find this important to create a comfortable and natural environment for the respondents, considering disadvantages with interviews such as power, truth, and consent (Nunkoosing 2005), enabling the data contribution to be in a more relaxed setting. We hope that the respondents' answers enable meanings emerging in an authentic way.

4.2 Sample

We have made twelve interviews with ten employees and two managers in the back-office that belong to five different teams in the same department at a Swedish retail bank. They have given their perspectives on how they used to work before the pandemic, experience of working in virtual teams during the pandemic both in early and current phase, as well as thoughts of today's work. See Exhibit 1.

A selection of different individuals was chosen, such as managers, team members, new employees that were hired during the COVID-19 pandemic and seasoned employees. A manager of two of the teams was first approached and handed us a few interviewees, who in turn provided further interviewees, and contacts to other managers in the department. See Exhibit 1.

The selection process was made out of positions at the back-office, length of employment and different experiences of virtual teams during the COVID-19 pandemic.

4.2.2 Thematic analysis

The data have been processed in a thematic analysis procedure. The coding was constructed in three main steps where we switched themes with each other to both get familiar with the data. First, all data was divided into themes, and then within these themes matching and repetitive answers were removed which enabled summarizing of bigger data points. Second, sub-themes were created based on these definitions in accordance with the Ren & Argotes (2011) framework (Exhibit 4). Final step, identifying related concepts from our theoretical framework. By conducting the coding accordingly, we believe it was an efficient way to see patterns and other interesting points quite early. One theme concerning 'implications' did not suffice a relation to existing theory but was still deemed relevant for analysis. See Exhibit 3.

Initial codes to analyze the data were developed deductively from relevant theory, and inductively during the process of data familiarization following its collection. We found seven themes to be a suitable number.

4.3 Formulation of interview guide

To analyze how employee work satisfaction has been affected by the disruption in team communication of going into virtual settings during the COVID-19 pandemic, we designed the interview guide inspired by a 15-item scale developed by (Lewis 2003). The scale aims to measure three processes involved in the development of TMS: specialization; credibility; and coordination. By this, identifying key members is central to diagnosing TMS in teams. As (Zhou, Pazos 2020b) showed that the relationship between TMS and affective outcomes is stronger compared to behavioral outcomes and performance outcomes. Thus, measuring TMS can generate indicators for changes in affective outcomes, but also indicators of how interrelated changes in affective outcomes may lead to changes in TMS. Furthermore, we designed questions to identify a reference point for affective outcomes. See Exhibit 2.

4.4 Ethical dilemma

We highly value ethical practices in terms of existing work relation to interviewees. There are two main areas that require further discussion, private relations and data administration.

The pursued strategy to gain access to the preferred sample was ensuring 'familiarity' with the organizational members. As one of us has a personal connection to the gatekeeper, this strategy was deemed most efficient but was followed by certain issues in terms of collecting 'genuine data'. In other words, collecting data that is true to the nature of each individual's satisfaction and construction of reality, and not receiving biased data generated from fear of exposure. The interview guide was designed to prevent sensitive data from being collected, and made sure interviewees felt safe in sharing thoughts and experiences. This was further ensured in steps concerning handling the data.

Prior to each interview a consent form was given to be filled in, as well as explaining the aim of the thesis and describing what data that will be used and how. To consequently ensure anonymity, the statements presented in the empirics session use fake gender stereotypical names for the sole reason of preventing names from drawing focus from what is relevant. We chose to not mention the bank of which the case study takes place nor the real name of the department. This ensures a protection of confidentiality and anonymity to an achievable extent. The data is stored in a service tool accepted by the Stockholm School of Economics.

5.EMPIRICS

A thematic presentation of the empirical data is provided in six themes, presented to highlight interesting points and experiences, aligning or contradictory to the combined framework of applied theories (Figure 3.4).

The presentation begins with describing work settings and communication, prior and under the disruption, to clarify the underlying foundation of utilized TMS, but also impediments. Moving forward, explaining the structure of TMS and affective outcomes due to virtual settings, as well as emphasizing the role of managers.

Used statements to describe empirics are picked due to feasible formulation and representing a repeating pattern if not otherwise is stated. See Exhibit 2 for Interview Guide and Exhibit 3 for Coding Schedule.

5.1 Work settings

The teams' work is rather individual administrative work, however, the complexity of it requires the teams to cooperate to some extent, working together and helping each other. Hence, it is a mixture of team work and individual work. Most of the teams are close knit and many of the members have worked in the back-office for many years.

The teams went from working full-time at the office, to, during the first months of the pandemic, split the teams between two different offices in Stockholm and later work part-time from home and part-time at the office. Most of the teams had their team members working from home 2-3 days a week and the rest at the office, while one team had their team members work from home for periods of three weeks and then at the office for three weeks. Many of the team members agree that the distance and virtual work in a hybrid format has created a calmer space at the office, for more effective work. Some are less disturbed working from home, so they can concentrate better.

The teams and team members have adapted to the virtual teams setting. The disruption of the pandemic made the first months very uncertain, giving the employees negative feelings and attitude regarding virtual work. However, by adapting and getting used to working from home part-time, or full-time, the team members now have changed their perspective. A new approach requires training and exercising routines. The time frame for a habit to be established depends on each individual's abilities. They believe that when problems arise, it may be easier when physically present at the office. As to avoid calling around to lots of people rather than being able to find solutions working together face-to-face. It is usually easier to find the right person for the job by looking around at the office, talking to people, rather than searching on *Sametime* or in the internal phone book. Mainly due to changes in working methods but also due to lack of communication and transparency of what different people are doing, tasks have been made in duplicates. Misunderstandings have happened very rarely or not at all.

5.2 Quality of communication channels & tools

The channels used are *Sametime*, *Skype*, phone, and email, apart from face-to-face communication. Most agree that *Sametime* is most frequently used as a first hand choice for quick information sharing and when there is a need for discussion, they turn to the phone or *Skype*.

Sometimes the channels are used inefficiently and there is uncertainty of others' preferences about which tool to use. Using Skype, many miss the personal contact, natural transition in discussion and dynamics between all individuals in the conversation. As the second most used communication channel it has volatile quality in meetings. Though, now the digital conversion seems to have *"worked beyond expectations"*. Unfortunately, working digitally has made many people uncomfortable, and has led to groupings that might prevent positive learning for the group.

"There are many groups that are not very comfortable with being online either" - Elin, Co-worker

Nonetheless, most of the work can be done from home and working from home has protected many from the disruptions that often occur in the office. It varies between individuals who are easy to reach and the individual communication preferences may extend the time to get a response. The hybrid solution has created some confusion regarding whether a person, that a team member wants to reach, is present at the office or working from home, which makes the process of choosing a communication channel much harder.

5.3 Communication within groups

In terms of team communication, the social aspect, which facilitates the communication, is what has primarily been affected negatively. An important aspect in work is the natural contact between employees, which has been annulled by the digital construction, leading the communication to become damaged.

Before the pandemic, they socialized with daily coffee breaks which does not exist to the same extent anymore. On the other hand, those relationships that had been good in the past and continued to be stimulated in new circumstances, maintained communication in a high standard.

The change that has taken place is considered to be bigger than the *bank* and a tangible understanding of the circumstances has created an acceptance of not experiencing the same level of communication as before. Most oftenly, the team members express that the digital channels work just as well as face-to-face communication to forward information. However, in a team that had changed their manager four times in as many years, the team members express that some information is getting lost with the use of digital channels. The information only reaches those that are present physically at the office at the time information is shared.

Communication during the weekly team meetings is considered to have changed for the worse in the hybrid version and this is mainly due to the lack of physical presence and 'socialization' among colleagues. The distribution of the number of digitally and physically gathered is considered to affect communication. When all attendees are remote, the meetings are generally successful but as soon as a group is in one place and a single or few individuals via *Skype*, the dynamics change for the worse. For discussion purposes, physical attendance is considered a priority and thus some teams have now reverted to requiring physical attendance at meetings towards the end of the pandemic, with specific exceptions.

"It felt a bit unnatural during our weekly meetings, when half the group is sitting in some other place [...] It was a completely different dynamic during our weekly meetings. When I brought something up and talked about a topic, it was completely silent [...] If you have the whole team in place, then communication flows across the tables in a very natural and open way, whereas when there are only maybe 3 or 4 people in the office, it's very quiet." - Erik, Manager

Furthermore, this has placed greater demands on managers, who express worry about their lack of overview of the team, and their ability to change their communication style as needed:

"You can have a slightly different role in communication in a group that has had a large turnover of employees, then you may have a slightly different role in that group where you are a little more active and you may be a little more supportive and more participative so I think you have to adapt and I also try as much as I can to catch the mood and the need of the team" - Bengt, Manager

In a special case, communication was hurt from an age-old conflict between two members. When virtual teams were introduced, the conflict and team communication was drastically improved as it meant separating individuals concerned in this conflict, which has led the team to become fully functioning again and team collaboration becoming significantly better.

5.4 Knowledge within teams

Many of the employees express that they recognize their colleagues' knowledge well, and the other employees' at the back-office moderately well, as well as recognizing key members of their own team and their prior experiences.

"Those that have worked for a long time in the teams already have such great communication, so they have an easy time working virtually and still keep a good level of communication." -Gunnel, Co-worker

They also know who to ask to be handed the right person to help them, knowing each other's areas of expertise. However, there is no general agreement of who the key people are or if such even exist in the back-office. Most of the team members state that they have developed specific knowledge within the teams over the years at the back-office. In some teams, this has grown stronger during the COVID-19 pandemic, because of a lack of rotation of tasks. Before the pandemic, in several of the

teams, they used to rotate between different tasks so that they would build the knowledge among the members.

Moreover, the team members say that they are now engaging with each other in a new manner.

"One knows who does what and who to turn to for help. However, the problem was that there were very few people on site. It's the ones who are in the office that you talk to first. So there weren't that many to choose from." - Elin, Co-worker

A team that had a period of working virtually for three weeks at a time, gained a new team member a few months into the pandemic. He thought it was very tough to work from home three weeks in a row two months in on his new position since he still was unsure of who to reach out to for help or how to solve some of the tasks.

"I can only speak for myself, maybe for someone who has worked here for 4 years it doesn't matter so much. To them it is less important to be at work or at home since they know everything so to speak. Then it's easier to adjust to being at home, but for me it wasn't as easy as that". Johan, Co-worker

Everyone that was interviewed, also expressed concern for new employees working in virtual teams. New employees have all learnt their tasks and befriended their colleagues, however, it takes longer than usual and the respondents express uncertainty about the new employees' abilities to map the colleagues' knowledge and gain an overview of what the team as a whole produces, as well as establishing good communication.

"You might wonder if it's not less effective to do it that way [virtually] than to sit next to each other and be able to showcase and talk face-to-face" - Erik, Manager

The new employees usually learn either from home by screen sharing on *Skype* or from the office, where they have restricted access to their team members in terms of the number of colleagues present and the contact with the colleagues is irregular. Further, concern is expressed regarding their possibilities to build social or professional relationships with other team members. The team that has switched managers multiple times, reports the creation of in- and out groups, in which the younger members of the team have created a social group that has gained problems with cooperating with other team members.

5.5 Team members satisfaction

Virtual teams have affected the relationships due to the loss of contact, although some team members that have worked many years at the office believe that this has not created a distance between them. The team members do not see each other or talk to each other as often, neither face-to-face nor on the phone. Evidently, employees miss the social part of being at the office. On the other hand, most team members are expressing satisfaction with the virtual team work. They express that they are happier and

less stressed now because of the gained freedom of working a couple of days each week from home. It has been a great progress for work-life balance.

There are mixed feelings about working from home.

"Before the pandemic I thought it was 'really scary', I don't want to work from home and now it's the other way around, I want nothing more than to work from home." - Anna, Co-worker

Meanwhile some feel that they have fully lost the social part of work life. Controversially, some witness that they enjoy being at the office more now as there are not as many people there at once. There is an appreciation to take meetings digitally in terms of saving time. However, this comes at the expense of the social aspect and *'network of contacts'*.

5.6 Managerial perspective

For managers, digitalization has made their work more difficult. As a manager, it's important to know how your workers are feeling and about their physical and mental health. Being physically present at the office facilitates a natural discussion and a better overview. The distance has placed higher demands on managers to be active and call up their employees without an agenda but instead in order to make sure everyone is well.

"Then you quickly lose a lot of what can be described as the pulse really, the pulse of the team. How is the team doing right now? How do they feel? That's very difficult to convey in a video call or over a chat" - Erik, Manager

6. ANALYSIS & DISCUSSION

The following section seeks to answer the research question by using empirical findings from the study. The findings suggest a change in communication and differences in satisfaction among team members from the change to virtual team work depending on which role each member has in the TMS function of the team.

6.1 Immediate response on TMS and affective outcomes from virtual teams

Certain consequences such as satisfaction and member friendship quality are affective outcomes depending on the level of a team's TMS (Chou, Lin et al. 2012, Dayan, Elbanna 2011, Huang, Liu et al. 2013, Iannone, McCarty et al. 2017). Virtual teams implies less physical social gatherings and less social exchange in general implying negative affective outcomes. Face-to-face communication has been deemed crucial in the development and the utilization of TMS (Hollingshead, 1998a), however, in modern times this might be an outdated view of reality, especially in relation to MRT, that suggests that the right choice of communication media, digital or face-to-face, remains a high quality communication, and should in that aspect result in an unaffected TMS whether a team is virtual or not. In some cases, it is argued that virtual teams and non-remote teams keep the same level of TMS, only other factors affect its level of advancement. However, disrupting the TMS by entering virtuality, expanding the geographical locations of team members, could nonetheless affect the quality of the teams' TMS, since their usual communication channels now have been altered. The disruption of the transactive processes would possibly worsen the TMS since the interaction between the members of the teams is changed. By adaptation and time, these processes could then be resurrected and the quality of TMS resurrecting to its initial standard. In the study, this was visible in such that the quality of communication was, by many, said to not have been affected. However, the respondents' answers can be questioned due to indicators of worsened communication, i.e. use and choice of channels and uncertainty.

The stalled development of TMS within most teams, where employee relationships, knowledge base and interactions stopped to develop or slowed in development in the virtual teams, indicates that switching between virtual teams and normal office work has an effect on TMS. Further, this effect shows in the affective outcomes of team members and teams as a whole, as the processes in TMS are hindered, work satisfaction among members should decrease. Nonetheless, in the study, team members do not report decreased satisfaction. Other factors must level the loss in communication to keep individual satisfaction at a constant.

There is a difference between teams with established TMS and those that had malfunctioning TMS already before the pandemic. The latter has problems developing and communicating in the virtual teams settings. This makes sense, since the TMS is at a standstill when disrupted and communication

is moved into a virtual setting, if it already is well-functioning then the outcomes are better. However, if other factors in the team affecting TMS are disturbed, then the outcomes may be different. Such as new team members, which are hindered to take part in the team's TMS because of the distance to other members. They do not have the same access to people and knowledge and they do not have the same possibilities to develop the knowledge or awareness of where the knowledge lies. The same goes for teams with an already malfunctional TMS, which shows in the team that had changed managers several times during the years before and during the COVID-19 pandemic. Their team was not able to have good virtual communication, information was not forwarded to everyone and groupings were created within the team, creating dissatisfaction among the members.

Furthermore, the members of a team with the most experience would carry the team TMS as a function that other team members can rely on as a key member. These members could be crucial for a team to have a successful TMS and for the team to develop and carry forward the produced knowledge to new members. Developing a team's TMS and being a strong member should intuitively have a positive effect on the key members' affective outcomes, meaning they have a great satisfaction. However, non-manager key people in respective teams in the study, are surprisingly the same people expressing wishes to work virtually. Perhaps, these people endure a lot of questions from non-key team members and thus experience a higher frequency of disturbances. Complying with TMS, as key members are essential for its existence, then easily identifying these would mean more beneficial outcomes. Although, in the study, key members seemed to have been hindered in their work before the shift to virtual team work, implying worse satisfaction before change. Interestingly, according to the theory, TMS is significantly associated with employee satisfaction, contradictory to our empirics. This would mean key members, who are frequently disturbed with questions, need to be physically present but wish to have the flexibility to work from home. If key members are offered to work from home, the 'disappeared' knowledge is hindered from being allocated to other employees. Likewise, this might circle back to lowering the quality of the team TMS even further, since new members of the team are not allowed to take part in the TMS when key members are distant and gatekeeping their knowledge 'to be able to focus on their work', hindering them from mapping the team knowledge. Consequently, the TMS and affective outcomes of the new employees could lead to lower satisfaction and over time, as there is a team member turnover, the satisfaction of the team as a whole is worsened. Not being able to recollect knowledge from key members and communicate their own status, new members risk losing developing opportunities and develop a decreased satisfaction level. Only being able to do 'just enough' at work because of a lack of knowledge results in low contentment. Moreover, this might be happening at the expense of the team TMS, and further the satisfaction as an affective outcome of the team as a whole, since knowledge sharing and communication is not allowed to take place.

Due to the team members' own ability to stay in control of what they share about their own well-being when engaging with managers, there is a loss of control. This in turn creates uncertainty as one role description of managers concerns the well-being of the team members, leading to lower satisfaction level of their own work. A paradox is created since the managers also are pleased that the team members are happier in general, when working remotely a couple of days a week. Additionally, identifying where virtual settings could be beneficial for affective outcomes could aid managers to generate strategies for enabling communication and collaboration. In the study, this was shown when

the use of virtual settings enabled communication between two members who could not stand each other, which benefited the entire team's TMS.

6.2 Inflexible use of ideal media

The theoretical assumptions of MRT imply individuals use the most ideal media depending on what type of information is to be processed, implying users are rational beings which is contradictory to the human relation perspective. Drawn from the SMCR model, individual preference is based upon the knowledge and communication skills of the *receiver*, and drives the choice of media for the *source*. Moreover, this extension of choice factors is contradictory to MRT. While some of the employees believe they consistently use the better choice of media as assumed by theory, many employees let specific preferences influence their choice. The issue following virtual settings is confusion about where to find the available receiver the fastest but also disabled use of the richest media, face-to-face, hence compelling lean media for all purposes. Resulting in forced use of suboptimal choice of media, which according MRT, would imply negative influence on affective outcomes since communication, as a building block of TMS, is worsened and thus decreases employee satisfaction. Besides, since the choice is shown to be influenced by preference, the use of a suboptimal media which is favored by an individual, suggests a positive influence on affective outcomes in the empirics.

Additionally, members of virtual teams can either work remotely or at the office. Depending on the rank of the user, virtual settings influence affective outcomes differently. Discrepancy of employees' tendency to stay more at the office, respectively at home, can come to generate groupings. The created sub-group from the study negatively influenced collaboration and satisfaction, evidently more for employees preferring to work remote. Using MRT, the group, which works more at the office, could choose more freely between richer and leaner media, leading to better use of media and increased willingness to communicate but solemnly amongst themselves. This excluding behavior, simultaneously as less flexibility choosing media, caused worse collaboration for TMS and willingness to communicate across sub-groups. Hence, the collaboration for functional TMS worsens. The theoretical explanation for the creation of sub-groupings is out of context for the thesis. But, speculatively, there were more human behavioral factors influencing the satisfaction due to sub-grouping. Whether this occurred in more work groups is unknown as this topic could be sensitive to share or non-explicit for others.

According to Berlo's SMCR, attitude is a part of the source, and Ostrom's ABC model suggests attitude includes willingness and satisfaction. As communication is built on willingness, the choice to communicate as well as the choice of *how* to communicate is influenced by affective outcomes. In combination, implying that the affective outcomes, influenced by TMS and frequently altered over time, would influence the choice of media through attitudes which in turn circle back to adjusting TMS and affective outcomes.

6.3 Confusion and increased acceptance following the disruption of environmental turbulence

The two components of TMS, organized knowledge in the group members' minds, and a set of transactive processes occurring among group members (Wegner, 1995) has changed in several dimensions because of the disruption with the sudden implementation of virtual teams. TMS builds upon the assumption of a stable environment. Therefore, there is no proper theoretical guidance in this matter. Although, the creation of TMS is influenced by geographic distribution, and acute stress, as disruption, in the workplace (Exhibit 4). Henceforth, for groups where TMS is not fully established, it should be negatively affected, and in turn lead to worsen affective outcomes. Accordingly, groups with high staff turnover and new employees experienced difficulty to become a part of the TMS in virtual settings. Teams with established TMS experienced a ceasing development of TMS, and little indication of worsening. Complying with creation of TMS, established ones are more resistant to environmental turbulence. In terms of affective outcomes, it was shown that the employees express rather impressive satisfaction of executive decisions related to new work settings. This is contradictory to the anticipated effect from environmental turbulence (Exhibit 4). The reported satisfaction could be an illusion created by the disturbing factor of the COVID-19 pandemic. The kind of changes and implementation of a virtual team setting might not have been as successful if the changes were made solely for organizational structural matters rather than an outside factor enforcing changes to be made, because of the risks, uncertainty and regulations related to the COVID-19 pandemic.

7. CONCLUSION

7.1 Answering the research question

The study shows how virtual administrative work presents certain benefits to employees. However, depending on which role each member has in the TMS function of the team, the findings show a change in communication and differences in satisfaction from the switch to virtual teams. The flexibility of working remotely increases the satisfaction by positively influencing communication willingness, and triggers more individual initiatives to contact co-workers through richer media when required. MRT implies that the users are rational and always chose the richest media for any communication. However, factors such as uncertainty and simplicity affects the choice of media used, lowering the quality of communication when entering virtual teams and in effect lowering the TMS, contributing to lowered affective outcomes such as satisfaction. Which in turn loops and risks to once again lower the quality of TMS.

The findings exhibit the necessity to enable good communication when disturbing the existing ways by introducing virtuality, since socialization is reduced affecting communication. Virtual teams put increased stress on the skills of the manager to ensure team satisfaction and communication and to make ways for new employees to take part in the TMS efficiently.

Managers may base their actions on false advocates, such as those enjoying being at the office but at the condition of few being there, or by those who feel uncomfortable and unable to see past their emotional barrier. Managing employees is simplified if everyone is present but impeding one's satisfaction of a flexible work location may advance complaints and frustration, leading to a dull atmosphere, and resenting individuals. Following the managers at hand, the well-being of employees is a core dimension, thus leaving managers at a trade-off: aggravating one's work or harming work-relations?

7.2 Contribution

Combining relevant theory, the TMS framework is extended to a more causality circular relationship between different variables. The extension explains how the output of TMS circles back to the input of the same concept. This study sheds light on outdated assumptions established theories depend on, as society continuously evolves in directions that require new perspectives in modern research. I.e. TMS is constructed in stable times allowing normal circumstances, whereas MRT assumes individuals are rational in choosing media channels.

Moreover, the thesis emphasizes the key role of managers, especially in settings where the dilemma for employee's well-being and complexity of managerial tasks oppose. Reaching an optimal balance and constructing policies reasonable for everyone may be subtle and difficult for managers. Especially when everyone is different, and no one is alike. Individual preference may determine what combination of settings is superior. Also, managers are handed controversial tools, such as virtual settings, to solve conflicts in short-term.

7.3 Limitations

Limitations such as sample, method and time, is emphasized earlier in the study. The sample was representative for a retail bank in Sweden whereas employees conducted administrative and rather non-complex tasks. Applying these results in other organizations could therefore generate problems due to differences in policies in terms of the pandemic, tasks, and industry type. Furthermore, the interpretative and constructivist view is highly dependent on our ability to analyze the empirics in a limited time frame, which questions whether the case study could be repeated with comparable results. Likewise, due to professional relations with some employees, the data collection could have been biased in a way that opposes honesty. Although, the relation enabled access to the sample as well as a better understanding of the ways of the workplace. Thus emphasizing the two sides of all coins.

7.4 Further Research

7.4.1 Prompting empirical research for further understanding of disruption and virtual opportunities

The thesis encourages research concerning empirics for TMS in turbulent times, such as the pandemic and the ongoing conflict in Russia and Ukraine. The extension of the framework prompts a cause for further research of the theory which ceased popularity among scholars over ten years ago. The dynamics of society, particularly digital development, could enable modern views of virtuality, and new conditions follow, i.e. augmented reality enhancing learning (Kanuganti, 2019).

7.4.2 Norms blocking acceptance of work virtuality

Looking ahead, enabling remote work means fewer late nights at the office or unnecessary hours apart from family, thus benefiting families experiencing issues with time management. Thus, it may be social norms of mental health emphasizing '*work isn't living*', when the majority of us practically work our entire lives. Then, would enabling remote work imply that relations that could be destroyed due to lack of visibility, become fewer? Increased concentration and efficiency from working virtually, perhaps leads to less working hours and more time spent with our dearest. Could the positive reactions of virtual administrative work actually be a result from a happier life and are we all only afraid that something we have once been taught is no longer viable? Perhaps future research could answer these contemplations.

REFERENCES

AHMAD, F. (2018). Knowledge sharing in a non-native language context: Challenges and strategies. *Journal of Information Science* 44(2): 248–264.

AWAZU, Y. & DESOUZA, K.C. 2006, "Knowledge management at SMEs: five peculiarities", Journal of Knowledge Management, vol. 10, no. 1, pp. 32-43.

BARNWELL, D., NEDRICK, S., RUDOLPH, E., SESAY, M. and WELLEN, W., 2014. Leadership of international and virtual project teams. *International Journal of Global Business*, 7(2),.

BERLO, D.K., 1977. Communication as process: Review and commentary. *Annals of the International Communication Association*, **1**(1), pp. 11-27.

BUUNK, I., SMITH, C.F. and HALL, H., 2019. Tacit knowledge sharing in online environments: Locating 'Ba' within a platform for public sector professionals. *Journal of librarianship and information science*, **51**(4), pp. 1134-1145.

Cambridge Dictionary. 2022. *Crisis*. https://dictionary.cambridge.org/dictionary/english/crisis (February 15, 2022)

CHEN, K., YEN, D.C., HUNG, S. and HUANG, A.H., 2008. An exploratory study of the selection of communication media: The relationship between flow and communication outcomes. *Decision Support Systems*, **45**(4), pp. 822-832.

CHEN, X., CARPENTER, D. and SU, L., 2021. How does a team's virtuality impact knowledge transfer effectiveness among its members?: A multi-mediator-moderator model. *Behaviour & information technology*, **40**(6), pp. 608-624.

CHOU, H., LIN, Y. and CHOU, S., 2012. Team cognition, collective efficacy, and performance in strategic decision-making teams. *Social Behavior and Personality: an international journal*, **40**(3), pp. 381-394.

COLLINS, C.J. and SMITH, K.G., 2006. Knowledge Exchange and Combination: The Role of Human Resource Practices in the Performance of High-Technology Firms. *Academy of Management journal*, **49**(3), pp. 544-560.

CRAMTON, C.D., 2001. The mutual knowledge problem and its consequences for dispersed collaboration. *Organization science*, **12**(3), pp. 346-371.

DAFT, R.L. and LENGEL, R.H., 1986. Organizational information requirements, media richness and structural design. *Management science*, **32**(5), pp. 554-571.

DAVISON, R.M., 2020. The Transformative Potential of Disruptions: A Viewpoint. *International Journal of Information Management*, **55**, pp. 102149.

DAYAN, M. and ELBANNA, S., 2011. Antecedents of team intuition and its impact on the success of new product development projects. *Journal of Product Innovation Management*, **28**(s1), pp. 159-174.

DESOUZA, K.C., AWAZU, Y. and BALOH, P., 2006. Managing knowledge in global software development efforts: Issues and practices. *IEEE Software*, **23**(5), pp. 30-37.

DRISKELL, J.E., RADTKE, P.H. and SALAS, E., 2003. Virtual teams: Effects of technological

mediation on team performance. Group Dynamics: Theory, Research, and Practice, 7(4), pp. 297.

FINANSDEPARTEMENTET, SOCIALDEPARTEMENTET. 2021. *Regeringen presenterar åtgärdsplan för införandet av fler smittskyddsåtgärder från och med 8 december 2021.* https://www.regeringen.se/pressmeddelanden/2021/12/regeringen-presenterar-atgardsplan-for-inforand e-av-fler-smittskyddsatgarder-fran-och-med-8-december-2021/ (February 14, 2022)

FOLKHÄLSOMYNDIGHETEN. 2020. *The first confirmed coronavirus case in Sweden*. https://www.krisinformation.se/en/news/2020/january/who-classes-the-outbreak-of-the-corona-virus-as -an-international-threat-to-human-life2 (February 14, 2022)

GERSICK, C.J., 1991. Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. *Academy of management review*, **16**(1), pp. 10-36.

GILSON, Lucy; MARTINS, Luis L.; MAYNARD, Travis M. 2004. *Virtual Teams: What Do We Know and Where Do We Go From Here?* https://www.researchgate.net/publication/256977652_Virtual_Teams_What_Do_We_Know_and_Wher e_Do_We_Go_from_Here

GOULD, S.J. and ELDREDGE, N., 1972. Punctuated equilibria: an alternative to phyletic gradualism. *Models in paleobiology*, **1972**, pp. 82-115.

HAAS, M.R. and HANSEN, M.T., 2007. Different knowledge, different benefits: toward a productivity perspective on knowledge sharing in organizations. *Strategic Management Journal; Strat.Mgmt.J*, **28**(11), pp. 1133-1153.

HARDER, Henry. 2010. *Encyclopedia of Case Study Research. Explanatory Case Study.* https://methods.sagepub.com/base/download/ReferenceEntry/encyc-of-case-study-research/n138.xml (April 27, 2022)

HISLOP, D., 2002. Mission impossible? Communicating and sharing knowledge via information technology. *Journal of Information Technology*, **17**(3), pp. 165-177.

HOLLINGSHEAD, A.B., 1998. Retrieval processes in transactive memory systems. *Journal of personality and social psychology*, **74**(3), pp. 659.

HOLLINGSHEAD, A.B. and BRANDON, D.P., 2003. Potential benefits of communication in transactive memory systems. *Human communication research*, **29**(4), pp. 607-615.

HUANG, Q., LIU, H. and ZHONG, X., 2013. The impact of transactive memory systems on team performance. *Information Technology & People*, .

IANNONE, N.E., MCCARTY, M.K. and KELLY, J.R., 2017. With a little help from your friend: Transactive memory in best friendships. *Journal of Social and Personal Relationships*, **34**(6), pp. 812-832.

JUNEJA, Prachi. Unknown. *Berlo's Model of Communication*. https://www.managementstudyguide.com/berlo-model-of-communication.htm (April 26, 2022)

KANAWATTANACHAI, P. and YOO, Y., 2007. The impact of knowledge coordination on virtual team performance over time. *MIS quarterly*, , pp. 783-808.

KANUGANTI, Sujeeth. 2019. Augmented Reality Benefits Us All. *Forbes*. August 16. https://www.forbes.com/sites/forbestechcouncil/2019/08/16/augmented-reality-benefits-us-all/?sh=369 d004b3643 (April 26, 2022)

KOHN, H.L., 2021. Transactive memory systems in virtual teams: Opportunities post COVID-19. *Industrial and organizational psychology*, **14**(1-2), pp. 274-276.

KPMG. 2017. *Employee engagement and motivation in disruption*. https://assets.kpmg/content/dam/kpmg/au/pdf/2017/employee-engagement-during-change-and-disrupti on.pdf (March 4, 2022)

LEE, B. and SAUNDERS M.N.K. (2017) Doing Case Study Research for Business and Management Students. London: Sage.

LEWIS, K., 2004. Knowledge and Performance in Knowledge-Worker Teams: A Longitudinal Study of Transactive Memory Systems. *Management science*, **50**(11), pp. 1519-1533.

LEWIS, K., 2003. Measuring Transactive Memory Systems in the Field: Scale Development and Validation. *The Journal of applied psychology*, **88**, pp. 587-604.

LITTLEPAGE, G.E., HOLLINGSHEAD, A.B., DRAKE, L.R. and LITTLEPAGE, A.M., 2008. Transactive memory and performance in work groups: Specificity, communication, ability differences, and work allocation. *Group Dynamics: Theory, Research, and Practice*, **12**(3), pp. 223.

MATHIEU, J., MAYNARD, M.T., RAPP, T. and GILSON, L., 2008. Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future. *Journal of management*, **34**(3), pp. 410-476.

MEENA, R. and GANESAN, P., 2019. Impact of Digital disruption on human capital of banking sector. *The International Journal of Analytical and Experimental Modal Analysis*.

MILES, J., and J. R. HOLLENBECK .2014. "Teams and Technology." In *Psychology of Workplace Technology*, edited by M. Coovert, and L. F. Thompson, **1999** vols., 99–117. New York: Routledge.

NONAKA, L., TAKEUCHI, H. and UMEMOTO, K., 1996. A theory of organizational knowledge creation. *International Journal of Technology Management*, **11**(7-8), pp. 833-845.

NUNKOOSING, K., 2005. The Problems With Interviews. *Qualitative health research; Qual Health Res,* **15**(5), pp. 698-706.

OSTROM, T.M., 1969. The relationship between the affective, behavioral, and cognitive components of attitude. *Journal of experimental social psychology*, **5**(1), pp. 12-30.

PALAZZOLO, E.T., 2005. Organizing for information retrieval in transactive memory systems. *Communication Research*, **32**(6), pp. 726-761.

PERNER, Frida. 2022. *Managing the work-life boundary in the home office*. https://www.hhs.se/en/research/sweden-through-the-crisis/managing-the-work-life-boundary-in-the-ho me-office/ (February 14, 2022)

REIHLEN, M. and WERR, A., 2012. Towards a multi-level approach to studying entrepreneurship in professional services. *Handbook of research on entrepreneurship in professional services*. Edward Elgar Publishing, .

REN, Y. and ARGOTE, L., 2011. Transactive Memory Systems 1985–2010: An Integrative Framework of Key Dimensions, Antecedents, and Consequences. *The Academy of Management*

annals, 5(1), pp. 189-229.

RIDDER, H-G., HOON, C. and MCCANDLESSC BALUCH, A. (2014) 'Entering a dialogue: Positioning case study findings towards theory', British Journal of Management, Vol. 25, No. 2, pp. 373–87.

RUNSTEN, Philip; WERR, Andreas; WESTLING, Gunnar. 2022. Acting collectively intelligent under pressure.

https://www.hhs.se/en/research/sweden-through-the-crisis/acting-collectively-intelligent-under-pressur e/ (February 14, 2022)

SOCIETY FOR HUMAN RESOURCE MANAGEMENT (SHRM). 2017. Employee Satisfaction and Engagement: The Doors of Opportunity are Open.

https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/2017-Employ ee-Job-Satisfaction-and-Engagement-Executive-Summary.pdf (April 17, 2022)

SU, C., 2012. Who knows who knows what in the group? The effects of communication network centralities, use of digital knowledge repositories, and work remoteness on organizational members' accuracy in expertise recognition. *Communication Research*, **39**(5), pp. 614-640.

SUH, K.S., 1999. Impact of communication medium on task performance and satisfaction: an examination of media-richness theory. *Information & Management*, **35**(5), pp. 295-312.

TORTORELLA, G., NARAYANAMURTHY, G. and STAINES, J., 2021. COVID-19 Implications on the Relationship between Organizational Learning and Performance. *Knowledge management research & practice*, **19**(4), pp. 551-564.

TREVINO, L.K., LENGEL, R.H. and DAFT, R.L., 1987. Media symbolism, media richness, and media choice in organizations: A symbolic interactionist perspective. *Communication research*, **14**(5), pp. 553-574.

YIN, R.K. (2018) Case Study Research and Applications: Design and Methods (6th edn). London: Sage.

WEGNER, D.M., 1995. A computer network model of human transactive memory. *Social cognition*, **13**(3), pp. 319-339.

WEGNER, D.M., GIULIANO, T. and HERTEL, P.T., 1985. Cognitive interdependence in close relationships. *Compatible and incompatible relationships*. Springer, pp. 253-276.

WEGNER, D.M., VALLACHER, R.R., KIERSTED, G.W. and DIZADJI, D., 1986. Action identification in the emergence of social behavior. *Social Cognition*, **4**(1), pp. 18-38.

ZHOU, Z. and PAZOS, P., 2020. Empirical perspectives of transactive memory systems: a meta-analysis. *Team performance management*, **26**(7), pp. 409-427.

APPENDIX

Exhibit 1 Table of Interviews

Interview subject	Role	Nr of Years at the back-office	Date of Interview
Anna	Co-worker	12	1st of March
Johan	Co-worker	1.5	3rd of March
Astrid	Co-worker	15	10th of March
Elin	Co-worker	9	10th of March
Erik	Manager	14	10th of March
Estelle	Co-worker	27	21st of March
Sofie	Co-worker	4	21st of March
Marie	Co-worker	1.5	21st of March
Gunnel	Co-worker	9	22nd of March
Bengt	Manager	7	31st of March
Lena	Co-worker	2	22nd of April
Linn	Co-worker	1	25th of April

Exhibit 2 Interview Guide

- Can you describe your position?
 - How long have you worked at the HCO (and the bank)?
- How does your team work today?
- How have you in the team worked during the pandemic in terms of location?
 - If manager: how have you managed the team? What guidelines have you followed? How have you organised the work of the team during the covid?
 - If newcomer: how have you worked during the pandemic? How long did it take you to start working from home as well?
 - How has the pandemic, in terms of digital tools and restrictions like gets, affected your work?
 - Has collaboration with colleagues been affected by the fragmentation of teams during the pandemic?
- Has your personal use of digital communication tools evolved somewhat during the pandemic?
- Which communication channel do you use for different purposes?
 - What channel do you use when writing short messages (i.e. find a document) for clarification?
 - What channel do yoou use when writing longer messages (i.e. case question) for equivocality?
 - Do you have any particular preference?
- How do you work as a team? Do you have different skills, or do you all work on the same type of tasks?
 - How does the team work together?
 - Do you complement each other in many tasks or do you work independently?
 - Do you know who to turn to inside or outside the team if you need help with a task
 - Is it important for you to be able to maintain a high level of cooperation?
 - Do you feel that you depend on getting help from colleagues?
 - Are you self-directed in your work?
 - Do you often help colleagues?
 - Are there key people in the team, or among the different departments?
- *(Worked since before)* How did the work at the HCO work before the pandemic?
 - Do you have knowledge of your colleagues' skills since before the pandemic?
 - How did it work to figure out everyone's competencies?
 - \circ How did it work for you to know when a certain competence was necessary?
 - How did it work to access and use everyone's competencies?
- *(New employee during the pandemic)* How was it to get into "work routines" and work with colleagues at the HCO during the pandemic?

- How did it work to find out the skills and knowledge of your colleagues?
- How do you go about it?
- How do you personally feel the pandemic has affected the work of your colleagues at the HCO?
 - Can you elaborate?
 - Has the quality of your work together been affected?
- Can you draw any parallels between the circumstances and the possible "tangles" that have occurred? (without specifying exact events)
 - How did it feel to work digitally/from colleagues during these "problems"?
 - Were there any misunderstandings between colleagues due to working remotely that would not have occurred otherwise?
 - Have tasks been missed because responsibilities have been unclear?

Exhibit 3 Coding schedule





Exhibit 4 Ren & Argote (2011)

Integrative framework of factors investigated as TMS antecedents and consequences

