EMERGENCE AND CHALLENGES OF INDIVIDUAL AMBIDEXTERITY

Jyväskylä University
School of Business and Economics

Master's Thesis

2022

Erik Hakasalo
Organizational Strategy
Mirva Peltoniemi

JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

ABSTRACT

Author Erik Hakasalo	
Title Emergence and Challenges of Individual Ambidexterity	
Subject Organizational Strategy	Type of work Master's Thesis
Date 26.11.2022	Number of pages 82

Abstract

Being ambidextrous more commonly describes a person who can use both hands equally well. Ambidexterity refers also to the skill where a person can fluently switch between different entities, handle conflicts, and perform routine and development-related tasks. Individual ambidexterity is considered a positive asset to an organization however, as previous studies have suggested, individual ambidexterity has its consequences. Negative feelings such as stress, dissatisfaction, or psychological toll, seem to follow ambidextrous individuals regardless of their roles or work.

This research was conducted to identify what challenges lie behind these negative effects of individual-level ambidexterity. Furthermore, the aim was to find out what ways there are to alleviate these emerged challenges. The goal was to provide perhaps more practical means for individuals and organizations to mitigate challenges to prevent long-term negative effects. The study was conducted using the qualitative method of semi-structured interviews. 9 mid-level managers, working in 7 different IT-based companies were interviewed.

It was discovered that the biggest challenge individuals face are interruptions that take many forms. Varying from a colleague arriving at the workstation unannounced, receiving an email, or a message in Slack or WhatsApp, getting phone calls, or just a quickly arranged meeting. Interruptions, whilst making the environment unpredictable, hinder individuals in their daily work and assigned tasks. Furthermore, interruptions being constant, effects could be seen in rising levels of stress. However, ways to alleviate these challenges were discovered. Individual-level skills in organization and prioritization of tasks, use of supportive tools (e.g., Kanban-chart, Eisenhower Matrix), and delegating work, could be applied. Furthermore, organizational means to alleviate these challenges are to allow flexible working hours, ensure uninterrupted work, and set minor structures to disable unnecessary interruptions.

Keywords
Individual ambidexterity, organizational ambidexterity

Place of storage
Jyväskylä University Library

TIIVISTELMÄ

Tekijä	
Erik Hakasalo	
Työn nimi	
Yksilön ambideksteerisyyden haasteet ja ilmeneminen	
Oppiaine	Työn laji
Organisaation strategia	Pro Gradu
Päivämäärä	Sivumäärä
26.11.2022	82

Tiivistelmä

Ambidekstriisyys standardikielessä tarkoittaa molempikätisyyttä. Ambidekstrisyys viittaa myös taitoon, jossa henkilö osaa vaihtaa sujuvasti erilaisten kokonaisuuksien välillä, käsitellä konflikteja sekä suorittaa rutiini- ja kehitystehtäviä. Yksilön ambidekstrisyys katsotaan positiiviseksi voimavaraksi organisaatiolle, mutta kuten aikaisemmat tutkimukset ovat osoittaneet, sillä on seurauksensa. Negatiiviset tunteet, kuten stressi, tyytymättömyys tai psykologinen uupumus, näyttävät seuraavan ambidekstrisiä yksilöitä heidän roolistaan tai työstään riippumatta.

Tämä Pro Gradun tavoitteena oli selvittää haasteet mitkä piilevät näiden yksilötason ambidekstrisyyden negatiivisten vaikutusten takana. Lisäksi pyrittiin selvittämään, että millä keinoilla näitä esiin tulleita haasteita voidaan lieventää. Tavoitteena oli tarjota yksilöille ja organisaatioille käytännönläheisempiä keinoja lieventää haasteita kielteisten vaikutusten ehkäisemiseksi. Tutkimus suoritettiin laadullisesti hyödyntäen puolistrukturoituja haastatteluita. Tutkimusta varten haastateltiin 9 keskitason johtajaa, 7:stä eri IT-yrityksestä.

Tutkimuksessa havaittiin, että yksilöiden isoin haaste on monimuotoiset keskeytykset. Näitä esimerkiksi olivat kollega, joka saapuu työpisteelle, vastaanotettu sähköposti, viestit, puhelut tai vain nopeasti sovittu kokous kollegoiden kesken. Keskeytykset, jotka tekevät ympäristöstä arvaamattoman, häiritsevät yksilöiden päivittäistä työtä ja annettujen tehtävien suorittamista. Lisäksi, koska keskeytykset ovat jatkuvia, vaikutukset voitiin nähdä nousevina stressitasoina. Tapoja lievittää näitä haasteita kuitenkin löydettiin: yksilön taidot tehtävien organisoinnissa ja priorisoinnissa, tukevien työkalujen (esim. Kanban-kaavio, Eisenhower Matrix) hyödyntäminen ja työn delegoiminen. Lisäksi organisatorisia keinoja näiden haasteiden lieventämiseksi ovat mahdollistamalla joustavat työajat, varmistamalla työskentely ilman keskeytyksiä ja asettamalla rakenteita estämään tarpeettomia keskeytyksiä.

Asiasanat	
Yksilön ambidekstrisyys, organisaation ambidekstrisyys	
Säilytyspaikka	
Jyväskylän yliopiston kirjasto	

4

CONTENTS

6

LIST OF TABLES AND FIGURES

1   INTRODUCTION

The introduction chapter will provide the topic and intention of this study.

1.1   Topic of the Thesis

The topic of this thesis is the emergence of individual ambidexterity and its challenges. Deriving from organizational ambidexterity, individual ambidexterity refers to an individual's capability to efficiently conduct exploitative and explorative activities (Rogan & Mors, 2014). Exploitation refers to the execution and management of current business activities, whereas, exploration is searching for new opportunities or developing old ones (Raisch & Birkinshaw, 2008). Individual or organizational ambidexterity is, however, not something to consider self-evident. The issue with individuals, as with organizations, is the ability to balance between the two so that both exploration and exploitation can be conducted simultaneously and as efficiently as possible. However, for organizations, there are means to alleviate the dilemma of pursuing both concurrently. Dividing exploitative and explorative tasks into different units by structurally separating the two (M. L. Tushman & O'Reilly III, 1996) allows organizations to perform both. Moreover, organizations can either explore or exploit in different timespans through temporal separation (N. Turner et al., 2013). Gibson and Birkinshaw (2004) presented the idea of where individuals inside a single business unit are encouraged to explore and exploit simultaneously with the help of contextual elements of an organization. Furthermore, managerial capabilities and actions in an organization have a huge impact on how exploitation and exploration can be executed (Raisch & Birkinshaw, 2008). Compared to an organization, it is rather evident, that individuals are not capable of performing these simultaneously (Denison et al., 1995) because executing two different activities at the same time is extremely challenging.

The reason for organizations to pursue ambidexterity is to gain a competitive advantage over competitors (Gibson & Birkinshaw, 2004) by performing more efficiently in the short and long run (M. L. Tushman & O'Reilly III, 1996). Instead of pursuing either exploitation or exploration, organizations that can conduct both simultaneously reap the benefits of adapting to changes and utilization of current resources more efficiently (Raisch et al., 2009). Furthermore, organizational ambidexterity is linked to long-term profits (Van Looy et al., 2005) and survival (Cottrell & Nault, 2004). Organizational ambidexterity is undoubtedly a phenomenon achieved by collective means. However, at the root of every organization are individuals and their efforts (Felin et al., 2012). Birkinshaw and Gupta (2013) emphasized that organizational ambidexterity is a multilevel construct. Furthermore, the idea that units could only pursue either exploitation or exploration is challenging. Unit focusing solely on exploitation

must perform routine tasks and utilize current resources as efficiently as possible. However, if a more efficient way of conducting these tasks could be discovered they should explore that opportunity. Moreover, even in the lowest hierarchical level employees face the dilemma of routinely executing assigned tasks or exploring new potential opportunities to help the organization. In the past decade, the focus of ambidexterity studies has turned toward individuals and what role they play in organizational ambidexterity. However, little is known about how individual ambidexterity emerges in real life and how individuals handle these challenges.

1.2   Aim of the Thesis

This thesis aims to study how individuals deal with the challenges of ambidexterity. Moreover, what are the means and potential tools to alleviate these challenges on an individual level? Instead of looking at ambidexterity as a collective phenomenon, the focus of this study is on the microfoundations of organizational ambidexterity where individuals are the center of attention (Felin et al., 2012). For an individual to be considered ambidextrous, he or she should be capable of switching between different mindsets, activities, and conflicting tasks (Bledow et al., 2009), and an ambidextrous individual can be considered valuable for organizations (Bledow et al., 2009). However, recent studies have shown that individuals face strong and even negative emotions by performing conflicting activities or being ambidextrous. Laureiro-Martínez et al. (2015) presented that switching between conflicting activities can cause intense emotions. Bidmon & Boe-Lillegraven (2020) addressed that individuals can come across switching resistance and dissatisfaction. Other studies have found that ambidextrous individuals can experience stress (K. M. Sok et al., 2016), cognitive strain (Keller & Weibler, 2015), the burden of conflicting roles (Gabler et al., 2017), uncertainty and confusion (Zimmermann et al., 2020).

   Ambidextrous individuals are more self-imposed, cooperative, and capable of multi-tasking and executing several roles (Fiset & Dostaler, 2017; Gibson & Birkinshaw, 2004), hence they can be considered valuable for the organization. However, as several studies have pointed out that ambidextrous individuals face issues and strong emotions, there is a conflict to be solved. The issue to be recognized is that achieving individual ambidexterity might be beneficial, but at what cost? Not only, the negative effects should be studied but also the challenges individuals face and how those can be conquered (Pertusa-Ortega et al., 2021; Tarba et al., 2020). Furthermore, little is known about how ambidexterity and switches between conflicting activities emerge in real-life working conditions (Martin et al., 2019) and how individuals who are not founders or CEOs deal with the challenges (Tarba et al., 2020).

The research will be conducted by doing semi-structured interviews with mid-level managers from small and medium-sized IT companies. Choosing interviews as a qualitative research method had three main reasons. First, acquiring information on how individual ambidexterity emerges and its challenges in employees' own words. Second, using interviewees' calendars and schedules as supportive means during the interviews to elicit ambidextrous phases in their normal work environment. Third, the interviewee can express their true feelings and opinions on ambidexterity and its challenges through open-ended questions.

2 THEORETICAL FRAMEWORK

This chapter includes the theoretical background and previous studies made on organizational ambidexterity.

2.1 Organizational Ambidexterity

To understand the microfoundational perspective of organizational ambidexterity (Birkinshaw & Gupta, 2013), a closer look at the origins of organizational ambidexterity is required. Duncan (1976) was the first to present the term 'organizational ambidexterity' which refers to the organization's ability to align and control its current business activities and adapt to emerging changes in the surrounding business environment (Gibson & Birkinshaw, 2004; Raisch & Birkinshaw, 2008). Exploitation refers to refinement, efficiency, choice, and execution of routine tasks, whereas exploration is search, risk-taking, experiment, and innovation (March, 1991). Radical innovation (exploration) can be targeted for new potential customers to answer potential emerging needs. Moreover, incremental innovation (exploitation) is directed to answer the needs of existing customers (W. K. Smith & Tushman, 2005). Hence, the simultaneous pursuit of both explorative and exploitative activities rewards organizations with competitive advantage (He & Wong, 2004), growth in sales (Auh & Menguc, 2005), increased performance (Bierly & Daly, 2007), more initiative towards innovation (Burgers et al., 2009) and better chances at survival (Hill & Birkinshaw, 2014).

It was long believed that pursuing exploitative and explorative actions simultaneously presents organizations with a dilemma on where to allocate current resources and time (Duncan, 1976). Furthermore, there is always a close to unpreventable trade-off between whether to focus on current versus future projects or deciding on low versus high-price production (Gibson & Birkinshaw, 2004). The conflict is almost inevitable, but there are means by which organizations can alleviate these trade-offs.

2.2 Exploitation and Exploration

To fully understand organizational ambidexterity, a singular analysis of exploration and exploitation is in place. To consider an organization ambidextrous, it must be capable of performing these both simultaneously (Gupta et al., 2006) or switch between the two proficiently (Duncan, 1976). Not only, exploration and exploration are driven by different strategies, processes, and capabilities but the causations on organizations vary as well (He & Wong, 2004).

2.2.1 Exploitation

Exploitation is the utilization of current resources and as depicted by March: "Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, execution." (1991, p. 71) Moreover, exploitation is using the most valuable resources available and capitalize them to their full extent (Aston-Jones & Cohen, 2005). Furthermore, capitalization of existing knowledge and experience, executing routine tasks, and achieving short-term goals are part of exploitation (Mom et al., 2009). Smith and Tushman (2005) explicated that exploitation is problem-solving and direct actions without alterations. Exploitation primarily involves a top-down management process where the leadership of the organization establishes the most fitting routines and behavioral models at the current state (Wooldridge & Floyd, 1989), and the interaction between different hierarchical levels is rather formalized (Weick, 1995). Harry and Schroeder (2000) pointed out that SMEs which focus more on exploitation than exploration do have a more steady and predictable revenue flow, but tend to have difficulties in adapting to changes. Furthermore, merely focusing on exploitation is not sustainable in the long run.

2.2.2 Exploration

Exploration is discovering new opportunities and as depicted by March: "Exploration includes things captured by terms such as search, variation, risk-taking, experimentation, play, flexibility, discovery, innovation." (1991, p. 71) Furthermore, it is the renewal of old behavior models by searching for more efficient substitutes from the surrounding environment (Aston-Jones & Cohen, 2005). Moreover, it includes exploring new opportunities and taking calculated risks to apply them (Cohen et al., 2007). Not only, exploration is the ability to secede from an ongoing task (Laureiro-Martínez et al., 2010) but to look for alternative ways to execute them and adjust the process to fit the new environment (Mom et al., 2009). Hills et al. (2010) highlighted the importance of the surrounding environment and exploring new potential resources that may emerge. In terms of management, exploration is a bottom-up learning process in which old habits and routines are updated (Wooldridge & Floyd, 1989). It involves interaction between different hierarchical levels to change the viewpoint of leaders to see the necessity for change (Weick, 1995). The long-term goal is to apply these new skills and processes, which have been found through experimentation in the current market, and to acquire new strategies to implement in the organization's daily operations (Burgelman, 1991). Companies (Brown & Eisenhardt, 1997) that focus on exploration are more capable to adjusting their operation to emerging changes in the environment. Moreover, the possibility of discovering groundbreaking innovations to challenge and overthrow competitors is higher. However, the possible benefits are unpredictable and forthcoming profits uncertain. Not only, it is time consuming, but it fixates company's time and money making it more vulnerable (Lubatkin et al., 2006). Companies that

focus mostly on exploration often suffers from low profits (Levinthal & March, 1993), which is not a desirable situation either in short- or long-term.

2.3 Drivers and Antecedents of Organizational Ambidexterity

This chapter provides means on how organizations can achieve and alleviate tensions of organizational ambidexterity.

2.3.1 Structural Separation

Structural separation, or structural ambidexterity, refers to a solution where exploitation and exploration are divided between their business units (Raisch & Birkinshaw, 2008), and the trade-off is overcome by the distinction of the two (Duncan, 1976). Furthermore, this structural separation helps organizations to act ambidextrously to uphold capabilities and answer emerging demands (Gilbert, 2005). However, structural ambidexterity is not always the optimal choice. Smaller organizations due to scarce resources, lack of processes, and a small number of personnel cannot execute structural separation (Lubatkin et al., 2006), and therefore, separation into exploitative and explorative units is preferable in larger organizations. However, these units must be integrated with the management (Benner & Tushman, 2003) due to the retainment of transparency. Vinekar et al. (2006) showed that structural separation is advantageous in high-tech companies, however, in companies with multiple levels of hierarchy, it is not advisable (N. Turner et al., 2013). As information sharing is one of the key elements in organizational and individual ambidexterity (Stadler et al., 2014), mixed cultures and organizational structures create distance between individuals which eventually might compromise the trade of information (Hansen, 2002). To avoid weakening organizational performance by creating mixed strategies (Doty et al., 1993), transparency between these units and their managers is essential.

2.3.2 Sequential and Temporal Ambidexterity

Not only, do the surrounding environment and markets constantly evolve, but organizations should adapt their operations and align resources along with it. Organizational structures can be deeply rooted in the operations and culture, however, organizations must be alert and surveil the environment whether changes or rebuilding should be done (M. L. Tushman & Romanelli, 1985). Instead of allocating exploitation and exploration to specific units, organizations can temporally switch between the two at certain points in time (O'Reilly III & Tushman, 2013). However, fluently switching between these two modes requires sufficient capabilities and prompt structures (Brown & Eisenhardt, 1997; Lavie et al., 2010). Simultaneous pursuit of exploration and exploitation is not

always ideal for an organization due to a lack of resources (Lubatkin et al., 2006). As first presented by Duncan (1976) the objective is to fluently switch between the two and through temporal switching, possible conflicts can be alleviated (Lavie & Rosenkopf, 2006). The benefit comes from the sequential centralization of resources to either exploit or explore to match the current need of markets and customers. As with structural separation, temporal ambidexterity is not necessarily sufficient due to the requirement of adequate resources (N. Turner et al., 2013). However, Rothaermel and Deeds (2004) presented that partners and alliances can be utilized to achieve temporal separation. For example, during times when resources for exploitation are scarce, an organization can cooperate with partners focused on R&D to maximize results in exploring new opportunities. Temporal separation is an alternative way to achieve ambidexterity, however, it is time and resource-consuming (O'Reilly III & Tushman, 2013). Furthermore, the ever-changing environment must be kept under careful watch to execute switches fluently (Siggelkow & Levinthal, 2003).

2.3.3 Contextual Elements

Gibson and Birkinshaw (2004) presented contextual ambidexterity which is the behavioral capacity of alignment and adaptation concurring simultaneously inside a single business unit. Alignment refers to individuals working in liaison towards the same goal. Moreover, adaptation is the capability to answer changing demands while transforming activities to do so. Hence, the older approach of structural separation where exploitation and exploration are divided between units (Raisch & Birkinshaw, 2008; M. L. Tushman & O'Reilly III, 1996), the contextual approach allows individuals inside these units to execute both simultaneously. Systems, processes, beliefs, and culture are all part of the organizational context which in turn molds individuals to act a certain way. Therefore, the atmosphere in an organization incites individuals to do necessary tasks which are required to achieve better results (Gibson & Birkinshaw, 2004).

Simsek (2009) elaborates on what are the actual organizational elements to enrich ambidextrous behavior. The first is to stretch or provide flexibility to individuals to search for new knowledge and execute current tasks efficiently. Second, is the discipline which is to ensure that set goals are met through positive encouragement. Third, providing a supportive environment to work as a group but not forgetting the individual efforts inside it. Organizations' resources, either mental or physical, provide individuals with support to explore or exploit (Schultz et al., 2013). Last, the organizational environment must be trustworthy. Not only, does trust incite individuals to look for new information but to share it with colleagues (Stadler et al., 2014) which works as an antecedent to organizational ambidexterity.

2.3.4 Importance of Top Management

Tushman and O'Reilly III (1996) underline the importance of an organization's top management and their power to shape organizational ambidexterity. Managers play a crucial role in how units can efficiently conduct their current business activities while adapting to changes and looking for innovation. Furthermore, managers can alleviate friction and conflict between structures (W. K. Smith & Tushman, 2005) and have the potential ability to create a supportive environment (Gibson & Birkinshaw, 2004) to enhance ambidextrous features and actions. Lubatkin (2006) emphasizes the top management team's level of behavioral integration and its effect on organizational ambidexterity by encouraging team members' capabilities to solve information processes that are in conflict to enable ambidextrous behavior.

The simultaneous pursuit of exploration and exploitation is directly supported by TMT's support and ability to solve conflicts. Furthermore, managers connected with employees' habits and communication between the hierarchies is fluent, and tend to actuate ambidextrous behavior (K. G. Smith et al., 1994). Strict and inflexible management processes do not work as an incentive for ambidextrous behavior. It is important to balance formal and informal managerial styles and processes (N. Turner et al., 2013) and allow some flexibility to established or even routine processes (Matson & Prusak, 2003). However, official management mechanisms should not be bypassed (Jansen et al., 2009) because organizational management and control are important antecedents to organizational ambidexterity as well (Lin & McDonough, 2011).

2.3.5 HR-Systems

Organizational culture and environment can encourage individuals in ambidextrous behavior by providing flexibility to make their independent decisions and through discipline by setting objectives to reach (Gibson & Birkinshaw, 2004). Patel et al. (2013) took the organizational context and how a company's HR systems, more specifically high-performance work systems, could enhance ambidextrous behavior inside of it. The purpose behind these systems is to find people who share the same aspiration as the organization and to provide the necessary skills, knowledge, and capabilities (Huselid, 1995). Therefore, ambidextrous behavior is not directly linked to organizational practices, but instead to the purposeful use of HR activities (Barney, 1991). Individuals and their deeds are at the root of collective efforts (Felin et al., 2012). Therefore, as HR practices are utilized to find the most fitting employees, this helps to create the right context to encourage ambidextrous behavior (Kang & Snell, 2009).

Organizational context includes stretch, discipline, trust, and support to encourage an individual's ambidextrous behavior (Gibson & Birkinshaw, 2004) and functional HR systems support these drivers. HR practices enable employees to understand what is expected of them (discipline), reward employees with incentives when set goals are accomplished or exceeded (stretch), encourage

employees to participate more actively (support), and allow employees to find new opportunities (trust) (Patel et al., 2013). However, choosing and training the right individuals is at the heart of the matter. Not only, do HR systems enable the creation of a high-performing workforce which is ready to exploit current resources and explore new opportunities but also help in resolving emerging contradictions (Wei & Lau, 2010).

2.4   Microfoundations of Organizational Ambidexterity

The study on organizational ambidexterity over the decades has been slowly transforming and its viewpoint has narrowed down towards the role of an individual. Organizations are influenced by collective phenomena but behind these collective occurrences are individuals and processes interacting with each other (Felin et al., 2012). At the core of the microfoundational perspective lies the social interaction between the micro and macro level (Barney & Felin, 2013). Rather than focusing only on phenomena and their outcomes at a collective level, the viewpoint is on individuals and the factors that mold and influence ambidextrous behavior (Zimmermann et al., 2020). As Birkinshaw and Gupta (2013) expressed that for an organization to balance exploitation and exploration it takes collective and individual actions to achieve it. Structural separation of units, capable leadership, and a supportive environment are undoubtedly important drivers of ambidexterity. Compared to an organization as a whole entity, individuals are not capable of executing exploitation and exploration simultaneously (Denison et al., 1995). Not only, do individuals struggle with how to spend their time but also effort between exploitative and explorative tasks (Raisch & Birkinshaw, 2008). Therefore, from the perspective of an individual, ambidexterity is the ability to find the balance between exploration and exploitation (Rogan & Mors, 2014).

2.5   Individual Ambidexterity

To consider an individual ambidextrous, he or she must be capable of executing contradictory tasks and switching between different mindsets (Bledow et al., 2009). Furthermore, finding the balance between exploitative and explorative tasks or entities is essential (Rogan & Mors, 2014). The underlying issue here is that individuals cannot execute these simultaneously (Denison et al., 1995) and a decision must be made on how to divide the time between these contradictory tasks (Keller & Weibler, 2015). Instead of simultaneous pursuit, individuals should organize their tasks and projects so that switching between them is effortless and the overall quality does not suffer (Adler et al., 1999). Gibson and

Birkinshaw (2004) pointed out the issue of individuals being capable of adapting and aligning their resources to the surrounding environment. Furthermore, individuals can battle trade-offs such as searching for new opportunities or utilizing current capabilities (Kobarg et al., 2017; Laureiro-Martínez et al., 2015), exploiting current or acquiring new customers (Lam et al., 2019), vending old or new products (Van der Borgh et al., 2017), being either flexible or efficient (Eisenhardt et al., 2010) and being either creative or more detail-oriented (P. Sok & O'Cass, 2015). Just to name a few, individuals from all hierarchical levels can struggle with the decision of exploiting and exploring (Birkinshaw & Gupta, 2013), however, the goal is to perform and finish these contradictory tasks (Pertusa-Ortega et al., 2021).

Inside the core of organizational ambidexterity are individuals with their actions and efforts to nurture ambidextrous orientation (Good & Michel, 2013). However, it is important to recognize the diverse spectrum of different individuals in organizations. Studies on individual ambidexterity vary from top managers (M. Tushman et al., 2011), middle managers (Keller & Weibler, 2015), salespeople (Agnihotri et al., 2017; Van der Borgh et al., 2017), and people working at customer service (Gabler et al., 2017; Patterson et al., 2014). While job descriptions differ and requirements for certain capabilities with it, there are characteristics that individuals from all hierarchical levels can share to be considered ambidextrous. Ambidextrous individuals are often self-imposed, cooperative, create social connections, and capable of performing multiple roles (Fiset & Dostaler, 2017; Gibson & Birkinshaw, 2004). Furthermore, passion and discipline are traits that can be seen in ambidextrous individuals (Andriopoulos & Lewis, 2009). However, the criteria for capabilities and skills can differ between a manager and a frontline employee. Mom et al. (2009) suggested that managers should be competent at solving conflicts and renewing skills and knowledge constantly. Furthermore, previous experience, cooperation, information sharing, and empathy were recognized as important characteristics for ambidextrous supply chain managers (Souza-Luz & Gavronski, 2019). It can be stated that these traits or capabilities are desirable in an employee regardless of the hierarchical level or industry they work at. As Pertusa-Ortega et al. (2021) suggested that when studying the characteristics of an individual, there should be an accurate course of conduct in which industry, context, and hierarchical level studies are made.

2.5.1 Individual Antecedents

In theory, an ambidextrous individual is capable of producing more value than ones that are not (Bledow et al., 2009). Ambidextrous individuals are undoubtedly an important asset to organizations. Not only, do ambidextrous individuals break barriers between social groups or departments, but they resolve conflicts and accelerate information flow (Tempelaar & Rosenkranz, 2019). Furthermore, ambidextrous individuals are often more innovative without disregarding established organizational or personal goals (Kauppila, 2010).

However, being ambidextrous or becoming one is not always untroublesome. Tempelaar and Rozenkranz (2019) pointed out that individual tendencies and habits must be noted to understand how some can do it more effortlessly. Some individuals might become ambidextrous through their initiative, whereas some require support from organizational tools and methods.

Everyone is unique in their personality traits and capabilities. For example, a person's age (Borgh & Schepers, 2014), interest in the job (K. M. Sok et al., 2016), prior work experience (Patterson et al., 2014), and flexibility (Mom et al., 2007) can be considered as general factors which influence ambidextrous behavior. Furthermore, natural motivation and efficiency (Mom et al., 2019), social skills (Lee & Lee, 2016), mindset toward the job (Yu et al., 2020), and ability to cope with stress (Zhang et al., 2019) are corroborative factors in ambidextrous behavior. Moreover, ambidextrous individuals are often more flexible compared to others (Mom et al., 2007) and cognitive flexibility is required to switch between exploitation and exploration (Good & Michel, 2013). Cognitive flexibility is the capability of an individual to volitionally either switch between or follow through whole entireties (Cañas et al., 2003). Garcia et al. (2019) researched that individual empowerment and accountability are traits that affect individual ambidexterity. It is important to remember that these traits and capabilities work as a link between individuals and ambidextrous behavior. Some people inherently possess these features and some of them are learned or taught.

2.5.2 Organizational Antecedents

Organizational ambidexterity is vital for an organization's ability to adjust and adapt to emerging changes (Benner & Tushman, 2015). Different drivers of ambidexterity such as separating units between exploitation and exploration, creating a supportive environment to encourage ambidextrous behavior, or establishing a time frame when to explore or exploit, are in part to lessen the burden on individuals. Not only, does the surrounding environment and its volatile state require individuals to adapt (Davis et al., 2009) but also to switch between exploitative and explorative agendas conveniently (Adler et al., 1999). Furthermore, Raisch et al. (2009) stated the importance of how individual capabilities and organizational elements comport together to understand individual ambidexterity.

Like organizations, individuals face conflicts in their daily work (Martin et al., 2019). The dissonance on whether to spend time exploring new opportunities or exploit capabilities that are proven to be good is challenging for individuals to solve. An organizational culture that is empowering (Caniëls & Veld, 2019) and supportive (Gibson & Birkinshaw, 2004) encourages individuals to make their own decisions about whether to explore or exploit. Furthermore, instead of avoiding these conflicts, ambidextrous individuals are capable of recognizing and solving them through paradoxical thinking (W. K. Smith & Tushman, 2005).

Ajayi et al. (2017) studied that flexible structures enable ambidextrous behavior. Organizational structures and rules create a challenging environment for individuals to act ambidextrously by reducing possible initiative actions (Good & Michel, 2013). Furthermore, ambidextrous individuals should be allowed to transition themselves flexibly between stakeholders to collect and connect information (SMITH & LEWIS, 2011). Not only, does a dynamic environment allow individuals to be cognitively flexible, but it encourages them to do so (Davis et al., 2009).

Zimmerman et al. (2020) showed that pursuing different drivers (contextual, structural, and leadership) simultaneously, overlaps and works at cross-purposes. First, individuals are directly affected by top-down management (M. L. Tushman & O'Reilly III, 1996; Wang et al., 2019). Second, contextual drivers (Gibson & Birkinshaw, 2004) give freedom to individuals in pursuing exploitative and explorative tasks. Then again, structural drivers (Raisch & Birkinshaw, 2008) allow individuals to receive direct guidelines on how to act and execute tasks. Drivers of ambidexterity mold individual actions differently. Hence, the reaction might vary by which approach is applied because each individual is unique with a distinct set of skills and emotions.

Generally, individuals in organizations have a singular job title but it is not abnormal for them to fill in multiple roles and perform a variety of tasks. For an individual to explore and exploit, or be ambidextrous, fluent interaction with other organizational members is recommended to have sufficient information about the current or future needs of the organization (Taylor & Helfat, 2009). Different structural arrangements and elements in the organization affect individuals pursuing both exploitation and exploration. In their study, Martin et al. (2019) pointed out that the more steady and separated individuals' job descriptions are, they are less likely to see the necessity of pursuing or searching for innovations. Furthermore, diverse knowledge structures for trading information and an individual's ability to think paradoxically, enforcing these structures, motivate to exploit and explore. Smith and Tushman (2005) presented that for an individual to combine both exploration and exploitation possession of "paradoxical thinking", or the ability to recognize and deal with conflicts instead of avoiding them, is crucial. Hence, exposition to versatile positions and information sharing enables individuals to act ambidextrously. Therefore, a functional collaboration network is crucial for an individual with more than one role (Jansen et al., 2009).

The top management has a direct influence on employee empowerment (Ugboro & Obeng, 2000) and in the formation of organizational ambidexterity (M. L. Tushman & O'Reilly III, 1996). Wang et al. (2019) studied how temporal ambidexterity emerges in new ventures and emphasized the critical role of founder CEOs in this process. Expertise breadth, external connectivity, and empowering leadership are features required from founder CEOs to affect individuals to act in this manner. However, CEOs in older ventures might find them-

selves distant from the frontlines, causing obstacles in dealing with ambidextrous processes. The importance of top-to-bottom management in achieving individual ambidexterity is evident and the capabilities of CEOs can define the direction in which the organizational environment leans to.

2.5.3 Challenges and Consequences of Individual Ambidexterity

Laureiro-Martinez et. al (2015) researched the dilemma between chasing exploration and exploitation. They found that switching between these two separate activities is not effortless and individuals often deal with strong emotions when facing this paradoxical challenge. However, individuals who manage to overcome this obstacle can recognize the best opportunities and exploit them until a better one appears. Individuals equipped with superior decision-making abilities can organize exploitative and exploratory tasks efficiently and know when the right time is to switch.

Explorative actions have a higher emotional price due to receiving greater rewards for succeeding them (Laureiro-Martínez et al., 2015). Bidmon and Boe-Lillegraven (2020) presented switching resistance, which is caused by switching between explorative and exploitative tasks. Negative emotions such as stress, discomfort, and uncertainty caused to complicate the switching process. However, there are available remedies for organizations to alleviate these effects through top-to-bottom management.

Individual ambidexterity can be considered an asset, but this is not always the case. In their study, Sok et al. (2016) showed that ambidexterity in sales and customer service can affect positively in performance but it can cause stress and other negative emotions at the same time. Moreover, ambidextrous managers can suffer from cognitive stress (Keller & Weibler, 2015). Managers are often involved in both exploitative and explorative activities which in turn inflates the workload. Furthermore, psychological exhaustion and even physiological fatigue can arise (Bashir & Ramay, 2010) eventually leading up to decreasing performance (Lerner et al., 2010).

Individuals might have different roles in an organization which refers to the organizational context in which individuals are divided into functional or hierarchical levels (R. H. Turner, 1990). In turn, individuals who face the dilemma of simultaneous pursuit of explorative and exploitative tasks must be capable of performing several contradictive roles in an organization (Floyd & Lane, 2000). Tempelaar and Rosenkranz (2019) pointed out that the tendencies and roles of each individual are important in how one can act ambidextrously. However, individuals with multiple roles (Gabler et al., 2017) can suffer from stress due to managing multiple roles. Organizations often require individuals to participate in exploitation and exploration. Not only, there are insufficient resources to perform both, but this leads the individual confused about their role and stressed about what should be done.

Individual ambidexterity can work at cross-purposes. As previous studies have focused more on the advantages, the negative repercussions still lack

knowledge (Rapp et al., 2016). On the other hand, an ambidextrous individual is an asset by increasing the flow of information (Tempelaar & Rosenkranz, 2019), being more innovative (Kauppila, 2010), and performing multiple roles (Gibson & Birkinshaw, 2004). However, being ambidextrous has a high emotional and psychological price due to stress and other negative emotions (Bidmon & Boe-Lillegraven, 2020; Gabler et al., 2017; Laureiro-Martínez et al., 2015; K. M. Sok et al., 2016) which eventually leads to inadequate performance and use of resources (Pertusa-Ortega et al., 2021).

3   RESEARCH OBJECTIVES AND QUESTIONS

The objective of this research is to examine how individuals deal with the challenges of ambidexterity. Furthermore, interest lies in what are the means and tools available to alleviate these challenges. As presented earlier, individuals in different roles and hierarchical levels experience a variety of malignant emotions such as stress, dissatisfaction, cognitive strain, and confusion (Bidmon & Boe-Lillegraven, 2020; Gabler et al., 2017; Keller & Weibler, 2015; Laureiro-Martínez et al., 2015; Zimmermann et al., 2020). Individual ambidexterity can be categorized as a positive asset for organizations. Pertusa-Ortega et al. (2021) stated that despite the positive impact, the negative effects of ambidexterity must be resolved by leaders of the organization before it starts affecting the overall performance. Not only, information is still limited under what circumstances the organizational context helps to alleviate the potential negative effects of individual ambidexterity (Tarba et al., 2020) but how ambidexterity emerges and how individuals resolve conflicts surrounding it (Martin et al., 2019).

3.1   Main Research Questions

The focus of this thesis is to examine how individuals deal with the challenges of ambidexterity. The aim is to discover what are the means and tools that alleviate these challenges at an individual level and by organizational context. The end goal is to understand the means that help or have the potential to overcome the challenges of ambidexterity. Hence, the research questions are:

Q1: What are the challenges of individual-level ambidexterity?

Q2. How individual-level challenges can be alleviated?

3.2   Sub-Research Questions

Balancing between, or within, exploitative and explorative tasks individuals often battle with time and its consumption. In line with Bidmon and Boe-Lillegraven's (2020) suggestion, the perception of time should be taken under more careful observation in ambidexterity studies. Not only there is a limited amount of time during a single working day, but individuals ought to cope with the pressure of executing exploitative and explorative tasks in an environment where time works as a restrictive concept due to acute atmosphere or deadlines. Hence, the first sub-research question:

Q1. What does the role of time and perception of it play between the switches in exploration and exploitation?

Organizations consist of individuals who are required to perform multiple tasks. Rarely, do individuals work all by their lonesome without any consultation from their colleagues. Different tasks or projects can be executed alone but often peer support is required as a helping hand or opinions. Interaction with colleagues might also be experienced as disruptive noise. Furthermore, the role of social interaction in ambidexterity studies is still ambiguous (Tarba et al., 2020). Hence, the second sub-research question:

Q2. What is the role of social interaction as a driver or mitigating mean for individual ambidexterity?

4   DATA AND METHODOLOGY

In this section, the data collection, research methods, and analysis of the data will be presented.

4.1   Data Collection

Data collected from previous studies on this subject will work as data to provide a theoretical background for this research. Moreover, it will support as preparative material in collecting required information. Primary data is to be collected by conducting semi-structured interviews to gather individuals' own experiences and opinions on the matter.

4.2   Methods

The qualitative research will be conducted by doing semi-structured interviews to acquire data on how individuals deal with the challenges of ambidexterity, how these challenges occur, and what are the means to alleviate these challenges.

4.2.1 Semi-structured Interviews

Semi-structured interviews were created to receive subjective answers from individuals in their own words about a situation or phenomenon they have experienced (McIntosh & Morse, 2015). Semi-structured interviews can be utilized when there is sufficient but objective information on a phenomenon, but the subjective viewpoint of the missing information is required (Morse & Field, 1995; Richards & Morse, 2012). The interview includes ready-made questions and themes which are covered during the sessions. Detailed information then can be gathered informally and conversationally if the topic being studied is to be covered profoundly (Harrell & Bradley, 2009). To cover topics comprehensively, mutual trust should be formed between the interviewer and the interviewee. This can be achieved by clarifying the discussed topics, assuring confidentiality, and offering the possibility to decline asked questions (Whiting, 2008). As the interviewees are familiar with the topic being studied, semi-structured interviews are flexible and responsive toward the participants (Bartholomew et al., 2000). Eventually, the researcher can study these answers and form conclusions from them.

Interviews were conducted during the spring of 2022 between March and May. Altogether nine interviews were held, and all the interviewees were

mid-level managers in an IT-focused organization (Table 1). The reasons for choosing the IT industry as a target group were that it is current, fast-phased (Mendelson, 2000) and it evolves in a rapid manner (Alreemy et al., 2016). Size of the companies, where interviewees worked, varied from small, to mid-sized, and large, even international companies. Five interviews were held in Finnish and four of the interviews were in English. The interview questions were first made in Finnish (Appendix 1) and then translated into English (Appendix 3). After the first three interviews' modifications were made to the last question of the main question section (Appendix 2) to receive a more distinguished answer from the viewpoint of the individual and organization.

Respondent	Title	Industry
1	Sales Director	Software architecture
2	Project Manager	Software architecture
3	Engagement Manager	Electric transportation
4	Senior Consultant	IT consulting
5	Senior Manager of Sales and Marketing	Software development
6	Senior DevOps Engineer	Privacy and security
7	Senior Program and Product Manager	Online retailer and web service provider
8	Core Infrastructure Manager	Privacy and security
9	Sales Director	Software architecture

Table 1 Participants in the semi-structured interviews

4.3   Analysis of Data

For this study, the data was generated by a qualitative research method. For the analysis of data, gathered by conducting semi-structured interviews, grounded theory was applied to compose a theory that is vividly associated with the acquired data (Chun Tie et al., 2019) and to avoid analysing the data only as observed (Pandit, 1996). Grounded theory refers to a process where the theory emerges from systematic collection, review, and analysis of the emerged data (Strauss & Corbin, 1997) through the viewpoint and efforts of the researcher (Birks & Mills, 2015). The participants for the study were chosen through purposive sampling to ensure that the results can be justified to a specific industry (IT industry) and personnel (managerial level). Each interview was transcribed in its separate word files for further and more accurate analysis. Transcriptions were coded (Chun Tie et al., 2019) by using Quirkos (*Quirkos - Qualitative Data Analysis Software Made Simple*, n.d.), to analytically discover recurring words, themes, concepts, and similarities from the qualitative data. Through constant

comparison, coherences and divergences are separated, and eventually, theoretically valid categories or concepts could be found. Not only, does coding work for the collection, generation, and apprehension of the data, but eventually, it aids to form the theory itself. Eventually, new theories could be formed through the discovery of new data which was supported by, and integrated to relevant preceding theories (Saldaña, 2013).

A more accurate description of the data analysis proceeded by following the steps of the Gioia method (Gioia et al., 2013). The interviews were first coded to find frequently occurring themes and categories of which a more inclusive list of first-order themes could be formed. Second, first-order themes were divided into groups and into second-order themes to start forming the introductory theory. Third, second-order themes were compartmentalized into aggregate dimensions to acquire a more holistic picture of the emerging theory. Through these actions, a comprehensive data structure could be formed which allowed the forming of a more dynamic grounded theory. Furthermore, in support of the emerging theory, previous studies were used to explicate appeared concepts and phenomena.

Overall, 45 first-order themes could be recognized from the themes and categories brought forward through the coding process. However, 7 themes were discarded due to lack of repetitiveness and sufficient information, leaving the final number of first-order themes to 38. Out of 38 first-order themes, 12 groups were formed with more vivid labeling to present the data clearly (Table 2).

Table 2 First-order themes to second-order themes

First order themes	Second order themes
- Interruptions disturbing individuals in their work - Avoiding interruptions by modifying work hours - The work environment is unpredictable - Ignoring interruptions	Constant interruptions disrupting individual-level work
- Lack of trust in delegating work - Training of subordinates is considered time-consuming - Uncertainty in delegating tasks to the right personnel - The individual workload is excessive and unrealistic to perform	Individual-level workload experienced overwhelming
- Kanban-chart as a tool to organize tasks	

- Eisenhower matrix as a tool to organize and prioritize tasks - Planning of work to create more structure - Scheduling of work to alleviate challenges - Use of notebooks to organize tasks	Tools and capabilities to organize and plan work
- Importance of prioritizing work and tasks - Recognizing own limits to ensure the quality of work	Individual capabilities of prioritizing work
- Lack of personnel - Need of hiring new people	Lack of sufficient workforce
- Short breaks are needed before important tasks - Preparative actions before specific meetings - Switching to an unfamiliar task takes more time - Creating time to ensure breaks	Break or preparative actions are required before switching between tasks or meetings
- No need for breaks in between tasks - No time for breaks in between tasks	Individual's switching process varies and depends on the tasks
- Occurrence of negative feelings (stress, dissatisfaction, etc.) - Enjoying the versatile role	Enjoyment a more versatile role despite the negative effects
- Efficiency is higher early in the day - Efficiency is higher later during the day - Efficiency correlates with the number of interruptions - Efficiency depends on the location and number of colleagues	Flexibility in working hours and location
- Routine and regular tasks - Bigger entities, development-related projects	Exploitative and explorative tasks
- Planning of work executed alone - Learning new topics done alone	

- Sharing learned information forward	Individual preference for working alone
- Having a second opinion on important decisions - Encouraging environment for asking help - Advice on people-management skills	Encouragement to cooperative behavior

In continuation with Gioia´s method (2013) out of 12 second-order themes, 3 aggregate dimensions could be recognized to initiate theoretical discussion. However, out of 12 second-order themes, 2 were discarded due to the irrelevance in the emerging theory.

Table 3 Second-order themes to aggregate dimensions

Second order themes	Aggregate dimensions
- Interruptions as a challenge in individual-level ambidexterity - Individual-level workload experienced overwhelming - Lack of sufficient workforce	Individual-level challenges
- Capabilities in organizing and planning work - Capabilities in prioritizing work - Preference for working hours - Preference for working alone on certain topics	Mitigating means alleviating challenges
- Individual switching process varies - Enjoying a more versatile role despite the negative effects - Exploitative and explorative tasks	Individual ambidexterity

By utilizing the presented formation of first- and second-order themes to aggregate dimensions (Tables 2 and 3), the model for grounded theory could be eventually built.

5 RESULTS AND ANALYSIS

The objective of this study was to discover the challenges of individual-level ambidexterity and ways to alleviate these emerging challenges. Previous studies have presented that individuals in ambidextrous roles do contend with negative feelings but there is a lack of practical knowledge on how to mitigate these challenges. Not only, do the findings of this study present practical means for said goal, but also theoretical knowledge for further refinement. In Figure 1, the grounded theory model, the main findings that emerged from the data are presented. The three dimensions will be presented in the following order: (1) Individual ambidexterity, (2) Individual-level challenges, and (3) Means to alleviate challenges.

Individual ambidexterity	Individual-level challenges	Means to alleviate challenges
Individual switching process varies	Interruptions as a challenge	Capabilities in organizing and planning work
Enjoying a versatile role despite the negative effects	Workload experienced overwhelming	Capabilities of prioritizing work
Exploitative and explorative tasks	Lack of sufficient workforce	Preference for working hours
		Preference for working alone on certain topics

Figure 1 - The grounded theory model

5.1 Dimension 1: Individual ambidexterity

The first dimension explains individual ambidexterity in real-life through the experience of interviewees. It composes of three themes: (1) exploitative and explorative tasks, (3) individual switching process varies, and (3) enjoying a versatile role despite the negative effects. Although individual ambidexterity is explained in the existing literature, the information provided through this dimension underlays the stage for the more important dimensions (1) individual-level challenges and (2) means to alleviate challenges.

5.1.1 Exploitative and explorative tasks

To set the stage, it is relevant to address the job description of individuals in managerial positions. Working in a managerial position often means that there can be various tasks, different roles, multiple projects, and managing of people. To understand what working in a managerial position means, and how ambidextrous capabilities relate to it, interviewees were asked to describe their job and the tasks that come with it. Asking a two parted question, leading with an explanation of routine and more regular tasks (exploitation), interviewees were also asked to describe tasks related to the development and bigger entities (exploration). As individual ambidexterity is to find the balance between the two by organizing and switching amongst them, it is paramount to go into the basis of it. Routine and regular tasks (exploitation) included regular meetings with their team, keeping up with the customers, project management and task scheduling, and daily programming. Evidence can be seen in quotations such as:

"Routine tasks consist of watching over each project. It starts with meetings arranged with my team where we go through what has been and will be done. Also, if there are any development requirements from the customers. So, organizing the upcoming week. Furthermore, similar meetings with the customers where I present what has been and will be done and if there are setbacks"

-Sales Director (1)

"Well programming, consulting and advising our customers, meetings, project management, and scheduling."

-Project Manager

"Deploying software onto our production systems is a daily task. Then I do a bit of user management if there are new users that need to be set up for things and to have access to our systems. That is a daily task as well. There are probably quite a few other things. Like since I am managing people, I have to talk to people."

-Senior DevOps Engineer

Furthermore, not all the tasks are set in stone and the work can be unpredictable. As managers are responsible for many different parts not everything can be controlled or scheduled thus part of the manager's job can be expecting the unexpected. Issues or questions can emerge from various stakeholders that must be taken care of in an ad hoc related manner. Supporting quotations can be found such as:

"I would say that routine tasks are checking out the metrics weekly. But I do not have daily routines that are set in stone. It is more ad hoc related tasks that include answering questions and solving problems. We do have daily meetings but not routine per se."

-Engagement Manager

"Following the sales funnel, contacting customers, follow-ups, and closing sales. Taking care of the campaigns, acquiring materials, and creating reports. These are more routine related but then everything else is more chaotic and not as structured."

-Senior Manager of Sales and Marketing

"The use of our CRM is daily for me. Even though there are a lot of variances, working with my phone is daily as well. It always depends on what kind of call I am receiving next. Also, team meetings, our business unit meetings, and sales meetings are regular."

-Sales Director (2)

Managers play a direct link between the lower- and higher hierarchical level of the organization. Operating close to important interfaces such as customer, employee, or technological, managers hold information that is crucial to explore. Thus, managers play an important role in finding new opportunities or refining old processes in a more efficient direction. Interviewees were asked to describe tasks that are more development related or associated with bigger entities. These tasks, exploration-related, included product development, searching for new technologies, developing daily business and operations, finding new markets, preparation and planning for bigger projects, or looking at what has been and will be done in the future. This can be seen in quotations such as:

"Finding new tasks is part of if (non-routine, bigger, and development-related tasks). It is not necessarily finding new customers but what can we do more for our old ones. Looking at the big picture is strongly related to it. Also, developing our daily business and operations. Working with programmers that what we could have done better or where we sidetracked and how can we avoid these in the future?"

-Sales Director (1)

"As I am a project manager and my role is to be in charge of the governance of the project, the development work is looking for new techniques and evaluation of them. Also, one bigger task is resourcing our projects and evaluating the most efficient setup inside the team. Then developing our business operations, which I enjoy. Having these eureka-moments, where you realize that this can be done much more efficiently whether it is related to sales, marketing, recruiting, or something else in general"

-Project Manager (2)

"I would say that these are creating and finding new marketplaces and then executing and launching them."

-Engagement Manager (3)

"Well for example product development. Specifically developing our marketing products which are more ad hoc related and done out of necessity."

-Senior Manager of Sales and Marketing (5)

"That is going into the second area that I am working on, which is more the future or the forward-looking pieces. Here, for sure have regular check-ins but the difference is if you have a tactical approach where you are really focused on the target. This is maybe short term, where in a few weeks I am launching (e.g., a new grocery business) something. So, the thing is to take a step back and take a helicopter view and look down on what exists."

-Senior Program and Product Manager (7)
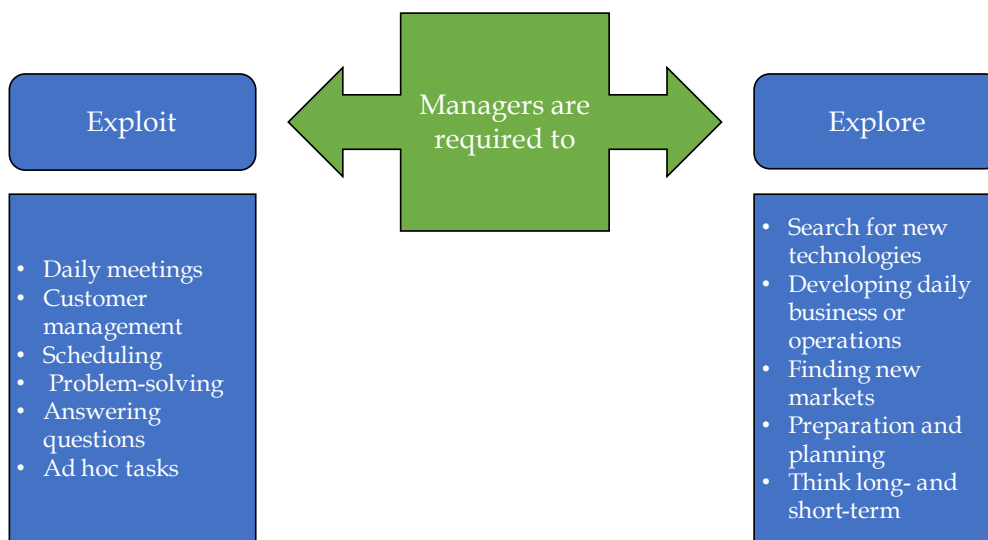
Figure 2 - Complexity of a managerial role

Being in a managerial position can be complex due to the abundance of tasks varying from a daily email check-in to larger entities. Ambidextrous capabilities do play an important part in an individual work by balancing the time consumption between these tasks and upholding the level of desired quality. As presented in Figure 2, managerial roles are diverse. To execute required tasks, exploitation or exploration-related, ambidextrous capabilities are most certainly

welcome. However, if the environment surrounding the manager is not supportive and is filled with distractions, it can become difficult or close to impossible to manage the overall big picture.

5.1.2 Individual switching process varies

Part of an individual's ambidextrous capabilities is to fluently switch between different tasks, roles, and projects. As presented in Figure 2 manager's job consists of a variety of different tasks. Thus, managers are required to toggle between them in a manner that is seen best at the time. Furthermore, one must be able to balance the time spent on each task so that the quality does not suffer. The interviewees were asked to describe their process of switching between different tasks and projects to acquire an understanding of individuals' ambidextrous behavior. The answers varied due to the roles of the interviewees being different but there were recurrences in needing a break between slightly bigger entities or when the task at hand required learning something new. A short break might seem insignificant but the purpose of it is to work as a preparative step when switching to a new task that requires a higher level of focus. Evidence can be seen in quotations such as:

"I will try to have a small break before I jump into the next task. However, if the subject between the tasks is similar, let's say going through my email, I do not have a break between each. But if I know that there is another task starting right after the one, I have finished, I try to have a sort of "mental break" in between."

-Sales Director (1)

"Routine tasks are usually simple tasks something that you do every day, and you know exactly what you're doing. So, I do them one after another and that's fine and I can even have a meeting while I do them sometimes. With the bigger ones that require my attention, I need to focus. So, generally what I do is I get a drink or have some sort of break, or I do something else before I start those."

-Senior DevOps Engineer

"I have never thought about it… Let us say there is a meeting that is now about the tactical execution, and you run through your workstreams and look if you are on track. Then the next meeting would be more about approving everything, or it's a workshop and brainstorming about what can we do better. So, if you have that, what I usually try to do is to have a break in between, not a mental break, but more a break to prepare myself. Get into the shoes of what's next. Running through the questions that I want to pose. Kind of a preparation step."

-Senior Program and Product Manager

"Well, if I notice that I have 5 minutes spare time, I do try to get some coffee or take a small break. If I do not have those 5 minutes, I will try to make it. At least this is something that I can recognize (in the process). If I am working at home, and my head is swirling with hundreds of things, I jump on the couch and have a small break to think about what I should do next. I try to remove myself from the computer at least for a moment."

-Sales Director (2)

"There are times when I might take a break. If for instance, I'm going to work on a project which is going to go and involve me re-reading some of the Python programs and coding that I've written."

-Core Infrastructure Manager (8)

5.1.3 Enjoying a versatile role despite the negative effects

Working in a managerial position can bring an extra amount of work and responsibilities. Despite the focus on challenges individuals face, through interviewees' initiations, enjoyment of the versatile job and motivation towards it was highlighted. Opinions were posed on how a more versatile job is preferred with its downsides (e.g. stress, dissatisfaction) over a monotonous one with a lack of variance and responsibility. Lack of versatility in a job is related to boredom which eventually leads to descending motivation. Furthermore, it was pointed out by the interviewees that motivation towards the job and capability of handling negative emotions has a lot to do with the person itself. This can be seen from quotations such as:

"Obviously if you only had a role and task to achieve, it would be easier to focus. However, in my earlier experience, that kind of job bores me much easier than now. It does not come without a challenge, and you must motivate yourself from time to time. I think it has a lot to do with what kind of person you are. Some prefer working on one specific task at a time but some people like variety. Both ways are good"

-Senior Consultant

"Even though we have discussed the downsides of this job from my point of view, I do enjoy that my role is versatile, and I can work inside different functions. I do get bored quite easily if the job is just doing the same thing again and again. I will take the slight stress and frustration over that any day. It keeps the job interesting because you get to do different stuff, see, and learn new aspects of the business. Personally, having responsibility is also my biggest asset to move forward."

-Senior Manager of Sales and Marketing

"So, emotion-wise, there are also good emotions there as well. There are good emotions in terms of enjoyment, being able to work on multiple different projects, to able to explore skills and knowledge in multiple different areas. That does come with levels of stress. You can find at times that, me especially, and probably a couple of others that you spoke to, we would tend to then work much longer hours because of the projects that we have. And we are trying to knock as much of the workload off them as we can. So, there is a mixture here. You have got frustration, anger, and disappointment. Then you have got the enjoyment and the happy feelings to be able to explore new technologies and areas. So, there is a real mixture of emotions there."

-Core Infrastructure Manager

"If the client calls, everything stops, and the focus is on that which causes some emotions… But I enjoy this job a lot. It fits me to have 17 different things to do during the day, whether small or big. At the same time, I notice that things that I find boring, are sometimes late."

-Sales Director (2)

5.2   Dimension 2: Individual-level challenges

The second dimension describes the challenges ambidextrous individuals face that has an overall negative effect on their daily work. It depicts these challenges under three themes which are: (1) interruptions as a challenge, (2) workload experienced overwhelming, and (3) difficulties in delegating work.
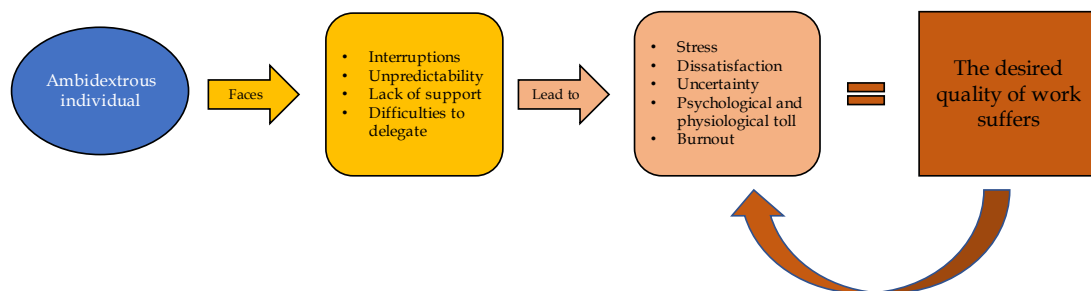

Figure 3 - Challenges that managers face

5.2.1 Interruptions as a challenge

It was found that two main causes work as an instigator towards unfavorable conditions that can be drawn out under further investigation. First, were interruptions that occur in various forms. Second, is the unpredictable nature of the work. Starting with interruptions, which come in many forms i.e., a phone call, message in WhatsApp or Slack, an urgent email, a quickly arranged meeting, or a colleague arriving at your station and asking for some advice. The amount of interruption can range from a couple to twenty during a day and the issue is that these cannot be avoided. Whether working on a routine task or a bigger entity, interruptions obstruct managers to perform tasks assigned specifically to them. Another issue is that some interruptions can be vital and not avoidable, which is part of the manager's job description. However, not all interruptions are urgent and need to be handled immediately, but still can be considered as a nuisance of unfinished business if not tackled instantly. These constant interruptions, urgent or non-urgent, are an encumbrance that disables managers to perform and focus on their daily tasks. Switching the mindset and focus to the issue that was caused by the interruption is not necessarily considered difficult. However, losing a train of thought in the middle of an assignment that requires concentration, and after a certain amount of time getting back to it, causes trouble. Furthermore, if a certain time is allocated to a specific task and it gets interrupted, depending on the daily schedule, returning to it might be possible after a few hours or even days. Interruptions work as a blockade to fluently execute and switch between tasks and projects that are assigned to individuals, resulting in more negative feelings. Evidence can be found in quotations such as:

"And at the same time, as you are desperately working, and for example, someone interrupts you by calling, it is extremely frustrating. You cannot achieve the mental state that you had planned."

-Sales Director (1)

"How would I describe the biggest challenges? One thing that comes to mind is losing your train of thought due to interruptions. That is almost the biggest singular challenge. Obviously, customers, that I am in direct contact with, have no idea about each other. They have a problem, and they will give me a call."

-Project Manager

"I think the most challenging aspect is that when you are doing a certain task, and you receive a phone call, the other task is being interrupted… You can get back to it, but it takes time. However, the challenge is that you cannot focus on a specific task for a certain amount of time because at any point you can be interrupted."

-Senior Consultant

"I have at least 20 interruptions a day by people asking me to do something. It is my job to answer them, so I am out of whatever I was doing and jumping into something else… I think interruptions are the biggest problem."

-Senior DevOps Engineer

"Probably unpredictability is the biggest challenge. I cannot predict what will happen on my phone, or who will call and when. Yes, I can put on a 'do not disturb' notification but what if that is my client's technical director calling? I have no idea when I will be able to reach him or her the next time."

-Sales Director (2)

Furthermore, the issue of interruptions and unpredictability was elicited when the interviewees were asked to describe when they could spend their time most efficiently to perform their actual work. Whether being interrupted by an urgent call from a customer or jumping into the role of a product developer, it can be considered part of an individual's ambidextrous capabilities. However, if these interruptions become a nuisance that does not allow individuals to perform their jobs to the upheld standards, there is a reason to look for potential alleviating means. As the main problem is identified, which is regularly occurring interruptions, what lies underneath is the unpredictability of the job. There are tasks or projects that managers must orientate themselves with by allocating time to them. Whether it is learning something new, looking for potential new markets, or any task that must be done before a set deadline, the unpredictable nature of the job can make it challenging. On a positive note, despite the constant interruptions, managers can adjust their hours of work so that 'interruption-free' hours can be organized. This can be seen in quotations such as:

"In the morning and when there are not as many colleagues online. When there are as few interruptions as possible. Interruption, in this case, means messages, emails, meetings, and calls."

-Engagement Manager

"I tend to find that I am probably the most efficient when I have just finished a gym session and had some breakfast. I will then be at the laptop and that will give me time where I do not have meetings upon meetings. It gives me a good chunk of time in which I am uninterrupted. It gives me a good two, or three hours of uninterrupted time and I can focus on some of the tasks at hand. I do not have people messaging me on Messenger every five minutes with things that need doing here and there."

-Core Infrastructure Manager

"I would say that during the morning when I am alone in the office."

-Sales Director (2)

To understand the emergence of individual ambidexterity, interviewees were asked to describe a time when they had found it difficult to navigate, switch, and perform different tasks and projects. In this example, the interviewee describes how interruptions can be associated with switching roles unpredictably and creating difficulties in focusing on work:

"You might be doing something else, like a sales-related task, and it gets interrupted by an issue found in our program. Then you must jump to the product developer's role. The earlier work and your train of thought get interrupted. Or your boss comes up and reminds you of another task. Sometimes you are just all over the place. And I guess it is not nice when your tasks at hand get interrupted and sometimes it is difficult to keep your thoughts together and just focus on one thing at a time. And I do believe that it might influence the quality of work."

-Senior Manager of Sales and Marketing

5.2.2 Workload experienced overwhelming

The interviewees were asked to describe times when navigating between projects or tasks were found difficult. The most common issue was that the individual workload was excessive at a certain time frame. The occurrence of such phenomena is not necessarily something new but notable enough to be mentioned. A lot of work stacking on a single individual can cause the emergence of negative feelings such as stress and psychological toll. Ambidextrous capabilities do help to navigate during such turbulent times, however, the individual workload can become simply immoderate and thus start to affect the quality of work. Evidence to support this claim can be seen in the quotations below:

"Overall things are good now. However, my earlier experience in a larger consultant company was not as pleasant. There the expectation was that if the customer had paid for it, no matter what, the employee had to be flexible. I cannot remember exactly how the overtime policies were but if you had worked 10 hours of overtime each week during the whole month, you had one day off. So, there was a huge disparity in that."

-Sales Director (1)

"Between February and March, I had lots of difficulties in terms of navigation. It was a typical IT situation with multiple simultaneous projects to lead and execute. Then you try to be optimistic in terms of finishing everything in time, but it is not difficult to let things get out of control. There were many 12–14-hour days but luckily things have calmed down a bit."

-Project Manager

"Our business is seasonal, and summers are always the busiest. As we are getting closer to summer, and the season is starting, we are required to execute campaigns and close the hanging deals in the sales funnel. At the same time, we should receive materials, decide on the theme, and plan the campaigns with the customers. Furthermore, we are developing a tool with our developers that helps us to manage these campaigns. It feels like I need to bounce everywhere back and forth, and the work just piles on some specific timespans. Somehow the structure disappears because of the long days I have been doing"

-Senior Manager of Sales and Marketing

"Yeah, certainly and it is (amount of work) always in waves, I would say. I remember there was one and a half years or one year back that was kind of my most extensive period. Mainly because of a lot of expansions and launches happening at the same time. And because it was the first time in Europe, it took a lot of hours and was a bigger challenge to overcome. And that was kind of the period."

-Senior Program and Product Manager

"Last week there was a moment when it felt that nothing goes forward or gets done. I got three big offers to deliver out of nowhere and without asking them. Then I did not receive the usual support from my organization, so I had to stretch myself and my time. Furthermore, I had things to do outside of work and outside of my normal work schedule there were all kinds of external noise and requirements"

-Sales Director (2)

A simple, yet difficult solution to the excessive workload on individuals is to hire new people so that the overall workload can be divided equally. At some point individuals, and even organizations can hit the point of saturation where set targets and daily work cannot be achieved with the same headcount. Furthermore, the lack of personnel is more an organizational than an individual-level issue. However, lack of sufficient workforce has causation on individual work and its satisfaction. A situation where individuals can only perform tasks without necessarily reflecting on what has been done or what could have been done better is not favorable. This can be seen from quotations such as:

"If there are multiple roles and tasks on one person only, and it starts to affect the results, the organization should either allocate some of the tasks to another person or hire new people to take care of them. This is easy to do and actually, we have started the recruitment process for hiring new people. It lessens the workload of people who have been under a lot of stress and certain areas have suffered due to that."

-Senior Manager of Sales and Marketing

"Another thing is to ensure that there is always support. We just discussed that if our company aims to grow 10-15% every year with the same headcount, and with the same administrative resources, eventually saturation will hit. It just cannot be done, and we are quite close to that point."

-Sales Director (2)

You just must have enough people and enough time to do so. That's about building up the team. My boss and I identified this as a problem, and we talked about it. That's why I'm getting an extra person into the team s that, I don't have too much stress. And I'm most likely to split up the team underneath me. So, that will alleviate some of the pressure on me. Because then I create another person that has his team and decides how to manage the people underneath him."

-Senior DevOps Engineer

"When it comes down to organization there is simply a lack of personnel and the last thing to do is hire new people. This leads to a situation where singular people have too much work and there is no "slack time" during the day. You have things to do but there is no time to reflect on what has been done. It is just changing from one task to another."

-Engagement Manager

5.2.3 Difficulties in delegating work

One managerial tool to ease the burden of excessive workload is to practice delegating work. As the issue of an overwhelming amount of work came forth, the possibility of delegating work to ease the burden rose to the surface. However, delegating work is not necessarily considered something that is a given due to a couple of factors. First, there is a lack of trust in delegating work forward. As the delegator has the knowledge and experience to execute these tasks to uphold the desired quality, there is a lack of trust in knowing that the result would meet the standards. Second, is the issue of investing time to train subordinates to perform these tasks that could potentially be delegated in the future. Why bother to train other people to perform these tasks when I can just do them by myself? The time spent on training subordinates can be used for the actual execution of the said task. Both are considered time-consuming in an environment where time itself is scarce. Therefore, a manager often relies on their skills to execute these tasks and do not see it as a worthy investment to properly brief their subordinates instead. Supporting quotations can be found such as:

"One thing that you often notice is that I should just finish this task by myself because I will do it the fastest. You scrape together several different work-related tasks for yourself and then you lack the trust to pass them on to someone else. It is the thought of whether

should I even try to give this task to someone else. In this, there could be some room for improvement."

-Sales Director (1)

"Not really (possible to delegate work), or maybe I could inside our team, but the issue is that I am not keen on delegating my tasks because I will do them better than others. Or eventually, I would finish these tasks either way. For example, we do have customer service for our front-line employees. If they face any issues, which are usually urgent, they can send a ticket to customer service. Either way, due to the slowness of customer service, they will come and ask me the same question a few days later. So eventually, by the time I have used the time and advised them to contact customer service, I could have handled most of these tickets by myself."

-Engagement Manager

"Another thing is that when you run out of tools to develop your work. And particularly the executive work, so that you could substantially free up some time for yourself. There comes a phase, where you must share your workload with others, and without a doubt, it takes time until you can see the benefits from it. At first, if lucky, you might save a minute of your time. The worst case scenario is that you even lose some while trying to teach others."

-Project Manager

"Yeah, I do that (delegate) a lot because there is too much. If I have a full-strength team, I have 12 people working for me. And there are a lot of things that I delegate. But usually, I am like the funnel where tasks come in and I will decide where they go, sort of direct the task, and make sure that it is done, and not just somebody being stupid. Or asking for something that is not possible or not knowing what they (subordinates) want. That is a big one as well. There is a lot of stuff they ask for and when you want to dig deeper, they do not know what they want. That happens a lot as well. Which is not helpful. But I understand that they cannot know everything either."

-Senior DevOps Engineer

5.3   Dimension 3: Means to alleviate challenges

In the third dimension means to alleviate the emerging challenges are presented. The third dimension includes three themes: (1) capabilities in organizing and planning work, (2) preference for working hours, and (3) preference for working alone with certain topics.
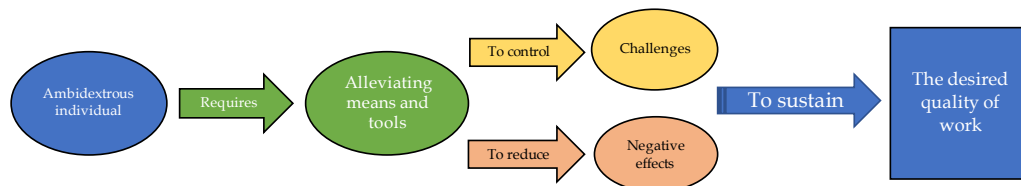
Figure 4 - Alleviating challenges to sustain quality

5.3.1 Capabilities in organizing and planning work

The job description of the interviewees consisted of various tasks, different kinds of roles, and projects. Occurring themes were the importance of knowing what the upcoming schedule is going to be, planning, and prioritization of tasks. Managers' jobs consist of daily and routine tasks, development-related projects, and even the operational activities of the company. Manager's job is versatile, and it includes various assignments that must often be done before the set deadline. Not only, does this require prioritization, but careful planning to meet the quality standards. Furthermore, recognizing the individual limit of allocating sufficient contribution to assigned tasks should be highlighted. Evidence can be seen in quotations such as::

"For me, it is mainly about prioritizing and accepting that not everything needs to be done right away. The aim is to recognize where to allocate your time."

-Engagement Manager

"This was what I found at the beginning of my career. I've managed to find ways to resolve this now by pushing back with the various project donors or project managers, and the tasks involved and explaining the... We've got limited resources and I'm not going to be pulled from a pillar to a post. I will function and I will focus on one of these tasks to get to a point where things can move on and it's not delaying the rest of the team. And we just need to come to a business decision. We need to come and prioritize which one we want to do first."

-Core Infrastructure Manager

"…and then of course it depends on, do you have something to firefight for the tactical execution of the launch right now. Then you may need to park the other topics a bit. You push them out and reorganize yourself. So, I think the crucial component is to be able to balance, to be able to understand what's the priority. And it's always like a fight because of course, you need to do forward-looking. You need to be thinking if I don't jump on that right now, it hits me in two years. But at the same time, you also need to progress. So, it's a balance always."

-Senior Program and Product Manager

As discussed, the prioritization of work and planning aspect of it is of importance as well. Occurred challenges, interruptions, and excessive workload are both issues that can be affected by the planning of work. By investing time in planning itself, individuals can be better prepared for unpredictability and interruptions which are eventually inevitable. Planning one's work for weeks ahead allows individuals to create more structure. Supporting quotations can be found such as:

"From my point of view, I could plan my work better so that I could create tools or add more structure. This would me help to follow, prioritize, and cycle my tasks. I am sure this would be something to alleviate these challenges."

-Senior Manager of Sales and Marketing

"No, I don't think I have anything (mentionable difficulties relating to starting or finishing tasks) coming to my mind. I try to structure it as much as possible. That means I'm planning it through for the next weeks. So, I could then anticipate what is the bandwidth required in the next week and then I can juggle around the tasks. That includes, of course, sitting down and brainstorming and just putting it on paper. Or research some methods that can help you."

-Senior Program and Product Manager

"One thing that I could most certainly do is to schedule my days better. Yes, there are times when I have a lot on my plate, but rarely I am so busy that my deodorant fails. I do have a lot to do, and some deadlines always get tight, but those are singular moments. However, there are moments during my day when I could improve my use of time because yesterday, I had a 30-minute coffee break with our architects (laughs). So, this aspect could be fixed."

-Sales Director (2)

However, prioritization and planning of work is a skill of its own that can take some time to learn. As the planning and prioritization of work are being discussed, moving into a more tangible realm of how to do it, should be done. Individuals are unique and each has their preferences on what means and tools to apply. As the discussion evolved further, examples of different tools emerged on how some managers plan and prioritize work. These simple tools allow individuals to visualize their tasks and recognize their importance, thus helping them to schedule and plan their weeks better. As presented, some managers have already applied these sorts of systems, and they are proven to be helpful. By planning and prioritizing work individuals can structure their work and avoid an unorganized pile of tasks. However, this does not solve the problem of unpredictability, but structuring ongoing work more carefully, prepares individuals to react to sudden changes. Due to more careful planning and prioritizing of work, scheduling becomes more effortless which is not only important to be more prepared for emerging interruptions but to schedule time for personal work.

The first example is of a Kanban chart (*What Is a Kanban Board and How to Use It?*, n.d.) (see Picture 1), where work is divided into columns and then moved along as progress is happening:

"What I have been doing is sort of a list for different tasks in a manner of a Kanban chart where I have three columns: to-do, ongoing, and done. I will then drag these different tasks inside this chart when they are progressing. This has helped me tremendously as a supportive tool. Not only, does this make work more efficient but more organized for the upcoming week. But the best way to dismantle (a bigger workload), is to focus on one thing at a time"

-Sales Director (1)
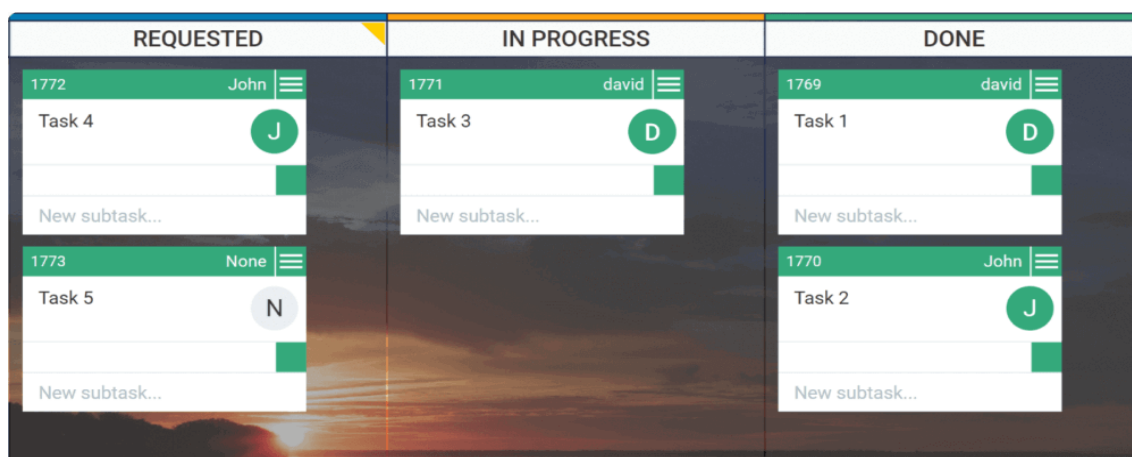
Picture 1 - An example of a Kanban-chart

The second example that came forward was the use of an Eisenhower matrix (*The Eisenhower Matrix*, 2017) (see Picture 2) where tasks are allocated by their importance and urgency:

"I have started using this Eisenhower matrix which is a square and inside of it there are four smaller squares. You can place important and urgent tasks, important and non-urgent tasks, and non-urgent and unimportant tasks. You sort of divide all the tasks inside this matrix into a specific bracket. This is my tool to analyze which tasks require more time and effort, and whether should I be mad at myself for not finishing certain tasks."

-Engagement Manager
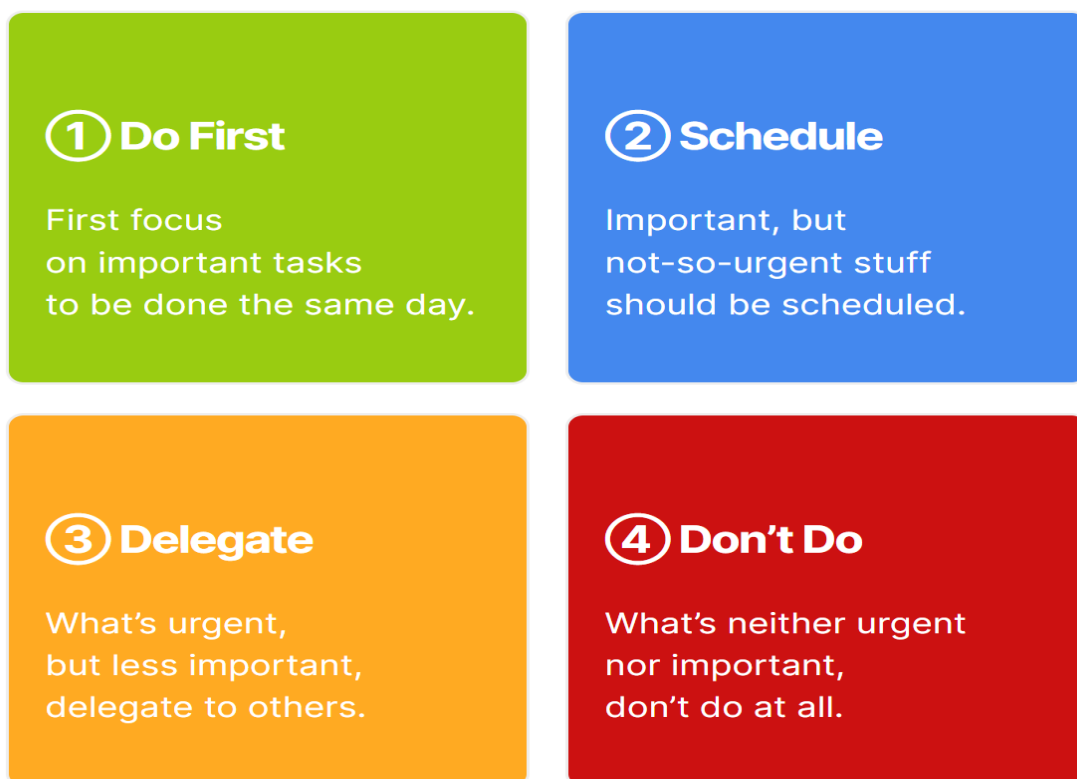
Picture 2 - An example of the Eisenhower Matrix

The third example was using a notebook where daily tasks are listed and then crossed over as they get done:

"I use notebooks (shows it on the camera) and I have at least a hundred of these. In the morning I write what needs to be done for today, and as they get done, I strike them through. During the day I follow my schedule, and if I have struck through 5 tasks, I can have a small 10-minute break."

-Sales Director (2)

5.3.2 Preference for working hours

As pointed out earlier the biggest challenges that rose during the interviews were unpredictability and the variety of interruptions the interviewees face during a regular workday. Similar issues were also discussed when asking the interviewees when they could use their time at the highest level of effectiveness. Furthermore, there were clear distinctions on when each interviewee felt the best time was to do their work, exploitation or exploration related, during the day. Working in a managerial role, where individuals are required to be ambidextrous, efficient use of time is crucial. Whether exploring new opportunities or conducting routine tasks, individuals have their preference at what time these would be performed the best. Some feel most efficient during the morning or in the afternoon, or after a gym session. Others enjoy a longer break during lunch hours even if it means stretching the workday towards the evening and this can be seen from the following quotations:

"Considering the efficiency of my work, mornings are the best time to do all the work. Effectiveness clearly goes lower as you move towards the afternoon"

-Sales Director (1)

"Approaching this from another angle, the worst times for me are early morning and late at night. I feel most efficient later in the morning and afternoon."

-Senior Manager of Sales and Marketing

"I think there are two types. The classic, morning person or the evening person. I am more the latter. I don't know if it is coming from the fact that I am working so much with U.S teams so, I just need to work in the evening and I adapted to it. I usually feel if it comes to scaling things, or brainstorming and innovating, my brain is working better if it is more towards the evening hours. If I would brainstorm on a new product, like the first starting points, what is our hypothesis, etc. I would usually do it later in the day."

-Senior Program and Product Manager

"Most efficient time for me is the time before lunch. I do try to have my lunch as late as possible because after that I just feel tired. I prefer starting my work earlier than too late."

-Senior Consultant

As the issue of interruption emerged also in the discussion concerning individuals' efficient use of time, some managers must schedule their days so that interruptions could be avoided. Interruptions being unavoidable, managers must schedule their day so that there is a timeframe during the day for uninterrupted

work. For some, either early in the morning or late at night when there are least colleagues online, the most efficient work could be conducted. This highlights the importance of flexibility in working hours so that individuals themselves have the freedom to schedule their days independently. This can be seen from the following quotations:

"In the morning and when there are not as many colleagues online. When there are as few interruptions as possible. Interruption, in this case, means messages, emails, meetings, and calls."

-Engagement Manager

"If I have no meetings and no interruptions. As I said, those days do not happen a lot, but when I do get that, I suddenly have the feeling of freedom and I feel like a little school kid. Because I can work on the things, really invest time and read things and work through them step by step. Not just making sure that I am not making mistakes."

-Senior DevOps Engineer

"I tend to find that I am probably the most efficient when I have just finished a gym session and had some breakfast. I will then be at the laptop and that will give me time where I do not have meetings upon meetings. It gives me a good chunk of time in which I am uninterrupted. It gives me a good two, or three hours of uninterrupted time and I can focus on some of the tasks at hand. I do not have people messaging me on Messenger every five minutes with things that need doing here and there."

-Core Infrastructure Manager

"I would say that it is in the morning if I am alone at the office but if I am working remotely at home, then it is in the afternoon"

-Sales Director (2)

5.3.3 Preference for working alone with certain topics

By no means individuals who are working in a managerial position should work all on their lonesome and avoid interaction with relevant stakeholders. Sharing information, asking for help, and connecting various stakeholders are important features of ambidextrous capabilities. However, most of the interviewees prefer working alone without any external disturbances from colleagues in planning and preparation-related work. Often, exploration-related tasks are experienced better to be worked alone at first. Trusting in an individual's expertise to acquire an assessment of the task or project at hand and being inside their own headspace without being interrupted is considered important

regarding the next steps of their work. The following quotations not only highlight the importance of planning work but also that individuals should be capable of executing this part alone without interruptions. Evidence for this can be found in quotations below:

"Everything where you need to compose information or plan something. I like to utilize my own head space where I focus on these things alone. It is easier to get a full picture of what is happening"

-Sales Director (1)

"Good question and there are a lot of these. It easily turns into the mindset that I need to do everything by myself. But I do prefer executing all programming work alone without any other opinions. Also planning the projects that I am responsible for."

-Project Manager

"I would say tasks there you need to write or document something. Or other tasks in general where you need to focus without anyone talking next to you"

-Engagement Manager

"Concerning sales, I like to do it alone and specifically the planning of it. What kind of offer, themes, and package can we give to the customer, etc.? In general, for all kinds of planning-related work, I prefer doing it alone and taking my time with it. After that, I will take an opinion from someone who knows more about the topic and refines it further."

-Senior Manager of Sales and Marketing

Related to planning and preparation-related answers, some of the interviewees favored working alone whenever there was something new to learn. Getting acquainted with new material, software, or programming languages helped interviewees approach processing the new information. Furthermore, in a managerial position, it is important to stay on top of the current issues, and passing the newly learned information along was also considered important. This can be seen from the following quotations:

"Everything. I would say the main things are when I am doing some architecture and when I am trying to work through a new design or new technologies. Also, when I am writing new automation, new program code, and new Python coding. I am trying to do some research and testing and development. All this stuff takes time and there can be very intricate little testing and pieces that you need to identify."

-Core Infrastructure Manager

"It depends, but I would now say if it were any new topic. Let us take the example of product development, as a software tool that is helping the space. Then I like to first get my head around it myself just as a preparation…"

-Senior Program and Product Manager

"Also, possibly there could be some tasks that I just really enjoy doing, and then I may not involve someone. But in general, if you do that, then I try and do like a session for everyone where I introduce what I did. Like if it was a big development task or there is a new product that we introduce, then I go and set something up.

-Senior DevOps Engineer

Related to the issue of interruptions, unpredictability, and careful planning of the work is to schedule uninterrupted work hours. During this time a safe space free of outside noise and interruptions is created for the individual to truly focus on the task at hand. The duration of this timeframe could be one hour and meanwhile, every channel should be turned off so that focus cannot be exhausted. In very rare instances, the matter of interruption is so urgent that it cannot be postponed for one hour or more. However, as individuals are carrying the responsibility of these emerging issues that come across as interruptions, this might be challenging to implement. Practical execution of the function is not only on the shoulder of the individual but also the organization. These emerging issues are associated with a vast amount of work accumulating on an individual either in a short or long timeframe. In an environment where time is scarce and must be efficiently spent, working constantly without being able to take breaks or reflect on what has been done can take a toll on an individual hence leading to negative effects.

6 DISCUSSION

6.1 Key findings

This study aimed to investigate the challenges that ambidextrous individuals face. Furthermore, the ways to alleviate these emerging challenges were of interest. Starting with challenges, individuals are faced with interruptions and unpredictability in their daily work, causing a hindrance to performing their tasks to the anticipated quality. Secondly, the individual workload is sometimes experienced excessive and difficult to control. Thirdly, delegating is not experienced always as a viable option to ease the burden due to a lack of trust and its time-consuming nature. Furthermore, the findings of this study suggest that there are ways to alleviate these challenges. Development of individual capabilities in organizing and planning work, allowing individuals to have flexible work hours, and scheduling of uninterrupted work.

6.2 Existing literature

The findings of this study agree with existing literature and by no means frequent interruptions are a new phenomenon in an organizational world. Roughly defined as "incidents or occurrences that impede or delay organizational members as they attempt to make progress on work task" (Jett & George, 2003), interruptions are a nuisance that disrupts individuals in their daily work. Monson (1985) stated that unannounced visits are the "plague of managerial work". Furthermore, for quite some time, also programmers have been struggling with meeting deadlines due to often occurring visits to their desks (Perlow, 1999). As presented in this study, interruptions occur in various forms; phone call, email, text message, or a colleague arriving at your workstation. Occurring multiple times a day, an individual's work and flow are discontinued, and there is no time for reflecting on what has been done and what could be done better (Mintzberg, 1990). A German-made survey made in 2012, with over 17,000 participants, presented that a larger number of interruptions is one of the negative effects of ever fastening work environment for individuals (BIBB/BAuA, 2012). Cutrell and others (2000) in their study pointed out the development of information technology affects the rising number of interruptions from a variety of different sources. Living in 2022 where individuals can have multiple devices (e.g., phone, tablet, computer) with various channels (e.g., WhatsApp, Teams, Slack, text messages, email), the myriad of ways interruptions to occur, can be staggering. Furthermore, the environment in an organization can incite sudden visits which are experienced as interruptions (Perlow, 1999).

The issue with interruptions is not only the hindering of one's work but the negative feelings that occur for a variety of reasons. Stress and anxiety (Jett & George, 2003), just to mention a couple, are in line with the same negative repercussions that ambidextrous individuals face (Bashir & Ramay, 2010; Keller & Weibler, 2015; K. M. Sok et al., 2016). An ambidextrous individual working in a complex role (e.g., manager), faces interruptions that can result in negative feelings, and therefore, switching between different tasks and projects can be experienced even more difficult. What makes interruptions even more troublesome is that they are not part of the individual schedule or plan (Claessens et al., 2010) making their nature unpredictable (Baethge et al., 2015). Furthermore, interruptions are rather time-consuming and, in an environment, where time is already scarce, this can lead to time pressure (Zapf, 1993) and eventually to more stress. Moreover, as interruptions are not always isolated events, but more cumulative, they can lead to even more work piling up on a single individual (Mark et al., 2008). Constant firefighting and being in a state of stress can also result in longer recovery times (Sonnentag & Zijlstra, 2006) which is an undesirable situation for an individual's well-being. Westbrook (2010) and Bailey and Konstan (2006) presented that increasing amount of interruptions increments the number of errors. Therefore, individuals can find themselves in an endless pit where interruptions lead to more work, more negative feelings, and errors (Figure 5).
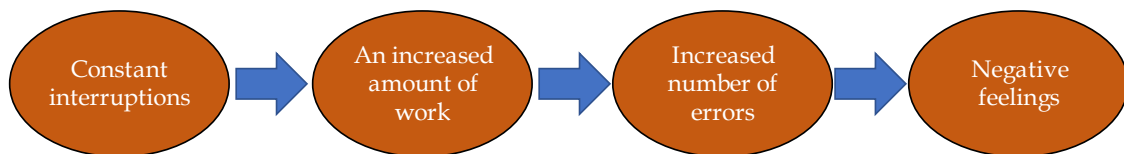

Figure 5 - Negative effect of constant interruptions

However, as the findings of this study are in line with existing literature where interruptions are considered a challenge, less emphasis was directed toward the positive impact of interruptions. Not all interruptions are necessarily seen in a negative light. Information exchanged with interrupting colleagues is not only

quickly acquired (Jett & George, 2003) but can prevent mistakes and increase an individual's performance (Baethge et al., 2015). Furthermore, interruptions can enrich the job in a couple of ways. First, a subordinate can arrive at the manager's desk and ask for some advice regarding a task that was delegated. At that moment, the interruption can be considered a nuisance, however, this will pay itself back in the future as more work can be delegated (Jett & George, 2003). As presented in this study, managers do struggle with a lack of trust and the time-consuming nature of training subordinates to execute said tasks. However, instead of a burden, delegating tasks should be considered as an investment towards the future, as a part of an individual's ambidextrous capabilities is to also seek innovation (Kauppila, 2010).

Second, interruptions can enrich an individual's job by making it more versatile. The findings of this study showed that despite the downsides (e.g., negative feelings), some individuals prefer a more versatile job over a monotonous one. As interest in the job is one of the antecedents of individual ambidexterity (K. M. Sok et al., 2016), therefore stress and other unpleasant feelings can sometimes operate as motivating instead of unmotivating aspects. Baethge and others (2015) presented that regardless of their interruptive nature, successful advice given to a colleague or a primary task being discontinued due to a more interesting one can empower an individual. Furthermore, an increase in motivation can be seen through interruptions because of their diverse nature (Krediet, 1999). Moreover, an interruption can also be an email or a message where positive feedback is given to an individual (Jett & George, 2003) and brightening up one's day. However, it is crucial to remember that the number of interruptions is to be moderate for them to have a positive effect (Mark et al., 2008; Zijlstra et al., 1999) and not turn into a disruptive element.
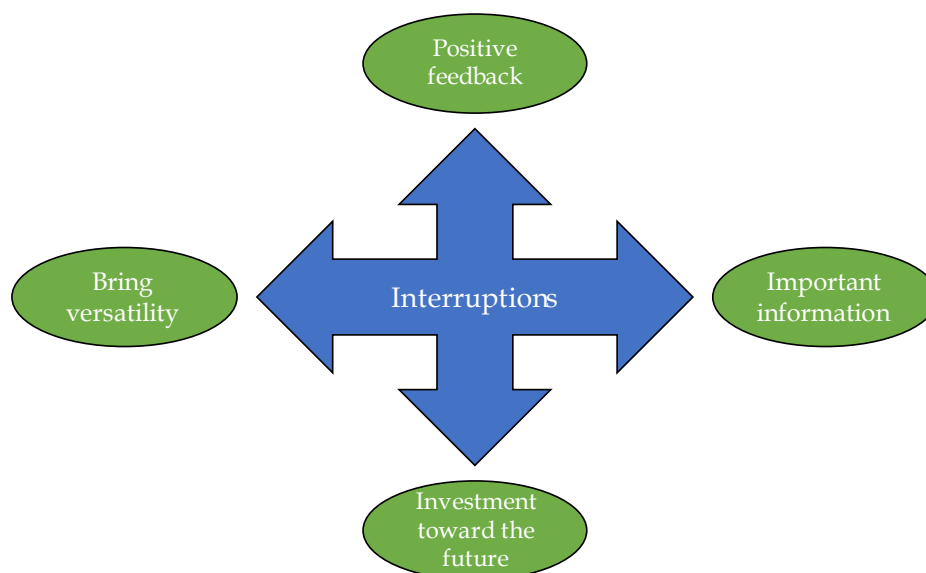

Figure 6 - Positive effects of interruptions

Interruptions and the unpredictable nature of an individual's daily work are undoubtedly challenges that should be alleviated. The findings of this study are in line with the existing literature where an individual's skills and capabilities in organization and prioritization of work can mitigate said challenges. Interruptions can be divided into two parts: primary and interruptive tasks. Based on ART (Action Regulation Theory), which describes how people perform goal-oriented tasks from a cognitive standpoint (Frese & Zapf, 1994; Hacker & Sachse, 2014), when a task is received the following steps occur: getting acquainted with the topic, forming an action plan, performing the task and lastly, reflecting and following the results. When a primary task is interrupted by another, the same steps should be followed, and the only difference is that the execution of the primary task must be stopped, rescheduled, and eventually returned to it (Baethge et al., 2015). An ambidextrous individual who is capable of switching between different tasks, roles, and mindsets (Bledow et al., 2009) while exercising efficient time management between exploitative and explorative entities (Rogan & Mors, 2014) might be able to follow the steps of ART more effortlessly. Furthermore, when interruptions appear, individuals are faced with interruption and resumption lag (Altmann & Trafton, 2002) which refer to the timeframe that an individual must use to schedule and prioritize both primary and interruptive tasks. The findings of this study suggest that there is a lack of effort or skill in organizing and prioritization tasks. In line with ambidextrous capabilities such as prioritization and organization of tasks (Adler et al., 1999) and time management (Keller & Weibler, 2015), said skills can help individuals with these emerging issues. However, if the individual workload and number of interruptions become overwhelming, help can be found from programs that allows individuals to organize and prioritize these tasks more effortlessly (e.g., Kanban chart, Eisenhower Matrix, notepads).
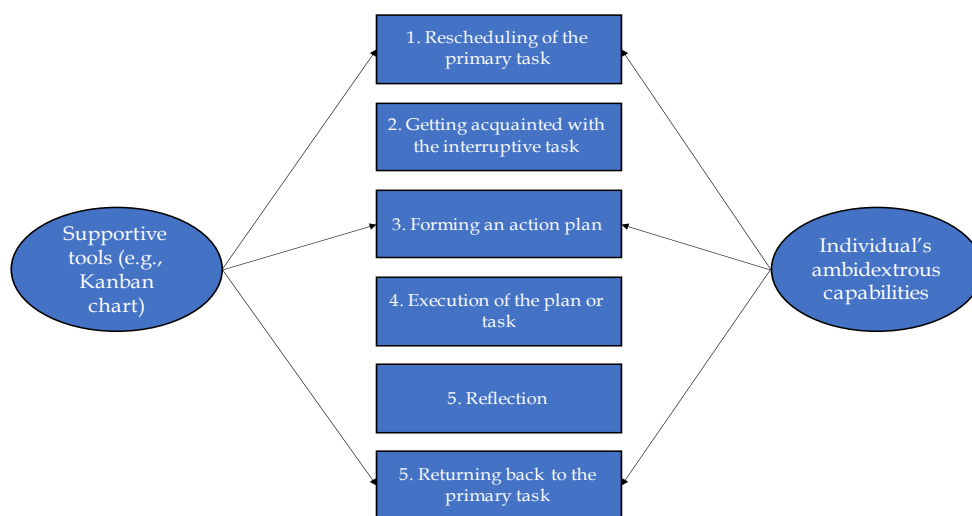

Figure 7 - Use of supportive tools and individual skills in the process

Existing literature suggests that there are ways individuals can mitigate or postpone the emerging issues that interruptions bring forth. Before switching to the interruptive task, writing notes about the next steps concerning the primary task makes the re-entry easier (Boehm-Davis & Remington, 2009). Furthermore, ignoring the interruption and finishing the primary task at once, delegating the interruptive task forward (Baethge et al., 2015), or postponing the interruptive task (Brixey et al., 2007) are all great tips for individuals to utilize. However, these do not fix the issue at the core, which is that at any given time individual's important work can be disrupted. In the long run, the consequences of constant interruptions can be seen as a decline in the desired quality of outcome (Kirmeyer, 1988) and individual effort allocated to the performance of tasks (Hacker, 2003). Furthermore, the findings of this study suggest that individuals prefer performing tasks alone without interruptions that are involved in learning something new or planning work. Tasks that involve development, learning something new, refinement, or are exploration-based (March, 1991), require an individual's unwavering focus (Cellier & Eyrolle, 1992) and when interrupted, the outcome can be more severe compared to more simple tasks (Speier et al., 1999). Thus, there should be a consideration in presenting uninterrupted work hours for individuals in organizations.

Uninterrupted hours at work support individuals in their recovery from constant firefighting and interruptions (Baethge et al., 2015). Furthermore, during this time individuals are capable of performing and finishing tasks that were assigned to them (Perlow, 1999). As stated by various previous studies, organizational flexibility (Ajayi et al., 2017) and reduction of structures and rules (Good & Michel, 2013) work as an antecedent for individual ambidexterity by allowing fluent interaction with stakeholders inside the organization (SMITH & LEWIS, 2011). Furthermore, an agile environment incites individuals to be flexible (Davis et al., 2009). However, it can be argued that the issue of a vast number of interruptions and constant unpredictability, could be the result of the organizational environment being too flexible. The findings of this study present interruptions often coming from different stakeholders inside the company in a form of text, phone calls, email, or a quickly arranged meeting. While organizational flexibility allows and even encourages individuals to connect with different stakeholders effortlessly through multiple channels, it can be considered a nuisance by the receiving end. For an individual to practice ambidextrous capabilities, a balance must be found in performing exploitative and explorative tasks while retaining the desired quality (Adler et al., 1999). However, as individuals experience these constant interruptions disruptive to their ability to perform one's part, arguably there could be room for some structures in terms of open communication. Not only, do individuals require a flexible environment to thrive, but also a safe space where conducting assigned tasks (exploitative and explorative) can be executed in peace to sustain the desired quality. When the environment becomes too flexible, organizational control, as one of the antecedents for ambidexterity (Lin & McDonough, 2011) should not be forgotten.

Perlow (1999) stated that organizations need to ensure that the number of interruptions stay moderate, whilst working as a channel for information trade. Organizations can prevent these emerging issues by providing an environment where uninterrupted hours of work can be achieved through individuals' planning, scheduling, and prioritization of work. Furthermore, creating minor structures to block constant interruptions for individuals in need of uninterrupted work hours should be considered.

An ambidextrous individual should be capable of shifting between different, and even possibly contradictory tasks (Bledow et al., 2009). The results indicate that sometimes managers had no time for reflecting on what had been done, but instead just constantly switch from one task to another. Breaks or recess can be considered as one form of interruption (Jett & George, 2003) however, they do play an important role in individuals' recovery in terms of rest and balance (Henning et al., 1989). Furthermore, managers in this study preferred a short "mental" or "preparative" break before switching on to the next entity. Time-consuming tasks that might involve creativity, reconfiguration of processes, or developing something, are nourished by brainstorming and deliberation (Csikszentmihalyi & Sawyer, 1995). Furthermore, Laureiro-Martines (2015) explained that because of the greater pleasure in executing exploration-related tasks, they do have a higher emotional price. Therefore, ensuring that individuals are not just constantly performing different tasks, but have the time to reflect and plan, is important for their well-being (Jett & George, 2003) and in performing said tasks to desired quality (Monk et al., 2004).

Not only, does the data of this study indicate that mental or preparative breaks are preferred during workdays, but also flexible working hours. One of the emerging issues of this study was that managers' days are fragmented and long periods without interruptions are far apart. Therefore, to efficiently use the time to conduct assigned tasks, scheduling work for early mornings or later in the evening when the least number of colleagues are online was not uncommon. Flexibility with employees' working hours has been studied to be beneficial for both parties. Not only, does it allow individuals to decide when and where to work (Shagvaliyeva & Yazdanifard, 2014), but it shows in higher employee satisfaction and lower turnover as well ("Flexible Working as Human Resources Strategy," 2008).
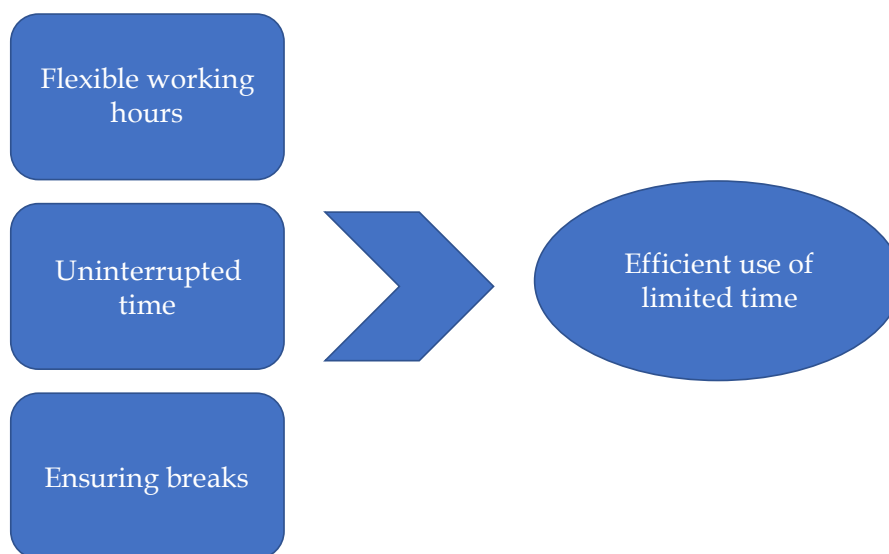
Figure 8 - Organizational means to mitigate challenges

6.3   Implications and future research

The data of this study contributes to a clearer understanding of what are the challenges ambidextrous individuals experience in their daily work (Pertusa-Ortega et al., 2021; Tarba et al., 2020) that lead to negative effects (Bidmon & Boe-Lillegraven, 2020; Laureiro-Martínez et al., 2015; K. M. Sok et al., 2016). First, is the issue of cumulative interruptions (Baethge et al., 2015; Jett & George, 2003) and the unpredictable nature of work, which disallows managers to conduct assigned tasks to them, to the desired quality. Therefore, as these interruptions are now embedded in managerial work and organizational environments, individuals and organizations must evolve and adapt to them.

Practical implications on how to alleviate said challenges must be divided into individual and organizational means. First, the individual's skills and capabilities in prioritization work are crucial. Recognizing interruptions as conflicts and management of one's time must be emphasized as personal skills and therefore should be looked after. Second, use of supportive tools such as Kanban charts, Eisenhower Matrix, or something as simple as notepads, to help in prioritization and organization of tasks. Just to name a couple of examples, individuals should try out different tools from a myriad of options, to fit their personal needs. Third, delegating work should not be avoided at the expense of time consumption and lack of trust. Training subordinates to perform tasks is indeed time-consuming, however, it will pay itself back in the future.

From an organizational perspective, some structures should be applied in terms of overly flexible organization, where interruptions (e.g., messages in WhatsApp, Slack, Teams, email, phone calls, quick visits) should be limited. By

no means organizational flexibility should be considered redundant as it works as an antecedent for quick trade for information between stakeholders and encourages ambidextrous behavior. However, composing minor structures where individuals can have uninterrupted work hours and perform assigned tasks in peace, is worth looking into. Furthermore, encouraging individuals to have breaks between tasks is recommended. Breaks not only work as a preparative means to perform tasks with better quality, but it helps in recovery and nullifies the emergence of negative feelings. Moreover, allowing individuals to have flexible work hours allows them to use their time more efficiently while advancing their well-being.

While this study was limited due to the number of interviewees, variance in interviewee company sizes, and roles, interruptions, and unpredictable working environments can be confirmed as challenges individuals face in their daily work. However, future studies should narrow their view toward the relationship between individual ambidextrous capabilities and interruptions or the unpredictable environment itself. First, what role do an individual's ambidextrous capabilities play in terms of navigating interruptions and mitigating them? Second, how, and what other tools can be helpful for individuals to alleviate prioritizing and organization of tasks? Third, investigating interruptions more accurately in terms of their source, repetitiveness, and outcome. Lastly, how does the organizational environment encourage individuals to use a variety of channels in their use to cause a disruptive incident on the receiving end? By applying these views, even more, practical results can be achieved in terms of alleviating means from an individual and organizational viewpoint.

7 CONCLUSIONS

This master's thesis aimed to identify not only the challenges ambidextrous individuals face but also the means to alleviate these challenges. Based on qualitative analysis, the biggest challenges for managers working in an IT-based company were constant interruptions making the environment unpredictable. Moreover, as interruptions disrupt individual work, negative effects can be seen in the emergence of more negative feelings, an increase in errors, and a decrease in the desired quality. However, alleviating means can be found in individual skills in prioritization and organization of work, supportive tools, and programs to organize tasks, and encouraging individuals to delegate work. Furthermore, from an organizational viewpoint, applying uninterrupted work hours, creating structures to prevent unnecessary disturbance, and allowing individuals to be flexible with their work hours, can be applied as mitigating means.

Behind the negative effects of individual ambidexterity lies a hectic work environment that is unpredictable and full of interruptions. Individuals can find it difficult to perform a variety of assigned tasks when a large chunk of time goes into managing quickly emerging issues. Part of ambidextrous capabilities is efficient time (Rogan & Mors, 2014) and task management (Adler et al., 1999), which should, if possessing the right skills, help to switch and navigate through this turmoil. However, there is a limit to what a single person can uphold, and therefore support is sometimes needed. For an organization to be considered ambidextrous it should be capable of revising old processes and habits (Wooldridge & Floyd, 1989) through communication between different members (Weick, 1995). Therefore, as interruptions cause disturbance among various stakeholders, old habits and ways should be revised to prevent issues in the future. In line with Pertusa-Ortega and others (2021), to sustain individual brilliance and a variety of skills brought to the table, harmful consequences of ambidexterity (e.g., psychological toll) should be solved before culminating into negative results in overall performance.

Interruptions as a challenge in daily work seem to be more of a rule than an exception and by no means do interruptions concern only "ambidextrous individuals". However, individuals in ambidextrous roles, in this case, managers working in IT companies, are more prone to them due to being connected with multiple stakeholders. Responsibility to mitigate the number of interruptions is both in the hands of individuals and the organization and understanding how individual capabilities and organizational actions can mitigate these emerging issues are important in terms of future well-being. The findings of this study can work as a guide for individuals and organizations, on how to start alleviating individual-level challenges of ambidexterity in the future.

REFERENCES

Adler, P. S., Goldoftas, B., & Levine, D. I. (1999). Flexibility Versus Efficiency? A Case Study of Model Changeovers in the Toyota Production System. *Organization Science*, *10*(1), 43–68. https://doi.org/10.1287/orsc.10.1.43

Agnihotri, R., Gabler, C., Itani, O., Jaramillo, F., & Krush, M. (2017). Salesperson ambidexterity and customer satisfaction: Examining the role of customer demandingness, adaptive selling, and role conflict. *Journal of Personal Selling & Sales Management*, *37*, 1–15. https://doi.org/10.1080/08853134.2016.1272053

Ajayi, O. M., Odusanya, K., & Morton, S. (2017). Stimulating employee ambidexterity and employee engagement in SMEs. *Management Decision*, *55*(4), 662–680. https://doi.org/10.1108/MD-02-2016-0107

Alreemy, Z., Chang, V., Walters, R., & Wills, G. (2016). Critical success factors (CSFs) for information technology governance (ITG). *International Journal of Information Management*, *36*(6), 907–916. https://doi.org/10.1016/j.ijinfomgt.2016.05.017

Altmann, E. M., & Trafton, J. G. (2002). Memory for goals: An activation-based model. *Cognitive Science*, *26*(1), 39–83. https://doi.org/10.1207/s15516709cog2601_2

Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization Science*, *20*(4), 696–717. https://doi.org/10.1287/orsc.1080.0406

Aston-Jones, G., & Cohen, J. D. (2005). AN INTEGRATIVE THEORY OF LOCUS COERULEUS-NOREPINEPHRINE FUNCTION: Adaptive Gain and Optimal Performance. *Annual Review of Neuroscience*, *28*(1), 403–450. https://doi.org/10.1146/annurev.neuro.28.061604.135709

Auh, S., & Menguc, B. (2005). Balancing exploration and exploitation: The moderating role of competitive intensity. *Journal of Business Research*, *58*(12), 1652–1661. https://doi.org/10.1016/j.jbusres.2004.11.007

Baethge, A., Rigotti, T., & Roe, R. A. (2015). Just more of the same, or different? An integrative theoretical framework for the study of cumulative interruptions at work. *European Journal of Work and Organizational Psychology*, *24*(2), 308–323. https://doi.org/10.1080/1359432X.2014.897943

Bailey, B. P., & Konstan, J. A. (2006). On the need for attention-aware systems: Measuring effects of interruption on task performance, error rate, and affective state. *Computers in Human Behavior*, *22*(4), 685–708. https://doi.org/10.1016/j.chb.2005.12.009

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barney, J., & Felin, T. (2013). What Are Microfoundations? *Academy of Management Perspectives*, *27*(2), 138–155. https://doi.org/10.5465/amp.2012.0107

Bartholomew, K., Henderson, A. J. Z., & Marcia, J. E. (2000). Coded semistructured interviews in social psychological research. In *Handbook of research*

methods in social and personality psychology (pp. 286–312). Cambridge University Press.

Bashir, U., & Ramay, M. I. (2010). Impact Of Stress On Employees Job Performance A Study On Banking Sector Of Pakistan. *International Journal of Marketing Studies*, *2*(1), p122. https://doi.org/10.5539/ijms.v2n1p122

Benner, M. J., & Tushman, M. L. (2003). Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited. *The Academy of Management Review*, *28*(2), 238–256. https://doi.org/10.2307/30040711

Benner, M. J., & Tushman, M. L. (2015). Reflections on the 2013 Decade Award—"Exploitation, Exploration, and Process Management: The Productivity Dilemma Revisited" Ten Years Later. *Academy of Management Review*, *40*(4), 497–514. https://doi.org/10.5465/amr.2015.0042

BIBB/BAuA. (2012). *Factsheet 01 "Pressure of Time, Multitasking and others—Working Conditions with High Stress Potential."* 2.

Bidmon, C. M., & Boe-Lillegraven, S. (2020). Now, switch! Individuals' responses to imposed switches between exploration and exploitation. *Long Range Planning*, *53*(6), 101928. https://doi.org/10.1016/j.lrp.2019.101928

Bierly, P. E., & Daly, P. S. (2007). Alternative Knowledge Strategies, Competitive Environment, and Organizational Performance in Small Manufacturing Firms. *Entrepreneurship Theory and Practice*, *31*(4), 493–516. https://doi.org/10.1111/j.1540-6520.2007.00185.x

Birkinshaw, J., & Gupta, K. (2013). Clarifying the Distinctive Contribution of Ambidexterity to the Field of Organization Studies. *Academy of Management Perspectives*, *27*(4), 287–298. https://doi.org/10.5465/amp.2012.0167

Birks, M., & Mills, J. (2015). *Grounded theory: A practical guide* (Second edition). SAGE.

Bledow, R., Frese, M., Anderson, N., Erez, M., & Farr, J. (2009). A Dialectic Perspective on Innovation: Conflicting Demands, Multiple Pathways, and Ambidexterity. *Industrial and Organizational Psychology*, *2*(3), 305–337. https://doi.org/10.1111/j.1754-9434.2009.01154.x

Boehm-Davis, D. A., & Remington, R. (2009). Reducing the disruptive effects of interruption: A cognitive framework for analysing the costs and benefits of intervention strategies. *Accident Analysis & Prevention*, *41*(5), 1124–1129. https://doi.org/10.1016/j.aap.2009.06.029

Borgh, M., & Schepers, J. (2014). Do Retailers Really Profit from Ambidextrous Managers? The Impact of Frontline Mechanisms on New and Existing Product Selling Performance. *Journal of Product Innovation Management*, *31*. https://doi.org/10.1111/jpim.12158

Brixey, J. J., Robinson, D. J., Johnson, C. W., Johnson, T. R., Turley, J. P., & Zhang, J. (2007). A Concept Analysis of the Phenomenon Interruption: *Advances in Nursing Science*, *30*(1), E26–E42. https://doi.org/10.1097/00012272-200701000-00012

Brown, S. L., & Eisenhardt, K. M. (1997). The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations. *Administrative Science Quarterly*, *42*(1), 1–34. https://doi.org/10.2307/2393807

Burgelman, R. A. (1991). Intraorganizational Ecology of Strategy Making and Organizational Adaptation: Theory and Field Research. *Organization Science*, *2*(3), 239–262.

Burgers, J. H., Jansen, J. J. P., Van den Bosch, F. A. J., & Volberda, H. W. (2009). Structural differentiation and corporate venturing: The moderating role of formal and informal integration mechanisms. *Journal of Business Venturing*, *24*(3), 206–220. https://doi.org/10.1016/j.jbusvent.2009.01.006

Cañas, J., Quesada, J., Antolí, A., & Fajardo, I. (2003). Cognitive flexibility and adaptability to environmental changes in dynamic complex problem-solving tasks. *Ergonomics*, *46*(5), 482–501. https://doi.org/10.1080/0014013031000061640

Caniëls, M. C. J., & Veld, M. (2019). Employee ambidexterity, high performance work systems and innovative work behaviour: How much balance do we need? *The International Journal of Human Resource Management*, *30*(4), 565–585. https://doi.org/10.1080/09585192.2016.1216881

Cellier, J.-M., & Eyrolle, H. (1992). Interference between switched tasks. *Ergonomics*, *35*(1), 25–36. https://doi.org/10.1080/00140139208967795

Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE Open Medicine*, *7*, 2050312118822927. https://doi.org/10.1177/2050312118822927

Claessens, B. J. C., van Eerde, W., Rutte, C. G., & Roe, R. A. (2010). Things to Do Today . . .: A Daily Diary Study on Task Completion at Work. *Applied Psychology*, *59*(2), 273–295. https://doi.org/10.1111/j.1464-0597.2009.00390.x

Cohen, J. D., McClure, S. M., & Yu, A. J. (2007). Should I stay or should I go? How the human brain manages the trade-off between exploitation and exploration. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *362*(1481), 933–942. https://doi.org/10.1098/rstb.2007.2098

Cottrell, T., & Nault, B. R. (2004). Product Variety and Firm Survival in the Microcomputer Software Industry. *Strategic Management Journal*, *25*(10), 1005–1025.

Csikszentmihalyi, M., & Sawyer, K. (1995). Creative insight: The social dimension of a solitary moment. In *The nature of insight* (pp. 329–363). The MIT Press.

Cutrell, E., Czerwinski, M., & Horvitz, E. (2000). *Notification, Disruption, and Memory: Effects of Messaging Interruptions on Memory and Performance*.

Davis, J. P., Eisenhardt, K. M., & Bingham, C. B. (2009). Optimal Structure, Market Dynamism, and the Strategy of Simple Rules. *Administrative Science Quarterly*, *54*(3), 413–452.

Denison, D. R., Hooijberg, R., & Quinn, R. E. (1995). Paradox and Performance: Toward a Theory of Behavioral Complexity in Managerial Leadership. *Organization Science*, *6*(5), 524–540. https://doi.org/10.1287/orsc.6.5.524

Doty, D. H., Glick, W. H., & Huber, G. P. (1993). FIT, EQUIFINALITY, AND OR-GANIZATIONAL EFFECTIVENESS: A TEST OF TWO CONFIGURA-TIONAL THEORIES. *Academy of Management Journal*, *36*(6), 1196–1250. https://doi.org/10.2307/256810

Duncan, R. B. (1976). The ambidextrous organization, designing dual structures for innovation. *The Management of Organization Design*, *1*.

Eisenhardt, K. M., Furr, N. R., & Bingham, C. B. (2010). Microfoundations of Per-formance: Balancing Efficiency and Flexibility in Dynamic Environments. *Organization Science*, *21*(6), 1263–1273.

Felin, T., Foss, N. J., Heimeriks, K. H., & Madsen, T. L. (2012). Microfoundations of Routines and Capabilities: Individuals, Processes, and Structure: Micro-foundations of Routines and Capabilities. *Journal of Management Studies*, *49*(8), 1351–1374. https://doi.org/10.1111/j.1467-6486.2012.01052.x

Fiset, J., & Dostaler, I. (2017). Opening the Black Box of Ambidexterity: Three Product Development Stories. *Technology Innovation Management Review*, *7*(3), 4–11. https://doi.org/10.22215/timreview/1060

Flexible working as human resources strategy: Benefits to the organization and its personnel. (2008). *Strategic Direction*, 24(8), 9–11. https://doi.org/10.1108/02580540810884584

Floyd, S. W., & Lane, P. J. (2000). Strategizing throughout the Organization: Man-aging Role Conflict in Strategic Renewal. *The Academy of Management Re-view*, *25*(1), 154. https://doi.org/10.2307/259268

Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In *Handbook of industrial and organizational psychology, Vol. 4, 2nd ed* (pp. 271–340). Consulting Psychologists Press.

Gabler, C. B., Ogilvie, J. L., Rapp, A., & Bachrach, D. G. (2017). Is There a Dark Side of Ambidexterity? Implications of Dueling Sales and Service Orientations. *Journal of Service Research*, 20(4), 379–392. https://doi.org/10.1177/1094670517712019

Garcia, F., Guidice, R. M., & Mero, N. P. (2019). The interactive effect of person and situation on explorative and exploitative behavior. *Journal of Management & Organization*, 1–21. https://doi.org/10.1017/jmo.2019.50

Gibson, C. B., & Birkinshaw, J. (2004). THE ANTECEDENTS, CONSEQUENCES, AND MEDIATING ROLE OF ORGANIZATIONAL AMBIDEXTERITY. *Academy of Management Journal*, 19.

Gilbert, C. G. (2005). Unbundling the Structure of Inertia: Resource Versus Routine Rigidity. *Academy of Management Journal*, 48(5), 741–763. https://doi.org/10.5465/amj.2005.18803920

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1), 15–31. https://doi.org/10.1177/1094428112452151

Good, D., & Michel, E. J. (2013). Individual Ambidexterity: Exploring and Exploiting in Dynamic Contexts. *The Journal of Psychology*, 147(5), 435–453. https://doi.org/10.1080/00223980.2012.710663

Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The Interplay Between Exploration and Exploitation. *Academy of Management Journal*, *49*(4), 693–706. https://doi.org/10.5465/amj.2006.22083026

Hacker, W. (2003). Action Regulation Theory: A practical tool for the design of modern work processes? *European Journal of Work and Organizational Psychology*, *12*(2), 105–130. https://doi.org/10.1080/13594320344000075

Hacker, W., & Sachse, P. (2014). *Allgemeine Arbeitspsychologie: Psychische Regulation von Tätigkeiten* (3., vollst. überarb. Aufl). Hogrefe.

Hansen, M. T. (2002). Knowledge Networks: Explaining Effective Knowledge Sharing in Multiunit Companies. *Organization Science*, *13*(3), 232–248.

Harrell, M. C., & Bradley, M. (2009). *Data collection methods: Semi-structured interviews and focus groups*. RAND.

Harry, M. J., & Schroeder, R. (2000). *Six sigma: The breakthrough management strategy revolutionizing the world's top corporations* (1st ed). Currency.

He, Z.-L., & Wong, P.-K. (2004). Exploration vs. Exploitation: An Empirical Test of the Ambidexterity Hypothesis. *Organization Science*, *15*(4), 481–494. https://doi.org/10.1287/orsc.1040.0078

Henning, R. A., Sauter, S. L., Salvendy, G., & Krieg, E. F. (1989). Microbreak length, performance, and stress in a data entry task. *Ergonomics*, *32*(7), 855–864. https://doi.org/10.1080/00140138908966848

Hill, S. A., & Birkinshaw, J. (2014). Ambidexterity and Survival in Corporate Venture Units. *Journal of Management*, *40*(7), 1899–1931. https://doi.org/10.1177/0149206312445925

Hills, T. T., Todd, P. M., & Goldstone, R. L. (2010). The central executive as a search process: Priming exploration and exploitation across domains. *Journal of Experimental Psychology: General*, *139*(4), 590–609. https://doi.org/10.1037/a0020666

Huselid, M. A. (1995). THE IMPACT OF HUMAN RESOURCE MANAGEMENT PRACTICES ON TURNOVER, PRODUCTIVITY, AND CORPORATE FINANCIAL PERFORMANCE. *Academy of Management Journal*, *38*(3), 635–672. https://doi.org/10.2307/256741

Jansen, J. J. P., Tempelaar, M. P., van den Bosch, F. A. J., & Volberda, H. W. (2009). Structural Differentiation and Ambidexterity: The Mediating Role of Integration Mechanisms. *Organization Science*, *20*(4), 797–811. https://doi.org/10.1287/orsc.1080.0415

Jett, Q. R., & George, J. M. (2003). Work Interrupted: A Closer Look at the Role of Interruptions in Organizational Life. *The Academy of Management Review*, *28*(3), 494. https://doi.org/10.2307/30040736

Kang, S.-C., & Snell, S. A. (2009). Intellectual Capital Architectures and Ambidextrous Learning: A Framework for Human Resource Management. *Journal of Management Studies*, *46*(1), 65–92. https://doi.org/10.1111/j.1467-6486.2008.00776.x

Kauppila, O.-P. (2010). Creating ambidexterity by integrating and balancing structurally separate interorganizational partnerships. *Strategic Organization*, *8*(4), 283–312. https://doi.org/10.1177/1476127010387409

Keller, T., & Weibler, J. (2015). What It Takes and Costs To Be an Ambidextrous Manager: Linking Leadership and Cognitive Strain to Balancing Exploration and Exploitation. *Journal of Leadership & Organizational Studies*, *22*(1), 54–71. https://doi.org/10.1177/1548051814524598

Kirmeyer, S. L. (1988). Coping with competing demands: Interruption and the Type A pattern. *Journal of Applied Psychology*, *73*(4), 621–629. https://doi.org/10.1037/0021-9010.73.4.621

Kobarg, S., Wollersheim, J., Welpe, I. M., & Spörrle, M. (2017). Individual Ambidexterity and Performance in the Public Sector: A Multilevel Analysis. *International Public Management Journal*, *20*(2), 226–260. https://doi.org/10.1080/10967494.2015.1129379

Krediet, I. (1999). *Work and Emotions; The Role of Interruptions*.

Lam, S. K., DeCarlo, T. E., & Sharma, A. (2019). Salesperson ambidexterity in customer engagement: Do customer base characteristics matter? *Journal of the Academy of Marketing Science*, *47*(4), 659–680. https://doi.org/10.1007/s11747-019-00650-0

Laureiro-Martínez, D., Brusoni, S., Canessa, N., & Zollo, M. (2015). Understanding the exploration-exploitation dilemma: An fMRI study of attention control and decision-making performance: Understanding the Exploration-

Exploitation Dilemma. *Strategic Management Journal*, *36*(3), 319–338. https://doi.org/10.1002/smj.2221

Laureiro-Martínez, D., Brusoni, S., & Zollo, M. (2010). The neuroscientific foundations of the exploration−exploitation dilemma. *Journal of Neuroscience, Psychology, and Economics*, *3*(2), 95–115. https://doi.org/10.1037/a0018495

Lavie, D., & Rosenkopf, L. (2006). Balancing Exploration and Exploitation in Alliance Formation. *The Academy of Management Journal*, *49*(4), 797–818. https://doi.org/10.2307/20159799

Lavie, D., Stettner, U., & Tushman, M. L. (2010). Exploration and Exploitation Within and Across Organizations. *Academy of Management Annals*, *4*(1), 109–155. https://doi.org/10.5465/19416521003691287

Lee, Y.-J., & Lee, J.-H. (2016). Knowledge workers' ambidexterity: Conceptual separation of competencies and behavioural dispositions. *Asian Journal of Technology Innovation*, *24*(1), 22–40. https://doi.org/10.1080/19761597.2016.1151365

Lerner, D., Adler, D., Rogers, W., Chang, H., Lapitsky, L., Mclaughlin, T., & Reed, J. (2010). Work Performance of Employees With Depression: The Impact of Work Stressors. *American Journal of Health Promotion : AJHP*, *24*, 205–213. https://doi.org/10.4278/ajhp.090313-QUAN-103

Levinthal, D. A., & March, J. G. (1993). The Myopia of Learning. *Strategic Management Journal*, *14*, 95–112.

Lin, H.-E., & McDonough, E. (2011). Investigating the Role of Leadership and Organizational Culture in Fostering Innovation Ambidexterity. *IEEE*

Transactions on Engineering Management. https://doi.org/10.1109/TEM.2010.2092781

Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and Performance in Small-to Medium-Sized Firms: The Pivotal Role of Top Management Team Behavioral Integration. *Journal of Management*, *32*(5), 646–672. https://doi.org/10.1177/0149206306290712

March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, *2*(1), 71–87. https://doi.org/10.1287/orsc.2.1.71

Mark, G., Gudith, D., & Klocke, U. (2008). The cost of interrupted work: More speed and stress. *Proceeding of the Twenty-Sixth Annual CHI Conference on Human Factors in Computing Systems - CHI '08*, 107. https://doi.org/10.1145/1357054.1357072

Martin, A., Keller, A., & Fortwengel, J. (2019). Introducing conflict as the micro-foundation of organizational ambidexterity. *Strategic Organization*, *17*(1), 38–61. https://doi.org/10.1177/1476127017740262

Matson, E., & Prusak, L. (2003). The Performance Variability Dilemma. *Undefined*. https://www.semanticscholar.org/paper/The-Performance-Variability-Dilemma-Matson-Prusak/19fb11fda22a6952f27397a72fae28e9dda8d81f

McIntosh, M. J., & Morse, J. M. (2015). Situating and Constructing Diversity in Semi-Structured Interviews. *Global Qualitative Nursing Research*, *2*, 233339361559767. https://doi.org/10.1177/2333393615597674

Mendelson, H. (2000). Organizational Architecture and Success in the Information Technology Industry. *Management Science*, *46*(4), 513–529. https://doi.org/10.1287/mnsc.46.4.513.12060

Mintzberg, H. (1990, March 1). The Manager's Job: Folklore and Fact. *Harvard Business Review*. https://hbr.org/1990/03/the-managers-job-folklore-and-fact

Mom, T. J. M., Chang, Y.-Y., Cholakova, M., & Jansen, J. J. P. (2019). A Multilevel Integrated Framework of Firm HR Practices, Individual Ambidexterity, and Organizational Ambidexterity. *Journal of Management*, *45*(7), 3009–3034. https://doi.org/10.1177/0149206318776775

Mom, T. J. M., Van Den Bosch, F. A. J., & Volberda, H. W. (2007). Investigating Managers' Exploration and Exploitation Activities: The Influence of Top-Down, Bottom-Up, and Horizontal Knowledge Inflows. *Journal of Management Studies*, *44*(6), 910–931. https://doi.org/10.1111/j.1467-6486.2007.00697.x

Mom, T. J. M., van den Bosch, F. A. J., & Volberda, H. W. (2009). Understanding Variation in Managers' Ambidexterity: Investigating Direct and Interaction Effects of Formal Structural and Personal Coordination Mechanisms. *Organization Science*, *20*(4), 812–828. https://doi.org/10.1287/orsc.1090.0427

Monk, C. A., Boehm-Davis, D. A., Mason, G., & Trafton, J. G. (2004). Recovering From Interruptions: Implications for Driver Distraction Research. *Human*

Factors: The Journal of the Human Factors and Ergonomics Society, *46*(4), 650–663. https://doi.org/10.1518/hfes.46.4.650.56816

Monson, R. J. (1985). High Output Management: By Andrew S. Grove. New York: Random House, 1983. *NASSP Bulletin*, *69*(477), 99–100. https://doi.org/10.1177/019263658506947721

Morse, J. M., & Field, P. A. (1995). *Qualitative Research Methods for Health Professionals*. SAGE Publications.

O'Reilly III, C. A., & Tushman, M. L. (2013). ORGANIZATIONAL AMBIDEXTERITY: PAST, PRESENT, AND FUTURE. *Academy of Management Perspectives*, *27*(4), 324–338.

Pandit, N. (1996). The Creation of Theory: A Recent Application of the Grounded Theory Method. *The Qualitative Report.* https://doi.org/10.46743/2160-3715/1996.2054

Patel, P. C., Messersmith, J. G., & Lepak, D. P. (2013). Walking the Tightrope: An Assessment of the Relationship between High-Performance Work Systems and Organizational Ambidexterity. *Academy of Management Journal*, *56*(5), 1420–1442. https://doi.org/10.5465/amj.2011.0255

Patterson, P., Yu, T., & Kimpakorn, N. (2014). Killing two birds with one stone: Cross-selling during service delivery. *Journal of Business Research*, *67*, 1944–1952. https://doi.org/10.1016/j.jbusres.2013.11.013

Perlow, L. A. (1999). The Time Famine: Toward a Sociology of Work Time. *Administrative Science Quarterly*, 44(1), 57–81. https://doi.org/10.2307/2667031

Pertusa-Ortega, E. M., Molina-Azorín, J. F., Tarí, J. J., Pereira-Moliner, J., & López-Gamero, M. D. (2021). The microfoundations of organizational ambidexterity: A systematic review of individual ambidexterity through a multi-level framework. *BRQ Business Research Quarterly*, *24*(4), 355–371. https://doi.org/10.1177/2340944420929711

Quirkos – Qualitative Data Analysis Software made simple. (n.d.). Retrieved May 12, 2022, from https://www.quirkos.com/

Raisch, S., & Birkinshaw, J. (2008). Organizational Ambidexterity: Antecedents, Outcomes, and Moderators. *Journal of Management*, *34*(3), 375–409. https://doi.org/10.1177/0149206308316058

Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. L. (2009). Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. *Organization Science*, *20*(4), 685–695. https://doi.org/10.1287/orsc.1090.0428

Rapp, A., Bachrach, D., Flaherty, K., Hughes, D., Sharma, A., & Voorhees, C. (2016). The Role of the Sales-Service Interface and Ambidexterity in the Evolving Organization: A Multilevel Research Agenda. *Journal of Service Research*, *20*. https://doi.org/10.1177/1094670516679274

Richards, L., & Morse, J. M. (2012). *README FIRST for a User's Guide to Qualitative Methods*. SAGE.

Rogan, M., & Mors, M. L. (2014). A Network Perspective on Individual-Level Ambidexterity in Organizations. *Organization Science*, *25*(6), 1860–1877.

Rothaermel, F. T., & Deeds, D. L. (2004). Exploration and exploitation alliances in biotechnology: A system of new product development. *Strategic Management Journal*, *25*(3), 201–221. https://doi.org/10.1002/smj.376

Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed). SAGE.

Schultz, C., Schreyoegg, J., & von Reitzenstein, C. (2013). The moderating role of internal and external resources on the performance effect of multitasking: Evidence from the R&D performance of surgeons. *Research Policy*, *42*(8), 1356–1365. https://doi.org/10.1016/j.respol.2013.04.008

Shagvaliyeva, S., & Yazdanifard, R. (2014). Impact of Flexible Working Hours on Work-Life Balance. *American Journal of Industrial and Business Management*, *04*(01), 20–23. https://doi.org/10.4236/ajibm.2014.41004

Siggelkow, N., & Levinthal, D. A. (2003). Temporarily Divide to Conquer: Centralized, Decentralized, and Reintegrated Organizational Approaches to Exploration and Adaptation. *Organization Science*, *14*(6), 650–669. https://doi.org/10.1287/orsc.14.6.650.24840

Simsek, Z. (2009). Organizational Ambidexterity: Towards a Multilevel Understanding. *Journal of Management Studies*, *46*(4), 597–624. https://doi.org/10.1111/j.1467-6486.2009.00828.x

Smith, K. G., Smith, K. A., Olian, J. D., Sims, H. P., O'Bannon, D. P., & Scully, J. A. (1994). Top management team demography and process: The role of

social integration and communication. *Administrative Science Quarterly*, *39*(3), 412–438. https://doi.org/10.2307/2393297

SMITH, W. K., & LEWIS, M. W. (2011). TOWARD A THEORY OF PARADOX: A DYNAMIC EQUILIBRIUM MODEL OF ORGANIZING. *The Academy of Management Review*, *36*(2), 381–403.

Smith, W. K., & Tushman, M. L. (2005). Managing Strategic Contradictions: A Top Management Model for Managing Innovation Streams. *Organization Science*, *16*(5), 522–536. https://doi.org/10.1287/orsc.1050.0134

Sok, K. M., Sok, P., & De Luca, L. M. (2016). The effect of 'can do' and 'reason to' motivations on service–sales ambidexterity. *Industrial Marketing Management*, *55*, 144–155. https://doi.org/10.1016/j.indmarman.2015.09.001

Sok, P., & O'Cass, A. (2015). Examining the new product innovation – performance relationship: Optimizing the role of individual-level creativity and attention-to-detail. *Industrial Marketing Management*, *47*, 156–165. https://doi.org/10.1016/j.indmarman.2015.02.040

Sonnentag, S., & Zijlstra, F. R. H. (2006). Job characteristics and off-job activities as predictors of need for recovery, well-being, and fatigue. *Journal of Applied Psychology*, *91*(2), 330–350. https://doi.org/10.1037/0021-9010.91.2.330

Souza-Luz, A. R., & Gavronski, I. (2019). Ambidextrous supply chain managers in a slow clockspeed industry: Evidence from a Brazilian adhesive manufacturer. *Supply Chain Management: An International Journal*, *25*(1), 101–114. https://doi.org/10.1108/SCM-09-2018-0318

Speier, C., Valacich, J. S., & Vessey, I. (1999). The Influence of Task Interruption on Individual Decision Making: An Information Overload Perspective. *Decision Sciences*, *30*(2), 337–360. https://doi.org/10.1111/j.1540-5915.1999.tb01613.x

Stadler, C., Rajwani, T., & Karaba, F. (2014). Solutions to the Exploration/Exploitation Dilemma: Networks as a New Level of Analysis: Exploration/Exploitation Dilemma. *International Journal of Management Reviews*, *16*(2), 172–193. https://doi.org/10.1111/ijmr.12015

Strauss, A., & Corbin, J. M. (1997). *Grounded Theory in Practice*. SAGE.

Tarba, S. Y., Jansen, J. J. P., Mom, T. J. M., Raisch, S., & Lawton, T. C. (2020). A microfoundational perspective of organizational ambidexterity: Critical review and research directions. *Long Range Planning*, *53*(6), 102048. https://doi.org/10.1016/j.lrp.2020.102048

Taylor, A., & Helfat, C. E. (2009). Organizational Linkages for Surviving Technological Change: Complementary Assets, Middle Management, and Ambidexterity. *Organization Science*, *20*(4), 718–739. https://doi.org/10.1287/orsc.1090.0429

Tempelaar, M. P., & Rosenkranz, N. A. (2019). Switching Hats: The Effect of Role Transition on Individual Ambidexterity. *Journal of Management*, *45*(4), 1517–1539. https://doi.org/10.1177/0149206317714312

The Eisenhower Matrix: Introduction & 3-Minute Video Tutorial. (2017, February 7). https://www.eisenhower.me/eisenhower-matrix/

Turner, N., Swart, J., & Maylor, H. (2013). Mechanisms for Managing Ambidexterity: A Review and Research Agenda: Mechanisms for Managing Ambidexterity. *International Journal of Management Reviews*, *15*(3), 317–332. https://doi.org/10.1111/j.1468-2370.2012.00343.x

Turner, R. H. (1990). Role Change. *Annual Review of Sociology*, *16*(1), 87–110. https://doi.org/10.1146/annurev.so.16.080190.000511

Tushman, M. L., & O'Reilly III, C. A. (1996). Ambidextrous Organizations: MANAGING EVOLUTIONARY AND REVOLUTIONARY CHANGE. *California Management Review*, *38*(4), 8–30. https://doi.org/10.2307/41165852

Tushman, M. L., & Romanelli, E. (1985). Organizational evolution: A metamorphosis model of convergence and reorientation. *Research in Organizational Behavior*, *7*, 171–222.

Tushman, M., Smith, W., & Binns, A. (2011). The ambidextrous CEO. *Harvard Business Review*, *89*, 74–80, 136.

Ugboro, I. O., & Obeng, K. (2000). Top management leadership, employee empowerment, job satisfaction, and customer satisfaction in TQM organizations: An empirical study. *Journal of Quality Management*, *5*(2), 247–272. https://doi.org/10.1016/S1084-8568(01)00023-2

Van der Borgh, M., de Jong, A., & Nijssen, E. J. (2017). Alternative Mechanisms Guiding Salespersons' Ambidextrous Product Selling: Ambidextrous Product Selling. *British Journal of Management*, *28*(2), 331–353. https://doi.org/10.1111/1467-8551.12148

Van Looy, B., Martens, T., & Debackere, K. (2005). Organizing for Continuous Innovation: On the Sustainability of Ambidextrous Organizations. *Creativity and Innovation Management*, *14*(3), 208–221. https://doi.org/10.1111/j.1467-8691.2005.00341.x

Vinekar, V., Slinkman, C. W., & Nerur, S. (2006). Can Agile and Traditional Systems Development Approaches Coexist? An Ambidextrous View. *Information Systems Management*, *23*(3), 31–42. https://doi.org/10.1201/1078.10580530/46108.23.3.20060601/93705.4

Wang, S. L., Luo, Y., Maksimov, V., Sun, J., & Celly, N. (2019). Achieving Temporal Ambidexterity in New Ventures. *Journal of Management Studies*, *56*(4), 788–822. https://doi.org/10.1111/joms.12431

Wei, L.-Q., & Lau, C.-M. (2010). High performance work systems and performance: The role of adaptive capability. *Human Relations*, *63*(10), 1487–1511. https://doi.org/10.1177/0018726709359720

Weick, K. E. (1995). *Sensemaking in organizations*. Sage Publications.

Westbrook, J. I. (2010). Association of Interruptions With an Increased Risk and Severity of Medication Administration Errors. *Archives of Internal Medicine*, *170*(8), 683. https://doi.org/10.1001/archinternmed.2010.65

What Is a Kanban Board and How to Use It? Basics Explained. (n.d.). Kanban Software for Agile Project Management. Retrieved September 28, 2022, from https://kanbanize.com/kanban-resources/getting-started/what-is-kanban-board

Whiting, L. S. (2008). Semi-structured interviews: Guidance for novice researchers. *Nursing Standard (through 2013)*, *22*(23), 35–40.

Wooldridge, B., & Floyd, S. W. (1989). Research notes and communications strategic process effects on consensus. *Strategic Management Journal*, *10*(3), 295–302. https://doi.org/10.1002/smj.4250100308

Yu, T., Gudergan, S., & Chen, C.-F. (2020). Achieving employee efficiency–flexibility ambidexterity. *The International Journal of Human Resource Management*, *31*(19), 2459–2494. https://doi.org/10.1080/09585192.2018.1449762

Zapf, D. (1993). Stress-oriented Analysis of Computerized Office Work. *European Work and Organizational Psychologist*, *3*(2), 85–100. https://doi.org/10.1080/09602009308408580

Zhang, Y., Wei, F., & Van Horne, C. (2019). INDIVIDUAL AMBIDEXTERITY AND ANTECEDENTS IN A CHANGING CONTEXT. *International Journal of Innovation Management*, *23*(03), 1950021. https://doi.org/10.1142/S136391961950021X

Zijlstra, F. R. H., Roe, R. A., Leonora, A. B., & Krediet, I. (1999). Temporal factors in mental work: Effects of interrupted activities. *Journal of Occupational and Organizational Psychology*, *72*(2), 163–185. https://doi.org/10.1348/096317999166581

Zimmermann, A., Hill, S. A., Birkinshaw, J., & Jaeckel, M. (2020). Complements or substitutes? A microfoundations perspective on the interplay between drivers of ambidexterity in SMEs. *Long Range Planning*, *53*(6), 101927. https://doi.org/10.1016/j.lrp.2019.101927

APPENDIX 1   SEMI-STRUCTURED INTERVIEW QUESTIONS IN FINNISH

PÄÄKYSYMYKSET
1. Mikä on sinun tittelisi ja rooli yrityksessä?
2. Kauan olet työskennellyt yrityksessä?
3. Mistä työnkuvasi pääsääntöisesti koostuu?
4. Miten kuvailisit säännöllisiä tai rutiininomaisia tehtäviäsi? Mistä nämä koostuvat ja millaisia ne saattavat olla?
5. Miten kuvailisit tehtäviä, jotka liittyvät kehittämiseen? Mistä nämä koostuvat ja millaisia ne voisivat olla?
6. Miten nämä tehtävät yleensä asettuvat päivittäiseen aikatauluun ja/tai kalenteriin?
    a. Kuinka tasapainotat ajan näiden tehtävien välillä?
7. Millainen prosessi sinulla on vaihtaa rutiinitehtävien ja/tai kehittämiseen painottuvien tehtävien välillä?
8. *Pystytkö kuvailemaan jotain tiettyä ajanjaksoa, milloin olet kokenut hankalaksi navigoida/vaihdella erilaisten tehtävien ja projektien välillä?*
    a. *Mikä tässä erityisesti kuormitti?*
    b. *Mitä olisi pitänyt olla tai tapahtua toisin, että näin ei olisi tapahtunut?*
9. Koetko joidenkin tehtävien aloittamisen tai loppuun saattamisen haastavaksi? Mitä nämä tehtävät yleensä ovat?
10. Miten kuvailisit isoimpia haasteita omasta mielestäsi, jotka vaikuttavat rutiini- ja kehitystehtävien aloittamiseen, vaihtamiseen sekä loppuun saattamiseen?
11. Näissä tilanteissa – mitkä ovat päällimmäiset tunteet ja miten kuvailisit niitä?
12. Mitä olisivat mielestäsi keinot mitkä lieventäisivät taakkaa ja haasteita esille nousseiden ongelmien suhteen?

SIVUKYSYMYKSET
1. Mitä haasteita ajan käyttöön liittyy?
2. Milloin pystyt käyttämään oman aikasi työtehtävien tekemiseen parhaiten?
3. Millaisia ovat tehtävät, joissa koet tarvitsevasi tukea tai mielipidettä myös kollegoilta?
4. Millaisia ovat tehtävät, joiden parissa mieluiten toimit yksin?

APPENDIX 2   SEMI-STRUCTURED INTERVIEW QUESTIONS IN FINNISH VERSION 2

PÄÄKYSYMYKSET
1. Mikä on sinun tittelisi ja rooli yrityksessä?
2. Kauan olet työskennellyt yrityksessä?
3. Mistä työnkuvasi pääsääntöisesti koostuu?
4. Miten kuvailisit säännöllisiä tai rutiininomaisia tehtäviäsi? Mistä nämä koostuvat ja millaisia ne saattavat olla?
5. Miten kuvailisit tehtäviä, jotka liittyvät kehittämiseen? Mistä nämä koostuvat ja millaisia ne voisivat olla?
6. Miten nämä tehtävät yleensä asettuvat päivittäiseen aikatauluun ja/tai kalenteriin?
    a. Kuinka tasapainotat ajan näiden tehtävien välillä?
7. Millainen prosessi sinulla on vaihtaa rutiinitehtävien ja/tai kehittämiseen painottuvien tehtävien välillä?
8. *Pystytkö kuvailemaan jotain tiettyä ajanjaksoa, milloin olet kokenut hankalaksi navigoida/vaihdella erilaisten tehtävien ja projektien välillä?*
    a. *Mikä tässä erityisesti kuormitti?*
    b. *Mitä olisi pitänyt olla tai tapahtua toisin, että näin ei olisi tapahtunut?*
9. Koetko joidenkin tehtävien aloittamisen tai loppuun saattamisen haastavaksi? Mitä nämä tehtävät yleensä ovat?
10. Miten kuvailisit isoimpia haasteita omasta mielestäsi, jotka vaikuttavat rutiini- ja kehitystehtävien aloittamiseen, vaihtamiseen sekä loppuun saattamiseen?
11. Näissä tilanteissa – mitkä ovat päällimmäiset tunteet ja miten kuvailisit niitä?
12. Mitä olisivat mielestäsi keinot mitkä lieventäisivät taakkaa ja haasteita esille nousseiden ongelmien suhteen omasta ja organisaation puolesta?

SIVUKYSYMYKSET
1. Mitä haasteita ajan käyttöön liittyy?
2. Milloin pystyt käyttämään oman aikasi työtehtävien tekemiseen parhaiten?
3. Millaisia ovat tehtävät, joissa koet tarvitsevasi tukea tai mielipidettä myös kollegoilta?
4. Millaisia ovat tehtävät, joiden parissa mieluiten toimit yksin?

APPENDIX 3   SEMI-STRUCTURED INTERVIEW QUESTIONS IN ENGLISH

MAIN QUESTIONS
1. What is your title and role in the company?
2. How long have you worked for the company?
3. What does your job description mainly consist of?
4. How would you describe your regular or routine tasks? What do these consist of and what might they be like?
5. How would you describe your tasks related to development or bigger entities? What do these consist of and what could they be like?
6. How do these tasks usually fit into your daily schedule and calendar?
    a. How do you balance the time between these tasks?
7. What kind of a process do you have to switch between these routine and development-focused tasks?
8. Can you describe a specific period when you have found it difficult to navigate/switch between different tasks and projects?
    a. What was particularly difficult here?
    b. What should have been or happened differently for this not to happen?
9. Do you find it challenging to start or complete some tasks? What are these tasks in general?
10. How would you describe the biggest challenges in your opinion that affect the initiation, switching, and completion of these different tasks?
11. In these situations - what are the overriding emotions and how would you describe them?
12. What do you think would be the means to alleviate the burden and challenges of the problems that have arisen for yourself and the organization?

SECONDARY QUESTIONS
1. What are the challenges of using time?
2. When are you capable of spending your time most efficiently to do these different tasks?
3. What are the tasks where you feel you need support or opinion from your colleagues as well?
4. What are the tasks you prefer to work on alone?