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Organisational Ambidexterity in the Software and Services industry in Portugal: How the top management of Small and Medium Enterprises perceive and balance exploration and exploitation activities and its additional challenges to achieve organizational ambidexterity, considering the limited amount of social capital and economical capital resources that SMEs possess.

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Abstract

The purpose of this study was to investigate how top management of SMEs in the Portuguese Software and Services industry perceive and balance exploration and exploitation activities to achieve organizational ambidexterity, and what corresponding tensions are present that lead to trade-offs. The study considered the limited social and economic capital resources available to SMEs in a highly volatile and competitive market. The exploratory qualitative research with an inductive approach gathered data via an extensive literature review and three interviews with three different interviewees. The research findings demonstrated that market dynamics play a crucial role in shaping strategies and resource allocation and lead to pursuing an sequential ambidexterity strategy. When faced with low market activity, SMEs tend to prioritize exploration, whereas high market activity drives a focus on exploitation if resources allowed to do so. The study also revealed that top management in these SMEs actively promoted contextual ambidexterity by fostering a 'family culture', and applying ambidextrous leadership strategies. Moreover, the findings highlighted the significance of coopetition networks, wherein SMEs cooperate with one another to in enhance innovation capabilities and knowledge. Coopetition networks are barely mentioned in the existing body of literature, and therefore this study provided valuable new insights into the topic. Finally, the study also discovered the challenges and the resource constraints faced that lead to tensions when these SMEs try to achieve organizational ambidexterity. Tensions between the short term outcomes versus the long term outcomes of the company, and the preference of predictability over uncertainty were present. This empirical study thus contributes to the existing literature on organizational ambidexterity by shedding light on how organizational ambidexterity is perceived and achieved in SMEs. The study emphasizes the important role of coopetition networks as an external strategy for enhancing innovation capabilities.

Keywords: organizational ambidexterity, sequential ambidexterity, contextual ambidexterity, business strategy, corporate culture, leadership, coopetition.

Table of Contents

Abstract ii

Table of Contents iii

List of Tables vi

List of Figures vii

1. Introduction 1

1.1. Key Concepts 3

2. Research Question 4

2.1 Main Research Question 4

2.2 Sub Research Questions 4

3. Methodology 5

3.1 Research Design 5

3.2 Participants 6

3.2.1 Company A 6

3.2.2 Respondent A 7

3.2.3 Company B 7

3.2.4 Respondent B 8

3.2.5 Company C 8

3.2.6 Respondent C 8

3.3 Data Collection & Analysis 8

3.4 Validity and reliability 9

3.5 Limitations for data collection 10

4. Literature Review 11

4.1 Organisational Ambidexterity 11

4.2 Exploration versus exploitation definitions 12

4.3 Structural ambidexterity 13

4.4 Sequential ambidexterity 14
4.5 Contextual ambidexterity 14
4.6 Internal vs External ambidexterity 17
4.7 Corporate Leadership and Culture 17
4.8 The Portuguese Software and Services Industry 18
5. Results 19
5.1 Organizational Structure 19
5.2 Leadership and Culture 19
5.3 Sequential Ambidexterity 21
5.4 Network and Partnerships 22
5.5 Tensions 23
6. Discussion 25
6.1 Organizational ambidexterity strategy 25
6.2 Culture and leadership 26
6.3 Networks 27
6.4 Conflicts in achieving organisational ambidexterity 28
7. Conclusion 30
Appendices 32
Interview Guide 32
Organisational Ambidexterity Matrix 35
Elements of Organizational Culture 36
Interview Recording Consent Template 37
Transcription Interview Company A 38
Codebook Interview Company A 52
Transcription Interview Company B 54
Codebook Interview Company B 63
Transcription Interview Company C 65

Codebook Interview Company C.....74

Bibliography 76

List of Tables

Table 1 - Key Concepts 3
Table 2 - Overview of Exploitative Business and Exploratory Business, adapted from O'Reilly and Tushman (2004) 13
Table 3 – Description Key Tensions Contextual Ambidexterity 16
Table 4 - Comparison table of Structure, Culture, and Leadership Style 21

List of Figures

Figure 1 - Sequential Ambidexterity (Moccia, sd) 14

1. Introduction

Among most industries, international competition is fiercer than ever before with new disruptors constantly adding to traditional competitors (Adner, 2017), and technology changing at a pace never experienced before. Customer needs change faster than ever and it is therefore important to adapt quickly to these changing demands (Alida, 2022). Since we live in a globalised world, threats such as cyberattacks, supply chain disruptions, viruses, and natural disasters could negatively affect firm performance. On the other hand, internationalization has become almost inevitable for most businesses around the world.

Being able to serve current markets and being prepared for future environmental changes therefore is key to survive in the long term (Duncan, 1976). Companies should for that reason balance their focus on the current market and investing in the future market. This phenomenon is called organizational ambidexterity. The concept of organizational ambidexterity implies that an organisation has the ability to pursue both exploration and exploitation activities at the same time (March, 1991). According to (Sinha, 2015), exploration is the discovery of new products, resources, knowledge and opportunities, and it is associated with radical changes and learning by means of experimentation. Exploitation on the other hand refers to the process of improving and enhancing existing products, resources, knowledge, and competencies, while learning through local search. Consequently, organisational ambidexterity can help top management balance its focus on both exploration and exploitation activities in order to address these challenges while maintaining or improving competitive advantage and customer value.

Since most research has focused on large organisations that usually have all the necessary resources to support changes at a structural and organisational level (O'Reilly & Tushman, 2013), there is a gap in research about organisational ambidexterity in Small and Medium Enterprises (SMEs). A company can be considered an SME when it has less than than 250 employees (National Action Plans on Business and Human Rights, sd). Organisational ambidexterity is a multi-level phenomenon that is present at the individual level, team level, and organisational level (Dieffenbacher, 2023). This means that, if willing to make it happen, any organisation should be able to become ambidextrous (O'Reilly & Tushman, 2013). Scholars, in spite of that, do not seem to agree on what the best strategy is regarding the structure firms should apply if they wish to become or remain

ambidextrous, and as a result, improve their performance (Clement, 2018). An apparently consensual red line within the research however exposes three main pillars of organisational ambidexterity: Organisational Structure, Organisational Culture, and Leadership.

Most theory albeit is linked with applying certain organisational structures to achieve organisational ambidexterity. Howbeit, it is too much focused on large corporations that have the tools and resources available to apply large structural changes within the organisation. SMEs and start-ups are much more restrained by the amount of resources available and should therefore consider other possibilities to pursue an ambidextrous strategy. They lack many options for organizational structures (Lubatkin, Simsek, Ling, & John, 2006) due to less economic capital and social capital. Researchers are aware though, of the fact that good leadership, a less resource draining aspect, that sets a vision and clearly defined objectives, is important to follow managerial procedures that improve firm performance (Clement, 2018). Nevertheless, there is limited knowledge regarding how leaders of SMEs should orchestrate between exploration and exploitation (O'Reilly & Tushman, 2013) and create an organisational culture that sustains organisational ambidexterity while taking not only into account economic capital, but also social capital, and cultural capital (Bourdieu, 1986).

SMEs represent around 90% of all business worldwide and are increasingly considered as priority for many governments due to the growing global workforce (The World Bank, n.d.). They account for around 40% of global exports, and within the European Union (EU) they contribute to around 56% of total value-added generated by exports (International Trade Centre, 2021) and can therefore be considered crucial for global business.

Research in organisational ambidexterity lacks proper research of how the top management of SMEs perceive the balancing of their exploration and exploitation activities, and what tensions they face when trying to achieve organisational ambidexterity with the limited amount of resources they have compared to larger organisations.

1.1. Key Concepts

Concept	Description	Author
Organisational Ambidexterity	"To orchestrate the complex trade-offs that the simultaneous pursuit of exploration and exploitation requires"	(O'Reilly & Michael, 2011)
Exploration	The discovery of new products, resources, knowledge and opportunities, characterized by radical changes and learning by means of experimentation and taking risks. Focuses on the future market.	(Sinha, 2015)
Exploitation	The process improving and enhancing existing products, resources, knowledge, and competencies, while learning through local search. Emphasis on the current market.	(Sinha, 2015)
Structural Ambidexterity	Orchestrate simultaneously between exploration and exploitation by creating two separate business units.	(O'Reilly & Tushman, 2013)
Sequential Ambidexterity	The ability for organizations to change their structures between focussing more on either exploration or exploitation based on the environmental conditions or strategies of the company at a specific moment in time.	(O'Reilly & Tushman, 2013)
Contextual Ambidexterity	Integrating exploration and exploitation functions within a single business unit by dealing with behavioural abilities of individuals.	(Zaidi & Othman, 2015)

Table 1 - Key Concepts

2. Research Question

This part of the research provides the reader with the main research question. In order to draw valid conclusions upon the main question, several sub research questions have been created.

2.1 Main Research Question

Research Question: How does the top management of Small and Medium Enterprises (SMEs) in the Portuguese Software and Services industry perceive and balance exploration and exploitation activities and its additional challenges to achieve organizational ambidexterity, considering the limited amount of social capital and economical capital resources that SMEs possess?

2.2 Sub Research Questions

Sub Research Question 1: How do top managers in SMEs prioritize and allocate resources between exploration and exploitation activities?

Sub Research Question 2: What are the perceived challenges faced by top management in SMEs when attempting to balance exploration and exploitation activities for organizational ambidexterity?

Sub Research Question 3: What strategies does top management in SMEs use to foster an organizational culture that supports exploration and exploitation simultaneously?

Sub Research Question 4: How do top managers in SMEs navigate the trade-offs and tensions between exploration and exploitation activities given their limited resources compared to larger organizations?

3. Methodology

This chapter discusses how the data is gathered, how the respondents have been selected, and how to data is analysed in order to draw the right conclusions on which potentially future research can be built on. This exploratory study examined how SMEs perceive and attempt to embrace organisational ambidexterity in order to improve their business performance. The design of the research is explained in this chapter, as well as the sampling techniques used, the details about the participants, and finally the data collection and analysis in order to validate the reliability of the study.

3.1 Research Design

This study followed an exploratory qualitative research design with an inductive approach in order to find patterns regarding the topic, possibly find new facts, and finally answer the research questions while building hypothesis drawn from the results. In addition, the study aimed to identify more details that could provide future researchers with a better understanding of the problem area.

Qualitative research is subjective and studies the participants its relationships with a certain topic (Saunders, Lewis, & Thornhill, 2016), this therefore also includes generating a deeper understanding for a specific topic or problem. In this case it meant how participants experience organisational ambidexterity without the means of structural ambidexterity due to resource constraints, and what other tensions are perceived within their operations. Data is non-standardised so procedures can still alter during the research process, depending on the limited time frame and new information that could be presented to the researcher during the study.

The interviews had been conducted within a timeframe of one-and-a-half months, between the first week of June until the second week of July. Before the interviews started, the interviewees had accepted and signed an interview recording agreement to emphasize and ensure confidentiality of the conversation, their anonymization, and that the nature of this study is solely for academic purposes. In the appendix, you can find the recording agreement template.

3.2 Participants

For this study, an non-probability sampling technique had been applied in order to collect the data based on specific characteristics, and to make contact with the people deemed to be relevant for the purpose of this study. During the research, an opportunity represented itself to make use of a snowball sampling method. Snowball sampling is a recruitment method that involves requesting research participants to help identify additional potential subjects for the study (Oregon State University, 2010). In total, three participants had been found in order to gather a sufficient amount of empirical data (n=3) The participants had to be active in the higher management of a company that operates in the IT (Software and Services) industry in Portugal. The IT sector includes companies that produce software, hardware, or semiconductor equipment, and companies that provide internet or related services (Miller, 2021). For this research, only the sub-industry Software and Services had been taken into consideration. Companies in the Software and Services industry must develop or provide its clients with either internet software and services, IT consulting and other services, data processing and outsourced services, application software, systems software, or home entertainment software. In addition to that, the companies that the respondents represented had to be SMEs. This indicates that the chosen companies were not allowed to have more than 250 employees at the moment that the interviews were conducted. Seeking for companies with less than 250 employees ensures that the methodology is differentiated from most of the literature already available that focused mainly on large corporations.

3.2.1 Company A

The first interview conducted during this research was with the co-founder of a Portuguese based software design and IT company. The company is located in the northern part of Portugal and it had 28 employees at the moment of the interview. It executes business in the United States, the United Kingdom, the United Arab Emirates, and Portugal. The company aims to increase its international presence in the upcoming years. For the privacy of either the respondent and the company, they will be referred to as 'Respondent A' and ' Company A' respectively. The same is done for the other respondents.

Company A is specialised in the production of several software and web design tools. It differentiates itself from traditional competitors by offering not only the

development of services such as Front-End Development, Back-End Development, and Hybrid Apps Development, but it also includes itself in the planning and strategy process of its clients. Where traditional competitors only deliver the development of software and other technological aspects when clients have indicated that they need them, Company A steps in ahead of the process of recognizing what solution is needed. The company tries to explore beforehand, together with its clients, to recognize the problem faced, and based on that it plans and strategizes together with its clients the perfect solution that fits for each client uniquely.

3.2.2 Respondent A

Respondent A occupies the position as Head of Development of the company. He is co-founder of the company, which his partners and he started in 2008. The interviewee has a background in engineering, specifically computer engineering. In his position nowadays however, Respondent A is responsible for the growth strategy of the company. This means that his function is focused on developing the business, whether is it with new technologies and innovations, or seeking for which new international markets to enter. On paper, his position allows him to pursue both exploration as well as exploitation activities. In practice nonetheless, achieving this is considered a more difficult phenomenon. As a result, the topic of Organisational Ambidexterity is of high interest and importance for the respondent, and can aid the future development of Company A.

3.2.3 Company B

Company B is an IT company that specializes in web3 development for its clients. The company operates mostly remote, with employees based all over Portugal. At the moment of the interview, this SME had 7 full time employees. Often however, there is a pool of freelancers that help them out with specific projects. Respondent B mentioned that during the interview, around 15-20 people were working on projects for the company.

The company has executed projects in Portugal, Israel, the UK, Belgium, and mostly the US. It offers a wide range of products, mostly connected with Web3 and Blockchain. Web3 refers to the next generation of the internet that aims to decentralize control and ownership, enabling peer-to-peer interactions and removing intermediaries. It is built on blockchain technology and incorporates principles of decentralization, transparency, and user sovereignty (Ginsburg, 2022).

The company tries to focus on niche markets, and due to the fact that it got early into the Web3 world, it is recognized as a specialist in this field. Furthermore, it tries to create value and differentiate with the specific tools they use within their field of expertise.

3.2.4 Respondent B

Respondent B is both the founder and the CEO of Company B. The interviewee has a background in product design and branding, however nowadays is more focused on accounting and running the business successfully. This includes exploring new opportunities, finding new leads, and keeping the team satisfied. The team, which consists of specialists in different fields such as branding and project management, is more responsible for the exploitative activities of the company.

3.2.5 Company C

Company C is an software IT company located in Lisbon, Portugal. It focusses on providing their clients with software, digital tools, and anything related to digital technologies. Examples are projects related to Web3, Applications, and CRM system software. In addition to that, it aids companies with their digital strategy, designs, and development. At the moment of the interview, it had 12 full time employees. Some of these employees execute their activities from the mainland of Brazil and the company can be considered to operate predominantly remote. It has operations in Australia, the US, Switzerland, and Portugal. In the future it plans to expand its projects and business to more countries.

3.2.6 Respondent C

Respondent C is the founder, and CEO of Company C. He has a degree in computer science, and he worked an engineering jobs, functioned as a tech lead, and after that he operated as CTO. Three years ago he started company C. Respondent C stated that he strives to have a family culture within his company. The day that this family culture is not present, he will leave his own company immediately.

3.3 Data Collection & Analysis

In order to create high quality research questions for the interviewees, an extensive literature review had been conducted. It focused on the different types of ambidexterity

that companies could apply in order to orchestrate between exploration and exploitation. By doing this, it became more clear on what specific topic the focus in the interview had to be, and what exact questions that had to be asked. This literature review was subsequently followed up by the creation of a semi-structured interview template. The questions of the interview template were based on the main themes that came forward after the literature review. This way, the company its structure, leadership, culture, tensions faced, internal vs external ambidexterity strategies, and processes are thoroughly discussed during the interview.

The semi-structured interviews are transcribed and analysed via a thematic analysis. According to Saunders, Lewis, and Thornhill (2016), the essential purpose of a thematic analysis is "to search for themes, or patterns, that occur across a data set" and it involves coding the qualitative data to do so (Saunders, Lewis, & Adrian, 2016). The process of coding the interview transcription started with the creation of a unique qualitative codebook for each of the interviews. Codebooks allow the researcher to organize, categorize, and analyse qualitative data systematically (Damyanov, 2023). Several steps had been executed to build a high quality codebook for each interview. First of all, the audio recordings and transcriptions of the interviews had been analysed thoroughly and emerging key patterns and themes had been identified. Subsequently, the themes that emerged from the data had been described concisely to ensure that the codes are concise and clear. The themes that emerged from the insights were grouped in categories and finally analysed within the context of the literature review and research objectives.

3.4 Validity and reliability

The validity and reliability of research findings are essential to ensure the credibility and accuracy of the study its results. Multiple steps were taken to amplify the validity of the study. First of all, the research had been planned carefully to align with the research objectives. The use of semi-structured interviews allowed for a more in-depth exploration of the topic and the perceptions, experiences, and perspectives the participants possessed. During the sampling process, diversity and representativeness had been taken into account. Efforts were made to include SMEs from different sub-sectors and various organizational sizes. By doing so, the study aimed to increase the external validity, allowing for broader generalizability of the findings to the target population. During the interviews, probing

questions had been asked in order to clarify, or validate, the responses of the interviewees. The recordings and transcriptions minimize the risk that information is lost during the process, or that information is misinterpreted.

3.5 Limitations for data collection

There are several limitations present for this research. The first one and most important one is time. Only a limited amount of time has been given to execute the research. With more time, potentially more literate resources could have been identified and analysed. In addition to that, more respondents could have been interviewed which would could have provided the research with more information, more patterns in the results, and subsequently a better and more precise conclusion. Furthermore, only three respondents have been interviewed, which means that the material to make proper comparisons is limited. Finally, since it is considered a qualitative research project, it is dependent on interpretation and meaning. In other words, it is built on the lived experience of individuals, while reality could be much different (Meneses).

4. Literature Review

Before the concept of organisational ambidexterity, many scholars investigated the phenomenon of adhocracy. Adhocracy is a strategy formation created for organisations who operate in an environment that is dynamic, complex, and demands innovation (Mintzberg & McHugh, 1985). Adhocracy was the precursor of the research about the much wider phenomenon called organisational ambidexterity. According to Margie Parikh (2016), organisational ambidexterity comes with a much larger range of approaches for balancing contradictory goals and is therefore more useful for managers in the long run. Literature about adhocracy therefore paved the way for research regarding organisational ambidexterity. Adhocracy is limited and does not answer the wide range of questions that organisational ambidexterity answers. Organisational ambidexterity recognizes much more the need for balancing and it offers strategies for accomplishing seemingly conflicting goals concurrently, rather than sporadically or in a specific order. Furthermore, it is a capability that can be cultivated throughout the entire organization, and takes into account the impact of globalization on the organisation its ability to respond quickly to changes. Unlike adhocracies, which tend to focus on specific parts of the organization, ambidexterity applies to the organization as a whole. It can be concluded that this makes organisational ambidexterity a more comprehensive and adaptable notion than adhocracy, which focuses on pursuing goals sequentially (Parikh, 2016). The objective of this chapter is to gain a comprehensive understanding of the theoretical background of organisational ambidexterity.

4.1 Organisational Ambidexterity

According to Duncan (1976), it is important for companies to adapt to environmental variations that occur over time in order to survive in the long term. Balancing between a focus on evolutionary changes and revolutionary changes is proven to improve firm performance. O'Reilly and Tushman (1996) have extensively studied firm complexity and defined ambidexterity from a managerial point of view as the ability to accomplish both incremental innovation and radical innovation through a structural organisation hosting several cultures, processes, and structures inside the firm (O'Reilly & Chatman, 1996). Most scholars and researchers have introduced readers with the topic of organisational ambidexterity by defining it as a process of two fundamental components,

namely exploration and exploitation (Gupta, Smith, & Shalley, 2006). Organisations which are ambidextrous manage to balance exploration and exploitation effectively in their business strategy and development (Dieffenbacher, 2023) simultaneously. The exploration component consists of terms such as search, experimentation, variation, risk taking, flexibility, discovery, and innovation. On the other hand, exploitation activities refer to refinement, execution, efficiency, choice and implementation (March, 1991). O'Reilly and Tushman (2013) found that there is a positive effect of organisational ambidexterity on firm performance. However, under- or overuse of either exploitation or exploration comes at a cost and these paradoxical challenges can bring along frictions (Meijer, 2017).

Literature investigates how to achieve organisational ambidexterity. Charles A. and O'Reilly (2013) find three different distinctions in how organisations become more ambidextrous. It can be done via structural ambidexterity, contextual ambidexterity, or sequential ambidexterity (O'Reilly & Tushman, 2013). Structural ambidexterity describes how firms can change their organisational structures in order to focus on either exploration or exploitation. Sequential ambidexterity on the other hand describes that organisation swift between organisational structures over time in order to align with the strategy the company is following at that moment. This however does not explain how companies can execute exploration and exploitation activities simultaneously and therefore can be ineffective (Tushman & O'Reilly, 1996). Finally, organisations have the ability to become ambidextrous by allowing individuals to decide whether they want to invest their time into exploration or exploitation activities (O'Reilly & Tushman, 2013). This is called contextual ambidexterity and Gibson and Birkinshaw (2004) state it is accomplished by "building a set of processes or systems that enable and encourage individuals to make their own judgments about how to divide their time between conflicting demands for alignment and adaptability".

4.2 Exploration versus exploitation definitions

The overall studies regarding exploration and exploitation state that both activities are beneficial to the sustainability of organizations (Tushman, Stettner, & Dovev, 2010). It can be considered one of the toughest tasks for management (O'Reilly & Tushman, 2004) and studies agree that both exploration and exploitation contribute to learning and innovation, albeit in distinct ways. They explicitly acknowledge the value of balancing these

two processes to achieve optimal results, and recognize that each approach brings its own unique benefits to the organization its overall performance (Gupta, Smith, & Shalley, 2006). Sinha (2015), explains that exploration is the discovery of new products, resources, knowledge and opportunities, and it is characterised with radical changes and learning by means of experimentation. Exploitation on the other hand refers to the process of improving and enhancing existing products, resources, knowledge, and competencies, while learning through local search. O'Reilly and Tushman (2004) have created a clear overview of the differences between executing exploitative business or exploratory business:

Alignment of:	**Exploitative Business**	**Exploratory Business**
Strategic Intent	Cost, profit	Innovation, growth
Critical tasks	Operations, efficiency, incremental innovation	Adaptability, new products, breakthrough innovation
Competencies	Operational	Entrepreneurial
Structure	Formal, mechanistic	Adaptive, loose
Controls, reward	Margins, productivity	Milestones, growth
Culture	Efficiency, low risk, quality, customers	Risk taking, speed, flexibility, experimentation
Leadership role	Authoritative, top down	Visionary, involved

Table 2 - Overview of Exploitative Business and Exploratory Business, adapted from O'Reilly and Tushman (2004)

4.3 Structural ambidexterity

O'Reilly and Tushman (2013) describe three ways of achieving organisational ambidexterity. The first one is structured ambidexterity. With this strategy, a company tries to orchestrate simultaneously between exploration and exploitation activities by creating two separate business units. The structure of the organisation therefore gets changed in order to achieve ambidexterity. Creating two differentiated subunits that both focus on either exploration or exploitation entails not only a change of system, but also different incentives, processes, and cultures (O'Reilly & Tushman, 2013). These subunits therefore have the ability to completely operate separately, and are connected by the general organisational strategy and overall business values the firm holds while leveraging the company its assets. They should be integrated under a top management team in order to become loosely-coupled with each other and to allow the company for optimal

coordination and communication between the subunits (O'Reilly & Tushman, The Ambidextrous Organization, 2004). In New Product Development (NPD) teams for example, structural ambidexterity manages the conflicts that arise during exploratory and exploitative NPD activities by dividing them in two subunits (Zaidi & Othman, 2015). Thus, it is focussed on organisational structure rather than individual behaviours.

4.4 Sequential ambidexterity

Sequential ambidexterity means that organizations can change their structures between focusing more on either exploration or exploitation based on the environmental conditions or strategies of the company at a specific moment in time. Aligning structures and processes with environmental shifts is a sequential process in which firms evolve and can be seen as a way of firms to be ambidextrous (O'Reilly & Tushman, 2013). An example is given in a study by Lovas and Ghosbal (2000), who describe how the structure, processes, and strategy of a Danish hearing aid company evolved over time.

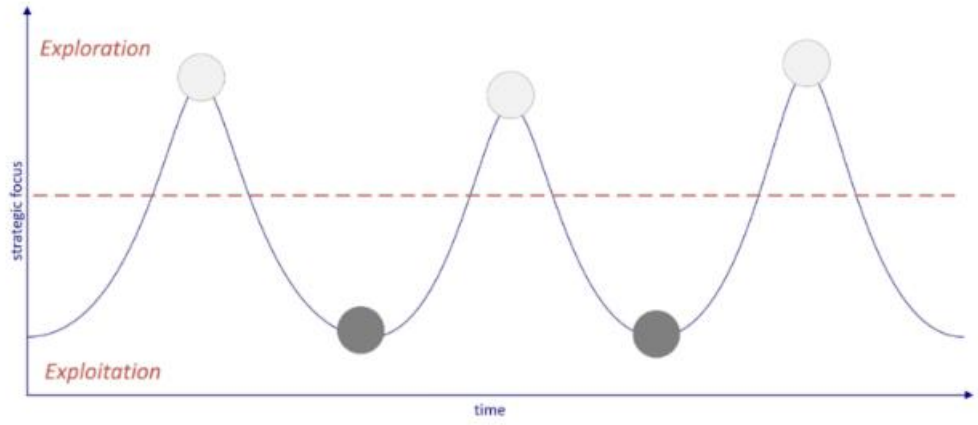


Figure 1 - Sequential Ambidexterity (Moccia, sd)

4.5 Contextual ambidexterity

Unlike structural ambidexterity and sequential ambidexterity, contextual ambidexterity does deal with the collective behavioural ability of individuals (Zaidi & Othman, 2015) and is therefore more present on individual and the team level. "Contextual ambidexterity is viewed as a meta-level capacity where the simultaneous pursuing of explorative and exploitative new product development within a single business unit is built on the processes or systems that encourage individuals to divide their time between activities" (Zaidi & Othman, 2015). Contextual ambidexterity must therefore be achieved in

a single business unit, and therefore the systems, processes, and structures used in this business unit should be more flexible to allow employees to divide their time between explorative and exploitative activities based on their own judgements (Birkinshaw & Gibson, 2004).

Rather than being competing activities that only co-exist simultaneously in separate structural architectures (Gibson & Birkenshaw, 2004), it is proven that exploration and exploitation can also be complementary activities within a single business unit (Wang & Mohammed, 2012). Hence, achieving contextual ambidexterity is more accomplishable for resource restraint SMEs. Wang and Mohammed (2012), argue that "the implementation of contextual ambidexterity requires a fundamental change of management mentality, i.e. from the traditional top-down approach emphasizing the role of leadership and formal structure and governance (Duncan, 1976; Tushman and O'Reilly, 1996) to a bottom-up learning approach recognizing the role of individual members in developing and shaping organizational culture and integrative capabilities of exploration and exploitation". They found that business units that embrace a shared vision and organisational diversity within their strategy enable a successful integration of balancing exploration and exploitation activities in the business unit. As a result, these organisations can better orchestrate new product innovation outcomes regarding incremental or radical innovations and time to market (Wang & Mohammed, 2012). Leadership and culture therefore seem to play an important role in achieving contextual ambidexterity.

Extensive research done by Danson and Kierulf (2016), exposed nine key tensions related to contextual ambidexterity. In the following table, the description of each tension is described to create a clear overview:

Tension	Description	Author(s)
Predictability and uncertainty	This conflict that arises when there is a tension between the comfort of the past and the uncertainty of the future.	(Lewis, 2000)
Long term and short term vision	Short-term vision focuses on the organization's present state and core values, while long-term vision involves envisioning the organization's future and what it aims to become.	(Wagner & Moch, 1986)

Long term outcomes and short term outcomes	Short-term outcomes include measurable indicators such as customer satisfaction and profit, typically associated with exploitation. In contrast, long-term outcomes involve managing growth, long-term profitability, and competitive advantage, associated with exploration.	(March, 1991)
Autonomy and control	Autonomy refers to the freedom of employees to determine how they carry out tasks, while control relates to the higher management its role in aligning employees with organizational objectives.	(Hackman & Oldham, 1980) (Cardinal, 2001)
Existing knowledge and new knowledge	Ambidextrous management requires firms to explore new knowledge, exploit existing knowledge, and coordinate these knowledge bases.	(Taylor & Helfat, 2009)
Individualism and collectivism	Individualism emphasizes personal interests, often associated with exploitation, while collectivism involves shared goals and benefits, positively associated with exploration and innovation.	(Wagner & Moch, 1986)
Efficiency and flexibility	Bureaucratic systems associated with efficiency lead to more challenges in a company its ability to be flexible.	(Adler, Goldoftas, & Levine, 1999)
Present needs and future needs	Present needs focuses on serving the needs of the current market, and is therefore linked with exploitation. Future needs involve innovation to cater potential future opportunities and is associated with exploration.	(March, 1991) (Danson & Kierulf, 2016)
New products and developing existing products	Developing existing products refers to improve current products (exploitation). Developing new products refers to examining forthcoming business opportunities (exploration).	(March, 1991) (Danson & Kierulf, 2016)

Table 3 – Description Key Tensions Contextual Ambidexterity

4.6 Internal vs External ambidexterity

It is important to question whether a company tries to achieve the simultaneous pursuit of organisational ambidexterity internally, or that it seeks to purchase or acquire knowledge and capabilities externally. Companies could for example contact universities in order to do research for them. Furthermore, by acquiring startups, organisations basically purchase their knowledge and capabilities, and not their goodwill. This could be considered a form of exploration, while the internal side of the company could devote all time towards exploiting current operations. However, for SMEs and startups are limited regarding achieving ambidexterity this way, since it requires resources. In addition to that, it is questionable whether this form of 'achieving' ambidexterity can be considered as being an ambidextrous organisation (Hedenberg, 2014).

4.7 Corporate Leadership and Culture

Literature about organisational ambidexterity is often linked to corporate leadership and culture. These two factors could enable a company to become more successful in achieving ambidexterity. Ambidextrous leadership is a dynamic competency that entails the capacity to perceive and embrace conflicts while discerning and capitalizing on opportunities to utilize both internal and external capabilities to optimize the harmonious interaction between these conflicts (Smith, Lewis, & Andriopoulos, 2014). This is therefore also applicable in managing an ambidextrous organisation. The question is however, how leaders can promote organizational ambidexterity within the organisation with the limited amount of resources available to them.

Baškarada, Watson, and Cromarty (2016), find three organizational mechanisms that leaders can rely on to promote exploitation and five specific behaviours they rely on to promote exploration. First of all, leaders promote exploitation by continuously *training* its staff. In addition to that, leaders should make use of *performance management*. To operate diligently and well, the right processes and approaches have to be followed and it needs to project this on its employees. Finally, *knowledge management* allows the promotion of exploitation by learning what has happened in previous similar situations, and applying feedback in the new approach used. In other words, identify what worked well last time, and what did not work well last time, and apply this to the new strategy (Baškarada, Watson, & Cromarty, 2016). To promote exploration, five different leadership behaviours

have been identified. First of all, *commitment* is a key finding in their research. Striving for successful innovative outcomes requires a leader that leads with a committed and constructive approach. Employees will learn to ask exploratory questions for a greater understanding and the exploration of risks. Secondly, a leader should have a common understanding regarding the *vision* of the company. Exploratory approaches involve a shared problem, and therefore also a shared risk. Furthermore, a leader must be able to *empower* its people and provide them with the feeling that they are allowed to explore beyond their boundaries and find new ways of doing business. *Inclusivity* next to that, is essential to promote exploration. Leaders must listen to what their employees have to say and what they experience(d). They need to feel heard in order to create the right relationship needed for promoting exploration. Finally, employees must be included in the change process. This way people are more likely to accept changes (Baškarada, Watson, & Cromarty, 2016).

4.8 The Portuguese Software and Services Industry

In 2021 the industry had a value of $892 million which represents a small percentage of the total economy. The software industry in Portugal is growing however and is expected to reach a value of $1.3 billion by 2025 (Gartner Digital Markets, 2021). The industry is nevertheless lacking behind Europe's key economies such as Germany and France. Comparing the growth percentage of the market provides the reader with a different view, since it had a growth percentage of 8% from 2020 to 2021. This is significantly higher than both Germany and France who only achieved a growth of 5.3% and 6.5% respectively. A positive trend is therefore seen, and software producs based in Portugal are connected with a strong brand loyalty from customers. Around 46% of buyers in the market prefers to purchase from software companies from with whom they have already worked with (Gartner Digital Markets, 2021). This means however that there is also a large pool of potential clients that could still be reached and are less sensitive to brand loyalty, or old and current clients that are harder to retain. Being able to simultaneously be successful in exploiting and innovating from a company its current product portfolio and explore new innovations and products will positively impact the current and future performance.

5. Results

This chapter presents the results of the findings from the data that was collected during the semi-structured interviews. After the transcriptions of the interviews had been coded, several important themes emerged. The themes perceived most important to draw reliable conclusions are provided in this chapter.

5.1 Organizational Structure

It can be easily concluded that all companies are too small to create separate business units that solely focus on either exploitation or exploration activities. However, respondent A of Company A himself is responsible for Business Development. In this case, it means that the company created a separate 'position' to either exploit and explore fulltime. This is different in the other companies, where there is no specific 'structure', or a so called specific position opened that solely focuses on innovation. In company B and C everyone is equally responsible on paper for exploitation and exploration activities. Separating exploitation and exploration activities via an organizational structure is deemed impossible due to size and limited resources.

5.2 Leadership and Culture

Regarding leadership and culture, it could be drawn from the interviews that all companies tried to apply a so called 'Family-Culture'. For this research, a 'family culture' can be defined as a culture that emphasizes a strong sense of loyalty, trust, and long-term commitment among company members, and it prioritizes unity, continuity, and mutual support.

Each interviewee had a slightly different view of this phenomenon, however they all mention it specifically in their own way. Respondent A mentioned for example: "*Company culture is so important, because people need also to be with that same mindset. They should be here for the bigger goal, and not only for themselves. It is everyone together"*. This is clearly in line with the perception of respondent B, who stated: *"I look at everyone else as partners, as owners or stakeholders of the company as well. And this applies in good times, when we are successful, it is shared with the whole team. But when there are negative things or moments, it is shared throughout the team as well. We learn with mistakes. That's it. Let's fail together, let's win together. That's a good summary of it"*. Respondent C mentioned: "*When someone comes here as new employee, we try to let them grow.*

We are like a family. We do not really have a strong hierarchy that other businesses have."

All the respondents seemed to follow a red line regarding their company its culture. All the companies are not strictly hierarchical, and ideas and innovations are promoted via the culture of the companies. Considering the aspects of corporate culture by Vo, et al., (2011), we see a difference within the aspects of performance orientation and people orientation between the respondents. Respondent B for example applies common goals for the whole team that should lead to commonly shared rewards, while respondent C focuses more on promotion, or rewards, based on individual input and performance. All the organisations try to promote its employees to come forward with new ideas, and discuss them. Another interesting result is that Company B, the smallest company with a horizontal structure, makes more use of bottom-up management/communication. Rather than Companies A and C, which are both matrix structures and lean more towards the use of top-down management or communication.

Finally, all respondents indicated to be transparent regarding the feedback towards their employees. They either have fixed moments for this, or plan conversations after each project. It is however interesting to see that respondent B stated: *"We have this motto to do our next job better than the previous one. We say everything to each other. We are open and don't take things personally"*. This clearly aligns with leadership theory earlier discussed about knowledge management.

	Company A	**Company B**	**Company C**
Company Structure	28 employees Matrix structure (founders, team managers, team members) Structural separation of development activities (no separation of exploitation and exploration activities)	7 employees (15 with freelancers included) Horizontal structure (with CEO making final decision) No structural separation for either exploitation or exploration activities	12 employees Matrix structure (CEO, product manager, team leader(s), team members) No structural separation for either exploitation or exploration activities

Company Culture: - **Performance Orientation** - **People Orientatio**n	Family culture Common goals (shared financial goal)	Family culture Common goals for the whole team, shared rewards	Family culture Rewards based on individual performance
Leadership Style	Top-down communication (on paper) Shared vision	Bottom-up communication Shared vision and people-orientated	Top-down communication (on paper) Individual challenges people-orientate

Table 4 - Comparison table of Structure, Culture, and Leadership Style

5.3 Sequential Ambidexterity

Sequential ambidexterity is a topic that came forward during the interviews. All companies indicated to either exploit or explore based on what the market is doing. When the market is low, there is more time to explore new opportunities and experiment new things. However, when the market is high, all the respondents indicated to focus on supplying the current market with their product portfolio. In the meanwhile they tried to innovate on their existing products to make them more efficient or increase profit margins. Respondent A for example mentioned: *"We are quite dependent on the market, if the market is slowing down, we have to focus on finding new opportunities in other markets. So there are times that we put our limited resources more on our current products, and there are times that we have to explore a bit more in order to survive in the future. It all depends on what the market is doing. When there is a crisis it is good to really try to come up with radical changes"*. This statement clearly indicates that Company A is highly dependent on what the market is doing regarding orchestrating with its resources between exploiting and exploring. Respondent B mentioned the same: *"If you just focus on the current moment, you will stop growing eventually, and you'll be left behind in the market. It is like you only have small windows available in which you can focus on the now, and then you have to stop. We have to operate short term when time is lacking, and we can focus more long term when there is more time, and explore more"*. When asked whether they exploit more on their services when the market is high, and if they explored and experimented more when the market was low, the respondent agreed. In addition to that, respondent B mentioned as an example that the year 2022 was fully occupied with projects, and therefore had a lack of exploration activities. Finally, it is important to mention that when company B was founded, it was fully

focused on exploring new products and experimenting with new ideas, services, and products. Currently, the company focuses more on improving its current product portfolio, which is an exploitation activity. The focus therefore changed over time. Respondent C mentioned the same phenomenon: *"It all depends on what the market and the technology is doing. Also regarding whether we have time and resources to explore new things or focus more on the current market"*. When asked how respondent C would position company C in the Organisational Ambidexterity Matrix, he replied with the following statement: "*It is difficult to say, due to the market situations as well of course"*. This clearly indicates an alignment between all three interviews and these companies are vulnerable to what the market is doing regarding their ambidexterity strategies. Often, the companies are just too focused on their current market, that innovation in general is hard to achieve. A saying that captures this idea is; *"being too busy tending to the garden to see the flowers bloom"*. This expression implies that when you are heavily engrossed in managing your current affairs or responsibilities, you may not have the time or opportunity to explore new ideas or innovate. It suggests that being excessively focused on the present tasks can hinder your ability to engage in creative thinking or pursue innovative endeavours.

5.4 Network and Partnerships

Networks and partnerships seem to play an key role in achieving organisational ambidexterity. It is mentioned by all three respondents that networks itself could be considered as either an exploitation or an exploration activity. Respondent A mentions: "*However, we also invest in partnerships with other start-ups. We talk to them and advise them regarding product development etcetera. Yes, and the unique thing is that every company is specialized in a different area, so even if we have a team available, but it is not our expertise, we can contact the others because they are more experts in that area. So all together we try to get more expertise in different areas such as back-end development, or blockchain"*. This indicates that networks are used for sharing knowledge and information, and even sharing clients. For respondent B, the same pattern occurred. The respondent stated that: *"the philosophy was always to talk and learn from people with more knowledge and experience than us, and to absorb this knowledge and experience that they have. That is key for us"*. When the interviewer told the respondent that literature is not talking much about using the network to pursue either exploitation or exploration activities, the respondent replied with: *"Networks are key"*. He further mentioned that Company B is part of a company group. Respondent A of Company A mentioned the exact same phenomenon.

According to respondent B, it becomes easier to explore new opportunities and technologies when making use of the whole network. Respondent C spoke about learning from other 'larger' SME's. The respondent mentioned that he surrounds himself with likeminded people, and companies considered to be in the same situation as his. He stated: *"We help each other with it a lot, and we all want to grow, despite that we are also sometimes in the same market"*. This point towards a coopetition network, which will be discussed in more detail in the discussion part of this report.

5.5 Tensions

When trying to balance between exploitation and exploration activities, tensions will arise within the organisation. During the interviews, several of these tensions came forward. However, the most important take from the respondents is the tension between present needs and future needs. These tensions are also closely related to the tensions long term outcomes versus short term outcomes and long term vision versus short term vision. Due to the fact that the organisations all have limited resources, the focus is often on the present needs. They operate in a high velocity market, in which it is hard to predict what the newest technology will be. They often focus on the present needs, which leads to a tension with the company its future needs and long term outcomes. Respondent C clearly mentioned: *"In our area also, predicting the things that will happen in the next two years is impossible. Today it is AI, but in six months it is going to be different. So we try to focus more on the short term, and keep improving on our current services, and we will see what the market brings us in the long term"*. Furthermore, the interviews provide the reader with a clear reasoning of why these tensions arise within their companies, and what (lack of) resources drives their struggles; time, people, and monetary resources. Respondent B for example stated the following: *"But the biggest reason for us now why we do less exploration activities is resources and timing. We want to keep our team a bit small, we do not want to have like 50 people. To keep this mindset we really have to be super strategic in the way we use and plan our resources. Most of our resources are people"*. Respondent A mentioned the following: *"there are always trade-offs, however we try to do what we can, and we have to do this within the limits of time and money that we have"*.

Respondent C provides the reader with another interesting take on perceived tensions; predictability versus uncertainty. He stated: *"I think there are some guys in the company who want to stay in their comfort zone. Some people do not want to have innovation regarding exploring new services*

and experimenting with new things. If they know their current role, it is enough for them". This clearly points toward the tension between predictability versus uncertainty, and will be further discussed in the discussion part of this report.

6. Discussion

This section of the report provides a comprehensive analysis and interpretation of the results, aiming to bring forth meaningful insights and contextualize the implications in the light of the literature review.

6.1 Organizational ambidexterity strategy

The results of the empirical research provide valuable insights into the phenomenon of sequential ambidexterity in the context of the interviewed companies. The findings highlight that all companies recognized the importance of adapting their strategies and resource allocation based on market conditions, indicating a strong reliance on market dynamics when it comes to orchestrating their resources between exploration and exploitation activities. During periods of low market activity, the participants reported to have more time to explore new opportunities and experiment with new ideas. This aligns with the literature of sequential ambidexterity, which states that organisations can adapt their structures or strategies between focusing more on either exploration or exploitation based on the environmental conditions or strategies of the company at a specific moment in time (O'Reilly & Tushman, 2013). When the market demands are low, the companies focus their resources more on future growth and long term survival. Contrarily, when the market is high, SMEs focus more on supplying existing products to meet market demand, while concurrently striving to enhance efficiency and increase profit margins through innovation within their current product portfolio. In addition to that, the empirical data shows that companies changed their focus from exploration to exploitation over time. Company B for example started its business exploring new services and ideas, and as time passed they switched to exploiting upon their product portfolio.

Sometimes being innovative is not even possible due to the pressure from clients and the market to meet their demands. This links with the saying of *"too busy tending to the garden to see the flowers bloom"*. The expression captures the challenge faced by SMEs that are heavily engrossed in day-to-day operations, leaving them with limited time and opportunities to explore new ideas and pursue innovation.

The empirical results additionally align with literature about contextual ambidexterity. The results state that all respondents try to promote its employees to come forward with new ideas and experiments based on encouraging individuals to divide their time between exploitation and exploration activities. This is mostly done via culture and leadership, and will therefore be discussed in the next part of the report.

Based on this reasoning above, the research its first hypothesis is:

1. An SMEs ability to achieve organizational ambidexterity is influenced by its market conditions and its capabilities to apply sequential ambidexterity.

6.2 Culture and leadership

The empirical research showed that all companies apply a 'family culture' that promotes behaviours such as mutual support, loyalty, and trust among team members. The application of this culture and leadership style aligns with the concept of having ambidextrous leadership. In the literature, the significance of cohesion and inclusion is emphasized. The lack of hierarchical structures encourages employees to generate and share innovative ideas which allows for both exploitation and exploration activities and therefore aligns with contextual ambidexterity theory. The literature found that business units that embrace a shared vision and organisational diversity within their strategy enable a successful integration of balancing exploration and exploitation activities in the business unit (Wang & Mohammed, 2012). All the respondents have applied this strategy that aligns with the literature about contextual ambidexterity and see this as a way to become more innovative both in long and short term.

From the empirical results it came forward that Company B applies a policy which states that the outcome of each project should be of better quality than the previous project. This can be found in the literature by Baškarada, Watson, and Cromarty (2016) who find three organizational mechanisms for leaders who want to promote exploitation. In this case, knowledge management is applied to learn from what has happened in previous situations, and to apply the feedback for future projects. Furthermore, performance management is also found in the empirical research. All the companies indicate to be transparent and open, and provide feedback to its employees regularly. It differs however per company whether this is structurally or more randomly planned.

Regarding leadership behaviours that promote exploration activities, the empirical research also aligns with the literature. Company B for example specifically mentions to have a shared risk shared reward culture. Exploratory approaches should follow a shared problem and therefore also a shared risk strategy (Baškarada, Watson, & Cromarty, 2016). Furthermore, the empirical results show that empowerment is applied to provide employees with the feeling that they are allowed to explore beyond their boundaries and come up with new breakthroughs and innovative ideas. This goes in line with an approach that promotes inclusivity, which states that employees need to feel heard to create the right relationship to promote exploration (Baškarada, Watson, & Cromarty, 2016). When this is successfully applied, SMEs could even achieve exploration and exploitation as complementary activities within a single business unit as mentioned by Wang and Mohammed (2012).

Based on this reasoning above, the research its second hypothesis is:

2. The presence of a 'family culture' and the adoption of ambidextrous leadership behaviours positively influence organizational ambidexterity, leading to increased levels of innovation and overall organizational performance for companies who do not have the resources available to apply structural ambidexterity and instead opt for promoting contextual ambidexterity.

6.3 Networks

Within the literature of organisational ambidexterity, utilising a company its network to achieve innovation is barely mentioned. However, all respondent state that their networks are key to be innovative, find the gaps in the market, increase their capabilities, and gain new knowledge. Partnerships allow the companies to better perform on either exploitation or exploration activities. From sharing the struggles and problems faced with the company its current market and service, to gaining knowledge about completely new technologies and learning new capabilities. Networks seem to play an important role within the SMEs operations and innovations. Respondent C specifically mentioned that within his network, all the companies want to help each other and bring each other to a higher level, despite often operating in the same market. The other two respondents indicated that additionally to that they operate within a company group, in which capabilities, knowledge, and even clients are shared on a daily basis. This clearly indicates that the SMEs from the

empirical research pursue exploitation and exploration via a coopetition network. Coopetition refers to a strategic concept in which organizations simultaneously cooperate and compete with each other. It involves collaborating and sharing resources with competitors to achieve mutual benefits, while also competing to gain a competitive advantage in the market. Coopetition allows firms to leverage their complementary strengths, share risks and costs, and capitalize on joint opportunities (Bengtsson & Sören, 2014).

After the empirical results indicated the importance of networks and partnerships, literature that studied the correlation between innovation and networks had been investigated. Hilmersson and Hilmersson (2021) indicate that the capability to develop is not necessarily an internal process. They found that firms can access resources and capabilities in their external networks. It enhances a company its innovation processes, and the lack of certain resources and capabilities can be compensated by actively networking (Hilmersson & Hilmersson, 2021).

Based on this reasoning above, the research its third hypothesis is:

3. The presence of a coopetition network positively influences the innovation capabilities of SMEs, enabling them to access external resources, bridge capability gaps, and enhance their exploitation and exploration activities.

6.4 Conflicts in achieving organisational ambidexterity

For this current research and especially possible future research about Portuguese SMEs in the IT sector their experiences regarding achieving organisational ambidexterity it is important to gather empirical research on which tensions the companies are exposed to when trying to balance between exploitation and exploration activities.

The empirical results make it evident that tensions arise within the organizations when attempting to balance exploitation and exploration activities. The most dominant tension faced according to the interviews arises when present needs and future needs collide. This tension is closely related to both long-term outcomes versus short-term outcomes as well as long-term vision versus short-term vision. SMEs face a limited amount of resources, which allows these tensions to occur. The results highlight that there is a clear scarcity of key resources such as time, personnel, and financial options. Due to this scarcity,

management is forced into making a strategic trade-off between the two aspects of this tension. Almost all the time, the SMEs therefore try to focus on short-term outcomes to fulfil the present need of surviving in an high volatile environment. This leads to the earlier mentioned saying that the companies are "*too busy tending to the garden to see the flowers bloom"*. The high velocity in which technological changes occur in the IT industry also reinforce the ability of these tensions to occur. It is stated that short-term improvements to current services are more practicable and sensible considering the continuity of the company. In addition to that, the fast paced nature of the industry forces the companies into adapting quickly to immediate market demand.

Based on the empirical results, another interesting perspective on the tensions faced has been found. Respondent C talked about individuals within the company that prefer to stay within their comfort zone and resist innovation and exploration of new services. This aligns with the conflict between the desire for predictability instead of approaching uncertainty that allows a company to take risks and fully pursue breakthrough innovations through experiments.

The empirical findings support the tensions described in the literature connecting to the context of organisational ambidexterity. The interviews do provide valuable insights into what resource limitations drives these tensions into existence.

Based on this reasoning above, the research its fourth hypothesis is:

4. The resource scarcity that leads to the tension between present needs and future needs experienced by Portuguese SMEs in the IT sector hinder their ability to achieve effective organizational ambidexterity.

7. Conclusion

The purpose of this study was to explore how the top management of Small and Medium Enterprises in the Software and Services industry in Portugal perceive and balance exploration and exploitation activities and its additional challenges to achieve organizational ambidexterity, considering the limited amount social capital and economical capital resources that SMEs possess. Since the market that these companies operate in are highly volatile and competition is fierce, the ability to orchestrate between exploration and exploitation is crucial.

Several conclusions can be drawn based on the results. Firsly, the findings revealed that the market dynamics in which the companies are located at a specific moment in time shapes the strategies and resource allocation regarding organizational ambidexterity. Low market activity pushes the companies to explore more, while high market activity pushes the companies to exploit more if resources allow it. Literature described this phenomenon as applying sequential ambidexterity. Secondly, the top management of these SMEs try to promote innovation via a 'family culture' that encourages loyalty, trust among team members, and long-term commitment. Embracing shared risk and rewards and a shared vision positively influences the utilization of contextual ambidexterity. Furthermore, it can be concluded that coopetition networks from a key aspect in enhancing the innovation capabilities of the participants. The companies try to cooperate with one another while simultaneously operating in the same industry. Finally, the tension pursuing current needs versus focusing on future needs occurred most often within these organizations. As a result, it came to the conclusion that these companies mainly opted to focus on short-term outcomes due to the scarcity of resources such as time, social capital, and economic capital. Resistance to innovation also occurred due to employees being comfortable with their current output and preferring predictability over uncertainty.

The findings of the study contributes to the literature about organisational ambidexterity. It highlights the influence of market conditions on the ability to orchestrate successfully between exploration and exploitation over time. Culture and leadership contributes to the adaption of ambidextrous thinking based on the context and the importance of coopetition networks emerged as a key external strategy to increase knowledge and capabilities. Finally, the research exposes the challenges and trade-offs faced

for smaller companies when trying to achieve organizational ambidexterity. The findings of this empirical study should not be interpreted as universal, as they are based on the empirical research conducted within the specific context of Portuguese SMEs in the IT sector. In addition to that, due to a limited amount of time and resources, this study makes no claim to be complete.

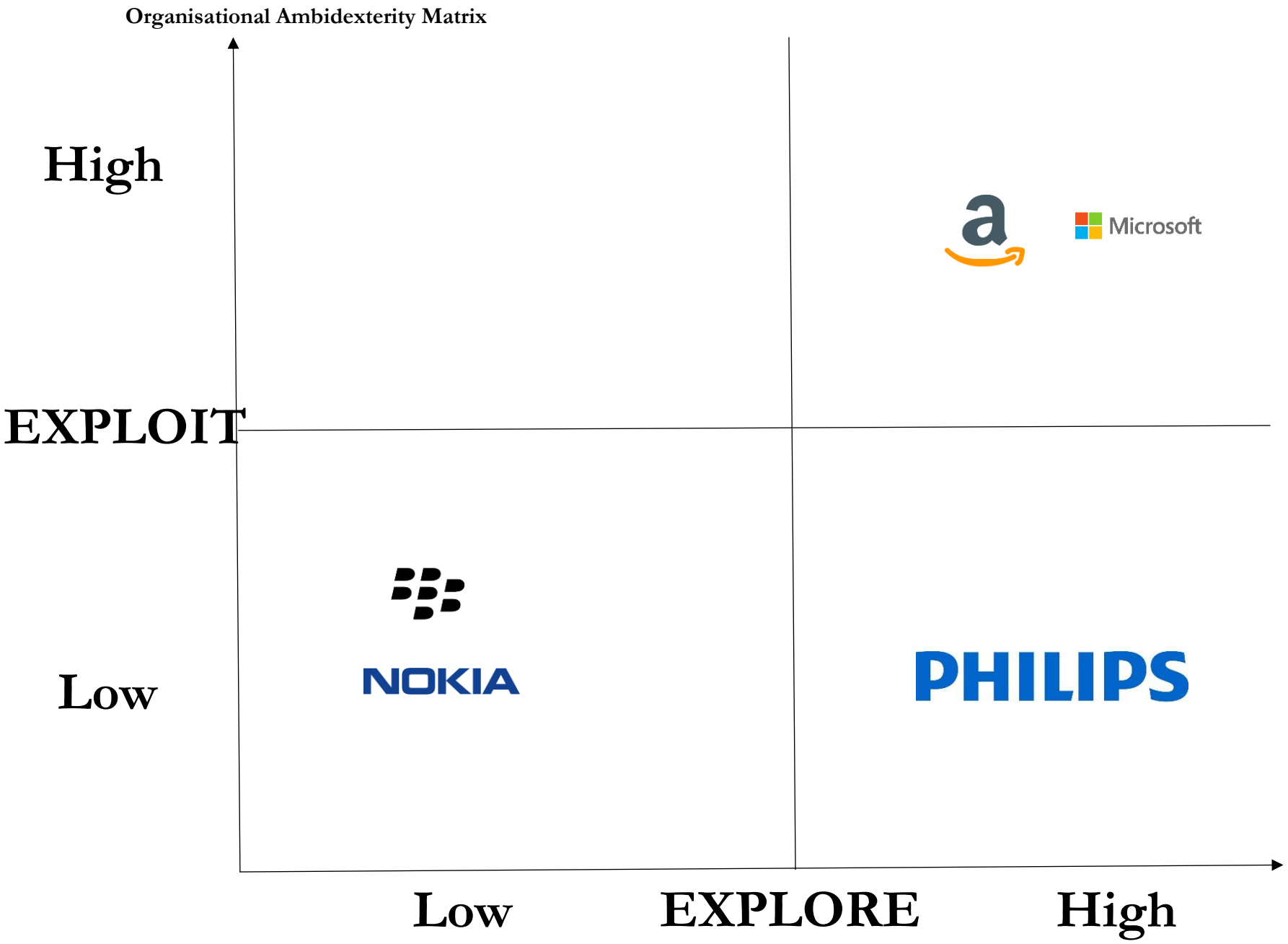
Appendices

Interview Guide

Topics	Questions
Guideline topic	○ Organisational Ambidexterity: To orchestrate the complex trade-offs that the simultaneous pursuit of exploration and exploitation requires. ○ Exploration: The discovery of new products, resources, knowledge and opportunities, characterized by radical changes and learning by means of experimentation and taking risks. ○ Exploitation: The process improving and enhancing existing products, resources, knowledge, and competencies, while learning through local search.
Introduction	○ Name_____ ○ Position at company_____ ○ Time at company_____ ○ Daily activities_____
General	○ What do you know about organisational ambidexterity? ○ What exploration activities occur within the company on a daily base? ○ What exploitation activities occur within the company on a daily base? ○ In what international activities does the company operate?
Structure	○ How does the current Organisational Design allow the balance of both exploration and exploitation activities? And what tensions are still present regarding achieving Organisational Ambidexterity with the current structure? ○ Has the organizational design always been like this, or did it change during the years? If yes, in what way and what were the main reasons for this?
Leadership	○ What leadership style is mostly used in the company? Consider the following aspects of leadership: ○ Communication ○ Motivation ○ Reward system ○ Feedback ○ Innovation ○ Vision ○ What barriers regarding the balancing of exploration and exploitation occurs with this form of leadership?

	○ How does this leadership style positively promote Organisational Ambidexterity?
Culture	○ Could you describe me the corporate culture of your company? Consider the following aspects of corporate culture: - Core values - Performance orientation - People orientation - Organization integration - Market orientation If needed, see final page of interview guide *Elements of Organizational Culture* (Vo & Nguyen, 2011)
Tensions	○ What tensions does the firm face in relation to ambidexterity? Consider the following tensions: ○ Predictability vs uncertainty ○ Long term vs short term ○ Autonomy vs control ○ New product development vs existing product development ○ Present needs vs future needs ○ How is the firm able to manage these tensions?
Internal vs External	○ Has your company ever tried to transfer its exploitation or exploration activities to a 3rd party? For example via University research.
Processes	○ What processes are in place to achieve organisational ambidexterity and have control over the paradoxes mentioned earlier?
Ambidexterity	○ In your experience, how should leaders promote organisational/team ambidexterity? ○ In your experience, not considering structural changes, what activities/processes make a company successful in achieving ambidexterity? ○ In your experience, what are the main challenges while pursuing organisational ambidexterity? These questions are replicated from (Clement, 2018).

OA Matrix	○ Where would you place your company on the organisational ambidexterity matrix? (see next page)


Organisational Ambidexterity Matrix
High
EXPLOIT
Low
Microsoft
NOKIA
PHILIPS
Low
EXPLORE
High

Elements of Organizational Culture

Performance orientation	**Common goals**
	Measuring performance
	Accountability for end results
	Rewarded fairly
	Customer benefits
People orientation	Promotion based on individual competence
	Support for employee learning
	Opportunities to grow
	Rewards based on task
	Promotion based on individual performance
	Working as a team
Organization integration	Responsibility clearly defined
	Job rules and regulation
	Cooperation
	Fully informed
	Concern for employees
	Strong sense of team
Market orientation	New products developed
	Finding new markets
	Concern for competitors' actions
	Competitiveness

(Vo & Nguyen, 2011)

Interview Recording Consent Template

Interview Recording Consent

"How top management of Small and Medium Enterprises perceive and balance exploration and exploitation activities and its additional challenges to achieve organizational ambidexterity, considering the limited amount of social capital and economical capital resources that SMEs possess."

1. I agree to be interviewed for the purposes of the assignment named above.
2. The purpose and nature of this interview has been explained to me by the student.
3. I agree that the interview will be recorded for academic purposes.

Name of the interviewee: …….

Signature of the interviewee: …….

Date: ……

Name of the Interviewer:

Signature of the interviewer: ……..

Date: ……..

I would like to emphasize that the content and results of the interview will only be used for academic purposes at the Faculty of Economics at the University of Porto. Your responses will be anonymized, and your name will not be used in any publications or presentations. Additionally, I will take all necessary precautions to ensure the confidentiality of our conversation.
Please be assured that your participation in this research is completely voluntary, and you are free to decline or withdraw from the interview at any time without any negative consequences.

Kind regards,

Lars Herrings
Student at the Faculty of Economics at University of Porto
Contact data student

Transcription Interview Company A

Speaker	Text
Interviewer	I was thinking I will first introduce a little bit of myself and then you could introduce yourself maybe quickly. And then I start with the questions. So my name is Lars. I'm Dutch, but I study in Portugal. So I did my master's degree. The first one and a half years I was in Porto for my study, economics of Business as a strategy. I really wanted to go abroad for the experience and the new culture and learning new things. Better weather as well.
Respondent A	I can imagine the Netherlands. It's a bit different.
Interviewer	Yes, exactly. But now I'm back at home because I only have to write my thesis. So I also felt like it's time to go home now, so yeah, that's actually a really short me.
Respondent A	Thank you for the intro. So. My name is Ricardo. I'm one of the co-founders of Company A. So I moved to north of Portugal in 2002 to study. So then when I start having my course here, when I met my partners and in the last year, we decided to join an acceleration program for creating a startup. In that time, startups were not like today. So as you can imagine, it was like a long time ago, when we started in 2008, to think about the ideas when I finished my course. And then I decided to go forward with Miguel Nelson and Sergey. Nowadays it's only three of us. My background is on engineering, computer engineering. Although I was supposed to be like a developer, I really love business and I love people. So I had the chance, since I started the company, to work more on business development, on sales, and try to do the strategy for growing the company from a startup of four of us to a bigger project and helping our clients and using technology as a way to simplify people's life, make some impact also on our society and try to make things work also for our employees and make like a company, a place that you would love to work.

	So that was our main goal in the beginning, and technology was the things that we know how to do and that you also believe that could make a difference on people's lives. So that's how we start company. So I'm doing that for the last 14 years and mainly focus now on working more with international markets. And this is part also of strategy. And you will ask me stuff about that. So I will keep this for the next phase of the interview. But that's it. So that's me. I love, by the way, sports, and I love to travel. That's things that I can combine in my work today when I travel to different countries and to conference and meeting new people and like you said, knowing different cultures and learning from each other. So that's it.
Interviewer	Okay. Yeah, good to hear. It's nice that you can then mix technology and business with your background, especially if you want to go international. Those are quite exciting times now. I can imagine.
Respondent A	Yes, and by the way, I am going to Amsterdam next month. It's like one of the markets that we are exploring partnerships and all about that. It is very central and there is a lot of stuff happening around like people are also coming from you are already doing this for a long period. We just started, I think like the last maybe six years with becoming more intense in Portugal. So yeah, that's the big difference. Like you can see that it's a much major market compared to Portugal.
Interviewer	Yeah, I can imagine. Also really internationally orientated. I think I will in the chat share the interview guide just maybe it's easy for you and also to see if you want go for it. One moment. Yes. So my thesis is basically about organizational ambidexterity within small to medium enterprises. So this goes from startups to companies who already have around 200 employees. I don't know if you already know something about organizational amid dexterity?
Respondent A	Not much yet, could you give me more detail, please.
Interviewer	Yeah, so organizational ambidexterity, the word itself means if you are both left handed and right handed and you can do these things at the

	same time with both your hands. But in business it basically means it's more regarding innovation that you can focus on improving your current product and at the same time looking at the future to be ahead of your competition and innovate with completely new products. Okay, so for instance, exploitation activities are then really you innovate the products you have currently, but you also at the same time try to explore for new things and be like really entrepreneurial. And it's a new topic basically of how companies can manage this because managing this gives tensions.
Respondent A	Okay, so maybe I should give you an overview of the type of company that we are. So we are mainly a service company. Okay. So we work on other products from the other companies, so we work for them. So in our case, to apply what you mentioned, it's basically how we can productize our service. That was one of the strategies. So the thing is, like, in the market, most companies that work on these kind of services, they are not most of them, but, yeah, the big number of the companies. And we are receiving emails almost every day with people offering us like, developers, designers. So it's more a logic of outsourcing people. Okay. As we said in the industry, you are selling heads, not selling, like, service or knowledge or whatever. So you are selling people with these skills, with this experience. And when we decide to move abroad to start working with companies on different countries, that was like, how we can put ourselves on those markets. Okay? So because the thing is, for us, like, moving to a new market, because from what I get on your email, I think this is also something that you want to understand. Right? What is the challenge when you move to a new market, new countries, right and what you use to get successful on those markets? Am I correct?
Interviewer	Yes, but mostly regarding the innovation part of your services or products.
Respondent A	Yeah, so I will get there. So in our case with my role in the company was to understand how we can start working more international. But

in somehow not doing the same that all the other companies were doing. Because in our case, if we compare with them, normally these type of companies have like 200-300 people with different type of tech stock, much more lower price than us. So if we were trying to do the same, we will not have space in the market to make networks. So we try to understand how we can innovate, how we can make difference in our approach. How we can change the way our products in this case, our services are being provided to the clients. So what? We realized that it was needed to make a different approach. Although in the end you can say it's like engineering and design, but it's much more than that. It's the mindset of the way we do it and how we put it, and our company and our people working together with our clients.
So that was first thing we should try to understand because you start rolling like having the new brand, you know a new website, and start doing some international contacts and try to make things work, but it needs to be much more than that. I will explain that our process was mainly on our services and understanding the market and the way it works. So like when I mentioned that I went to the conference for example in Amsterdam, when I went to Dublin for example, when I'm going to have a summit in Portugal, when I went to Valencia. All these international markets and all the people that I met I were or were very close to be to start-up founders. Those are our main clients, and also investors because they are the ones that support the ventures on those startups, so they also have a point of view about how companies like us could like help this kind of plans. So I was doing my research, understanding what were the main problems that those companies were having when they are building their company when they are building their digital products. What we realized was that in our case we should do an innovation on our methodology. So it's not only providing the developers with their needs but also doing like a stage of discovery we call U-framework. So we nameed our methodology and the name of the company since we are Company A, we called it U-

framework. And U-framework is based on five steps and those steps are basically given to the clients its understanding that we can do the research for them. So we combine like designers, engineers on the same stage with the project managers and help them to discover what they have as pain-point and we help them to discover how to solve that pain-point how we can make sure that we are going towards the right direction. And then we can also add like the designers and the developers like all the other companies are doing, but the big difference that we are thinkers first and then we become builders after, that so we help them on the process of understanding the pain-point and how we can move forward from that moment to the next step. Normally they don't have that kind of skills or they need to do it internally, but the problem is if they don't have the resources available they will stay stuck in a specific problem for a long period and losing like market opportunities. So we understand that what this was our main difference from all the others that we are providing them multidisciplinary. So we are doing this for the last like 10 years working, and we are improving the methodology after every new work that we have. So what I'm trying to say like, in our case the innovation was bringing the client in by listening to their needs first. Before saying like oh this is what you need, we're going to ask you first what you understand and what the steps are, and after that we adapt our methodology with our beliefs and values of course. It works for our clients and giving this extra layer in the process was very important because we broke like the old one. Before, it was one of the reasons that normally these kind of companies did not came to us because they are already having the services from all the others. Normally they just came in on the second stage of the project, but now we are coming first in the first stage when normally they don't go to the market to ask for this kind of service. So providing them this difference, we are already inside of the company so it's much easier than to keep them, the developers, and designers, because they don't

	care anymore about the price they are caring about the quality that you are providing. Since you are already with the mindset of what they need it is much easier to move forward to the production phase. That was one of the innovations that we made internally to go to different markets and to differentiate from all the others.
Interviewer	So you are always busy with finding changes in the in your current products and how to adapt per market and how are you strategize those?
Respondent A	Yes and somehow looking for like The clients understanding what the needs are and how you can make difference on what they need right with the with the skills you have. Because one of the problems that we felt in the markets was that people are looking too much to themselves. You can do that if you have your unique product. But when you are in a massive market and you want to move from the red ocean to the blue ocean, we need to understand what type of files that we want to work with. You know in this case like for example startups you have like different stages, you have early stage, you have later stage right. When we ask the investors they always say no no no it is impossible to have you guys because they already have engineers. And this was some feedback from an investor, but then when you start asking other investors and other startups they will say to you no, sometimes it happens that we are getting investment but we don't have the team available to move to side product for example. And this is more innovation on our market strategy. We're understanding that those companies also have needs, not only the way that like that the investors were saying, because they are putting money, and they are putting money not only on the company but also on the team. Therefore, normally they also need to achieve some goals on the product road map and to do that they need to have support from companies like us. The thing is they want to do it like all package right, like starting the research process with the product owners, and then

	moving forward, and after like six months for example or one year we should be able to give them back the technology. So everything we did with our team, make everything aligned with the way they develop their products, and then after they will not continue anymore with us. So it's like a six months one year period per project. We also innovated on the way our engineers were doing their work, you know how they structure the platforms. So then it was possible to move technology internally to the to the company to their own engineers. So this is also something that we learn and we had this to our methodology into our process because as I mentioned it is now in our product, in our case, our services. So this is something that could provide that and that is learning from the market, and innovation could come from like new technologies but also could come from this understanding of the market, and then you innovate to become to move from the red ocean to the blue ocean and then you are like not one in 1000 but one in 10 for example. And then it's much easier or you'll have a better percent to get access and get through in the market and to work with new clients.
Interviewer	Based on a business point of view, since you are considered a small company, how did you structurally arrange it to have clients you work with, but also at the same time seek for new markets and products? How did you structure this internally?
Respondent A	So it is possible to have like your core team, and then you have partners on different areas that you could need. When you are like having more projects than the ones you can do internally. Partnerships are like an extension of your team, so they need to be people that you trust and that you have already worked with. That is the way we manage we tried to make sure that we have like our core team that coordinatess the projects and when it is needed that we need more workforce, we have partners that can come to help us. And like as we say like we are a company now of 28 people, and we have partners who have around 30 people, or around 50 people, and they are all

	specialized in certain areas. So the idea is to sometimes join together, and then we are a team of around 200 people who are used to work together on several project, so this is a network we have created.
Interviewer	So it is basically a network of other companies to help each other growing? And to learn from different markets.
Respondent A	Yes, and the unique thing is that every company is specialized in a different area, so even if we have a team available, but it is not our expertise, we can contact the others because they are more experts in that area. So all together we try to get more expertise in different areas such as back-end development, or blockchain. And the clients also know that we bring in new teams and companies in, but they know that it is a network they bring in. A kind of group, but we do not have it signed on paper. It is like everyone is independent, but when it is needed we are together to make things work, and in this way it sometimes looks like one company.
Interviewer	Okay that is very interesting, since most research regarding organizational ambidexterity it done in large companies, they did not have these ideas yet.
Respondent A	Yes and we also do not have the pressure to accept project for which we need 100 people. We need to have the right projects in which we can deliver value. We need to be specialized on what we do, and when working closely together with our network and partnerships, our partners will automatically provide us with new leads. It works very well, they bring new leads to us, we bring new leads to them. Trust in this case is the most important factor.
Interviewer	Yes, a big difference, large companies can literally create separate structures, but with smaller companies it is hard to simultaneously explore and exploit since the budget available is way lower. You mentioned you have 28 people in the company currently. Regarding leadership, what style do you use? Think about decision making, communication, motivation, reward systems?

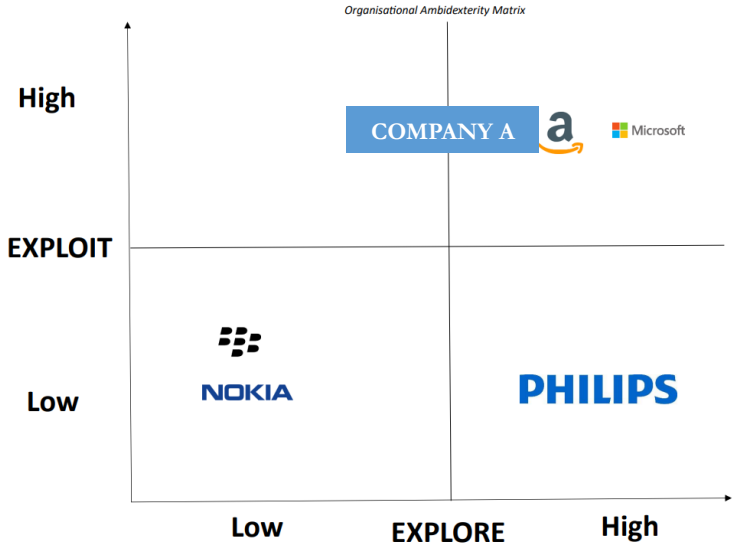
Respondent A	I think we are well organized for a small company. We have ISO certificates for example. Next to that we have a certification for a good work-life-balance. It is for us very important to have this. The leadership consists of 6 different people. We have (person 1) who is co-founder, and therefore responsible for managing the company as a whole. He is responsible to make sure we achieve our goals, also in a financial way, and team goals. Then we have (person 2), who is responsible for Business Development. Then we have a manager that is head of design, he is responsible for the design of all our products. Then we also have the lead of front-end, and the lead of back-end. What we do regarding leadership and promoting the people to give input, we do every 6 months a questionnaire in which people can tell us how they feel about the company, in this case especially on their goals. Every six months you understand how you are doing in your career, and whether you achieved your well defined goals. This includes feedback from other colleagues. Every three months we have an internal presentation that shows us the goals that we have, and how far we are in achieving these goals. The goals are made in a way that it is clear for the employees to see what happens when they achieve these goals. For instance, with achieving goal X you get more salary. Or with achieving goal Y you will grow more into a leadership role. In addition to that, we let our employees learn here internally and provide them with all the tools to help them achieve those goals. So culturally wise we really try to work on this and invest in our people. Each team leader is working directly with his team members to make it more personal and effective regarding these goals and everyone's learning path.
Interviewer	Okay so you really want to let your employees grow and you are very people focused?
Respondent A	Yes.
Interviewer	How does this translate to decision making?

Respondent A	We try to promote the people to come up with ideas and provide their input when making decisions. For example, one of the things we decided last year was to start working with Web3, blockchain. Only a few people internally were available to work on that, so not all the teams. The idea was to start learning by doing. We developed an internal product which is an NFT marketplace. It is made to receive a benefit for doing certain activities. For example you can receive a benefit, you can go to the spa, however you do not like going to the spa so you can sell your benefit to someone else who does like it. Or when you have received as reward free days, but you do not want to be free, so you can sell your free days to someone else. Because it is an NFT, everyone can sell and trade it. By doing these, we created value for our employees to motivate them to be pro-active and provide their opinions.
Interviewer	Okay so culturally wise you are then very people orientated and it is important that people have a positive view of the company, where they feel they can grow.
Respondent A	Yes, we believe that if we want to provide the client with a better experience, we have to start at home. The same is with education for kids.
Interviewer	Yes good to hear. So how is decision making? Does it go collectively? Or more hierarchical?
Respondent A	We try to be more democratic, but the reality is that not everyone is mature enough to be part of it. It takes time. Sometimes you need to be less democratic otherwise there is no structure. When we discuss a topic, it is often the same 5-10 people talking about it, but many people are still a bit shy. To solve this we try to use dot anonymizer. Because when we have like I said this meeting every month, often no decisions are made. We send a questionnaire to our employees and the responses are completely anonymous. We try to use new approaches to make decisions more democratic in this way.
Interviewer	Okay so you try to make a decision based on everyone's input,

	anonymously then, but in the end the final decision is made by the higher management?
Respondent A	Yes that is how we try to make it more democratic, and make sure we have all the feedback before making a final decision. We really try to involve everyone in gathering feedback from different perspectives.
Interviewer	Regarding innovation, internationally you are trying to keep your current clients and services, but you also try to come up with new things. What tensions does this bring within the company? Because you have to mix surviving now and prepare for the future? Think about long term versus short goals, incremental innovation versus radical innovation, etcetera.
Respondent A	In service companies you never now. In our case, we try to provide a good service which increases the percentages that the client will continue to want to work with us. We are always searching for new opportunities, but we are trying to do this while working on our current products and clients. My strategy to achieve future innovations and explore new markets is to be present on many different platforms that can help me to move into a new client. We try to save a part of our time in order to invest, by invest I mean creating new products, the one I mentioned for example the Web3. In addition to that we have developed new products that we offer to the current market. However, we also invest in partnerships with other start-ups. We talk to them and advise them regarding product development etcetera. But in many cases then, we realize that we can co-invest in them and have a percentage of those companies. So if they succeed, we get our percentage on the investment that we did. These side-investments we do solely for the future, because on services you never know what the market is going to do.
Interviewer	Yes that is clear, because you have a limited budget, and a limited amount of time, so it is interesting to get to know how you retain

	customers with current products and how you get new customers with new products. There is always a trade-off.
Respondent A	Yes that is true, there are always tradeoffs, however we try to do what we can, and we have to do this within the limits of time and money that we have. Therefore, we are quite dependent on the market, if the market is slowing down, we have to focus on finding new opportunities in other markets. So there are times that we put our limited resources more on our current products, and there are times that we have to explore a bit more in order to survive in the future. It all depends on what the market is doing.
Interviewer	So you would say that there are moments in time where you focus more on your current clients and products, and there are moments in time where you have more space and budget to focus on radical innovations and exploring new markets and clients?
Respondent A	We always are trying to find new opportunities and innovations for a broader product portfolio, however the most important thing is that our employees are working on things they like, and always have things to do in the current market. And when the market is a bit down, and we are struggling, we always try to improve our performance by asking for help within our networks because we have a good relationship with them.
Interviewer	So if the market is down, you try to focus mostly on retaining current clients, but in the position that you are in as employee of the company, it is still your job to always seek new opportunities and markets?
Respondent A	Yes, I am always thinking about next year. The strategy is long term always.
Interviewer	But I can imagine then that balancing between your current product portfolio and innovating for the future and seeking new markets is very difficult?
Respondent A	Yes, that is why the financial position is very important. When there is a crisis it is good to really try to come up with radical changes. With COVID for example, everything was closed. We tried to provide our

	clients with E-Commerce, and tried to come up with new ideas. When you have this networks of clients and partnerships, you always discover new opportunities when things happen. **Next to that, because we are small, we can adapt ourselves to the situation much easier.** If you have 200 employees it is much more difficult. That is why the company culture is also so important, because people need also to be with that same mindset. They should be here for the bigger goal, and not only for themselves. It is everyone together. We also try to trigger this by sharing a percentage of our financial goal with the employees the moment we have achieved our goal.
Interviewer	For new markets and innovations you mentioned that you search really externally, within your network. But do you also use other external options for achieving organizational ambidexterity? Think about for example letting students to projects for you on universities?
Respondent A	No we have never used students for innovations, we do this internally. On exploring new markets we also have never tried. We do this with our partners.
Interviewer	Could you tell me where you position yourself in the organizational ambidexterity matrix that I created?
Respondent A	On exploit I think high, because we are always trying to improve our services and the implementation of it. But on explore we are doing some work but there is space for improvement. On line with amazon but in the middle of explore in my opinion.

	
Respondent A	We had very good reviews from our clients and we kept talking with them and improving our services. However, I feel with exploring we still can do it more, and we can place ourselves between Amazon and Microsoft.
Interviewer	Okay thank you that is very interesting to hear. These were my questions for now. I would like to thank you for participating, it is very much appreciated.
Respondent A	No problem, I am happy to help and eager for you to share the results of your research with me.

Codebook Interview Company A

The codebook provides the reader with a legenda of the codes used, and the corresponding colours in the interview transcription.

Theme	Code	Description
Introduction and Background	INTRO	Initial introductions and background information about the interviewers and respondent.
Company Profile and Experience	COMPANY	Information about the respondent's company, its background, and experience in the market.
International Expansion and Market Strategy	EXPANSION	Discussion on the respondent's strategy for international expansion and entering new markets.
Innovation and Differentiation	INNOVATION	Exploration of how the respondent's company innovates and differentiates itself from competitors.
Market Research and Understanding Client Needs	RESEARCH	Discussion on how the respondent conducts market research and understands the needs of their clients.
Methodology	METHODOLOGY	Explanation of the respondent's methodology and way of working.
Partner Networks and Collaboration	PARTNERSHIPS	Discussion on how the respondent collaborates with partner companies and builds a network to extend their workforce and expertise.
Organizational Structure and Resource Allocation	STRUCTURE	Exploration of the respondent's organizational structure and how they allocate resources to handle projects and partnerships.
Learning from Different Markets	LEARNING	Discussion on the respondent's approach to learning from different markets and leveraging expertise from various areas.
Leadership and	CULTURE	Discussion on the respondent's view on the

Culture		company its leadership style and culture.
Balancing exploration and exploitation	BALANCE	Discussion how resources are allocated to orchestrate between exploration and exploitation.

Transcription Interview Company B

Speaker	Text
Interviewer	Welcome and thank you for your time, I am really grateful that you want to help me. I will first introduce myself, then I thought you could introduce yourself, and them we can start with the questions. ***Self-introduction***
Respondent B	Hi Lars, Thank you. My name is Francisco, founder and CEO of Company B. My background is on product design and branding. I also have a little bit of experience in front-end-development. Nowadays also accounting and business stuff. I enjoy reading and playing paddle in my spare time.
Interviewer	Good to hear. Thank you for your time. I will share the interview guide with you so you can read along if you want. I will try to stick with the guide but I know and already experienced that it is quite difficult. So my research is within the spectrum of smaller companies in Portugal. ***Explains research and organisational ambidexterity topic****
Interviewer	To start, could you explain me a bit more about your company?
Respondent B	So we are mostly a technological design studio that does a lot of website building and design. We work with brands that are focussing on blockchain and position themselves on Web3. The team is composed of designers, developers, project managers, marketing managers. Although we are officially seven, the whole things is probably around 15-20 people with all the freelancers that work with us regularly. In terms of market it is everything Web3, so we do not focus really on Portugal, or Europe, or the US specifically.
Interviewer	And in how many countries did you already do business or projects?

Respondent B	Most of our projects are US based, but we had business in the UK as well. As well as Portugal, Israel. Israel is pretty recent, because it is something that we are exploring due to a new technology that is being explored there. Oh and Belgium by the way as well.
Interviewer	Interesing! So you have quite some international activities already. If you think about your activities regarding innovation, and then focus on exploration activities. What exploration activities do you have within the company.
Respondent B	It is pretty hard to say. Our innovation lays mostly in the markets and the niches that we go for, and the tools that we use to work with. In the market, our strategy from the beginning was to explore smaller or new markets where we wouldn't be one more company. We got into the Web3 industry pretty early on, which allowed us to become recognized as a Web3 specialist company pretty quickly. Internally we could be more innovative. We look at our processes regularly though, but other companies are probably doing the same.
Interviewer	So you would say that at the start of your company, when Web3 started, you were doing many exploration activities? During the time you changed to more focus on exploiting and on your current product portfolio?
Respondent B	Yes definitely. I mean, one thing that can be considered innovation is something we try to do on the Web3, always new blockchains are born and new environments are created, and we try to identify the ones that are most popular and which are getting more attention. For example, this new Israelian client is getting started with Startnet, which is a new thing but it is getting really popular. We try to get knowledge about it and try to become their client by telling them we have experience with it and know how to use it.
Interviewer	Interesting to hear that you keep refining and searching for opportunities within what you are good at.

	Regarding the company its structure, how does it look? And does it allow innovation?
Respondent B	As time allows us, we try to be more innovative. The structure itself, we try to be as horizontal as possible. I am CEO so I am making the ultimate decisions, but I am not that extremely involved in all the day-to-day operations. At almost the same level we have a project manager that runs almost all projects in the company. We also have a creative director that runs the design team. And then at the same level we have everyone else. The innovation part of the structure is mostly my responsibility, together with the project manager and creative director. The project manager will focus on what is out there that we can try in terms of processes, tools, and how we can improve in general our services. The creative director focuses on new design tools and processes, but more design and development focus. I am the one that tries to focus more on the markets, or if I see new opportunities that we should try. Also it can happen that I talk to people from another studio or company that tells me to try something specific.
Interviewer	So you do make a lot of use of your network with this?
Respondent B	Yes, the philosophy was always to talk and learn from people with more knowledge and experience than us, and to absorb this knowledge and experience that they have. That is key for us. Whenever I can, I am having a call or I grab a coffee with someone who is more experienced in certain topics than I am.
Interviewer	Okay interesting, since literature does not speak about this much. Since it is mostly done in large organisations. But networks seem to be important.
Respondent B	Yes, I would say networks are key.
Interviewer	I will write that down! So regarding leadership styles, what style do you use? Think about communication styles, reward systems, sharing the vision etcetera.
Respondent B	I will tell you my style. So far it is working. My leadership style follows

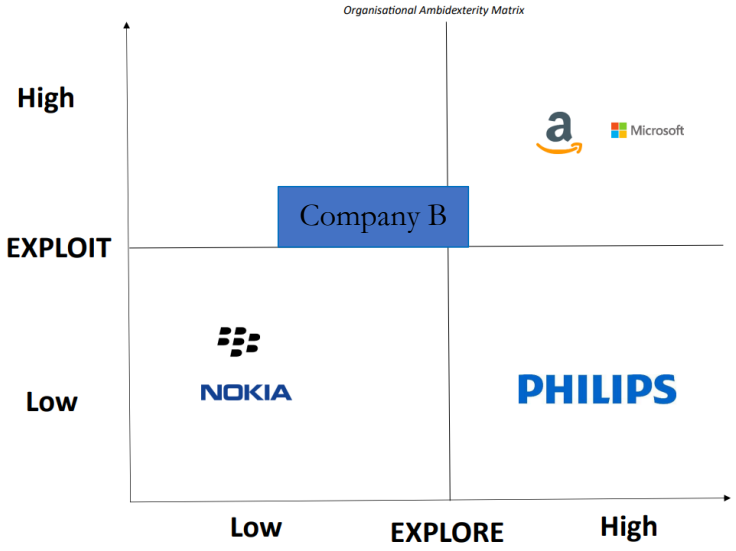
	the structure I told you about already. I try to be on the same level as anyone else, however my role is to run the company. Their role is to run the design activities, or their role is to do the development activities. So, the real difference between us is the level of responsibility. In the end, if I fail, the company is at stake. If someone else fails, it usually can be solved. I look at everyone else as partners, as owners or stakeholders of the company as well. And this applies in good times, when we are successful, it is shared with the whole team. But when there are negative things or moments, it is shared throughout the team as well. And then, as I was building the team in the past, the goal was always to hire people better than me. My goal was to be out of the way as soon as possible. I wanted to trust my employees to do tasks on their own. Fortunately enough, everyone that works at the company is way better at what thy are doing than me. My leadership style nowadays needs to make sure they are satisfied, that the work load is enough but not too much to get a burnout. Next to that, I am pretty chill, on project meetings I am often there just as a shadow, trying to give them feedback, but not getting in the way. I push them to share their doubts, but my approach is also to follow their gut, because often they have better knowledge. We learn with mistakes. That's it. Let's fail together, let's win together. That's a good summary of it.
Interviewer	So in the end you are the decision maker, but the company is like a partner group/family, so you give them a lot of trust.
Respondent B	Yes, the idea is really that when someone fails, everyone is failing. We have to learn together. If you want to present an idea to a client, and you are not sure of it, I will always tell you to present it, and see what happens.
Interviewer	You give them a feeling to come up with ideas and be innovative. If these ideas work, you share the rewards together, if they don't, we also fail together.

Respondent B	Yes, always.
Interviewer	Good to hear, this also already answered my question about the culture of the company. The core values are really like learning together, failing together, putting effort in the employees and seeing each more as partners. Really people orientated.
Respondent B	Yes, and we always try to have a mental space to do the job better next time. We have this motto to do our next job better than the previous one.
Interviewer	And how does this translate to feedback? Do you have moments scheduled or open and loose?
Respondent B	It happens organically. We are mostly remote so we have to be careful with our communication. We say everything to each other, and update each other for almost everything. We are open, we do not take things personally. We try to understand why people give what feedback. We always try to dive deeper.
Interviewer	Interesting. So you mentioned that in the beginning you were really focusing on exploration activities and finding gaps in the market. But currently you are more focused on exploitation activities, and focused on the current market you operate in. Within literature, this gives tensions. For example now you are focussing more on your present needs, but it brings a tension with your future needs. What are the tensions you feel, why you focus less on exploring now?
Respondent B	It is a good question, but also tough to answer. If you just focus on the current moment, you will stop growing eventually, and you'll be left behind in the market. It is like you only have small windows available in which you can focus on the now, and then you have to stop. But the biggest reason for us now why we do less exploration activities is resources and timing. We want to keep our team a bit small, we do not want to have like 50 people. To keep this mindset we really have to be super strategic in the way we use and plan our resources. Most of our resources are people.

	So probably resources and time management are our largest struggle. We are always between these two problems, which are a lack of leads, which leads to a lack of work and a lack of revenue. And then, too many leads, too much work, and a lack of time. We are always jumping between these. We could for example plan ahead super far, but this would not work because we do not know the amount of projects we are going to have. Now for example, we are very busy, and we realise that we cannot explore anymore to gain new leads. There is not something new happening with our processes, because of lack of time. We have to operate short term when time is lacking, and we can focus more long term when there is more time, and explore more.
Interviewer	If I understand correctly, your main resources are time and people. You really feel the tension long term versus short term because of what the market is providing you? When the market is high, you are focused on doing your work and exploit a bit on your services. But when the market is low, you have more time available to explore new opportunities and markets?
Respondent	Yes, I can give you an example. Last year, we ended the year very good. Profit was good and everyone was super happy. When we started planning this year, we were like okay we are going to increase revenue, we will hire one or two new people, we will increase our margins. But then, the war did not stop, the crypto market is low, there is a great recession in Europe happening. So we ended 2022 happy, and we started this year and for one or two months we only had one lead per week. It was hard to close a project. Even if you have the time, even if you have the time to innovate, I think as a service provider, you are always dependent on what the market is doing. If you have a beautiful store, everything in it, the door is open. But if no one gets in, what is the point? However, it also has to with the fact that we spend all 2022 occupied, so we did not have time to explore new markets, leads, and services.

	We were just focussed on our current projects and services. However, then it is of course in combination with the market that we do not control.
Interviewer	Yes, I have heard this before as well. My next question is also about innovation, but whether you try to come up with new innovations internally or externally. There are for example who hire students or freelancers to do research. But since in smaller companies it is more difficult due to the limited resources. Or for example made use of your network?
Respondent B	We use freelancers and hire them for specific needs and projects, so I would not call it innovation to be honest. We could use this more to be innovative to be honest.
Interviewer	But you do make use of your network for this?
Respondent B	Yes, definitely. Our networks is composed of many companies that we have worked with for a long time. We are also part of a company group. For example, we had this situation where we did not have the experience to build a mobile app. But it makes us innovate, because we have to learn how to do it, and we learn it via our network. We know that the group is innovating in terms of exploring new technologies. The whole network, but also the company group that we are in. In that sense, together we can much better explore new opportunities and technologies. However, it remains tough, to stop and explore new things.
Interviewer	It is interesting, because the topic of ambidexterity is quite new, and it is quite difficult. There are not many companies who manage to balance their exploration and exploitation activities.
Respondent B	I would love to be able and achieve that balance. If you are not exploring, you will die in the long term. I am worried about that. What we are doing, to focus on research and experimenting, we tried to change our business model a little bit. We wanted to have a secondary business model that allows us to have a fixed revenue stream. This way, we still earn some money, but we do have more

	time to explore new opportunities, in the sense that we explore new ways to do things and find or create new tools, or even exploit and improve on our current product portfolio, and in the meanwhile still be in peace with our revenue. So we try to get clients pay us on a more fixed base, whether they make use of our service or not. And my employees also support it, because they do like it when they can do research and try new things. But sometimes the money speaks louder, and we need to take another project in order to be in balance money wise.
Interviewer	So basically, you try to have a second business model, but it is also dependent on the market, so is your innovation then as well?
Respondent B	Yes, it is tough, everything we do is dependent on the market in our service industry. This retaining, so earning a fixed amount, works like a gym. You enrol in a gym, and either you go or not. We have a client paying us every month, whether they make use of our service or not. This way we make money but have more free time to explore and experiment with new opportunities. But it is really recent, and I am not sure yet if it really works or not. It's my first life as CEO so I am learning from my mistakes. There are a lot of things I would already do differently. This conversation for example makes me a bit frustrated about our innovation. However, we have to be realistic. Today we focus on making products in the current market and improving our current services, tomorrow we will worry about exploring new innovations. It is though but it is life.
Interviewer	Yes but I think being realistic is very important. I can tell you regarding organisational ambidexterity, there are not many companies who are able to achieve it successfully. Especially not many small companies. I made a matrix, that I will share now. Where would you position your company on this matrix?

	explains matrix
Respondent B	We would love to be at the Microsoft realm ofcourse. But we are more dependent on our clients. For some clients we really have to exploit and innovate on our current products, and for some not. So I would position us a bit higher on exploit, and a bit on the low side regarding explore. It is hard to say, because it changes over time and it can be tough depending on what the market is doing. 
Interview	Okay seems in line with what you said before. ***Finalizes interview, not important for transcription***

Codebook Interview Company B

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Partner Networks and Collaboration	PARTNERSHIPS	Discussion on how the respondent collaborates with partner companies and builds a network to extend their workforce and expertise.
Leadership and Culture	CULTURE	Discussion on the respondent's view on the company its leadership style and culture.

Tensions faced when trying to be ambidextrous	TENSIONS	Discussion on the respondent's view of the tensions and struggles faced when trying to balance exploration and exploitation activities.

Transcription Interview Company C

Speaker	Text
Interviewer	Well, first of all, thank you for for your time that you want to participate in. In my study, I thought I first introduced myself really short and then you and then we can start with the questions. *Self-Introduction*
Respondent C	My name is Respondent C. I'm from a small island From Portugal, Madeira. And I live now in Lisbon. I took the master degree in computer science in Madeira. And I know the feeling that you have, when I did my thesis I was also stressed and a lot was done last minute. However, I came to Lisbon, and worked in a marketing agency and I grew in my career towards, Engineering, also a tech lead, and after CTO. In the last three years I found my company, Company C, and we are growing. I started alone and now we are 12 in total.
Interviewer	That is quite fast in three years
Respondent C	Yes, three years in November. We are growing really fast. Sometimes its scary.
Interviewer	You hear it more often that sometimes companies grow too fast and they cannot deliver the work anymore. So you have to be aware.
Respondent C	I feel like, when you have a lot of knowledge, and you need to start to trust people it is difficult. Especially in crisis times, and with the war etcetera. Especially now, because we operate currently in Australia, the US, and Switzerland. We are trying to go more abroad, and we work fully remote now. So we have some employees here in Portugal, and some in Brazil.
Interviewer	Okay interesting. To start, could you briefly tell what you do as a company?
Respondent C	At the moment we are mostly operating as a software IT company. However, we have a large product portfolio, but everything digital of course. If a potential client has an idea, we help them with the full

	process. From design, to strategy, how we will launch our product online, how we develop it etcetera. Often, these companies do not have much digital experience, so we try to get their trust. It is not only them saying "we need that", no, we ask them why they need it. If it does not make sense, we will tell them that.
Interviewer	So you operate also partly as a consultancy, and you ask them the questions they sometimes do not want to hear?
Respondent C	Yes, that's how we work. We are not only here to get money. We are more here to change the world. When someone comes here as new employee, we try to let them grow. We are like a family. We do not really have a strong hierarchy that other businesses have. Next to that, if you want to say something as employee, do it. Be transparent, and I will be transparent.
Interviewer	That is good to hear. So I already sent you the questionnaire, or the questions. Did you already read something about organizational ambidexterity?
Respondent C	A little bit, if you want to be safe, you have to focus on your current product. But if you want to grow and improve, you need to find new markets.
Interviewer	Kind of. So you have. Within the topic of innovation, because as a company you always have to innovate in order to survive. You can focus on exploiting your product so the services or products you already have. You're going to refine them, try to improve them. How can we change our view on them? Or you can explore and find completely new markets, new products and services. UM, for instance, an example is Nokia. In the past, they had a great product, but they failed to exploit on their own product and they failed to explore new products. For instance, Apple did, and now Apple is the largest SIM and Samsung. And there are not many companies who can. Provide in their current markets and keep improving, but also be ahead of the rest and explore completely new opportunities. And especially my research is in smaller companies. Because they have less

	resources, so you cannot just make one department that fully focuses with a budget of 2,000,000 on new opportunities. It's just not possible. But every company can become ambidextrous. So that's a bit the explanation as easy as possible. It is however, very difficult to achieve. They are able to have this balance between looking at the future market and looking at how to provide the current market and improve on that. So the balance is also the most difficult part of course, especially if you have less resources. If you completely focus on the future, you don't have the resources, whether it's people or time or money to put on the in the current. So the balance is what I'm trying to research how a smaller company can still achieve this.
Respondent C	Okay clear, I am now trying for example to improve on our existing technologies. Think about improving on our Web3 skills. And we have other innovations with coins. We try to improve every time, our processes for example. We do not want to keep doing the same things time after time. And me personally, I am in love with learning. I always want to know the newest technologies and I like reading things about technology and business, it helps me improving all the time. As you for example mentioned Apple, I love what they do. The same you see with Microsoft, which was more like Nokia, but not with this new guy they are doing very well. However, it also all depends on how much time and work we have. If we do not have much time available, when we are busy, it is really hard to come up with completely new innovations and ideas.
Interviewer	Well, in my question here later, you could see a matrix and you could see where Microsoft is placed and they are doing really well in what I'm studying, like Amazon, Microsoft, Apple so. But you said that, when you have time, you are more able to explore new things. So, you say it's like a wave. This this month I have more time and we as a company we can try to find new innovations. And then when we are

	super busy, so we're just busy with our current product.
Respondent C	Yes, and you know. Sometimes I even hire people for new projects. But after like two months the project is over, or the clients want something else from us, I have to let these new employees go after 2 or 3 months already. However, I am now experimenting with new ways to work. For example, I created a code that when a new client comes in, automatically a folder, Google Drive, Project etcetera is created in our systems. However, more regarding developing. It is almost impossible to know what you are doing in the next five years. The situations and technologies are changing so fast that you need to be more analytic. We try to use the technology to our side, it is our vision. We try to look outside of our house, and see where we can improve and what our clients demand.
Interviewer	And how is your company then structured to be able to always look somewhere else, but at the same time you need to have your clients in the current market. How does this structure allow it or how does it look?
Respondent C	At the moment, I am the person with the most knowledge. However, we have a product manager, who often goes with me to the clients. We do reviews and required documents to create a proposal. Next to that, we have a team leader, a designer, and in some projects we have 2-3 tech leads in the same team.
Interviewer	But so, but in how does it allow for new innovations? Is it because you already mentioned you have, like, a family, like culture? You promote them to be innovative or, do you always point at some people like, you have to come up with the new innovations, or how does it work? What does it look like?
Respondent C	Everyone can provide ideas. For example, someone comes to me that they found a new extension that will improve our services. I will always say, yes lets talk and try. However, I always ask them critical

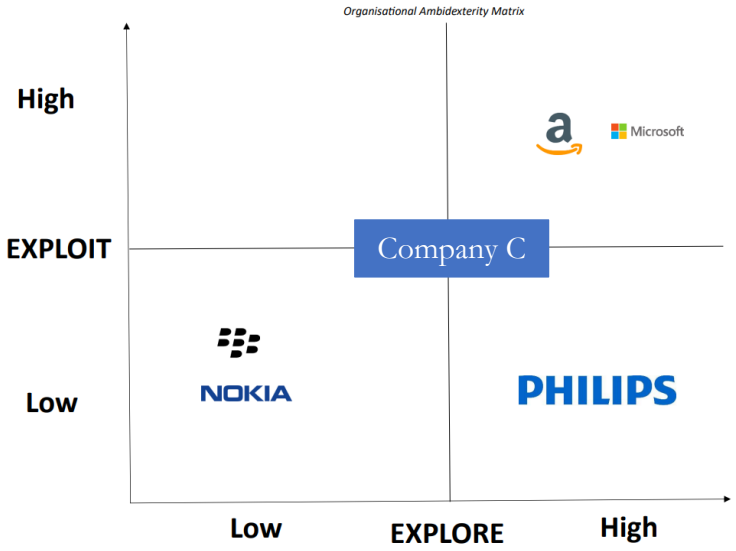
	questions, to make sure it is a good idea. However, we do not like to try innovations while working with the client. It is like, you will buy the motorcycle, but you will also be the tester of the motorcycle. Furthermore, you need to have a business plan, otherwise I do not want to waste time on it. Show me why it is a good idea.
Interviewer	So basically, you created an atmosphere in which you are really open minded and your vision is to come to me. Come to me with your innovations but you also, empower them to come with innovation that are backed up with reasons and data?
Respondent C	Yes, or they can try it outside of the company. If you have an idea, yes we are very open to try to structure it with our team. If it improves or makes the company grow, it is great. I want employees who do this. However, they have to create a document for me in which they explain it properly to me.
Interviewer	But how do you then promote the people to do this? Do you give them unique rewards or bonusses?
Respondent C	Of course, we have objectives here. If someone finds a new innovation that makes the company grow, they will get more money at the end of the year. We have lots of rewards here. I also try to promote it by telling my employees to not do the same thing every day. We have a saying here which says: "Stop, Think, Do". Normally, the people "Do, Think, and stop". Everyone works in a specific velocity, however it is impossible to let everyone work in that velocity regarding innovation. Some people do not want to have innovation regarding exploring new services and experimenting with new things. If they know their current role, it is enough for them.
Interviewer	I can imagine. But how do you promote them to get them out of this rhythm?
Respondent C	I try to give them specific challenges. But for some people it just does not work. They prefer to stay in their safety zone. He is doing the work he needs to do, but nothing more.
Interviewer	I can imagine it is hard to manage. And regarding your leadership

	style. If you think about how you communicate, how you motivate, how you reward your employees. How you share your vision? How does it look?
Respondent C	I am the top of the company. However, if they need my help, I am there for them. I try to help and motivate everyone. However, my hunger for doing new things and be innovative is very strong. This makes me sometimes too transparent and direct. I always ask why why why.
Interviewer	It would be appreciated here in the Netherlands.
Respondent C	Yes, I want to be fully transparent. The rewards work. If they need to make extra hours for example they do. We also went to Sao Paulo, as a team together. I believe that if you treat your employees well, they will give you 100%. However, when the ships goes down, they will probably not stay. It is normal. I try to keep them involved though, I do not have secrets for them regarding the business and the revenue. We do have a career plan here, to also let them focus more long term and give them a good picture of the future. My fear is however, that one day the family culture will disappear. When this happens, I will leave.
Interviewer	And what I found with other small companies regarding trying to come up with new things and trying to improve your current service. There were some tensions for they were especially resource based. Time and people were the largest problem. If you think about trying to exploit on your current product and explore on new opportunities, what tensions do you face regarding to? Having less control, if you let them explore more or. Long term versus short term goals or what tensions do you feel within your company?
Respondent C	I guess its mostly time we struggle with. And I think there are some guys in the company who want to stay in their comfort zone. I don't know if this answers your question?
Interviewer	Well, yes, kind off. One of the tensions explained in the literature is predictability versus uncertainty, which is actually what you just stated,

	because they want to predict their work, what's going to happen. And the moment you try to come up with new things, things get uncertain and you can lose. But you can also win. But some people just do what you say. Try to stay in the safety zone.
Respondent C	Yes, I prefer uncertainty above predictability. However, some guys don't. I love to have a different day every day. I like to explore and experiment with new things. I do not like to be a long term guy. In our area also, predicting the things that will happen in the next two years is impossible. Today it is AI, but in six months it is going to be different. So we try to focus more on the short term, and keep improving on our current services, and we will see what the market brings us in the long term. So yes, due to the market we operate in, there is a tensions between short term versus long term orientation. But I like this, short term orientation.
Interviewer	But how do you make sure you are first with new innovations in the long term?
Respondent C	We just need to have the base knowledge of the technology ready. It is like, or you write in Portuguese, or in English. It does not matter, you need to have a base of language skills, because most languages are build the same. You need to have a solid base of the technology, and upon that you can innovate and improve. Don't be good in one thing, but try to understand the complete ecosystem. In addition, in the future we maybe will need to reorganize. It all depends on what the market and the technology is doing. Also regarding whether we have time and resources to explore new things or focus more on the current market.
Interview	And if you think about exploring and exploiting. What role does your network play? Do you have like a big network of other companies that? Which you talk to or conferences that. Provide you for example with new ideas or how to do things better or. What role does your network play in this?

Respondent C	Yes a lot. I love to learn from people that have larger companies than I have. I love to read articles that other wrote. It's like, if you want to be the best, you have to learn with the best.
Interviewer	So you really try to surround yourself with network and companies that are likeminded as you and always try to strive for new ways and better things?
Respondent C	Yes, I love talk with startups especially.
Interviewer	Yes, the network part seems to be important in achieving organisational ambidexterity. The large companies, they don't have to do this because they have the resources and. In the literature, nothing is really written about the networks, but everyone I speak to is like, yeah, for innovations we use the networks a lot and talk to people and discuss things with them so that's a pretty important insight for me for now.
Respondent C	I always talk with these people, and always find out they have the same problems as we have. It is like, "I am trying to change this and this." "Oh I also tried it, why did it work or didn't it work"? We help each other with it a lot, and we all want to grow, despite that we are also sometimes in the same market.
Interviewer	So, it can be considered as like a coopetition relationship?
Respondent C	Yes, but we all have different value chains of course, and different strategies.
Interviewer	Yeah, yeah, yeah. Ok. Well, that that's interesting to hear, especially the coopetition part. I hear it every time. I have one more question and it's not really specific for my thesis, but it's just interesting to know. I don't know if I can share my screen. I made a matrix. And here you can already see what I mentioned. For instance Nokia they were in exploiting it low and exploring it low. Same for BlackBerry. That's basically why they failed in short and long run and you see here Microsoft is doing the opposite and that's why they're doing actually really well now. If you could place a bus fell in this matrix, where would you place it?

Respondent C	It is difficult to say, due to the market situations as well of course. However, I would say we are completely in the middle.



Interviewer	Okay thank you very much for your time! If you have any questions feel free to ask me.
Respondent C	You're welcome
Interviewer	*ends official part of interview*

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