UNIVERISTY OF VAASA

Petteri Leskinen, z109328

A multi-level approach to ambidexterity
Case study of Finnish gaming companies.

Master's Thesis in
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Tiivistelmä:

Yritykset tasapainottelevat jatkuvasti sen välillä, kannattaako niiden käyttää rajallisia resurssejaan nykyisen liiketoimintansa tehostamiseen vai uuden liiketoiminnan luomiseen. Nykyistä liiketoimintaa tehostettaessa tavoitteena on välittömien tuottojen saavuttaminen, ja uutta liiketoimintaa luotaessa tavoitteena on saavuttaa tuottoja tulevaisuudessa. Ihanteellisen tasapainon saavuttaminen riippuu siitä, miten yritys kykenee allokoimaan ja muokkaamaan sisäisiä, johtamiseen liittyviä ja ulkoisia tekijöitä tavoitteitaan vastaavalla tavalla. Vaikkakin tämä näkemys on peräisin 1990-luvulta, myöhemmät tutkimukset ovat johtaneet lukuisiin jatkokysymyksiin, joihin ei ole vielä vastattu. Tämä tutkielma syventyy tutkimaan yritysten mahdollisuutta hyödyntää kontekstuaalista, rakenteellista, ja sekvensoivaa ambideksterisyyttä.

Tämän tutkielman tavoitteena on määrittää, kuinka organisaatiot pystyvät hyödyntämään samanaikaisesti useampaa ambideksterisyyden muotoa purkaakseen niitä jännitteitä, jotka syntyvät nykyisen liiketoiminnan tehostamisen tavoitteen ja uuden liiketoiminnan luomisen tavoitteen välille. Tämän tutkielman teoreettinen viitekehys rakentuu ambidekstrisyyden sekä sen eri tyyppien ja tasojen ympärille. Tämä viitekehys on välttämätön organisatorisen ambidekstrisyyden ymmärtämiseksi ja siten tutkimuskysymykseen vastaamiseksi.

Tutkielma on laadittu kvalitatiivisesti keskittyen kolmeen eri kokoiseen ja eri ikäiseen suomalaiseen mobiilipeliyritykseen. Tiedot on kerätty näiltä yrityksiltä osittain jäsennellyillä haastatteluilla tarjoten erilaisia ja yksilöllisiä näkökulmia ambidekstrisyyteen.

Tämän tutkielman tulokset viittaavat siihen, että nykyisen liiketoiminnan tehostamisen tavoitteen ja uuden liiketoiminnan luomisen tavoitteen välisiä jännitteitä voidaan purkaa hyödyntämällä useita ambidekstrisyyden muotoja samanaikaisesti. Hyödyntämällä kontekstuaalista ambidekstrisyyttä yrityksen yhteisen tarkoituksen saavuttamiseksi, yritys voidaan jakaa useisiin pieniin ryhmiin, jotka jaksoittain joko tehostavat nykyistä liiketoimintaa tai luovat uutta liiketoimintaa. Tällä metodilla yrityksessä voidaan jatkuvasti ylläpitää radikaalia ja inkrementaalista innovointia sekä vahvistaa yrityksen sisällä yhteistä visiota, luovaa vapautta, matalaa hierarkiaa, uuden tiedon omaksumiskykyä sekä mahdollisuuksia joutoajalle.

1. INTRODUCTION

1.1. Motivation for the study

Innovation is the essence for creating value through economic and industrial development. Some industries and markets have more leverage in their ability to control and mold innovation to enhance overall performance and generate more income than others. However, innovation can manifest in many forms and be the outcome of multiple factors and resources. Organizations must therefore make informed decisions concerning how much weight or resources are placed on innovation and exploitation to remain relevant within markets while looking ahead. A paper- manufacturing company and an electronics provider may be similar in their financial status, but differ vastly in inherit innovation capabilities, management structures and processes, since one is centered around more complex products, services, and innovation and thus has more opportunities for growth than the other in terms of technological advancement. Moreover, this entails that older, more refined processes have been innovated throughout time to the peak of their intended performance. Nonetheless, as time has changed collective knowledge, the processes used to lead organizations has also evolved. Currently, innovation has been studied from countless perspectives each providing new insights to the same questions, how do we create new value continuously?

In a broader context, the question raised about innovation can be examined through multiple lenses, each raising and favoring differing alternatives to the same core premise of economic growth; the process of utilizing and optimizing factors and resources. While in neoclassical economics, the driving force for growth remains productive factor accumulation, i.e., the capital and labor used to create something, a more recent theory of innovation economics is grounded on the idea of growing through collective and continuing technological and innovative advancements which are reflected in more effective and efficient processes, business models and services. Although the two schools of thought differ in how growth is generated, they both encompass similar views on current economics and the reasoning for its basics. However, the link between innovation and performance is not as transparent since the

relationship between the two are more subtle and complex. Therefore, understanding how management and internal processes can affect organizational efficiency through innovation practices, can provide insight on the consequences established strategic practices have on proficiency.

All organizations are constantly under pressures from internal and external forces, which shape their dynamic environment. This means firms must be working to ensure both current and future performance by actively exploiting and maximizing efficiency of established practices while also looking to the future and exploring new and improved aspects of growth (March, 1991; Raisch & Birkinshaw, 2004; Tushman, 2009). Among the plethora of business development related literature, the idea of an ambidextrous organization surveys and concretely conceptualizes the ideal of utilizing both exploiting and exploring processes in a balanced heading. The concept has also gained interest, as Raisch & Birkinshaw (2004) identified five streams and contexts in research related to the subject, offering a framework for approaching and identifying both intra-organizational antecedents of ambidexterity as well as external determinants, moderators and its effect on performance of accounting, growth and market. Ambidextrous organizations are capable of leading chaotic scenarios or even contradictory settings such as long-term growth and concurrent survival or incremental and radical innovativeness simultaneously. This allows the firms to be built for multiple scenarios and to be orientated towards consistency, efficiency, and reliability in addition to experimentation and improvisation of new ideas. Organizational ambidexterity has also been researched to have a positive correlation towards performance in multiple industries and settings (Tinoco, 2014; Du & Chen, 2018; Mardi et al., 2018). Therefore, understanding how these elements operate in a fluctuating setting, gives the opportunity to identify both positive and negative trends of innovation management, which can ultimately change an organizations profitability. Moreover, this opens the door for future research on the subject while having a concrete theoretical background to support it.

Although the different approaches to ambidexterity have been around for some time now, the idea of using them concurrently within a single business has not been studied extensively.

Thus, the possibility, outcomes, and managing of such a configuration have yet to be analyzed. This thesis is centered around the idea of using multiple forms of ambidexterity simultaneously to achieve an optimal solution for alleviating the inherit tensions brought by the counterparts of exploration and exploitation. The question resides in the realm of if and how this can be accomplished and what kinds of prerequisites can this phenomenon have?

To look at these questions in an appropriate context, the subject for analysis should be centered around an entity that uses both incremental and radical innovation. One such option is the mobile gaming industry. According to App Annie (2021), the mobile gaming industry is set to see $120 billion in sales in 2021, a 20% increase from 2020. That is equivalent to about two times more than console, PC, Mac, and handheld sectors combined. The gaming industry is also an extremely rapidly changing environment, where innovation plays a heavy role. Therefore, by analyzing the underlying processes and practices which dictate the usage of ambidexterity, their significance in affecting the outcome can be deciphered. This also aids in merging established antecedents of ambidexterity to practices used which then demonstrate the chosen approach.

1.2. Research gap

Although the positive influences ambidexterity has on organizations has been studied, the aspects which lead to differing and or multiple approaches has yet to be studied thoroughly. Additionally, this opens the door for understanding what should be focused on and how when implementing such strategies within non-innovation focused organizations as well as define what the consequences of exploitation and exploration related decisions have on firm success. Moreover, the practical implications the research proposes can positively reflect on further research concerning management and its relationship with ambidexterity and innovation as well as other strategic management related issues.

Relating literature proposes, that organizational ambidexterity should be studied more thoroughly to understand its consequences. For example, Du & Chen, (2018) note, that

"Promising avenues for further analysis could include variations in the success of introducing organization ambidexterity, in the size and age of companies, and further variations in the industry setting". Their research discusses high technology firms in a volatile, uncertain, complex, and ambiguous environment. The study looks at the different mechanisms of ambidextrous leadership in the strategic management process. They argue that leadership and especially the orientation of leadership ambidexterity on conjunction with both resource and consumer driven aspects create the need for ambidexterity. However, the focus of the study is set on finding the underlying patterns which weave and dictate the managerial process of organizational ambidexterity. Additionally, the study focuses solely on very large and high-tech companies, which reside in different industries and thus have different value propositions. Therefore, although the study lays the groundwork for understanding the building elements that create the need for organizational ambidexterity, it does not look at how it directly affects innovation performance.

O'reilly & Tushman, (2011) on the other hand state, that *"While the evidence for the benefits of ambidexterity is accumulating, there exists a gap in understanding how ambidexterity is actually managed within organizations."* . Their research established that organizational ambidexterity does entail benefits of growth and sustainability. Having analyzed 15 large high-tech corporations, they realized that although a clear strategic intent on creating ambidexterity does have its benefits, it may not be necessary for conducting ambidexterity. Additionally, their results indicate that having a clear and common vision on values is necessary to promote a common understanding within a business unit to create exploration and exploitation simultaneously. Lastly, the research shows that having a consensus on strategic choices concerning organizational ambidexterity and its design is crucial in succeeding. However, although the research was imposing, it left many unanswered questions about the internal practices of the firms and how these firms are comparable. Additionally, although the successes discussed in the paper concerning the firms are remarkable, since the firms do not have similar value propositions nor compete in similar markets with comparable products, the accuracy of how much of the successes can be correlated with distinct actions concerning organizational ambidexterity can be questioned

to a large degree. Nonetheless, this proposes that understanding how firms conduct ambidexterity within their organizations is crucial in revealing how these actions can be turned into innovation performance.

Tinoco, (2014) points out *"there is a significant lack of research addressing routines or business process influences on exploration and exploitation."*. Her research focuses on compiling data on ambidexterity concerning 246 firms and their use of innovation, exploration, exploitation, and managerial aspects. The study's findings indicate a correlation between successful implementation of ambidextrous designs and the core business processes (leadership, context, structure) and which create customer perceived value. Although the study is exceedingly broad, it does not look at how the processes are conducted within the firms. Additionally, although the respondents were all technology-based firms, the actual industries or sizes of the firms were not mentioned, which can affect the results. Additionally, the intention of use of ambidextrous designs as not discussed.

Gedajlovic, Cao, & Zhang, (2009) on the other hand look at 122 tech firms in China, to analyze how different underlying processes of ambidexterity affect performance. They note that *"Future research examining the effects of such behavioral capacities on processes related to both the balance and combined dimensions of ambidexterity appears warranted and may shed additional light on the subtle and complex processes through which organizations achieve and benefit from various combinations of exploration and exploitation."* Thus, we can see how research on the determinant factors affecting ambidexterity is scarce. Moreover, by looking into the underlying processes that facilitate ambidexterity in new ways, the theory surrounding ambidexterity can be expanded and the link between antecedents and performance through ambidexterity strengthened.

Lavie, Stettner, & Tushman (2010) seek to understand the concepts that surround ambidexterity and how the antecedents of ambidexterity are molded within and around organizations to create long-term and short-term value. In their literature review, they point out that "*We encourage future research to go beyond the study of pure modes of balance to*

examine how organizations combine several balancing modes when seeking to resolve the inherent trade-offs imposed by exploration and exploitation." This entails that the traditional modes for balancing exploration and exploitation may be feasible in the correct context and that the combination of modes can create equal if not more value for the organizations that use them.

Prieto & Santana, (2012) discuss the effects of human resource management practices have on facilitating ambidextrous learning and improved performance. Their research gathered information on 198 Spanish companies from different industries to acquire a broad and view on the social practices. The note that *"Future research should examine broader or, on the contrary, even more specific sets of HR practices—such as incentive systems and performance appraisal—and also examine the extent to which these practices need to be internally consistent and aligned to maintain social climates for ambidexterity"* This means that figuring out what kinds of human resource related practices or antecedents can affect ambidexterity and its adoption in firms, can in fact demonstrate how they influence profitability.

Bai & Ren (2016) discuss, *"There is a lack of research regarding the influence of strategic orientation (e.g., Entrepreneurial orientation) on the relationship between organizational ambidexterity and innovation performance, while entrepreneurial orientation is a significant situational variable.".* Their research focuses on 175 large Chinese high-tech corporations and how entrepreneurial orientation has a positive correlation with innovation performance and the relationship of organizational ambidexterity. As with all the mentioned literature, although the correlation between ambidexterity and performance is stated, it has not been measured evenly. By studying multiple different firms that utilize ambidexterity in the same industry, the implications of the theory become more grounded and empirical. Moreover, if these firms inhabit the same, industry and environmental pressures, the managerial practices within should shed light on the intended and actual pressure points of interest. Therefore, research concerning the influence strategic practices have on organizational ambidexterity

within similar organizations is the next step to take in thoroughly identifying aspects which affect innovation performance.

Lastly, as the literature review conducted by Turner, Swart, & Maylor, (2013) concludes, *"There is a lack of generalizable theory regarding how ambidexterity can be understood as a deliberate strategy within a complex organizational structure. The conceptions of temporal, structural and contextual ambidexterity are well documented, yet the application of such constructs to a multi-level organizational configuration is difficult. The review has shown that current empirical work favors collective and structural approaches to ambidexterity, mostly quantitative, and there are a lower proportion of 'microlevel' studies of the mechanisms underlying the achievement of ambidexterity looking at the individual and social levels. These studies fully explain neither how such micro-mechanisms enable ambidexterity nor exactly how ambidexterity leads to organizational benefit. Similarly, although the role of managers and management teams has been studied, relatively little has been demonstrated regarding how managers can actually orchestrate exploitation and exploration.* Therefore, a study dedicated to the micro-foundations of a multi-level approach to organizational ambidexterity is warranted and can shed a light on underlying influential aspects of forming and managing an ambidextrous organization. Moreover, this furthermore highlights insights on multilevel ambidexterity from Cantarello, Martini, & Nosella, (2012) *"Future studies should adopt a longitudinal approach to investigate ambidexterity: only longitudinal designs are in fact able to better explain ambidexterity, when described as a dynamic capability."* Therefore, the temporal dimension of ambidexterity should be involved with a multi-level approach to improve validity and add perspective to the analysis.

1.3. Research problem

As we can depict from the previous chapter, there is a major gap in literature concerning the use of multiple modes of ambidexterity simultaneously within an organization. Although some studies exist on the matter, they have yet to involve all three modes of ambidexterity. Moreover, qualitative data about the phenomenon is a driving force for strategic business development. Lastly, the antecedents of ambidexterity are highly debated and their link with a given mode of ambidexterity is loose. This thesis can provide empirical research about all these aspects and expand the lenses for understanding organizational ambidexterity as a dynamic capability. It also answers multiple proposed questions from fellow researchers about the subject and its depth, while introducing the temporal dimension to the analysis.

Therefore, this thesis is aimed at addressing the following research questions:

Can antecedents of organizational ambidexterity produce a multi-level approach to balance out tensions of exploration and exploitation?

To understand these elements in their correct context, the following sub-questions are proposed:

What is organizational ambidexterity and how does it occur in organizations?

What are the antecedents of concurrent exploration and exploitation?

How can organizations reduce tensions of exploration and exploitation?

1.4. Thesis structure

This study is structured in five main chapters.

The first chapter looks at the background of the proposed research by first introducing it, then defining the research gap, and finally by setting the research questions.

The second chapter introduces and reviews existing literature about the subject of ambidexterity. It first starts by breaking down exploration and exploitation and their inherit tensions. Then, ambidexterity, its types and levels are introduced along with advanced configurations. The chapter proceeds to discuss ambidexterity's antecedents.

The third chapter presents the methodology. This chapter focuses on how the analysis is completed and showcases the method sand tools used in the fieldwork. The chapter stars off with introducing the research strategy and methods. Next, the case selection and presentation are argued, which are proceeded with data collection and analysis.

The fourth chapter includes the empirical findings of the analyzed data, which was collected through empirical research. The cases themselves are explained in detail and the aspects discussed in chapter two are weighed against empirical data.

The fifth chapter is dedicated to for the discussion part of the study. Herein the theoretical and managerial implications are brought to light and continued with suggestions for future research and the imitations of this study.

2. LITERATURE REVIEW

2.1. Ambidexterity in the context of exploration and exploitation

Ambidexterity is a growing concept for understanding the multidimensionality of business environments and how innovation management plays a role in value creation. During the past decade, numerous works concerning its effect on organizations have been conducted and its depth has been studied with the aim of understanding its significance on business and innovation performance. To fully comprehend ambidexterity and its significance, it is first necessary to introduce key concepts related to the subject. Innovation, exploration, and exploitation are the building blocks of ambidexterity and thus need to be familiarized first.

2.2. Exploration vs exploitation

Nowadays, innovation is a widely recognized term and considered to be the only constant in management studies, yet, although its effects on society and organization are paramount, the best practices of innovation are very hard to understand due to the subject's nature. Moreover, the gradual and constant molding of markets implies that organizations must be both reactive to changes in their environment and proactive to gain leverage for future growth. In other words, innovation must be molded to suit both anticipatory factors as well as the incremental improvement of current practices (Tushman & O'reilly III, 2011). One of the first works about this topic, using the terms "exploration" and "exploitation" was March (1991) where he discussed how critical they were to effective and efficient organizational learning. March explains that the two are different by nature and propose differing views on fundamental and conceptual organizational behavior. Exploration is presented as opportunity seeking, while exploitation concerns seeking advantage. Although the concept and the ideals behind it had been noticed beforehand, March solidified the views by arguing the need for both exploration and exploitation simultaneously. This however led to differing concepts of exploration and exploitation, which has since branched into two schools of thought. Some researchers have debated that all learning related instances are a sole part of exploration, whereas others argue for March's original thoughts that incremental gained knowledge advances exploitation and

thus must involve learning, albeit of differing types and or degrees (Gupta, Smith, & Shalley, 2006). This has led some researchers to conceptualize exploitation and exploration as a spectrum, while others view the subject more rigidly as learning being part of one or the other. Although the differing alternatives contain polarity in learning and learning related literature, most scholars agree that balancing a combination of both exploration and exploitation is a key for both short and long-term success of organizations (Gupta et al., 2006; March, 1991).

The overall goals of exploration and exploitation differ vastly. Because exploitation concerns the usage and optimization of acquired resources to gain leverage, its main objective is to enhance short term performance (March, 1991). On the other hand, explorative endeavors do not have similar objectives, but rather target long-term performance by focusing on future relevance through innovation. This translates into more discovery emphasizing and less tangible innovation, which is aimed at finding completely new processes, services or elements which are aimed at improving the perceived value of customers in a totally new manner. Thus, exploitation is more about internal product scope, whilst exploration concerns external market dynamism.

Capacity	Exploration	Exploitation
Target	To satisfy the needs of new customers or markets	To satisfy the needs of existing customers or markets
Result	The appearance and creation of new processes and technology	The improvement of existing processes and technology
Type of knowledge	New knowledge	Developing existing knowledge
Performance	Long-term performance	Short-term performance

Table 1. Illustration of the differences between exploration and exploitation (Levinthal & March, 1993; March, 1991).

Consequently, both sides of the coin also have their drawbacks. Because short-term performance orientation can trap organizations in process and efficiency mindedness, a firm can lose to competition due to the firm not being prepared for environmental changes, thus leading to less out of the box innovation and more process refinement. (March, 1991; Raisch, Birkinshaw, et al., 2009) This translates to firms not being adequately equipped to respond to innovation but is rather gradually losing to competition. Moreover, another crucial factor relating to both exploitation and exploration is risk. As Hughes (2018) describes, incremental innovation through effective exploitation is attractive, because it is low risk and follows a linear path from the firms history of success.

A good example of management and orientation towards short-term and long-term performance comes from the film manufacturing industry. Before the year 2000, the major corporations leading the film manufacturing industry were Kodak and Fujifilm. The two firms dominated the camera and film industry before the era of digitalization in the early 2000's. However, in 2003, when the film kiosk and film camera market started to heavily decline, Kodak insisted on pursuing camera manufacturing and kiosk printing, rather than utilizing their inherit resources and accumulated film-related knowledge to pursue future growth with new methods. This added with their inability to listen to shifting customer values, which emphasized at home printing, led to their eventual demise. On the other hand, Fujifilm managed to stay relevant and thrive because they explored new forms of value by committing resources into pharmaceutics and medicine which was a risky move (Shibata, Baba, Kodama, & Suzuki, 2019). This was done solely because the firms knowledge lied on scientific assets related to film manufacturing, which coincidently applied to make-up and medicine. Combined with early downsizing, exploration enabled the firm time and resources to commit and make fast decisions for staying relevant. What all this comes down to, is that while Kodak made efforts to stay relevant in the short period, their interests did not meet their capabilities. Additionally, the firm did not look to the future, but rather tried to stay afloat without understanding the bigger picture. Oppositely, Fujifilm was able to both explore and exploit by drastically changing its structure and processes and exploring new alternatives

for future growth by the hand of their gained knowledge. (Petapixel, 2018; CRM, 2020). As Parmentier & Picq (2013) describe, *"exploitation activities the logic of short-term productivity demands focus and stability, while for exploration the logic of long-term creation and innovation demands variation and adaptability.".* Furthermore, some researchers have found exploitation to be a demand for exploitation since it supplies the necessary income for an organization to find future opportunities. Thus, leading both is crucial for the longevity of business. (Hughes, 2018).

2.3. Ambidexterity

The simultaneous managing of exploitative and explorative aspects has been named ambidexterity due to the simultaneous leading of contradicting goals (Raisch & Birkinshaw, 2008). However, there are multiple different approaches to the theme and the definition itself is not universal. Nevertheless, based on a synthesis on the different literature conducted by (Turner et al., 2013) states that *"Ambidexterity is the ability to both use and refine existing knowledge (exploitation) while also creating new knowledge to overcome knowledge deficiencies or absences identified within the execution of the work (exploration)".* As Andriopoulos & Lewis, (2010) point out, ambidexterity is more than meets the surface since its idea is to address the **tensions** brought by simultaneously managing exploration and exploitation. These tensions: long-term flexibility versus short-term survival, openness to every opportunity versus constriction, diversity versus consistency and enthusiasm versus discipline, are the reasons behind paradoxes created through firm growth and innovation. A multitude of solutions have sprung from these ideas, offering alternative solutions. These solutions address these tensions differently and have altering perspectives. Some have been around for decades while others have only recently been brought up trough researched. This chapter will look at the different ways for reconciling tensions brought by exploration and exploitation with ambidextrous designs. First, a look at the origins of ambidexterity, then by understanding the levels in which it can occur within organizations. Lastly a view at the types of ambidexterity which have been researched followed by the repercussions and further discussion about notable aspects of ambidexterity will be reviewed.
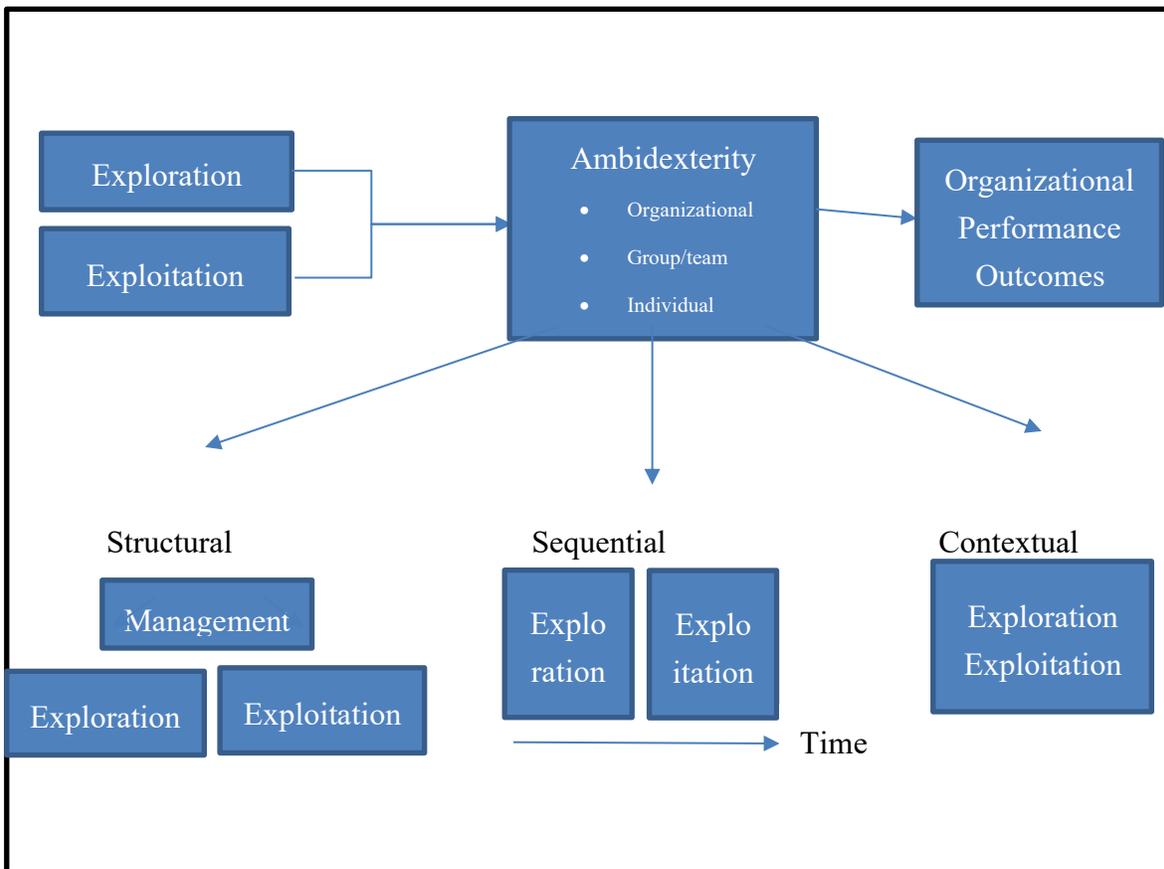
Figure 1. Conceptual framework of ambidexterity (Lindskog & Magnusson, 2021)

Tushman & O Reilly (1996), were the first to conceptualize and present the theory of (organizational) ambidexterity, the simultaneous management of both explorative and exploitative activities. They note, that *"the ability to simultaneously pursue both incremental and discontinuous innovation and change results from hosting multiple contradictory structures, processes, and cultures within the same firm".* After them, multiple studies have been made with the intention of understanding how ambidexterity occurs within business, how it can be managed, and what its consequences are. Most recently, Lindskog & Magnusson, (2021) introduced a conceptual framework (Figure 1) of ambidexterity which proposes and relays both the types of ambidexterity as well as identifies the levels in which ambidexterity can transpire. Their framework encapsulates previous research and offers a well-rounded basis for comprehending the determinant factors of ambidexterity which can

influence organizational performance. Foremost, the framework is tied with organizational performance outcomes.

2.4. Levels of ambidexterity

Ambidexterity in management literature is mostly associated with organizational ambidexterity. Once Tushman & O Reilly (1996) had conceptualized their theory of organizational ambidexterity, major interest sprung in the idea and its antecedents. Raisch & Birkinshaw, (2008) developed a comprehensive organizational framework of organizational ambidexterity with the intention of discovering how both internal antecedents as well as external forces affect it. Before them, organizational ambidexterity had only been studied through its elements or what it entails for corporations. However, the dynamics and implementation of an organizational strategy involving ambidexterity had yet to be researched or conceptualized. Therefore, Raisch & Birkinshaw, (2008) researched aspects such as organizational structure, environmental dynamism, competitive dynamics, market orientation, resource allocation and firm scope to raise interest and provide structure for future studies. Although the study proved vague in providing new data, it conceptualized and grounded prior research while providing a host of new possibilities and attention for future research. Moreover, this paved the way for Probst, Birkinshaw, Raisch, & Tushman, (2009) to question the structures which enable organizations to be ambidextrous. Their insights entail that an individual's ability to be ambidextrous, provides the opportunity for a larger part of an organization to be so as well. In other words, individual ambidexterity is interconnected with or even produces organizational ambidexterity. This suggests that there are in fact different levels in which ambidexterity can occur, and as they continue to propose, the ability for individuals to be ambidextrous varies within and across borders and that this variance originates from both individuals' characteristics and from the context of the work. They conclude that ambidexterity can occur in three different layers, *in individuals*, *in groups* and *in the organization*. However, it is up to the managers to structure ambidexterity with the appropriate manner within the organization to create sustainable value. Here we can see that ambidexterity can take place within multiple levels and that the value this creates is

dependent on the individuals in addition to the context of the work. (Lavie et al., 2010; Raisch, Probst, et al., 2009).

2.5. Types of Ambidexterity

Researchers have piled on new aspects which influence ambidexterity and represent the primary approaches to manage contradictory settings of exploitation and exploration. These are *structural ambidexterity*, *sequential ambidexterity*, *contextual ambidexterity*, and domain separation (Raisch & Birkinshaw, 2008). These approaches offer differing views to ambidexterity, have been studied within different contexts and thus are most optimal in distinct circumstances. Due to the limited research which has been conducted on domain separation and its relative obscurity, ambidexterity which surpasses organizational borders and requires outside help to fulfil ether exploration or exploitation, will not be discussed further to direct focus on the primary approaches. However, the other alternate modes for balancing exploitation and exploration will be discussed. The emphasis of the approach is to understand what the underlying mechanism for balance is, what the management's role is, and what types of challenges these modes have and what can be done to overcome them. This approach follows the summarizing table 2 as illustrated by Lavie et al., (2010).

Balancing Mode	Contextual Ambidexterity	Structural Ambidexterity	Temporal Separation
Focus of balance	Individual and group levels	Organizational level	Organizational level
Mechanism of balance	No buffers between concurrent exploration and exploitation	Separate units dedicated to exploration or exploitation, coordinated at corporate level	Exploring in one domain while simultaneously exploiting in another
Management role	Management provides a supportive infrastructure	Proactive management is essential	Proactive management is not necessary
Challenges	Managing contradictions within organizational units	Coordinating across units and managing contradictions	Identifying applicable domains and deciding if it explores or exploits

Table 2. Types of ambidexterity. Adopted: (Lavie et al., 2010)

Structural ambidexterity

Structural ambidexterity or "organizational separation" refers to separating organizational units that focus simultaneously on exploitation and exploration. In other words, the contradictory processes of exploration and exploitation are separated into groups or units, which have differing cultures, processes and tasks while working physically apart from one another (Hughes, 2018; Lavie et al., 2010; Sinha, 2016; Tushman & O Reilly, 1996). Hereby, these units are loosely coupled with one another but internally very coupled. Exploration units seek success through small wins of innovation whereas exploitative groups realize success by reducing the variability of processes and outcomes and by maximizing their efficiency. Organizational separation is the most common of organizational ambidexterity, due to its simplicity. Through it, organizations can differentiate and allocate tasks to different groups, which are then able to retain consistency within each other in elements such as culture, arrangements, and tasks (Du & Chen, 2018). However, these aspects then naturally differ between units and therefore the responsibility of actualizing the strategy falls to top management, whom should be engaged with both exploitation and exploration in the

balancing act (Adler et al., 2009). With this method, the corporation is constantly molding through incremental change driven by choosing which explorative option they find most lucrative. These chosen units then exploit and evolve the business further. Because this approach requires trial and error through the vast use of resources, Hughes, (2018) suggests structural ambidexterity only for larger firms with the available resources to conduct large-scale differentiating operations such as tis. The benefits of structural ambidexterity are clear. As the firm can simultaneously exploit and explore, the balancing of these acts provides the firm flexibility to act to environmental changes.

Sequential ambidexterity

Another approach to applying ambidexterity is through sequential ambidexterity or "temporal separation". With this methodology the separation of exploitation and exploration is done over time instead of through organizational groups (Lavie et al., 2010). When using sequential ambidexterity, a firms' focus shifts from completing one objective after another in a temporal cycle. This view changes the underlying assumptions of ambidexterity from a static configuration of organizational concepts to a dynamic process. However, this does not mean that the nature of how ambidexterity is managed is somehow altered, but more so assumes that the extent of ambidexterity itself is more than a static alignment of personnel and resources giving the assumption that these aspects must be continuously reconfigured to meet changes in the surrounding environment (Lavie et al., 2010). Sequential ambidexterity has been viewed to bring advantages, since the firms' units are simultaneously pursuing either exploration or exploitation leading to less conflicts and offering the firm an opportunity to specialize in either marketing innovation or technological advancement thus creating new knowledge (Andriopoulos & Lewis, 2010). However, because the organization is concentrating on either exploring or exploiting at a given time, the firm is set in a path dependance cycle, which makes changing from one activity to the other costly (Lavie et al., 2010).In contrast to structural ambidexterity, the sequential pattern grants a firm the ability to specialize and find new processes, methods or innovations faster, leading to effective knowledge creation (Gupta et al., 2006). Therefore, this approach is more suited for agile

organizations that prosper the management of constant transitions from one mode to the other (Lavie et al., 2010)

Contextual ambidexterity

Contextual ambidexterity is the ability to pursue the conflicting aspects of exploration and exploitation simultaneously across a business unit at any given organizational level. Herein the behavioral capacity of an individual is the driving force for demonstrating this alignment (Ramesh, 2012). Contextual ambidexterity requires processes and internal systems to be built to empower and inspire individuals to make their own best judgements about the usage of exploration and exploitation without structuring the organization and its personnel to use one or the other at a given time or with a distinct group (Tushman & O Reilly, 1996).

2.6. Integrated and structural views of ambidexterity

Some researchers have shifted their focus towards combining elements of differing styles and types of ambidexterity. Their studies have looked at the possibility of combining structural and contextual ambidexterity to create a hybrid solution, which relies on both structural formation of teams and that have independence on when they explore and exploit (Yousuf, Marri, Ali, & Sin, 2020). Others have studied and presented theories concerning sequential and structural mixing, yet very few studies about these theories exist.

A combined solution to ambidexterity has been divided into either an integrated view in which exploration and exploitation activities are divided within a group or a structural view, whereby these activities are performed in separate subunits. (Tushman & O'reilly III, 2011). Simsek, Heavey, Viega, & Souder, (2009) take this idea further by arranging the typology of organizational ambidexterity (figure 2). This variation also looks at both the structural and temporal dimensions relating to ambidexterity simultaneously and differentiates the presented solutions according to their respective traits.

Structural dimension, where is ambidexterity being pursued?

Independent

Interdependent

Temporal dimension, is ambidexterity being pursued?

Simultaneous

Harmonic

Partitional

Sequential

Cyclical
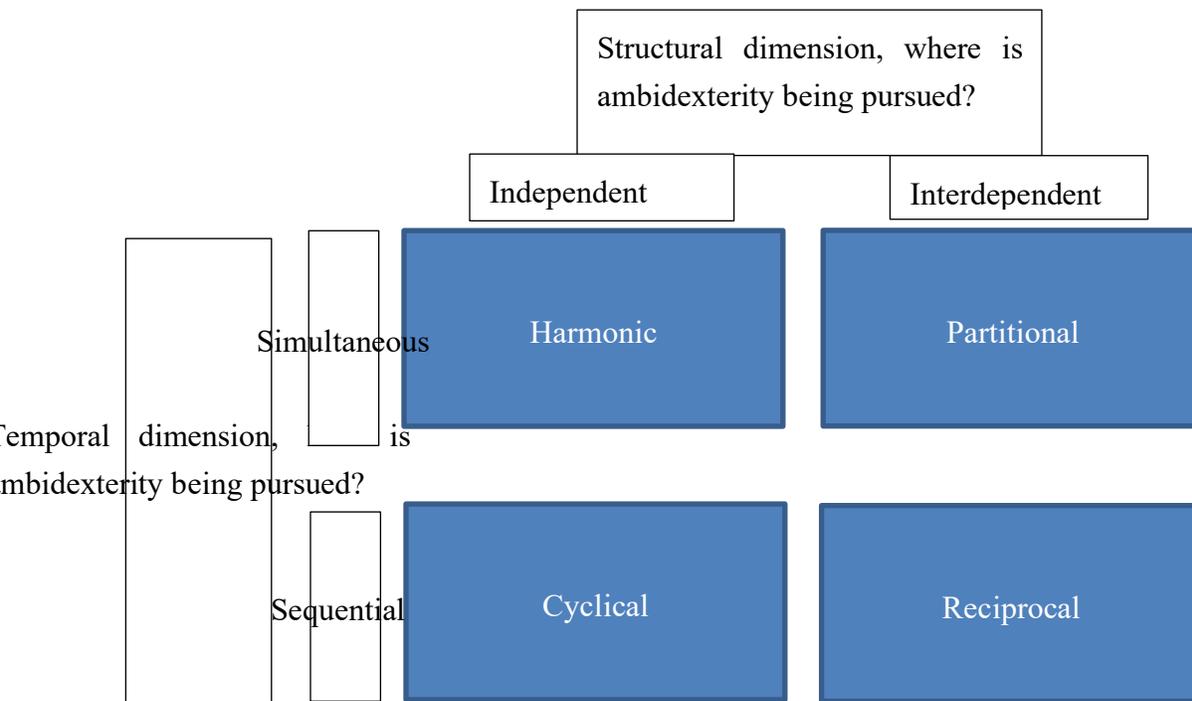
Reciprocal

Figure 2. Typology of ambidexterity. (Simsek et al., 2009)

These four types, Harmonic, Cyclical, Partitional, and Reciprocal each represent their own variation on the different combinations of temporality and structural mixing. However, although these types are presented, their antecedents are only briefly mentioned and have yet to be researched thoroughly. The latter two types, Partitional and Reciprocal are cited as being more uncommon. Moreover, concrete examples are few in between and mentions of using these types layered is not discussed. Additionally, research into these modes is scarce despite their relevance in the realm of organizational ambidexterity. Simsek et al., (2009) find the reasoning behind this to be that ambidexterity is often studied cross-sectionally while longitudinal studies are few and far in between.

Partitional ambidexterity is a type of pooled interdependence between different independent units all having their own strategies, cultures, and incentives. These units form ambidexterity at the organizational level through a shared vision and direction dictated by senior management. (Reilly & Tushman, 2008)

Reciprocal ambidexterity differs from partitional ambidexterity by means of inputs from the units themselves. Outputs of exploitation from a unit become the exploration inputs of another unit, that become outputs of exploitation for exploration inputs of the first unit. This configuration is highly reliant of continuous collaboration, decision-making and information exchange between units. *"Put simply, reciprocal ambidexterity is best portrayed as being a synergistic fusion of complementary streams of exploitation and exploration that occur across time and units."*. (Simsek et al., 2009).

2.7. Strategic practices and antecedents of ambidexterity

Strategy is something which cannot be accurately defined since a unanimous definition for the term has not been coined. Therefore, strategy by its very nature is adaptive. Countless authors and experts of economics and management studies have fashioned their own interpretations of what strategy is and what it can be used for. Their goal has been to understand the concept which lies beneath. Consequently, the idea of understanding strategy is more about identifying the underlying elements and objectives of the subject rather than relying on definitive definitions.

 Collins and Rukstad (2008) for example, identify three key components of a well-established strategy as objective, scope, and advantage. Although these elements do not accurately provide insights on strategy by themselves, they form a basis on the idea of goal-orientation, delimitations, and purpose, which in turn propose ideals to strive towards, while inspecting strategy as a plan on what to do and what not to do.

Whittington, (1996) discusses strategy and its origins while proposing a new approach to strategizing and turning attention to the practitioners themselves. Although strategy had to that point acknowledged practice as a fundamental aspect to be taken into account, due to the increase in the number of new models and concepts for understanding the macro environment, the direction of new research had been stepping away from the reality of strategizing (Hendry, 2000). Strategy-as-practice is a theoretical basis for understanding

economics and how strategy is being created (Whittington, 1996). It is focused on the internal dynamics of what people are doing within organizations and what the consequences of these actions are over time. Moreover, by analyzing and interpreting interactions of resources, both tangible and intangible, the essence for creating value is interpreted. Whittington, (1996) expresses this idea as finding new solutions through inspiration and by doing the routine work day-to-day. This also means, that the work is not the same for everyone, but rather changes according to the individual's context, be it a top-level manager at a multinational corporation, or an owner of a local shoe store.

Jarzabkowski, (2003) notes that it is important to tell apart strategic practices and strategy as practice. Practices are the habits and ways of acting that make up strategic activities. Therefore, they act as the infrastructure for strategizing, creating a continuous stream of strategic action which is named as practice. Therefore, practice can be interpreted as the antecedents which enable practices to occur. Practices come in unlimited forms and can be interpreted in as many ways. Thus, the point of interest is to find the relationships between actions and how they influence and dictate one another to produce something (Jarzabkowski, 2008). Thereby looking at what actions are taken to influence an established choice.

Within innovation and creativity management, there has been much debate on what kinds of strategic practices affect performance. Amabile, (1997) for example proposes that access to sufficient resources, management practices (encouragement from the management, communication about information, interest in challenges, support for the working group), and group support (communication, openness to ideas, confidence, diversity) are key elements in enhancing organizational creativity. As seen, these aspects are not specific in nature, but instead propose that organizational creativity is more about developing the right internal climate that is led by appropriate managerial practices and cannot truly be managed directly. Moreover, due to the relative newness of ambidexterity as a phenomenon, there is a lack of research into the micro-foundations or strategic practices that influence organizational ambidexterity (Turner et al., 2013). Additionally, the levels in which these practices enable ambidexterity is debatable. Research has mainly focused on the organizational level, thus

there is limited work done which focusses on individual behaviors (Swart, Turner, Rossenberg, & Kinnie, 2019; Turner et al., 2013).

Another notable factor to present comes from (Mendelson & Pillai, 1999)who introduce the concept of industry clockspeed, the speed of which an industry evolves (Lantz, 2000). They argue, that in an industry with a slow clockspeed environment (paper and steel etc.), spatial separation of exploitation and exploration may be favorable, whereas in fast industry clockspeed environments (semiconductor, computer etc.) spatial separation does not work as well due to the interdependence of learning mechanisms. What these aspects add up to is that the antecedents, mechanisms for managing ambidexterity, and its outcomes differ according to the context of the work. Moreover, the antecedents have a profound influence on how practices are conducted in each context, resulting in different outcomes.

Antecedents of organizational ambidexterity

The antecedents of organizational ambidexterity are somewhat debated among researchers, yet some constants have been widely regarded as being universal. As Simsek (2009) describes, there are three distinct sets of antecedents of organizational ambidexterity; dual structures, organizational context, and management characteristics. Although the entire notion of ambidexterity is centered around these dual structures of exploration and exploitation, they require common strategic intent, overarching values, and targeted structural linkage to work. Moreover, the adaption of such principles requires an intended, and behavior framing attributes directed by management. Raisch & Birkinshaw, (2008) coin these performance management and social support. The prior looks at the methods used to mold employee attitudes towards goal orientation, while the latter reflects on the ability to work ambitiously within a counter relying, open and assisting environment.

Another way for looking at the antecedents of organizational ambidexterity comes from Lavie et al., (2010) who divide the antecedents into the environment, the organization, and the senior management team. These antecedents have been considered as **contextual** because

they dictate the simultaneous use of exploration and exploitation and are conflicting with one another to push or pull organizations towards either exploration or exploitation. Nonetheless, they also form the base requirements to form an ambidextrous organization, which is dependent on both activities to produce the phenomenon. These antecedents form tensions which are also a result of the differing elements of exploration and exploitation (Andriopoulos & Lewis, 2010). These tensions are tended to by the organization through practices that tackle the trade-offs of exploration and exploitation. The trade-offs discussed in chapter 2.1 are also aspects that increase the tensions between exploration and exploitation Accordingly, a mode of balancing is either formed or chosen to reduce tension and balance out exploration and exploitation, which results in long-term and or short-term performance.

Antecedents

Environment
Environmental dynamism
Exogenous Shock
Competitive intensity
Appropriability regime

Organization
Absorptive capacity
Slack resources
Organizational structure
Culture and identity
Organizational age and size

Senior management team
Risk aversion
Performance feedback
Past experience

Trade-offs
- Resource allocation constraints
- Short-term versus long term
- Present versus future
- Stability vs adaptability

Increased tension

Exploration

Tension

Exploitation

Reduced tension

Exploration-Exploitation balance

Mode of balancing
- Contextual
- Organizational separation
- Temporal separation
- Domain separation

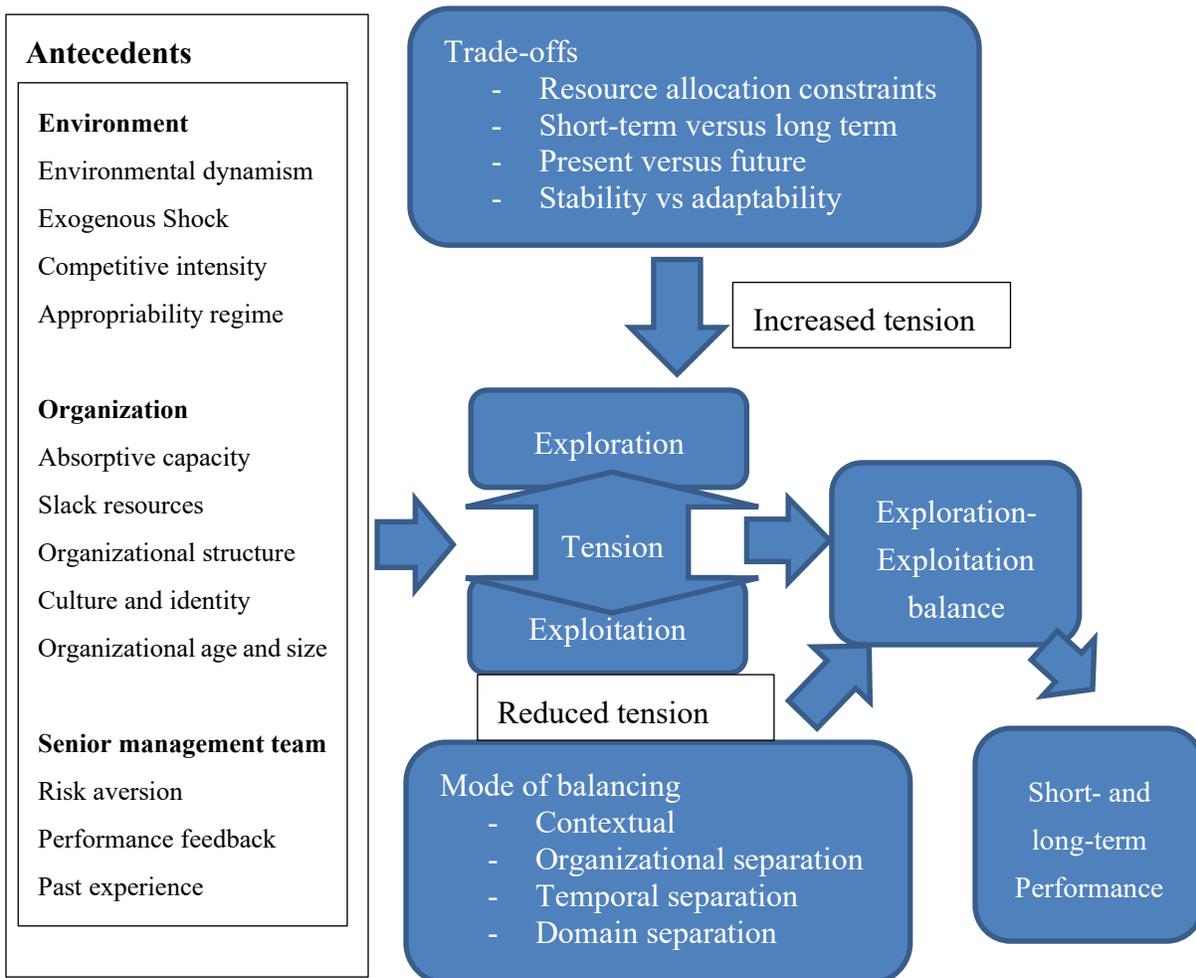Short- and long-term Performance

Figure 3. Framework of exploration-exploitation. (Lavie et al., 2010)

Organizational antecedents

Organizational factors, which stem from the participation in decision-making (Raisch & Birkinshaw, 2008), the organizations' identity (Sorensen, 2002), such as culture, experiences and values, and management (Tushman & O'reilly III, 2011) in addition to the internal processes that shape strategy, are considered internal antecedents. These, along with absorptive capacity and psychological safety, the organizations structure, age, and size, form the organizational antecedents of ambidexterity. They tend to internal elements that are unique to each setting, industry, and organization and therefore highly influence and reflect upon the organization's values, capabilities, and identity.

Absorptive Capacity is in essence an organization's ability to review external knowledge and information, assimilate it, transform, and finally exploit it (Cohen & Levinthal, 1990). Absorptive capacity enhances and organizations capability to interact with its environment and improves learning, therefore assisting the proactive operating and the exploration of emerging technologies (Cohen & Levinthal, 1990). Research on the subject has revealed that external knowledge acquisition and internal knowledge processing are both necessary but relying too much on one or the other can bring negative implications (Cohen & Levinthal, 1990; Jansen, Tempelaar, Bosch, & Volberda, 2009; Raisch, Birkinshaw, et al., 2009). Profitable firms have been researched to utilize absorptive capacity to create culture enabling informal communication that enhance usage of knowledge and knowledge-based-resources, which facilitate innovation (Kohtamäki, Heimonen, Sjödin, & Heikkilä, 2020) In other words, by utilizing external information within the correct communicative internal environment, the knowledge can be turned into greater degrees of innovation success.

Slack resources are spare or excess resources of organizations' output. These are for example unused capacity, unnecessary capital expenses, or unexplored opportunities to increase outputs. (Nohria & Gulati, 1996). Scholars have alternate vies on the impact slack has on innovation. Both positive and negative correlations have been found on exploration. A concurrent view is that slack forms an inverse U-shaped association with exploration (Nohria

& Gulati, 1996). Lacking resources is harmful for innovation because it restrains experimentation. On the other hand, having too much slack has a negative effect on productivity, discipline and thus promotes and discourages proactivity (Lavie et al., 2010).

Organizational structure is related to the actual mode of ambidexterity used. While the notion of structural ambidexterity relies on dual-structures that divides exploration and exploitation to two, other variations of structuring can lead to differing outcomes and solutions (Raisch, Probst, et al., 2009; Tushman & O'reilly III, 2011). Structures also completely define the distribution of resources, both human and tangible within the organization. Aspects, such as loosely coupled structures have been studied to have a positive correlation for achieving exploration (Gupta et al., 2006).

Culture and identity are formed by organizational goals and dominant logics that also guide exploration and exploitation (He & Wong, 2004; Tushman & O Reilly, 1996). Culture has a multifold influence over the use of ambidexterity. Sorensen, (2002) shows, that organizations with grounded cultures are more lenient towards exploitation, because their inherit goals, consensus, and values are more aligned with established elements. However, organizations with more open cultures centered around change usually benefit from exploration. Nonetheless, this means that organizations' established cultures steer the notions of exploration and exploitation through inherit consensus, goals, and values. Organizational identity gives meaning to these cultural elements and creates collectiveness through social control and appropriate behaviors (Anteby, 2008). Muhammad, Ikram, Jafri, & Naveed, (2021) conducted a study concerning the influence of culture on ambidexterity within IT and telecom companies. Their findings suggest that organizational diversity has a significant positive correlation with new product innovation, be it incremental or radical. Moreover, a shared vision within the corporation positively affects incremental product innovation.

Organizational age and size
When discussing firm scope, Gibson & Birkinshaw, (2004) note that smaller firms may be more lenient towards contextual ambidexterity. However, the size of an organization in

correlation to the extent of exploration versus exploitation used is highly debated (Lavie et al., 2010). For example, Lavie & Rosenkopf, (2011) state, that smaller firms cannot effectively balance across domains due to alliance dependence, which limits them to specialization of either exploration or exploitation. This has been backed by Hannan & Freeman, (1984) who argue inertia to be the dependent factor. They note that aging organizations become dependent on established resources and attributes that create inertial pressure on their prevailing organizational trajectory. This means that larger and older organizations become reliant on their established knowledge that ultimately can restrict the use of exploration.

Environmental antecedents

Environmental antecedents are aspects which steer organizations towards certain tendencies to enact ambidexterity. Moreover, although these are elements which are mostly out of the hands of the organizations themselves, the way of which they are reacted towards can be influential in the outcome of the chosen ambidexterity mode. However, environmental aspects are often overlooked due to the attention placed on organizational factors that affect tendencies to explore or exploit. (Lavie et al., 2010).

Environmental dynamism is a factor that is unique to each market, industry, and setting. It is the extent of which unpredictable change can occur within an organizations market. This can be comparable to an industry's clockspeed and defines the necessity to explore. Markets that are more dynamic have been measured to need increased amounts of exploration from organizations to adapt and retain their market share (March, 1991; Raisch & Birkinshaw, 2008; Tushman & O'reilly III, 2011). However, Katou, Budhwar, & Patel (2021) findings suggest, that the more dynamic the organizations environment, the more the organization is pulled towards either exploration or exploitation. On the other hand, Pertusa-ortega & Molina-azorín, (2018) find that the more dynamic the environment of the firm is, the more ambidextrous the firm.

Exogenous Shock refers to sudden and unforeseeable environmental surprises that effect the market. These are out of the control of organizations and leave earlier skills or technologies obsolete. Aspects such as technological breakthroughs and deregulation are among examples. (Tushman & O Reilly, 1996).

Competitive intensity dictates the need to use exploration and exploitation. (Lavie et al., (2010) point out that in a competitive setting, firms are fighting for limited resources. In such an environment, continuous improvements of existing services and products become redundant for maintaining competition. Thus, the use of internal resources becomes vital in finding new markets to set a foothold in and drive future growth while also exploiting existing ones.(Du & Chen, 2018)

Appropriability regime determines the extent of which organizations can receive value from their innovations. It is the ability to protect knowledge and innovations. The problems related to this antecedent concern the scope and measurement of appropriation. It is impossible to determine what has actually been imitated and thus the difficulties lie in the protection of intellectual property (Hurmelinna-Laukkanen & Puumalainen, 2007). However, candidly understood, exploration may be connected positively to the degree of appropriability of innovations, since the better information can be protected and maintained, the incentive to explore increases (Hurmelinna-Laukkanen & Puumalainen, 2007; Lavie et al., 2010).

Management antecedents

The managerial antecedents of ambidexterity are somewhat elusive. Although the subject has been studied quite extensively, the perspectives differ vastly, leading to altering views. Nonetheless, as Tushman & O'reilly III (2011), state "*Concretely, it appears that ambidexterity as a dynamic capability rests on the ability of leaders not only to articulate a strategic intent and vision that justifies exploration and exploitation, but—more importantly—to manage the inherent tensions associated with incompatible organizational architectures.*". This means that the management related antecedents of ambidexterity also

rest in the prevalence of tensions brought by exploration and exploitation and the aspects that relate to leading the respective elements. Moreover, the intent behind the choices made, must be tied to the underlying vision of the organization. This prompts the importance of identity and organizational trajectory. What these aspects add up to is that the managerial antecedents heavily relate to other antecedents, both organizational and environmental, which are then weighed in importance.

Risk aversion relates to past *experiences* and heavily steers the organization towards exploitation, because the perceived benefits from it are more grounded and near (March, 1991). This may have a gradual accumulative effect on innovation emphasis. Managers can become biased towards either exploration or exploitation which is conducted at the expense of the other (Lavie et al., 2010). This gradually builds experiences that keep the organization on its formed path.

Performance Feedback has been studied to cause path dependence of either exploration or exploitation. When top-level managers accumulate experience of a working exploitative strategy, they will continue to emphasize it over exploration (Lavie et al., 2010). Nonetheless, the assumption of performance feedback, although originally paired with top management performance, has also been studied with employee engagement and learning. For instance, (Prieto & Santana, (2012) incline high-involvement HR management practices may attribute to fostering ambidextrous learning capabilities. Moreover, firms should invest in rewarding, motivating, and building fostering internal climates to support work engagement of employees. This facilitates and develops a shared vision of how the trade-offs between exploitation and exploration will be managed (Katou et al., 2021).

As is evident in the literature and research concerning the antecedents of organizational ambidexterity, a true consensus concerning what they are and what their impact is, is debated. Moreover, a comprehensive and encompassing framework discussing their impact on exploration and exploitation has not been mutually agreed upon within the community, with different authors favoring altering models and elements relating to antecedents. Nonetheless,

as ambidexterity is a rather new phenomenon within the realm of strategic management and due to the vastness of the elements it touches within management studies and economics, the questions raised will most likely be tended to as research matures and expands. Additionally, because ambidexterity behaves differently due to a host of differing alternative motives, organizational factors, management factors and environmental determinants, the outcome, method used, and antecedents of ambidexterity differ from one organization to the next. Therefore, the aim of this thesis is to explore the possibility whether the known contextual antecedents of ambidexterity can in fact be molded to suit a hybrid or layered approach of the phenomenon as well as delve deeper into the organizations' hierarchy and culture to furthermore raise questions regarding the practices used within ambidextrous organizations that enable ambidexterity.

3. METHODOLOGY

This chapter looks at the methods used in this thesis as well as the data gathered. Initially, the overview to the research strategy and methods is described. Then, an introduction to the case companies is given in addition to the selection process. Next, the process of data collection is presented and the justification for the methods is described. Concluding is the data analysis part.

3.1. Research strategy and method

The process for choosing a research method is reminiscent of choosing a business strategy. The choices reflect upon the research itself and provide differing results. Therefore, the planning of such a decision has a tremendous influence over the outcomes. This study looks at ambidexterity and the aspects which relate to its occurrence in business as well as the choices leading to differing outcomes. Therefore, it is crucial to look at what are the actions taken by the people within organizations which lead to a distinct outcome. To answer this question, the best alternative is to look at the question in depth (Yin, 1994). This is where the details and unseen critical factors contribute most. Therefore, the most suitable form of methodology to be used is qualitative, since it is best suited for in-depth research, which cannot be fulfilled with quantitative tools. Moreover, since the phenomenon of ambidexterity is subjective to each organization, multiple perspectives must be used to properly grasp the question. Additionally, since the research relates to a distinct phenomenon and proposes a new approach, its replicability must be tested to validate the findings (Eisenhardt & Graebner, 2007). Case studies allow researchers the ability to measure constructs accurately when forming new theories (Eisenhardt, 1989), thus making it optimal for this thesis, which is centered around an intricate phenomenon with multiple varying variables (Lavie et al., 2010). When prior research has mostly been addressing more of the macroscale of ambidexterity, this thesis delves into the intricate details which form the phenomenon (Tushman & O'reilly III, 2011). These kinds of micro-level studies are also warranted by researchers about the literature, since they offer new and in-depth insights into the phenomenon (Cantarello et al.,

2012). Thus, qualitative research methodology is the most suitable form for this thesis. Eisenhardt & Graebner, (2007)

3.2. Case selection and presentation

The selection of the case companies was a long and difficult process. The foremost influential aspect for choosing the companies was the industry in which they operate. As discussed previously, this thesis revolves around ambidexterity. Therefore, the cases must also be organizations, which use both incremental and radical innovation in their daily activities. Moreover, this aspect is usually found in industries of fast clockspeed(Adler et al., 2009; Chandrasekaran, Linderman, & Schroeder, 2012). The most prominent nominee is the mobile gaming industry, which renews itself constantly and is at the forefront of innovation (App Annie, 2021).

The first step was contacting Finnish gaming organizations. The researcher contacted 26 Finnish gaming houses. 8 replied with an answer and one agreed to be interviewed. On the second round of contacting and finding interviewees, two new organizations agreed to be interviewed. These organizations are also different in their size, age, and market orientation, which enriches the data collection and analysis by offering multiple differing perspectives. Moreover, the chosen case companies have similar, yet altered configurations of ambidexterity and the antecedents that enable it. This was researched before contacting the organizations and the data was collected from each companies' respective website. As Beverland & Lindgreen, (2010) point out, it can be useful to present cases individually and analyze them. This method is most useful for a small sample size.

Case Company	Founded	Gaming industry	Stage/scope
Company A	2017	Social games	startup
Company B	2002	Online slot games	mid-stage
Company C	2003	Mobile games	Multinational Corporation

Table 3. Case introduction

3.3. Data collection

The collection of data for this thesis was conducted with the intent of understanding how the case companies operate and to realize their innate situation and the phenomenon in their own context. To aid in these efforts, the usage of both primary and secondary data was critical, since by using multiple sources, a more holistic and reliable picture can be painted.

The primary data used consisted of semi-structured interviews with company representatives. These were organized in a fashion where the interviewee was asked about a subject and given time and liberty to answer the question as wished. This promotes freedom and subjectivity but most importantly leads to an honest view. Moreover, semi-structured interviews provide flexibility and lead to a deeper understanding of the subject for both participants (Eriksson & Kovalainen, 2015). The interviewees themselves were chosen due to their connection with the phenomenon within the case companies. Additionally, their roles within the firms were different which offers altering perspectives and enriches the gathered data (Table 4.). The questions asked reflected current literatures view on the subject and cover all the required aspects of the phenomenon. The researcher did not thoroughly introduce or educate the interviewees about the subject. However, due to the unfamiliarity of the subject that is organizational ambidexterity, a quick summary of the phenomenon was given after each interview.

Interviewee	Title	Date	Length
Case Alpha	CEO	15.6.21	54 min
Case Beta	Game developer	17.6.21	48min
Case Delta	Product management	26.7.21	52min

Table 4. Case interviews

The secondary data used were annual reports, company websites, company strategies and presentations. These aid in understanding how the phenomenon can occur within the case companies and provides a good base for building information.

The cases themselves will be presented anonymously due to the request of the cases themselves. This has been standard procedure in management research studies and provides discretion as well as insightfulness (Gioia, Corley, & Hamilton, 2012).

3.4. Data analysis

As Beverland & Lindgreen, (2010) discuss, multi-case analysis can be conducted both within-case and cross-case. Within-case looks at the cases individually. *"The overall idea is to be- come intimately familiar with each case as a stand-alone entity. This process allows the unique patterns of each case to emerge before investigators push to generalize patterns across cases"* (Eisenhardt, 1989). In other words, the researcher must look at the cases individually to find the correct data to further analyze. After this has been conducted, cross-case analysis can be prepared to find linkages and patterns across the cases to bring both validity and reproducibility through novel finding of the gathered data (Eisenhardt, 1989). Thus, this case will initially look at each case independently concerning internal and managerial antecedents. Then, the aspects and elements of interest are weighed against one another to paint a picture of the influence of antecedents.

4. FINDINGS

4.1. Within-Case Description and Analysis

First and foremost, the Case companies will be presented along with their history and future anticipations. Then, the antecedents of organizational antecedents will be analyzed along with critical managerial antecedents from data gathered from the interviews. This will paint a picture of how each organization is aligned in terms of exploration and exploitation and establish how ambidexterity is used in each firm. Moreover, when evaluating this data and comparing it to the antecedents and elements of ambidexterity provided by researchers, the mode, or modes of relieving tensions of exploration and exploitation become evident. Thus, we can analyze what kinds of determinants can cause organizations to use multiple modes of ambidexterity simultaneously.

4.1.1. Company Alpha

Case Company Alpha is a html-based start-up firm aimed at creating and developing games and their creative tools for the social games market. This market has only recently been emerging and thus the company has started specializing in the messaging platform from 2015 onwards. The company is currently offering its games on multiple social media apps and is concurrently expanding to new platforms to share their value with customers around the world. (Company website, 2021).

"In 2015 we were bought by British chat application and then then we became part of that company for two years we made games for their app during that time independently so learn a lot about how we could create apps within apps or games within apps and really got acquainted with HTML5. After a few years we saw that Facebook started this new game's platform and we thought that this could really be an opportunity for us since we had thought about it before, and we also thought that other companies would come along with it, so we started [Company Alpha] and started testing with different aspects and components. We got

something from the outside and some we created within and so we started making these games and the technology which enables them.”

As is evident, the firm is very forward looking in terms of plausible market opportunities and growth strategies. Moreover, emphasis is placed on future growth and constant development of tools and games. When asked about how they see the future of the company, these same aspects were highlighted along with unknown future ventures:

“Our market growth is really good right now and as you said there are many markets that don't even know what we are, and they think that social media games are and were like 10 years ago, but this is kind of different. This has incorporated a lot of different aspects and is more about being in touch with people and that's how it builds up ideologically speaking their different platforms.”

Structure

The company is a small enterprise. Currently it employs only a handful of people but is looking to grow significantly, while scaling its operations further.

“Up until this spring [2021] we've been so small that we have six people in our company so you only can have a single focus point.” …it's most efficient to have one team doing the same thing most preferably so that we complete one thing and continue with the next one. But now we've been able to grow our team so we will about 10 people right now and a few more on the way so we can divide the tasks more efficiently, but we still have this like one focal point but we can also have another project in pre-production so we can think about what kind of game we're doing and in what platform we're going to publish it. So, we can also work on the technology on the side so we can specialize the programming side so that a person that doesn't have to do both things simultaneously. Ideologically speaking when we think about making something like a block for a game so we think about should we

incorporate it to the library side and maybe use it later for future projects. Now we kind of do this on the side but I think we could do this more dedicatedly in the future as we grow."

The organization is structured in one big team, each having their own areas of expertise. This brings out a cyclical temporal cycling of ambidexterity, whereby the firm focuses on one major project at a time, moving from one to the next as they complete. However, as stated, the company also works on other projects on the side, hinting at individual contextual ambidexterity, which is furthermore emphasized through individual areas of work and employees having their own areas of responsibility. This becomes more evident as employees also develop the tools for the games along with game design. As Gupta et al., (2006) note, having a loosely built structure can lead to emphasis of exploration. The organization is additionally aiming at splitting its attention of functions as it grows to facilitate the use of exploration and exploitation, while structurally dividing these activities from another, by means of creating multiple games at a time.

Culture and identity

The organization is small and new. The current global situation concerning the coronavirus has had a significant influence on everyday activities within the firm. However, this has not altered the motives of employees and the underlying cultural elements concerning processes. The organization has a somewhat flat hierarchy when it comes to decision making, which is emphasized by openness of communication.

"It's important for the teams to have everybody be heard off or have their voices heard. I have to say that during the pandemic we have not been able to talk and just be around one another. During lunch breaks I just ask people how they're doing like normally you could just ask it during a coffee break, but we have had to formalize certain aspects more so than we would have thought [because of corona]. ...yeah, well first there has to be this climate where people can express themselves that it doesn't come from a single person."

Thus, the firm can organize a flat hierarchy that fosters open communication. Additionally, the aspect of slack within the firm was brought up, which resonates with the identity of the firm. Although too little or too much slack can be detrimental, its occurrence does foster innovation. (Lavie et al., 2010). However, management does appear to understand this dilemma in the sense that output from employees is looked at longitudinally.

"Having the people who are at the front like our creative director or chief product officer these key people need to be left with time to think. You really must appreciate people having time to think sometimes. we think in smaller groups and sometimes individually. …it really is more of a marathon than a sprint, so you have these spaces where people are more productive and less productive."

Managerial antecedents

Being a small firm, the organization must manage its time between exploration and exploitation. *"There's a lot of balance [between innovation and exploitation] since we have a really small team, so we have to prioritize what we have time for."*

This indicates that there are human resource constraints, which disable the simultaneous use of exploration and exploitation at least when it concerns bigger projects. This is also brought up when discussing how projects end and how transition to the next project occurs. Moreover, the importance of exploration is highlighted and shows the importance of capturing new knowledge.

"We're going to do this project it could be the team is signed up with it for a couple of months or however long it lasts so starting new projects is not a possibility in that case, but the job about market research is continuous. We're looking for the sharpest edge in the market where we must be among the first ones."

Herein the emphasis lies in the cyclical nature of projects and the sequential element of ambidexterity. However, continuous market research in the background is key. The organizations management is aimed at being forerunners of social games. This is rooted within the management as taking risk, which is a culmination of experience, both of which create path dependence (Lavie et al., 2010). The three founding members of the firm began by founding their first company in 2010.

"The previous firm was founded by me along with two others in 2010, which made social games for PC. ...In the end of 2014, we already started to think about how we could enter the mobile market and that kind of thought process pushed us forward."

Mode of ambidexterity

According to the details gathered from the analysis, the organization follows contextual ambidexterity which is coupled with temporal cycling (sequential ambidexterity). It is also aiming to become structurally ambidextrous as it grows further. Moreover, this hints at structurally independent teams that have autonomous decision making to utilize exploration and exploitation and to change from one to the other when deemed necessary. However, this is not currently plausible for the firm, since structural ambidexterity requires the ability to produce at least two different teams (Hughes, 2018; Tushman & O Reilly, 1996). This also couples with multiple different researched views concerning contextual ambidexterity and firm size. Foremost, Gibson & Birkinshaw, (2004) argue that smaller firms are more lenient towards contextual ambidexterity. Moreover, smaller firms are unable to balance across domains efficiently, limiting their ability to simultaneously explore and exploit. As Parmentier & Picq, (2016) argue, "*The ambidextrous organizational model based on separation of exploration and exploitation activities into sub-entities that are structurally distinct is not, however, suited to SMEs. These companies need to manage the dichotomy between exploitation and exploration activities within the same structure*". However, as case

alpha shows, the organization uses temporal cycling of exploration and exploitation, which negates this affect in terms of resource dependance, since the organization is able to manage transitions from exploration to exploitation and vice versa (Hannan & Freeman, 1984; Lavie & Rosenkopf, 2011; Lavie et al., 2010). This cycling is achieved through a loosely structured organization with slack time (Gupta et al., 2006), and emphasis on achieving continuous and effective absorptive capacity (Kohtamäki et al., 2020).

Altogether, the antecedents of contextual ambidexterity are clearly present within the firms' operations. Aspects such as, the structure of the firm, cultural and identity related elements, as well as slack time, absorptive capacity, among prospects for growth and the overall innovative direction of the firm dictate the ambidextrous nature that it follows.

4.1.2. Company Beta

 Company Beta is a game developer of gambling and money games. The company provides gaming operators with slot games and strategic-influenced money games. Their aim is to provide the gaming community with innovative game ideas that offer players more than existing generation games do. The history of the firm is also colorful.

"The company started out by making marketing graphics and marketing, from where they headed towards text scratch tickets. Next, they started making games by commission and finally creating games independently. Slowly, the firm started growing, but during the last few years, we have nearly doubled in size. "

Structure

The organization is quite small, although it has grown significantly during the past few years. Internally, the organization is divided into small teams, who have their own projects, products and are responsible for their own work. However, each team is open in the sense that inputs from other employees are respected and seen as developmental towards the end-product.

"Our employees are divided into four person teams. ...We present our progress in an open event where every team is present. Shareholders can also attend if they wish. Usually, a lot of people attend and that's where we get feedback about what the shareholders like and do not and what could be the solution to these aspects. About our hierarchy, although I have only been in the firm for a few years, I can go to our CEO, knock on his door, and ask for his help about for example a model and ask what his opinion about it. There really isn't a structure where people where one person is above the other."

Decision-making is evidently divided and shared. Moreover, the organization, although on paper has a management team and CEO, is very flat hierarchically. *"I have to mention now that we recruited three to four new people, we made a new team out of the people and the reason for why we who did this was that we can make a whole new team who don't have to be implemented into other teams but so that we can have them create their own products and all projects which they can manage by themselves".* Each team has its own products and maintains them accordingly. Additionally, the organization is structurally ambidextrous, which is apparent from each team having their own projects that they work on independently. *"We have this system where every team has their own games what this means is we are solely responsible for our own games so other teams don't have to maintain our games and vice versa. ...Some teams can be finishing their current game while another is at another stage in their own game".*

Culture and identity

Culture is about finding common intent. Organizations that are able to invest in their employees through processes that enhance work engagement and build a supporting climate are more likely to develop this kind of shared vision (Katou et al., 2021). The case organization is more than able to do this, according to the interviewee. Moreover, the organization is quoted to employ very different kind of people. Diversity has been found to

significantly correlate with new product innovation, along with a shared vision (Muhammad et al., 2021).

"Organizational culture really means to me what kind of people there are and how we all get along. the jumps between the organization are small and we all get along well. there is sort of camaraderie although they are only less than 20 of us so it's easy to know one another and together. ...when you look at the small things when you go to the office there's a small step to ask and vice versa it's not only about to work. but I would see that our coworkers are friendly, you get this with the managing teams as well as your own coworkers. I really have a positive history positive experience about these aspects although you go to work.... I would say that in our organizations culture you have a lot of different kind of people."

Concerning the most influential aspects relation to the first innovation capabilities, the antecedents of slack time and absorptive capacity are immediately brought up. "*A big part of that I believe is our own development and how we can build internal tools. Because we publish new games constantly, we use a lot of time to give ourselves a lot of time. We turn some projects into fast projects so that we can take time to create new things. ...We motivate ourselves from both looking at competitors and what they're doing or find things from other video games where we can look at an aspect in a game and think about how this could be integrated into our games.*".

Managerial antecedents

As can be recognized, the organization is structured in teams, each having their own products that change from one to the next after completion. When asked about how the teams transition from one project to the next occur, the interviewee underscores flexibility. Moreover, the notion of fluidity is clear within the firm's processes. This is brought to the surface by the aspect of context, which is the driving force for shared work. "*We don't really have a strict mold, but it really is flexible when it needs to be we don't really do overtime. ...let's think*

about a new project. We can think about doing it either fast or slow. Once we've come to occlusion with either one, we think about which base we will use. In fast projects this leads to what kind of engine we want to put into the game. In new or slow projects, we're already creating the basics for the new game while we are still working on the prior project. We have already been working on the previous project but we're still developing the next one, where we're having meetings and discussing about the future projects. a big cause for this is that different tasks don't advance at the same pace, so you can already work on the next project or maintain your own tools or so forth when other team members are working on other stuff or earlier projects.'' The teams are thus able to change from one project to the other because each member has their own role within a project and the tasks each role has can be worked at any given time, without the expense of the projects. Therefore, the team can fluidly shift attention from one project to the next, through understanding the bigger picture, or context of the work. This also implies the use of sequential ambidexterity

Mode of ambidexterity

The analysis points to the organization using structural ambidexterity, along with contextual ambidexterity and temporal cycling (sequential ambidexterity). The organization is structured in multiple teams that work on their own projects independently. However, decision-making is divided and anyone within the company can give suggestions. This creates an open environment, which combined with a supporting environment produces a shared vision and improved innovation. Slack time and absorptive capacity aid employees to generate new ideas and drive innovation *"you learn aspects about everything that has to do with the projects about how it looks, how it works, etc. We have meetings about why these things work and how why others don't, and I think that it's a big part of it about our success* ". Workers have independence within their own work but produce combined work. The teams shift attention from one project to the next as work completes in its own time. However, there still are deadlines to mitigate the negative effects of too much slack time. "*You have to have a certain number of releases during a quarter''.* This promotes the cyclical nature of the work and suggests a sequential mode of ambidexterity is being used. Behind this function is a

common understanding based on context, whereby individuals are given freedom to conduct their work as they deem best. Individuals within teams can be either working on the previous project while another is creating the foundations for the next one. This is a clear indicator of contextual ambidexterity.

4.1.3. Company Delta

Company Delta is a multinational mobile gaming corporation established in the early 2000's. The organization has grown exponentially and is aimed at bringing player-focused gaming experiences in the mobile-gaming market. Currently, the firm has several offices and gaming studios located worldwide and employees around 500 people.

Structure

Although the organization is massive, teams are small, while given autonomy, freedom, and responsibility over their creations. Hierarchy is also low, enabling shared decision-making, although the product owner has the final word.

"We have studios around the world. for example, we have a studio Helsinki and b studio in Sweden, we have different studios in [other cities around the world]. Inside this a studio, we have a matrix organization which means every product has their own product lines which are managed by game leads. Every game has its own supervisor who is accountable for the performance of the game and really has the final word. Every game is given a lot of autonomy, whereby the studio does not dictate the overall direction, but rather gives small adjustment related requests.".

"We have a low hierarchy we only have one person in charge of our studio, who accounts for aspects that need general studio coordination and is responsible for overall coordination,

so really general things. The games themselves are autonomous so there really isn't a boss like telling what you need to do."

Case delta has a different approach to product ownership and the overall lifecycle of their games. Although anybody within the company can create games, after it has scaled to a certain extent, ownership is given to another team that is centered around maintaining or exploiting the game. *"Anybody in the company can create a game. ...Every product has its own lifecycle. When it starts to seem that it can't be scaled upwards anymore, it is given to somebody else than the person who initially created it. This new person then builds something to sustain the game. This is done to replace the person who may not be suitable for that specific task. ...An innovative person may be proficient at creating new ideas but not maybe maintain and uphold the game as it is. This way innovation keeps rolling forward".* This means that ambidexterity is structured in a way whereby the outputs of one team become the inputs of another. This resembles reciprocal ambidexterity as portrayed by Simsek (2009). Moreover, as information flows in all directions, the perceived benefits point to cycling of information that continuously create new knowledge. *"The games are somewhat similar in their style, but we have different people working on different games, but the main idea is that we can use elements and information received from one game in another one".* Additionally, projects are independent from one another, meaning that they are combined by continuous information flow, or context.

Culture and identity

The identity of the organization is to be both profitable and bring value to customers simultaneously. *"We are different as a mobile games company in the sense that other games companies usually want to make good games first and money second, we want to make both simultaneously.".* Additionally, the firms' values are tied to co-creation and proactivity *"our firm or people in our firm really believe in autonomy of individuals and our employees are self-sustained, work proactively constantly, and are actively sharing information they have*

learned with other people. ...We share a lot of information between teams although we work on different games, so there's a lot of collaboration.". The Case company has also involved the use and transformation of information as a means for success and value creation. *"The better you can absorb information within your company's structure, processes and individual and make it easily accessible within the company, the better you will succeed in these markets".*

The organization has been changing for the last few years. *"we're trying to strengthen our brand by diversifying our offerings and IP portfolios and this has a lot to deal with our capabilities. the best way to do this is either by purchasing it or by developing it internally, which we are doing.".* The organization has built new studios to diversify itself. This means that it has shifted focus, due to inertial pressures, that slowly arise as organizations get older and larger (Hannan & Freeman, 1984)

Managerial antecedents

Creative freedom given to individuals within the case company delta. Anybody who has an idea for a game can make it come true. A team is created for the game (exploration) given some resources and an opportunity. If it fairs well, it can be handed over from the soft launch to the global launch to personnel who work with exploitation. These ideals also reflect to the organizations management practices, that shine a light on the values embedded beneath the surface. The organization is ready to take initiative and risk through its employees.

"We the people are encouraged to be bold and to do cool things. If they don't work, it's OK. We have a good sensemaking in the sense that if it doesn't work, people are glad that we learned something from this, and it's a positive thing that we took risks. We are not punished for it and when these bold risks that we take work, we are really congratulated so this is something that really contributes to our success." This translates into a fostering internal climate that drives the development of a shared vision and incremental product innovation (Katou et al., 2021; Muhammad et al., 2021) The organization is also centered around

knowledge creation through continuous innovating. "*Our games are built in a sense that we know certain aspects which work and some aspects that we don't. Or at least hypothetically speaking we know what something works we can isolate the innovation within it. What this means is that we don't 100% create a new game …say that 70% is something that we know and 30% is something completely new when you learn that 30% you can reallocate it to already retained information and the next project you can make a new game where there's another 30% that's completely new*". The underlying elements of exploration and exploitation are clearly brought up through the elements of innovation, whereby the distinction between new and old information is clear. Additionally, by structuring the organization as it is, these functions can be divided and influenced.

Mode of ambidexterity

The organization of case Delta is older and larger than the previous cases, which represents its own challenges when it comes to analyzing ambidexterity. It is only possible to analyze what the specific studio of the organization is carrying out, since other participants of the organizations different studios could not be reached. Nonetheless, the interview in question provides ample data to reconfigure how the antecedents act within this studio and accurately shows how ambidexterity is used within the organization itself.

Foremost, the company has structurally divided exploration and exploitation. Once a project (started by anyone) has reached a critical point, it is allocated to a team specialized in exploitation. Hence, the mode of structural separation is used. However, as projects re started by anyone at any time, they do not follow a similar timeline, meaning that some projects are staring while others are finishing. This translates into contextual and sequential ambidexterity. This statement is backed by the creative freedom given to individuals, who are tied to the organization's identity and values of continuous innovation, where the backbone is the creation of games through independent and proactive teams. Other important

elements of this new direction are sharing of information which is continuously reinventing itself and the role of management, which is centered around supporting rather than dictating.

4.2. Cross-Case Analysis

4.2.1. Environmental antecedents

The environmental antecedents of the case organizations are nearly identical since they inhabit the same industry. This means they can be analyzed together to dictate their influence on the use of organizational ambidexterity modes. Additionally, these antecedents act more as phenomenon since the organizations themselves have little or no control over them.

As discussed within-case study analysis, the organizations alpha and beta have substantial interest in what is happening within the industry, and even outside their own markets.

"You also have to retain that curiosity about what's happening in the marketplace and outside the marketplace actually. So, we're following these different kinds of games and trends and even outside of gaming." (Case Alpha).

"We motivate ourselves from both looking at competitors and what they're doing or find things from other video games where we can look at an aspect in a game and think about how this could be integrated into our games." (Case Beta)

Case Alpha also brings forth camaraderie between organizations. *"Actually, the gaming industry is really open. People share information with one another, and this has really created an open community where competitors can communicate with one another, which I think is great." (Case Alpha)* However, this may be limited to SMEs, since Case Delta emphasizes both competitive intensity and appropriability regime, being an MNC. *"This is a really knowledge intensive industry. Some of these things are not intuitive for you, you just really must know they are business secrets which you can't really give away. Some companies*

purchase individuals or other firms to gain new information so that's one way of getting this information. I think that's really important is to keep the people within the company, which is really the value of the firm itself." (Case Delta)

However, competitive intensity is also evident from Case Alpha, who must constantly be searching for new developments. Some projects work, while others don't.

"We are special in this kind of way that we have so many platforms that we are working on simultaneously. As I think about the games that can be a little successful in one platform or not that successful in other platforms so because of this we really can't look at the projects being completely done, since they require constant attention. So, we sometimes really had to stop and think about what's going on right now and analyze whether the project is complete or not. Within our founders the analysis is continuous." (Case Alpha)

Furthermore, they note that the industry has been changing from a distinct shift in attitudes. "*When you look at the Finnish gaming industry, you can see that little teams can do big things. For example, Small Giant Games, you look at the name itself and Supercell which has been really leading the ideology about independent teams or cells which work and it's interesting to see how this culture that supercell has oh where it goes, since it's really been going international. Many games or rather nearly all larger games usually have this merger and acquisition strategy and previously when you bought the firm, you had to integrate it into your processes and so forth, but as supercell's shown us this has decreased radically. ... we should let them (purchased companies) be. Don't touch it if it isn't broken." (Case Alpha)* This is an example of exogenous shock and overall showcases the dynamism of the gaming industry. The so-called cell structures as described by Supercell CEO Ilkka Paananen (GDC, 2018) as independent teams, that have their own creative decision-making. Moreover, Paananen stresses that management should not have no influence over the games and trusts that great employees make the best decisions. The teams are given independence and their own ways to work. If games do not work, they are killed and celebrated as a learning

experience These aspects are also stressed by the case companies. This implies that a shift in attitudes towards creative freedom has enveloped the industry.

4.2.2. Organizational and managerial antecedents

As the within Case study analysis proves, there are similarities between these organizations, although they are different in size and age. Many of the organizational antecedents, especially relating to firm structures have resemblances with one another. Although the organizations utilize different modes of ambidexterity, they use multiple modes to balance out tensions from organizational, environmental and management antecedents. Moreover, the antecedents of management are highly interconnected with organizational antecedents.

The cases see **absorptive capacity** as being an influential source of information for creating new aspects within games. "*The job about market research is continuous" (Case Alpha). "We motivate ourselves from both looking at competitors and what they're doing or find things from other video games where we can look at an aspect in a game and think about how this could be integrated into our games." (Case Beta).* Case Delta on the other hand emphasizes keeping information within the organization and sharing it among teams, employees and infusing it with the organization itself. *"The better you can absorb information within your company's structure, processes and individual and make it easily accessible within the company, the better you will succeed in these markets".*

Slack resources are a critical part of innovation. The cases Alpha and Beta argue its importance. "*You really must appreciate people having time to think sometimes" (Case Alpha) "Because we publish new games constantly, we use a lot of time to give ourselves a lot of time" (Case Beta)*

All the Case companies have similar **structures** of small teams creating their own games independently. The differentiating factor is their size. Case Alpha employs around 10 people, Case Beta around 20, and Case Delta around 500. Case Alpha is also looking to keep their

current structure by adding new teams, rather than expanding their current one, to divide their attention to new perspectives.

Each organization highlights the importance of creative freedom within the organization. This is backed by giving employees time, space, and opportunity to create what they deem best. Emphasis is also placed on making mistakes and learning new aspects. This in turn creates a fostering internal **culture** that drives and molds organizational **identity** and enhances innovation output (Muhammad et al., 2021).

4.3. Synthesis

This thesis answers the proposed sub-questions. Firstly, this thesis looked at the difference between exploration and exploitation and introduced the concept of ambidexterity. Then, its levels and modes were introduced, which answer to the tensions of exploration and exploitation. Lastly, different approaches to the antecedents of a dynamic capability approach to ambidexterity were investigated. These formed the basis of the literature and made it feasible to study multi-level ambidexterity and uncover the elements that lie beneath.

The role of antecedents is interesting. In other words, the direct effect an individual antecedent has on the choice of mode is not as significant. However, as we have seen, these antecedents influence one another in profound ways and cumulatively add up to determinants that are molded into actions and practices by the organization's managements. These case companies have been able to sustain their current methods by placing emphasis on context, which is created by organizational culture and identity. For example, while each organization is different in size and age, they all have similar structures, views on knowledge creation, absorptive capacity and slack.

On the organizational level, each firm deploys contextual ambidexterity to tie teams and individuals to the commonality of processes and innovation direction. Next, depending on the organizations scale, structural ambidexterity is used to divide teams from one another. Each team is conducting either exploration or exploitation at a given time. Although the

notion of which one is in progress at a given time is not structured, the outcome is a project-based organization, where each team is responsible for their own progress and both exploration and exploitation are employed by means that relieve inherit tension. Lastly each organization uses temporal separation (sequential ambidexterity) to change from exploration to exploitation. In the larger organizations (Cases Beta and Delta) this transpires at the team or group level, whereby having completed a game or project, the team can advance to the next one. In Case alpha, this all occurs in the organizational level. Pre-production for the next project for each case has already started earlier and gained knowledge can be transformed into the next product/service. Additionally, knowledge transfer involves other teams, stakeholders, the industry, or other targets of absorptive capacity. This acquired information tied with slack time aids in innovation creation. Moreover, the identity of the organization involves cultural elements that drive ideology of free sharing information. Flat hierarchy and shared decision-making in these case companies aids in product development and fosters a healthy environment of innovation.

Structural separation, a way to facilitate, regulate and streamline temporal shifting. When the teams are separated from one another by the tasks they are completing being tied to a single project, changing from exploration to exploitation becomes natural, since the primary goal of completing a game for the market has been achieved, the next goal becomes fine tuning it to be competitive within the markets (Gupta et al., 2006). As seen from the case companies, this transitional period is either conducted within the team (Cases Alpha and Beta) or allocated to another structurally separate group specialized in exploitation (Case Delta).

The Case companies heavily rely on absorptive capacity while offering slack internally to facilitate innovation creation, that is structured in independent yet interdependent teams of project-based game creation. Additionally, these teams cycle through exploration and exploitation continuously to generate new knowledge. This is tied together with context, identity, and culture. These modes of ambidexterity; contextual, sequential, and structural are used to relieve tension of exploration and exploitation. This way, the challenges brought by each mode is also tended to.

If individuals influence organizational ambidexterity, their actions must have a cascading effect on the implementation and transpiration of ambidexterity within the firm. This means, dual structures can occur by individuals steering context, structure, and leadership towards an integrated solution favoring differing alternatives and elements of ambidexterity. These insights are also in accordance to the findings of Cantarello, Martini, & Nosella, (2012) who find that structural and contextual challenges can be overcome by combining the modes:

"The analysis of the internal structure of search practices shows that architectural and contextual issues, as well as managerial responsibility, co-exist and are deeply linked in developing and sustaining ambidexterity. To this end, we analyzed the search phase of a highly innovative technology-based company by investigating structural design choices combined with the presence of specific roles and searching practices. The results show how the exploration and exploitation balancing act can actually be achieved and maintained through a multi-level approach that integrates both the operational and the strategic levels."

This thesis also adds to these findings by providing insights on the mediating factor of sequential ambidexterity within the equation.

5. DISCUSSION

5.1. Theoretical and managerial implications

The theoretical implications concern the use of standardized modes of ambidexterity and how they can be utilized in alongside one another to achieve short-term and long-term outcomes, while actively relieving tensions brought by exploration and exploitation. Strong evidence was found that ties the established antecedents of simultaneous ambidexterity with the balancing act of exploration and exploitation by orienting organizational and managerial elements with the use of layered, and strategically tied contextual, structural, and sequential ambidexterity.

Numerous studies have been conducted to study ambidexterity within organizations, but these are mainly focused on organizations that aren't comparable in terms of the industry they inhabit (Tushman & O'reilly III, 2011), do not take into consideration small or medium-sized enterprises (Du & Chen, 2018) or are conducted quantitively, while not discussing qualitative work (Bai & Ren, 2016; Du & Chen, 2018; Tinoco, 2014; Turner et al., 2013; Tushman & O'reilly III, 2011). Moreover, these studies have overlooked the factors relating to environmental pressures, which are influential in affecting exploration and exploitation (Bai & Ren, 2016). This thesis addresses these limitations through a qualitative multi-case study, which adopts a multi-level approach to understanding organizational ambidexterity within case companies. This was done through a qualitative case study of three mobile gaming-based organizations, which differ in size and age, offering multiple differing perspectives of internal processes that shape the organizations' performance, while extending the scope of analysis to include environmental pressures. This thesis also adds to a scarce collection of simultaneous ambidexterity (Gedajlovic et al., 2009).

The findings of this thesis add to current literature on the antecedents that enable exploration and exploitation by reducing the tensions these contradicting forces cause. Expanding on theoretical contributions of Lavie et al., (2010) whom explore, showcase and argue for the

impact of antecedents on organizations' tendencies to use either exploration or exploitation (Figure 3), this thesis takes these insights further to discuss their direct impact on organizational alignment and ambidexterity and finds that by using multiple modes of ambidexterity simultaneously, the organizations can tend to both the tensions brought by exploration and exploitation as well as embed the processes within the organizations' structures and goals.

The tensions as discussed in chapter 2.3. form the base constraints that exploration and exploitation entail (Andriopoulos & Lewis, 2010). The findings of this thesis propose that long-term flexibility versus short-term survival, openness to opportunities versus constriction, diversity versus consistency and enthusiasm versus discipline are reduced through structural, contextual, and sequential orientation of resources. By orienting organizations to multiple smaller teams each working on either exploration or exploitation at a given instance and tying a unified organizational context as the base strategy, the case organizations have been successful in utilizing multiple modes of ambidexterity simultaneously. This multi-level approach allows these organizations to operate efficiently for short-and long-term survival, because each team is an individual entity and thus risk is constantly being managed through structural differentiation (Tushman & O'reilly III, 2011). The organizations are also exceedingly open to new opportunities which is embedded into the organizations' cultures and facilitated through the absorption of new information from the markets (Cases Alpha and Beta) or individually (Case Delta) (He & Wong, 2004; Lavie et al., 2010). The case companies do have deadlines to maintain and confine redundant opportunity seeking, which is also aided by the context of work, making games, that is constantly evolving and is fueled by new innovations (App Annie, 2021). The diversity versus consistency dilemma is met by structural, sequential, and contextual ambidexterity, which promote new innovation (Muhammad et al., 2021). If each team is constantly shifting from exploration to exploitation and back again, and are tied to a single goal, to make a game, the tension is constantly being tended to, since each team is their own unit which creates diversity. However, because each team is always doing similar tasks, the operative functions remain constant. Lastly, enthusiasm is created by binding organizational growth to creating

new things (Katou et al., 2021). As the case organizations have a very flat hierarchy and employees are endorsed to have slack time to innovate (which is encouraged as a part of absorptive capacity). Nonetheless, discipline is also kept in check through deadlines to maintain this balance. This becomes evident from Case alpha, whereby the ongoing nature of business is considered as a marathon, rather than a sprint, as the longitudinal dimension is used as a tool for balancing enthusiasm and discipline.

The longitudinal aspect is furthermore a cornerstone of this thesis. As literature has stated, its absence within ambidexterity and multi-level ambidexterity approaches has left a gap to be filled (Cantarello et al., 2012). The sequential mode of ambidexterity is clear within the case organizations' operations, since their project-based organizations rely on constant shifting from exploration to exploitation and vice versa to maintain the status of both short- and long-term orient business. This contributes to current literature by presenting a method for balancing the tensions of exploration and exploitation, which adds depth to the possibilities for configuring operations, while furthermore opening a new lens for further research on the topic. Moreover, this thesis has confirmed the thoughts raised by Turner, Swart & Maylor (2013) of both micro-level and longitudinal studies of ambidexterity, where the complex benefits of ambidexterity unfold over time.

The practices conducted within the case organizations have led to a hybrid approach of ambidexterity that resembles the findings of Simsek (2009). This quasi partitional (Cases Alpha and Beta) or reciprocal ambidexterity (Case Delta) emerges from both internal aspects of the organizations themselves as well as the industry's environment and managerial orientated action. Moreover, these kinds of structures can be considered layering of the established modes. Having differing teams either exploring and exploiting at a given time and switching from one to the other through temporal cycling naturally establishes structural and temporal ambidexterity. Moreover, having an interdependent context such as project-based game development offers a standardized context that ties identity, culture, and knowledge together within the organization. This is furthermore aided through correctly

maintained slack. Additionally, these organizations have open communication with one another and facilitate their absorptive capacity and support learning.

To summarize, these aspects raise interest for future studies about multi-level ambidexterity. Antecedents of exploration and exploitation such as slack, absorptive capacity and culture are interlinked with one another through managements practices. Management plays a key role in mediating balance and finding optimal solutions for short- and long-term performance success. This study adds to literature finding ambidexterity as a dynamic capability and promotes the use of sequential ambidexterity as a means for achieving a multi-level ambidextrous organization. Future studies should incorporate this as a crucial element in studying configurations of exploration and exploitation in longitudinal studies. Organizations can use multiple modes of ambidexterity simultaneously to achieve a balanced innovation strategy.

5.2. Suggestions for future research and limitations

This thesis offers a glimpse into the empirical research of multi-layered organizational ambidexterity. A suggestion for further research is to expand on the findings provided and scale this research further. Additionally, this thesis only uses the antecedents of a singular research (although fills in current knowledge) and thus using antecedents found by other researchers would be warranted to fully understand the process and evolution of multilevel ambidexterity. Moreover, the target for analysis should involve other industries as well. Industries or markets that are less volatile could provide data relating to ambidexterity that occurs incrementally and challenge these findings.

This thesis, although rich in literature related elements, is not without its limitations. The foremost and most influential limitation of this study is its scope. The preliminary idea was to have at least 8 Cases, but because both lack of respondents and or declines, this was

impossible to achieve, without expanding the search to other industries, which would have had a negative impact on the thesis because the antecedents related to the industry (environment) could not have been analyzed.

The second limitation is using the basic modes of ambidexterity as the lens for analysis. The findings of Simsek, (2009) are profound within ambidexterity related literature, but due to both absence of peer-reviewed analysis and proceeding analysis of the proposed modes, it could not be used as the primary lens for this thesis. However, this thesis does add to the proposed literature by providing empirical data about a multi-layered approach.

The third limitation concerns the strategic practices within that are at the center of decision-making behind a certain choice. While this thesis focuses on the underlying antecedents and the practices that embedded in actors' actions, it does not thoroughly look at specific practices that enable and lead to ambidexterity as a strategic choice.

The final limitation concerns the financial performance of combining modes. Although each Case organization is at the time of writing the thesis, very profitable, this was not taken as a part of analysis. Future studies, that are scaled further, could incorporate financial performance metric within their research.

REFERENCES

Adler, P. S., Benner, M., James, D., Paul, J., Osono, E., Staats, B. R., … Tush-, M. L. (2009). Perspectives on the productivity dilemma, *27*, 99–113. https://doi.org/10.1016/j.jom.2009.01.004

Amabile, T. M. (1997). Motivating creativity in organizations : On doing what you love and loving what you do. *CALIFORNIA MANAGEMENT REVIEW*, *40*(1), 39.

Andriopoulos, C., & Lewis, M. W. (2010). Managing Innovation Paradoxes : Ambidexterity Lessons from Leading Product Design Companies. *Long Range Planning*, *43*(1), 104–122. https://doi.org/10.1016/j.lrp.2009.08.003

Anteby, M. (2008). Identity Incentives as an Engaging Form of Control : Revisiting Leniencies in an Aeronautic Plant. *Organization Science*, *19*(2), 202–220.

Bai, J., & Ren, J. (2016). Organizational Ambidexterity and Innovation Performance : The Moderating Effect of Entrepreneurial Orientation, *10*(4), 664–693. https://doi.org/10.3868/s070-005-016-0024-7

Beverland, M., & Lindgreen, A. (2010). Industrial Marketing Management What makes a good case study ? A positivist review of qualitative case research published in Industrial Marketing Management , 1971 – 2006. *Industrial Marketing Management*, *39*(1), 56–63. https://doi.org/10.1016/j.indmarman.2008.09.005

Cantarello, S., Martini, A., & Nosella, A. (2012). A Multi-Level Model for Organizational Ambidexterity in the Search Phase of the. *Creativity and Innovation Management*, *21*(1), 28–48. https://doi.org/10.1111/j.1467-8691.2012.00624.x

Chandrasekaran, A., Linderman, K., & Schroeder, R. (2012). Antecedents to ambidexterity competency in high technology organizations ୯, *30*, 134–151. https://doi.org/10.1016/j.jom.2011.10.002

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive Capacity : A New Perspective On

Learning And Innovation. *Administrative Science Quarterly*, *35*(2), 128.

Collis, D. and Rukstad, M. (2008):"Can You Say What Your Strategy Is?", Harvard Business Review; Apr2008, 86 (4), p82-90

Du, J., & Chen, Z. (2018). International Journal of Innovation Studies Applying Organizational Ambidexterity in strategic management under a " VUCA " environment : Evidence from high tech companies in China. *International Journal of Innovation Studies*, *2*(1), 42–52. https://doi.org/10.1016/j.ijis.2018.03.003

Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, *14*(4), 532–550.

Eisenhardt, K. M., & Graebner, M. E. (2007). THEORY BUILDING FROM CASES : OPPORTUNITIES AND CHALLENGES. *Academy of Management Journal*, *50*(1), 25–32.

Eriksson, P. & Kovalainen, A. (2016). *Qualitative methods in business research* (2nd edition.). Sage Publications.

Game Developers Conference (2018) The cell structure: How Supercell Turned the Traditional Org-chart upside down. Can be found on the world wide web:<https://www.gdcvault.com/play/1025004/The-Cell-Structure-How-Supercell>

Gedajlovic, E., Cao, Q., & Zhang, H. (2009). Unpacking Organizational Ambidexterity : Dimensions , Contingencies , and Synergistic Effects. *Organization Science*, *20*(4), 781–796. https://doi.org/10.1287/orsc.1090.0426

Gibson, C. B., & Birkinshaw, J. (2004). THE ANTECEDENTS , CONSEQUENCES , AND MEDIATING ROLE OF ORGANIZATIONAL AMBIDEXTERITY. *Academy of Management Journal*, *47*(2), 209–226.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking Qualitative Rigor in Inductive Research : Notes on the Gioia Methodology, *16*(1), 15–31. https://doi.org/10.1177/1094428112452151

Gupta, A. K., Smith, K. E. N. G., & Shalley, C. E. (2006). THE INTERPLAY BETWEEN

EXPLORATION AND EXPLOITATION. *Academy of Management Journal*, *49*(4), 693–706.

Hannan, M. T., & Freeman, J. (1984). Structural Inertia and Organizational Change Author (s): Michael T . Hannan and John Freeman Published by : American Sociological Association Stable URL : https://www.jstor.org/stable/2095567 American Sociological Association is collaborating with JSTOR. *American Sociological Review*, *49*(2), 149–164.

He, Z., & Wong, P. (2004). Exploration vs . Exploitation : An Empirical Test of the Ambidexterity Hypothesis. *Organization Science*, *15*(April 2021), 481–494. https://doi.org/10.1287/orsc.1040.0078

Hendry, J. (2000). Strategic decision making, discourse, and strategy as social practice. *Journal of Management Studies*, *37*(7), 0022–2380.

Hughes, M. (2018). Organisational ambidexterity and firm performance : burning research questions for marketing scholars research questions for marketing scholars. *Journal of Marketing Management*, *34*(1–2), 178–229. https://doi.org/10.1080/0267257X.2018.1441175

Hurmelinna-Laukkanen, P., & Puumalainen, K. (2007). Formation of the appropriability regime : Strategic and practical considerations. *Innovation: Management, Policy & Practice*, *9*(1), 2–13.

Jansen, J. J. P., Tempelaar, M. P., Bosch, F. A. J. Van Den, & 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

Jarzabkowski, P. (2003). Strategic Practices : An Activity Theory. *Journal of Management Studies*, *40*(1), 23–55.

Jarzabkowski, P. (2008). SHAPING STRATEGY AS A STRUCTURATION PROCESS. *Academy of Management Journal*, *51*(4), 621–650.

Katou, A. A., Budhwar, P. S., & Patel, C. (2021). A trilogy of organizational ambidexterity : Leader ' s social intelligence , employee work engagement and environmental changes. *Journal of Business Research*, *128*(January 2019), 688–700. https://doi.org/10.1016/j.jbusres.2020.01.043

Kmia, Oliver. (2018) Petapixel. *Why Kodak Died and Fujifilm Thrived: A Tale of Two Film Companies* Can be found on the world wide web:<https://petapixel.com/2018/10/19/why-kodak-died-and-fujifilm-thrived-a-tale-of-two-film-companies/>

Kohtamäki, M., Heimonen, J., Sjödin, D., & Heikkilä, V. (2020). Strategic agility in innovation : Unpacking the interaction between entrepreneurial orientation and absorptive capacity by using practice theory. *Journal of Business Research*, *118*(October 2019), 12–25. https://doi.org/10.1016/j.jbusres.2020.06.029

Lantz, G. (2000). Clockspeed Winning Industry Control in the Age of Temporary Advantage. *Journal of the Academy of Marketing Science*, *28*(3).

Lavie, D., & Rosenkopf, L. (2011). Implications of Exploration and Exploitation in Alliances Balance Within and Across Domains : The Performance Implications of Exploration and Exploitation in Alliances. *Organization Science*, *22*(6), 1517–1538.

Lavie, D., Stettner, U., & Tushman, M. L. (2010). Exploration and Exploitation Within and Across Organizations. *Academy of Management*, *4*(1), 109–155. https://doi.org/10.1080/19416521003691287

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

Lindskog, C., & Magnusson, M. (2021). Ambidexterity in Agile software development : a conceptual paper. https://doi.org/10.1108/JOEPP-07-2019-0068

March, J. G. (1991). EXPLORATION AND EXPLOITATION IN ORGANIZATIONAL LEARNING. *Organization Science*, *2*(1), 71–88.

Mardi, M., Arief, M., & Furinto, A. (2018). Sustaining Organizational Performance Through Organizational Ambidexterity by Adapting Social Technology. *Journal of Knowledge*

Economy, *9*(3), 19. https://doi.org/10.1007/s13132-016-0385-5

Mendelson, H., & Pillai, R. R. (1999). Industry Clockspeed: Measurement and Operational Implications. *Manufacturing & Service Operations Management*, *1*(1), 1–20.

Muhammad, F., Ikram, A., Jafri, S. K., & Naveed, K. (2021). Product Innovations through Ambidextrous Organizational Culture with Mediating Effect of Contextual Ambidexterity : An Empirical Study of IT and Telecom Firms. *Journal of Open Innovation*, *7*(9), 1–12.

Nohria, N., & Gulati, R. (1996). Is slack good or bad for innovation ? *Academy of Management Journal*, *39*(5), 1245–1264.

Parmentier, G., & Picq, T. (2016). Managing Creative Teams in Small Ambidextrous Organizations : The Case of Videogames. *Human Resource Managemet*, *19*(1), 16–30.

Pertusa-ortega, E. M., & Molina-azorín, J. F. (2018). A joint analysis of determinants and performance consequences of ambidexterity. *Business Research Quarterly*, *21*(2), 84–98. https://doi.org/10.1016/j.brq.2018.03.001

Prieto, I., & Santana, M. (2012). Building ambidexterity: The role of human resource practices in the performance of firms from Spain. *Human Resource Managemet*, *51*(2). https://doi.org/10.1002/hrm

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

Raisch, S., Probst, G., Birkinshaw, J., & 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

Ramesh, B. (2012). Ambidexterity in Agile Distributed Development : An Empirical Investigation. *Information Systems Research*, *23*(2), 323–339.

Reilly, C. A. O., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability : Resolving the innovator ' s dilemma. *Research in Organizational Behavior*, *28*, 185–206. https://doi.org/10.1016/j.riob.2008.06.002

Shibata, T., Baba, Y., Kodama, M., & Suzuki, J. (2019). Managing ambidextrous organizations for corporate transformation : a case study of Fujifilm. *R&D Management*, *49*(4), 455–470.

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

Simsek, Z., Heavey, C., Viega, J. F., & Souder, D. (2009). A Typology for Aligning Organizational Ambidexterity ' s Conceptualizations , Antecedents , and outcomes. *Journal OfManagement Studies*, *46*(5).

Sinha, S. (2016). Viewpoint Managing an ambidextrous organization : *Strategic Direction*, *32*(10), 35–37. https://doi.org/10.1108/SD-05-2016-0061

Sirk, Christopher. (2020) CRM. *Fujifilm Found a Way to Innovate and Survive Digital. Why Didn't Kodak?* Can be found on the world wide web:< https://crm.org/articles/fujifilm-found-a-way-to-innovate-and-survive-digital-why-didnt-kodak>

Sorensen, J. B. (2002). The Strength of Corporate Culture and the Reliability of Firnn Performance. *Administrative Science Quarterly*, *47*, 70–91.

Swart, J., Turner, N., Rossenberg, Y. Van, & Kinnie, N. (2019). Who does what in enabling ambidexterity ? Individual Actions and HRM practices. *The International Journal of Human Resource Management*, *30*(4), 508–535.

Takahashi, D. (2020), App Annie: Mobile game spending will top 100 billion in 2020. *Venture Beat.* Can be found on the world wide web:< https://venturebeat.com/2020/01/15/app-annie-mobile-game-spending-is-expected-

to-top-100-billion-in-2020/>

Tinoco, J. K. (2014). DOUBLE DEALING : THE INFLUENCES OF DIVERSE BUSINESS PROCESSES ON ORGANIZATIONAL AMBIDEXTERITY. *Academy of Strategic Management Journal*, *13*(2), 87–111.

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

Tushman, M. L., & O'reilly III, C. A. (2011). Organizational Ambidexterity in Action: How Managers Explore and Exploit. *CALIFORNIA MANAGEMENT REVIEW*, *53*(4), 5–22.

Tushman, M. L., & O Reilly, C. A. I. (1996). Ambidextrous organizations : Managing evolutionary and revolutionary change. *California Management Review*, *38*(4), 8.

Whittington, R. (1996). Strategy as Practice. *Long Range Planning*, *29*(5).

Yin, R. K. (1994). Case Study Research Design and Methods. (2nd edition). Sage Publications Inc.

Yousuf, M., Marri, K., Ali, H., & Sin, S. H. (2020). Structural and Contextual Ambidexterity : Towards an Integrated Approach. *Organizational Behavior*, *138*(January).

APPENDICES

Questions for the interviews

Interviewee background

1. Could you tell me about your own role at the company, your career and experience?

Company background

2. Could you tell me about your company background and what has led you to this point?
3. What kind of role does management have within your organization?
4. What have been key points in the history of your company?
5. How do you see your future?

    Antecedents

6. Can you explain your firms' structure, how did you end up with it and have you thought about changing it?
7. how do you explore new products and services and exploit existing ones? Do you do this at the same time aka do you have individuals creating new games while others are enhancing existing ones?
8. What do you believe are the fundamental aspects relating to your firm's innovation capabilities?
9. When do you know a project is "finished" and a new one can be started?
    a. How do you shift focus to a new project?
10. How do you manage your individuals/teams?
    a. Do you have specific deadlines for projects and who dictates them?
11. How would you describe your firms' culture?
12. What do you believe to be the critical factors attributing to your performance?