Riding Two Horses at The Same Time: Paradox Responses for Navigating Exploration and Exploitation in Small and Medium-Sized IT Consulting Firms

Completed Research Paper

Matthias Werner
University of Münster
Ulm, Germany
m_wern22@uni-muenster.de

Jan Stockhinger
University of Münster
Münster, Germany
jan.stockhinger@ercis.de

Stefan Klein
University of Münster
Kiel, Germany
stefan.klein@wi.uni-muenster.de

Dragos Vieru
TÉLUQ University
Québec City, Canada
dragos.vieru@teluq.ca

Abstract

On the one hand, due to the relentless advancements in information technologies, IT consulting firms are under constant pressure to gain new knowledge and develop innovative offerings to satisfy their clients' needs in the long term. On the other hand, their business models hinge on the tyranny of billable hours, which emphasizes efficiency, scalable reuse and refinement of current knowledge, and a culture of operational excellence boosting short-term performance. Pursuing these demands simultaneously makes tensions salient. Focusing on two small- and medium-sized IT consulting firms, we study how they use responses discussed in paradox research to navigate exploration and exploitation. Building on paradox research and the analyzed empirical data, we develop a framework that classifies various approaches the two firms use to navigate exploration and exploitation on different levels. We contribute to recent calls for studying repertoires of paradox responses to advance our understanding of dealing with exploration and exploitation.

Keywords: ambidexterity, paradox, exploration, exploitation, consulting, IT consulting

Introduction

To harness advancements in information technology (IT), organizations often take advantage of services provided by IT consulting firms (Oesterle et al., 2022). This circumstance requires IT consulting firms to be ahead of their clients by constantly experimenting with and building new knowledge on IT trends and developments (Bloomfield & Danieli, 1995). Given short innovation cycles in the IT service market and the centrality of knowledge as a competitive resource, IT consulting firms will eventually be outpaced by rivals if they fail to regularly innovate their knowledge base and service portfolio (Nordenflycht, 2010; Yoon et al., 2017). On the other hand, IT consulting firms' business models hinge on what Skjølsvik et al. (2007, p. 116) identified as "the tyranny of the billable hours." Hence, they focus on efficiency, scalable reuse, and refinement of current knowledge, as well as a culture of operational excellence that boosts short-term performance (A. Smith et al., 2017). However, this centrality of billable hours and a "clients-first" mentality can inhibit the development of new knowledge, products, and services (Skjølsvik et al., 2007). Meeting these

disparate demands for constant experimentation, innovation, and learning versus short-term objectives such as revenue and profit maximization creates tensions and poses a considerable challenge to IT consulting firms' survival (Groysberg & Lee, 2009). The situation becomes even more difficult for small- and medium-sized IT consulting firms because of the lack of strategic resources compared to their larger competitors (Voss & Voss, 2013). This empirical puzzle raised our interest and has led to the subsequent guiding research question:

RQ1: How do small and medium-sized IT consulting firms cope with the simultaneous demands for developing new knowledge and market offerings while ensuring short-term revenues?

To deal with these seemingly opposing demands, research advocates for simultaneous engagement in exploitation and exploration activities (Raisch & Birkinshaw, 2008). While exploitation is about the efficient use and refinement of current knowledge to obtain short-term revenues, exploration involves innovating, e.g., products and services, and creating new knowledge to generate revenues in the long term (Lavie et al., 2010; March, 1991). Managing exploration and exploitation simultaneously has been a central research topic for decades (Luger et al., 2018; Raisch & Birkinshaw, 2008). Literature often assumes that exploration and exploitation are opposing activities and proposes approaches to separate them spatially or temporally (Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2013). In contrast, paradox research, although acknowledging conflict and opposition between elements (e.g., exploration and exploitation), emphasizes interplay and complementarity (W. K. Smith & Lewis, 2011). Hence, paradox research offers a repertoire of navigation responses including but also going beyond separation approaches (Fairhurst & Putnam, 2024). By researching a wide range of different responses, we increase the potential to analyze and understand the complexity of dealing with seemingly opposing demands and activities such as exploration and exploitation (Berti & Cunha, 2022; Papachroni et al., 2015). Therefore, we draw on responses discussed in paradox research to enrich our understanding of how IT consulting firms cope with demands for innovation, short-term revenues, and exploration and exploitation activities. To this end, we conduct an exploratory and comparative case study of two small and medium-sized IT consulting firms from Germany. Our analysis of the two consulting firms reveals a diverse set of paradox responses employed across organizational, project, and individual levels to navigate the tension between exploration and exploitation activities. We also provide a framework that classifies these paradox responses according to two dimensions (organizational level of response and type of response (either-or, both-and, and more-than)). By comparing and contrasting the findings across the two case organizations, we discuss factors influencing the use of different responses.

Theoretical Background

Defining Exploration and Exploitation and Introducing Ambidexterity

In his seminal paper, March (1991, p. 71) associates exploitation with terms such as refinement, choice, production, efficiency, selection, implementation, and execution. Exploitation focuses on short-term goals, aiming to achieve reliability, productivity, cost reduction, incremental innovation, and meeting performance standards to ensure current viability (Bledow et al., 2009; Voss & Voss, 2013). In contrast, exploration is associated with search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation (March, 1991, p. 71). It targets long-term objectives, seeking to discover new knowledge, enter new markets, match emerging customer needs, and introduce radical innovation to secure future success (Benner & Tushman, 2003; Voss & Voss, 2013). Studies often conceptualize the relationship between exploration and exploitation as conflicting, opposing, and replete with tensions (Lavie et al., 2010). Tensions between exploitation and exploration emanate from seemingly contradictory goals and mechanisms (Andriopoulos & Lewis, 2009; Tushman & O'Reilly, 1996). The reasons for the tensions between exploration and exploitation are rooted in the different systems, incentives, processes, cultures, competencies, and cognitive abilities required by exploration and exploitation (Raisch & Birkinshaw, 2008). For instance, McGrath (2001) found that high autonomy with regard to setting goals and a lower degree of managerial supervision of operational activities are beneficial in exploratory business development projects. In contrast, greater control is beneficial in exploitative projects.

Organizations able to pursue a balance of exploration and exploitation are called ambidextrous (Gibson & Birkinshaw, 2004; Tushman & O'Reilly, 1996). The ambidexterity literature discusses three approaches: *structural ambidexterity*, which separates exploration and exploitation activities into different units;

contextual ambidexterity, where managers create a behavioral context that allows employees to allocate their time between exploration and exploitation; and *sequential ambidexterity or oscillation* which involves organizations shifting their structures over time to accommodate the demands for exploitation and exploration (Boumgarden et al., 2012; O'Reilly & Tushman, 2013) These approaches stress the structural or temporal separation of exploration and exploitation activities (Papachroni et al., 2015).

Arguing for Using a Paradox Lens to Exploration-Exploitation Research

Paradox research is a literature stream that has recently gained importance in studying the integrative nature of exploration and exploitation (Schad et al., 2016). W. K. Smith and Lewis (2011, p. 382) define paradox as "contradictory yet interrelated elements that exist simultaneously and persist over time." A paradox is defined by three attributes: contradiction, interdependence, and persistence (Berti & Cunha, 2022). Contradiction refers to the co-existence of opposite requirements, interdependence highlights the interrelation of oppositional elements, and persistence emphasizes the enduring, unresolvable relationship between the elements (W. K. Smith & Lewis, 2011). Building on these attributes, we conceptualize the exploration-exploitation phenomenon as a paradox. Concerning contradiction, studies on exploration and exploitation (Lavie et al., 2010) illustrate the opposition between the two activities, with exploitation focusing on leveraging current products and having a short-term view. In contrast, exploration involves creating radically new products and assumes a long-term perspective. Regarding interdependence, research underscores the interrelation between exploration and exploitation, as exemplified by Apple's introduction of the innovative iPod product line (exploration), revitalizing its traditional hardware and software businesses (exploitation) (Cao et al., 2009). Regarding persistence, research on the dynamic balancing of exploration and exploitation (e.g., Luger et al., 2018) indicates that organizations continually face the challenge of navigating tensions between both activities due to constantly changing environments, shifting market needs, and technological advancements. This persistence makes tensions salient for organizational members, such as decision-makers, who are consistently challenged to allocate resources to exploration and exploitation at the right time (Dixon et al., 2017). Research applying a paradox lens to understand the navigation of exploration and exploitation (Andriopoulos & Lewis, 2009; e.g., Gregory et al., 2015; Papachroni et al., 2015) has made a great deal in informing on the responses organizations and senior managers use to navigate the two seemingly opposing activities concurrently. For instance, Gregory et al. (2015) provide examples of managerial responses to integrate and balance exploration and exploitation in the context of an IT transformation program. Andriopoulos and Lewis (2009) enrich the discussion on the intersection of paradox and exploration-exploitation by illustrating how an integration and differentiation perspective helps managers respond to exploration-exploitation tensions on different organizational levels.

Navigating Paradoxes

In paradox literature, scholars (e.g., Berti et al., 2021; Fairhurst & Putnam, 2024; Poole & van de Ven, 1989; Putnam et al., 2016) have proposed different responses to navigate paradoxes. These responses can be differentiated into three categories: either-or, both-and, and more-than. Either-or responses treat oppositional elements as clear choices that function independently of each other (Putnam et al., 2016). Responses of this category are *splitting, projecting, repressing, regression, ambivalence, withdrawal, and suppressing* (Fairhurst & Putnam, 2024; Jarzabkowski et al., 2013). Both-and responses consider oppositional elements as interdependent and unifiable (W. K. Smith & Lewis, 2011). These responses can be divided into different categories such as *paradoxical thinking, vacillation and spiraling inversion, and integration and balance*. More-than responses emphasize connecting oppositional pairs, moving outside of them, or situating them in a new relationship to establish new links, encourage creativity, and foster adaptive responses to complex conditions (Putnam et al., 2016). This response category includes *metacommunication, reframing and transcendence, connection, third spaces and dialogue, and reflective practice and serious playfulness* (Putnam et al., 2016). Table 1 describes the different responses in more detail.

Response category	**Response**	**Description and anchor reference**
Either-or	Splitting	Separating opposites either temporally (e.g., sequential ambidexterity) or spatially (e.g., structural ambidexterity) (Boumgarden et al., 2012)

(Treats oppositional elements as clear choices that function independent-ly of each other)	Projecting	Shifting unwanted feelings to another person (Jarzabkowski et al., 2013)
	Repressing	Denial, disregard, and blocking of awareness of paradoxes and affiliated tensions (Jarzabkowski et al., 2013)
	Regression	Organizations or individuals revert to past understandings, actions, and options they feel comfortable with (Jarzabkowski et al., 2013)
	Ambivalence	Quick but marginal compromises (Jarzabkowski et al., 2013)
	Withdrawal	Individuals removing themselves from the scene of action (psychologically or physically) (Berti and Simpson, 2021)
	Suppressing	Organizations or individuals prioritizing one element by allowing it to dominate or overrule the other element of a paradox (Jarzabkowski et al., 2013)
Both-and (Treats oppositional elements as interdepen-dent and unifiable)	Paradoxical thinking	Adopting a both-and mindset by reflecting on both poles of a contradiction, embracing their mutual interests, and finding creative solutions that satisfy mutuality without sacrificing one pole or the other (Fairhurst and Putnam, 2024)
	Vacillation and spiraling inversion	Continuous shifts between paradoxical elements at distinctive times or in different contexts (Gibson and Birkinshaw, 2004)
	Integration	Seeking a compromise between oppositional elements, sometimes by means of a forced merger of opposites (Fairhurst and Putnam, 2024)
	Balance	Finding possibilities to address both elements by recognizing the contradiction, working through tensions to find a compatible approach, and/or identifying an equilibrium point (Fairhurst and Putnam, 2024)
More-than (Transcends oppositional elements by reframing them in a novel relationship)	Metacommunication	Ability to move outside the frame of a situation or message to communicate about it with others (Fairhurst and Putnam, 2024)
	Reframing	Parties situating oppositional tensions in a newly reformulated whole or a new relationship with each other (Fairhurst and Putnam, 2024)
	Transcendence	Connecting opposites in new ways by viewing them together, interpenetrating them, and bringing them and their relationship to a different level of abstraction (Fairhurst and Putnam, 2024)
	Third spaces and dialogue	Creation of a discursive site or third space where actors can discuss oppositions and paradoxes in order for organizational members to learn to live with them (Fairhurst and Putnam, 2024)
	Reflective practice and serious play-fulness	Facilitating the use of paradox to engage in self and relational reflexivity (Fairhurst and Putnam, 2024)

Table 1. Overview of Navigation Responses

Research Design

Research Setting and Selection of Cases

The study aims to identify and provide a collection and classification of responses discussed in paradox research IT consulting firms use to navigate the demands for exploration and exploitation. To achieve this goal, we conduct an exploratory and comparative multiple-case study of two IT consulting firms from Germany. Multiple case study research enables researchers to understand the phenomenon across different yet related contexts, identifying aspects that can be combined and contrasted to facilitate a broader set of findings (Miles & Huberman, 2009). Following Eisenhardt (1989), we used theoretical sampling to select

the case organizations. Several reasons led to the choice of the two IT consulting firms ITCF-A and ITCF-B. First, the two IT consulting firms embrace the simultaneous pursuit of efficiently exploiting current knowledge, products, and services to operate on a high level and yield short-term financial income (exploitation) while engaging in exploratory practices for innovating knowledge, products, and services to address environmental changes and ensure future survival (exploration). The systematic pursuit of exploitation and exploration has become central to their identity and mission, which is also supported by the fact that they have repeatedly won innovation and employee care and development awards, such as Top 100 Innovator and Great Place to Work®. Second, research (e.g., Andriopoulos & Lewis, 2009; Raisch & Birkinshaw, 2008) emphasizes that the demands for exploration and exploitation permeate the whole organization. Our case organizations classify as small and medium-sized, which, according to ambidexterity literature (e.g, Lubatkin et al., 2006; Mu et al., 2020), requires them to have employees who participate in both exploration and exploitation. Hence, the IT consulting firms in our sample provide a promising context to understand better what responses they use to navigate the tensions between exploration and exploitation on different levels. Third, some literature on exploration and exploitation (e.g., Wenke et al., 2021) indicates that SMEs are well-advised to focus on one of the two instead of pursuing both simultaneously. Contrary to the suggestion of these researchers, our sample shows cases that combine the two demands and activities.

Description of Cases

ITCF-A, a German IT consulting firm founded in 1994 with about 220 employees across three offices, primarily targets client projects at the operational level, with some strategic projects involving long-term IT solutions. The firm serves large companies in various industries, offering services such as software development, managed services, organizational development, process management, and data science. ITCF-A's solutions encompass agile methods, cloud, IT security, artificial intelligence, and automation. ITCF-A covers all project phases, including consulting, implementation, coaching, and training. *ITCF-B*, a German end-to-end IT consulting firm founded in 2015, employs around 40 staff members across two offices in Germany and a joint venture in Romania. The firm serves middle-sized and large companies, primarily in the insurance and banking industries. ITCF-B's service portfolio includes project management, core banking system migration, process automation, quality assurance, and workshops in agile methods. Most projects start after conceptualization and project charter creation, with clients hiring ITCF-B for complex problems, capacity peaks, or highly specialized knowledge. While primarily focused on operational-level projects, ITCF-B occasionally engages in strategic projects for long-term clients.

Data Collection

Our data collection started in 2018 and took place in different phases until April 2024. Our main data source was 21 interviews – eleven with ITCF-A and ten with ITCF-B. The interviews lasted from 33 to 150 minutes, averaging 74 minutes, and were recorded and transcribed. When selecting the interviewees, we relied on purposive sampling to gather data from unique and different perspectives on the phenomenon in question (Robinson, 2014). For instance, we conducted interviews with employees from different hierarchies ((junior) consultant to partner) and experience levels (seven months to 29 years). We also applied a snowball sampling approach by asking participants to identify other promising and appropriate interviewees (Noy, 2008). We used a semi-structured guideline for the interviews since it provides a structural execution with sufficient flexibility to discuss interesting ad-hoc topics to answer the research question (Myers & Newman, 2007). The interview guideline consisted of four groups of questions. First, we collected general information on the informants. Second, we asked for information on the case organizations and their context since scholars underpin that these factors are important in researching the navigation of exploration and exploitation (Revilla & Rodríguez-Prado, 2018). Third, our guideline contained questions about the demands and tensions these IT consulting firms face. Fourth, we interviewed them on the responses the case organizations use to navigate the tensions. In the spirit of an exploratory case study (according to Sarker et al., 2018), we relied upon literature from ambidexterity, paradox, and duality research when creating the interview questions to set a certain direction. To substantiate and complement our interview data, we also relied upon archival data that captured information on tensions, R&D activities and events, new products and services, and changes in how organizations operate. Archival data included firm homepages, firm blogs, social media posts (mainly LinkedIn), press releases, financial statements, and published interviews with partners, HR and R&D executives, and further employees in the form of video (e.g., on Youtube) and audio (podcasts on Spotify) material. For instance, in one podcast, an

ITCF-A employee mentions that this organization spends around 10% of its revenue on R&D. This mention strengthened the selection of the case for the sampling and corroborated the analysis about ITCF-A's commitment to R&D activities.

Data Analysis and Coding

To analyze the data, the first author took inspiration from seminal papers (Andriopoulos & Lewis, 2009; W. K. Smith, 2014) on navigating the demand for exploration and exploitation using a paradox lens. The first also applied qualitative data coding practices (Miles & Huberman, 2009; Myers, 2013) to code the demands, tensions, and their navigation responses. These coding practices involved two main steps and several sub-steps. In the first main step, we identified the demands and tensions of exploration and exploitation mentioned in the transcripts and additional archival data. The first author followed Andriopoulos and Lewis's (2009) and W. K. Smith's (2014) suggestion to use language indicators such as: "tension," "friction," "yet," "but," "on the one hand… on the other hand", "balance," "pendulum," "challenging," "difficult," "dilemma" and "trade-off." We used these mentions as data examples. Afterward, the first author applied descriptive coding (Myers, 2013) to summarize and categorize the data examples stating opposing elements. For instance, interviewees emphasized the importance of generating as many billable hours as possible for the IT consulting firm to survive in the short term. On the other hand, they stated that IT consulting firms must engage in R&D to be ahead of their clients and ensure future contracts. As the first author noticed that the demands and tensions occurred on different organizational levels, he applied interpretive coding (Myers, 2013) to further categorize them. In the second main step, the first author identified patterns of responses IT consulting firms use to navigate exploration and exploitation. To code these responses, he read through the raw data and selected passages, indicating practices to cope with the different demands for exploration and exploitation. The first author again conducted descriptive coding to group these data examples by using terms close to the informants' language. Building on classifications of navigating paradoxes (such as Berti et al., 2021; Fairhurst & Putnam, 2024; Putnam et al., 2016), he used interpretive coding to categorize the responses. Figure 1 shows an example of the process of abstraction and coding for the demands[1].

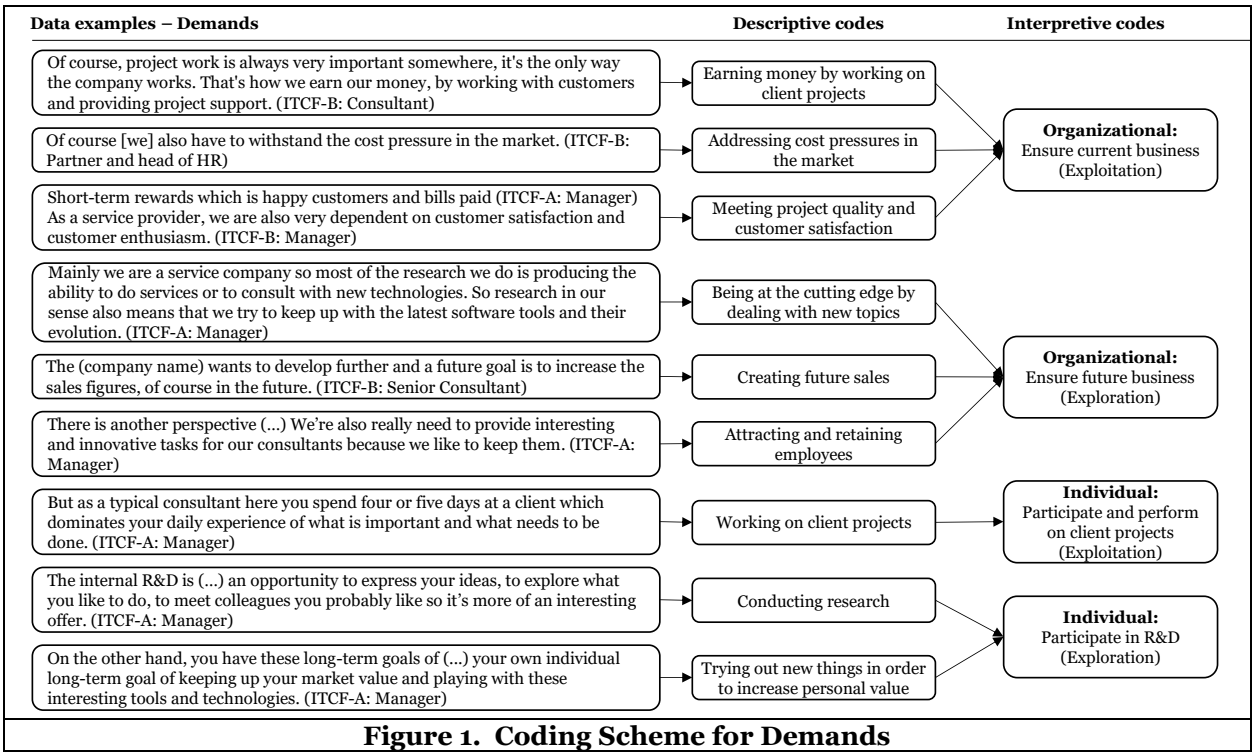

Figure 1. Coding Scheme for Demands

[1] The coding schemes for the tensions and paradox responses can be provided upon request.

The first author shared the coding results with the co-authors so they could provide feedback. By doing so, we ensured that the interpretations of the first author were challenged. For example, in one instance, the first author coded the unequal proportion of exploration and exploitation activities as suppression. Yet, one co-author questioned this by stating that this may be a way for IT consulting firms to balance both activities. By rechecking the literature on paradox responses and rereading the interviews, we decided to code it as a balance response. We also discussed and reflected our results from the data analysis process with informants of the case organizations to reduce the possibility of misinterpretation, ensure the accuracy of the findings, and complement overseen aspects (Bryman & Bell, 2015). For instance, in our first version of the coding scheme and results, we interpreted the data that there was a strong demand coming from decision makers on the individual consultant level to engage in R&D. When discussing the initial findings, informants of both IT consulting firms underpinned that participating in R&D is voluntary rather than a requirement. But, they also emphasized that the external environment where consultants operate may require them to improve and broaden their knowledge and skills constantly.

Results

In this section, we first describe the demands and tensions that our case organizations face on the organizational and individual levels and which role activities on the project level have to address these demands. Afterward, we present the paradox responses according to the either-or, both-and, and more-than categories (see Table 1) used on the organizational, project, and individual levels.

Demands and Tensions of Exploration and Exploitation Activities in the Context of the Case Organizations

ITCF-A and ITCF-B, like other professional service firms, prioritize generating billable hours by acquiring sufficient client projects to ensure current business viability. On these projects, ITCF-A and ITCF-B pursue excellence, customer satisfaction, and a high level of quality. Consequently, they meet the demand for ensuring current business and short-term survival. This pursuit of excellence and quality also builds trust and reputation necessary to acquire more projects where both IT consulting firms exploit the existing knowledge, services, and products. On the other hand, both case organizations constantly need to screen the market for changes in IT trends and client needs that are worthwhile to explore in order to generate future projects. One promise our case organizations want to make to their clients is to be ahead of these trends and provide the best and most current solutions to their problems. One senior consultant (ITCF-A) explains, *"If we didn't have this knowledge, then we wouldn't be able to make a recommendation to the customer or weigh up what the market needs somehow, and that's also something that the customer probably demands from us or spends a bit more money on us than on others, so we have a better view of it."* Several informants emphasize that experimenting with new IT trends such as the application of large language models (e.g., ChatGPT) in client organizations, creating innovative knowledge such as hybrid project management and sociocracy for decision making, or creating new concepts and products is crucial to ensure the future of the business and long-term survival. Besides the monetary aspect of survival, interviewees state that offering and engaging in these exploration activities is central to retaining and attracting employees. To address this demand, the two case organizations have established R&D areas where they experiment with and learn new IT and market trends, as well as create new consulting services and products. These R&D activities include trying out IT solutions that large IT companies such as Amazon, Microsoft, or Google are about to launch on the market, and learning new methods such as hybrid project management methods and concepts of organizational development. In addition, they also write articles and blogs, create new products, services, frameworks, and procedure models, and develop new businesses.

Meeting the demands for ensuring the current and future business simultaneously involves tensions on the organizational level. Strategic decision makers, such as partners and CEOs, must decide how to allocate resources such as time in person days, money, and employees across the two demands. This tension is fuelled by the fact that the time and money spent on R&D projects are at the expense of short-term profits. The corresponding strategic decisions imply tensions since the monetary outcome and success of these R&D projects are risky and uncertain. The structural splitting between exploitation and exploration is supported by how interviewees differentiate between general client projects and R&D projects. They describe the former as their *"bread and butter projects"* (Senior consultant: ITCF-A). The demands on the organizational level also have consequences on the individual level. IT consultants are mainly hired to work

and perform on client projects. One manager (ITCF-A) underpins, *"As a typical consultant here you spend four or five days at a client which dominates your daily experience of what is important and what needs to be done."* On the other hand, ITCF-A and ITCF-B provide the opportunity to participate in R&D projects. Interviewees emphasize that participation is voluntary, and nobody is required or pushed to engage in R&D projects. For instance, one consultant (ITCF-B) states, *"And everything that goes beyond that or what I do internally is all voluntary. So, there are no requirements, you have to get involved internally, (...), you don't have to be a participant in the R&D area."* However, they also mention that the external environment, such as clients and the general perception of a consultant's role, expects them to develop and learn constantly. One manager (ITCF-A) notes that assisting in R&D projects is important for *"your own individual long-term goal of keeping up your market value."* Tensions on the individual consultant level arise from the challenge of balancing the time they spend on client projects and on internal R&D projects.

To summarize this section, IT consulting firms face demands and tensions on two levels (organizational and individual). To address these demands, they engage in exploration and exploitation activities on the project level (client projects and internal R&D projects). The following section presents the concrete responses to navigate the demands for exploration and exploitation activities.

IT Consulting Firm A (ITCF-A)

Organizational: Either-Or Response – Structural Splitting: ITCF-A navigates the demands of ensuring current and future business through two separate structures. First, a pool of consultants is staffed on client projects according to the required skills. Second, there is a separate R&D area with different teams focused on themes such as data science, quality management, process management, cloud computing, or agile methods and organizational development. These R&D teams enjoy high flexibility and report to the head of R&D. They receive an annual budget, which they can spend on person days, material assets, and conference participation. However, the budget is mainly spent on person days. Each structure has its own sales team: one focuses on acquiring and selling general client projects, while the other supports the R&D teams in marketing their product or service innovations that have achieved a certain level of maturity. This structural splitting is deliberate, as it allows for tasks such as education and training to be carried out without charging clients.

Organizational: Both-and Response – Balance: Once a week, ITCF-A's strategic decision makers meet to plan the staffing and prioritization of client and R&D projects. This group activity integrates both demands for ensuring current and future business by constantly balancing resource allocation. One manager states, *"It's a really difficult process. There are meetings each Monday with a huge monster of an Excel file which estimates who is going to work to which extent for which client. (...) That is also the meeting where the decisions regarding research and development or the client projects are made. New customers probably are prioritized, important research projects that prepare some kind of presentation on a conference, probably also prioritized."* ITCF-A's executives additionally meet once a year to define how many billable hours are necessary to meet the financial goals for the upcoming year. In this meeting, the budget ITCF-A wants to spend on R&D is decided. By so doing, this meeting helps find a balance for the activities of the upcoming year that ensure the current and future business.

Project: Both-And Response – Integration: ITCF-A employs various integration mechanisms at the project level. Consultants in client projects and R&D allow for a synergistic mix of practical experience and research. As one manager emphasizes, *"That is part of a synergy that we want to mix working for a client and working on research, to make sure that we do research that is relevant for our clients."* This dual role enables consultants to identify client pain points and generate new ideas for R&D. R&D teams also seek feedback from trusted clients on their ideas, even in the early stages of development. One manager explains, *"Ideally this is intertwined. So, we come up with an idea and then we're trying to find a client to discuss it with. That is the management idea, to get feedback as soon as you can."* This approach ensures that current clients and client projects inform the suitability of future market offerings.

Project: More-Than Response – Transcendence: ITCF-A fuses client and R&D projects through "spearhead projects" that involve consultants working on innovative technologies and methods. These projects tackle cutting-edge topics like data science and artificial intelligence, where even large IT vendors still figure out how their solutions work in client organizations. One senior consultant emphasizes, *"it's so new that there's no recipe yet."* Spearhead projects often begin with a short experimentation phase to determine project continuation and are staffed with a single consultant to minimize financial risks. Unlike

general client projects, the problem and solution are not clearly defined at the outset, and consultants can rarely rely on their previous knowledge. While similar to internal R&D projects, spearhead projects generate short-term income as they are billable. Since these spearhead projects fuse aspects of client and R&D projects, they consist of tasks relevant to both project types. One senior consultant states that he writes blog articles on machine learning operations (MLOps) while working on client projects. Since creating the blog article's content implies learning that has enormous relevance for successfully executing the client project, he splits the hours spent on this task when tracking and booking them for the two project types.

Individual: Either-Or Response – Structural splitting: At the individual level, ITCF-A's consultants can decide whether they want to participate in R&D projects in addition to their engagement in client projects. With regard to exploration and exploitation, ITCF-A maintains two main consultant types. The first type involves engaging almost solely in client projects that rely on repetitively using current products, services, and knowledge, ensuring the current business. The second type implies that consultants are ambidextrous in working on client projects similar to the first role but also engaging in R&D projects. In addition to the two main consultant types, ITCF-A integrates students in two ways to support R&D. First, most undergraduate and graduate students hired by ITCF-A work in R&D. Furthermore, ITCF-A offers the opportunity for students to write their Bachelor's and Master's theses on an innovative topic. In this way, ITCF-B externalizes some of its R&D work to students. For instance, one of the senior consultants who previously wrote his Master's thesis with ITCF-A states, "And another thing where innovation in the idea, definitely comes from this, again from the student side. There are a lot of students writing their theses at [company name], and I was writing about the XAI (explainable AI) topic, which wasn't a topic there before and when I was finished, they even took my Master's thesis and kind of opened up a new product for [company name]. So, this has become one of the not main products, but one of the smaller products (…) used for the client, so again, this is some innovation that was taken sprightly and directly out of my thesis."

Individual: Either-Or Response – Regression: ITCF-A recognizes the importance of consultants who exclusively work on client projects, even though they rarely want to leave their comfort zone and are content with their usual work and clients. One senior manager states, *"They (…) like to do projects like this, where they say, my God, here I have a fixed framework, here I just do something and we already have a few employees who have been with the same customer for 20 years. (…) They feel great about it. They are happy there."* While these consultants may not be ambidextrous, this is not viewed negatively. In fact, this type of consultant is crucial for ensuring both short-term organizational survival and the financial resources necessary to support internal R&D projects.

Individual: Both-And Response – Vacillation and Spiraling Inversion: ITCF-A's structural splitting of client and R&D projects affects individuals who differentiate between time spent on each project type, reporting every hour worked using different posting items. Consultants constantly switch between the two contexts, mainly depending on the availability of hours they can allocate to R&D projects. One senior consultant explains, *"It was in the middle of a phase where things were actually going really well and that's why it wasn't a problem that I missed two or one and a half days a week. It was never the case that I was somehow absent all the time, it was always in the afternoon for 2 hours or 3 or maybe even in the morning, when there were no meetings with the customer."* Although several consultants work ambidextrously, the majority spend most of their time on client projects, with a small share dedicated to R&D. A co-head of an R&D team emphasizes, *"It is an opportunity to express your ideas, to explore what you like to do, (…) so it's more of an interesting offer but as a typical consultant here you spend four or five days at a client which dominates your daily experience."* They further note, *"for most consultants there is from zero to 15-20% max. 20% (…). Most of our colleagues are below that."*

Individual: Both-And Response – Balance: In ITCF-A, different mechanisms are used to balance the proportion between client and R&D projects on the individual level. First, the example given above in vacillation already indicates that individual consultants look for and use flexible time periods and leeway in client projects where the workload allows additional engagement in R&D. Second, even though ITCF-A attaches great importance to its consultants maintaining a 40-hour week, consultants sometimes work overtime to find a balance between hours spent on client and R&D projects. Third, in some cases, there is a contractual agreement between ITCF-A and the client that, for example, a consultant is only staffed four days a week for the client and one day for internal R&D activities. Fourth, consultants use the time when they are not staffed on a client project and are transitioning between a finished and a new project to work in R&D. Nevertheless, this balancing mechanism is the exception rather than the rule. Usually, there are

sufficient requests for client projects so that consultants do not have any unstaffed transition time. Furthermore, the budget of the individual R&D teams does not cover enough personal days to finance a consultant full-time on R&D for a long time. Nevertheless, the number of hours consultants can spend on R&D projects is not specified since ITCF-A wants to have the boundaries of engagement as low and flexible as possible. If consultants are eager to invest time in R&D, they should have this flexibility. Otherwise, predefining a concrete number of hours to work on R&D for every consultant can be too restrictive to those who have enough energy and time left to work in R&D. Another reason is that the workload of client projects is too volatile as it is possible to preset that every ambidextrous consultant needs to work, e.g., eight hours per week for R&D.

Individual: More-Than Response – Metacommunication: ITCF-A emphasizes the importance of communication practices and open communication when consultants pursue participation in R&D projects alongside their commitment to client projects. The head of R&D stresses that consultants must proactively communicate with respective stakeholders to identify possibilities for doing R&D work, stating that *"as consultants express their wishes, many options to handle them open up."* Consultants who wish to engage in both client and R&D projects typically meet with the head of the R&D team, the client project manager, and their supervisor to discuss various aspects. These include the R&D team's budget, the client's openness to the consultant's request, identifying project phases where R&D work is feasible, and determining specific temporal free space in the contract. They may also consider temporary overtime, which is later recompensated, and the supervisor assesses if the R&D engagement fits the consultant's development from an HR perspective. Through these discussions, they *"negotiate the priority of the demand for working on client projects and wish to do R&D work,"* and *"think about options to bring both aspects together."* Communication is crucial in navigating exploration and exploitation, not only to make the wish and involved tension explicit but also to handle the situation in the best way possible for all stakeholders.

Individual: More-Than Response – Third space and dialogue: In ITCF-A, every consultant has an HR supervisor with whom he conducts a yearly employee appraisal. In addition to general HR topics such as job satisfaction and well-being, a dialogue about participation in client projects and R&D occurs. The consultant and HR responsible plan the upcoming year and discuss potential client engagement and opportunities to learn and work in R&D.

IT Consulting Firm B (ITCF-B)

Organizational: Either-Or Response – Structural Splitting: Similar to ICTF-A, ITCF-B has two structures to navigate the demands for ensuring the current and future business. On the one hand, ITCF-A relies on a pool of consultants that can be loosely staffed on client projects. Besides, ITCF-B has an R&D area with one head and three, as they call them, chapters. While ITCF-A's head of R&D works full time to manage the R&D area, ITCF-B's head of R&D manages the R&D area in addition to the engagement in client projects. Furthermore, ITCF-B's chapters are not organized with regard to specific expertise fields such as data science, cloud computing, or quality management, but each has a particular perspective, including either business, method, or development. Although ITCF-B previously applied a similar R&D area structure like ITCF-A, they noticed this led to silo-thinking. Now, members of the different chapters can work both within their chapters and across them when different chapter perspectives are necessary to create new knowledge, concepts, or services.

Organizational: Both-And Response – Balance: ITCF-B calculates the number of billable hours they want to achieve yearly and divides it by the number of consultants, including a buffer for R&D and training engagement. The head of R&D, who co-developed the calculation model, explains: *"Each employee has 2000 target hours per year. In these 2000 target hours per year, we first deduct 240 hours because these are the 30 vacation days of 8 hours each, leaving 1760 hours, which would then be the pure working time. And if we don't assume that someone has had parental leave or works part-time or something like that, you can now apply the 80% of this 1760. That's about 1400 hours. That's exactly 1400 hours approximately, and the 20% are these 300 hours approximately, and then this is looked at annually."* Recently, ITCF-B introduced an incentive mechanism that grants a bonus for doing more client project hours, as some consultants spent more time on R&D duties than on client project activities. While this mechanism aims to find another equilibrium between hours spent on client and R&D projects, the consequences are unforeseeable since it is still in the pilot phase. ITCF-B also has a rule that consultants only work in one R&D team alongside client projects to prevent overload and ensure efficient use of R&D

time. The head of R&D explains, *"We had cases where colleagues were involved in 3 R&D teams at the same time (…) that was inefficient internally because you can't contribute everything in 3 teams if you're also involved in an external project, it doesn't work so well in terms of time."*

Project: Both-And Response – Integration: ITCF-B integrates aspects of client projects into R&D projects and vice versa through various mechanisms. Consultants who work on both project types can identify clients' pain points and address them in the R&D area. One partner and head of HR notes, *"Especially in existing projects or with existing customers, if you hear something, you pass it on."* Consultants discuss project-related issues in R&D chapters and explore potential future know-how that the customer base might need. The diverse perspectives and ideas from different customers brought by consultants engaged in R&D chapters are crucial. This ensures a close fit between client needs and the innovative outcomes produced in the R&D area. ITCF-B also tests innovative concepts, services, and methods with existing clients with whom they have established a high trust level.

Project: Both-And Response – Balance: Since most opposing demands are addressed by group work, ITCF-B employs a mechanism that helps dynamically find a balance when individuals face difficulties in finding enough time to engage in the opposite project activity. For instance, when consultants who engage in client and R&D projects have too many things to do in the client project, they communicate it to the other members of the R&D team. In this case, other team members actively develop the idea further. Once the consultant is again able to engage in R&D, he can cover for others who need time off the project. This mechanism of filling in is applied in client and R&D projects and helps both project types progress simultaneously.

Individual: Either-Or Response – Structural splitting: Similar to ITCF-A's consultants, consultants of ITCF-B are free to choose about their engagement in R&D projects besides working on client projects. Consequently, some consultants are solely active in client projects. On the other hand, some consultants are ambidextrous and work in both project types. In addition to the two main consultant types, ITCF-B uses students to study an innovative topic and write their Bachelor's and Master's theses in R&D.

Individual: Either-Or Response – Regression: Since there are consultants in ITCF-B who only work on client projects, they rarely leave their comfort zone and are content with the status quo of their expertise and knowledge. The head of R&D stresses this by stating, *"We also have colleagues who deliberately say I don't have time to work on the chapters, and my project fulfils me so much that I don't want to do it."* Similar to ITCF-A, in ITCF-B, there is the opinion that these consultants are crucial to facilitating other employees to be more active in R&D.

Individual: Both-And Response – Vacillation and Spiraling Inversion: Consultants in ITCF-B differentiate between time spent on client projects and R&D projects, using different posting items to book the time they engage in either activity. While consultants consider a split between client project and R&D project time, they are responsible for constantly shifting between these activities over time. One partner and head of HR emphasizes, *"we rely on a certain degree of personal responsibility and, also, a certain self-organization (…), it's not like it is at Google (…) we are an IT service provider, we are on the road with the client, and sometimes a project is more stressful, sometimes less stressful, so that each individual, junior consultants are certainly taken by the hand as to how they should act, but at some point from senior consultant, you have to manage this time management (…), for yourself in a certain way."* This comment highlights that consultants' temporal vacillation between project types depends on their slack time while staffed on client projects. Consultants active in R&D projects are typically full-time booked for client projects, resulting in a smaller proportion of R&D activities than client project activities.

Individual: Both-And Response – Balance: Consultants in ITCF-B apply various mechanisms to balance vacillating between client and R&D projects. For example, they take advantage of slack time on client projects to work on R&D, such as during the implementation phase when the project becomes calmer. As mentioned by one of the consultants, she actively looks at slack time in the week's schedule to block them for R&D work. Consultants not staffed on a client project at the beginning of their career or between projects also use this time for R&D. The head of R&D comments, *"There are certainly cases where you have a few weeks or two months or three months between two projects because you can't find a follow-up project straight away because for us at [company name], it's not the highest priority to get someone straight into a follow-up project, but rather the priority is to get someone in a follow-up project that suits him or that also fits in strategically with us or somehow fits in with our portfolio."* ITCF-B does not provide preset

hours for ambidextrous consultants to ensure flexibility and account for workload volatility in client projects. Although ITCF-B emphasizes a 40-hour working week, consultants do overtime for R&D. One senior consultant states, *"we are, of course, hired by the client for a certain number of hours. I say, for instance, 40 hours per week, which, of course, we also fulfill, and then we go beyond that with, I don't know, 6 hours within the R&D area."* Consultants also temporarily assume a passive role in R&D chapters when they are swamped with client work. One consultant explains, *"If you really can't actively work on topics, your input is still always welcome, and there are regular meetings to exchange ideas. (…) The change between active and passive member, that fluctuates completely."*

Individual: More-Than Response – Reflective Practice: In 2021, ITCF-B started analyzing the hours consultants spent on activities such as client and R&D projects. They created a profile of how many hours the "typical" consultant in ITCF-B worked, e.g., on client and R&D projects and training. This profile was then provided to all consultants so that they could reflect on their performance. One partner and head of HR explains, *"What was the result of this "typical consultant" evaluation? Certainly, on the one hand, to give everyone something to do and to think about what I'm doing, maybe I can get a little more involved in the R&D area because apparently, I don't do anything there; the others do more. Or vice versa, of course. I'm just doing something in the R&D area (…). So that you reflect on yourself, with real data."*

Individual: More-Than Response – Third space and dialogue: The yearly employee appraisal between the consultant and HR supervisor is a space where a dialogue of balancing and planning client and R&D projects occurs. Goals are derived and written down while discussing and planning the activities for the upcoming year. In addition, one partner and the head of HR occasionally contact consultants and seek dialogue when he has the impression that there may be an imbalance between client and R&D projects. He states, *"I'm going to check, and if, if you've only worked on the project and not much for the [company name], then I think that's something you have to talk about, but either there is a sensible reason why that was the case, or you can make plans for the future as to how you might deal with it in the future."*

Discussion

Figure 2 summarizes the paradox responses used to navigate exploration and exploitation at the organizational, project, and individual levels in the two IT consulting firms (ITCF-A and ITCF-B). The responses are color-coded: black for responses applied in both firms, blue for ITCF-A-specific responses, and orange for ITCF-B-specific responses. The following sections discuss the similarities and differences in the paradox responses between the case organizations, followed by the study's theoretical and practical contributions, boundary conditions, and limitations.

Comparing the Cases

Both cases show similarities and differences in applying paradox responses, which we subsequently discuss regarding the different levels (organizational, project, and individual). On the **organizational level**, both organizations differentiate structurally between the butter-and-bread client projects and R&D areas. Literature on exploration and exploitation stresses that this separation is important so that the exploration units can innovate and experiment outside the boundaries of the exploitative units (O'Reilly & Tushman, 2013). However, in the case of our IT consulting firms, the separation of the R&D projects from the client projects is rooted in the advantage of consultants having a safe space where they have time and space to learn new knowledge and experiment with new technologies in order to ensure successful service delivery in the future. Since trust and reputation play a crucial role in IT consulting firms receiving the mandate for executing new projects, demonstrating sufficient knowledge and skills is decisive when pitching the proposal (Maister, 1997). Concerning the difference between both cases, ITCF-A uses a strategic balance response by determining an annual R&D budget, reinvesting 10% of its annual profits last year. This clarifies the boundaries of exploration and provides balance with exploitation for the upcoming year. In contrast, ITCF-B does not define an R&D budget and previously felt less control over R&D activities. ITCF-B recently introduced a new R&D structure and a structured innovation process, including a pitch twice a year, resulting in six ongoing R&D projects. This specification allows decision-makers to have more transparency about R&D activities and sets the balance between client projects and R&D activities for half a year. During the interviews, interviewees mentioned that ITCF's R&D will celebrate its tenth anniversary. On the contrary, ITCF-B is in its ninth year of existence. In this regard, Lavie et al. (2010) state that organizational

age is an antecedent that may influence how firms balance exploration and exploitation on the organizational level.

On the **project level**, ITCF-A and ITCF-B are similar in the way they integrate aspects of one side with the other. For instance, both organizations emphasize the synergies of consultants identifying problems at the client site as a central source of inspiration for their R&D projects. Consequently, both organizations seek close relations with clients and IT service providers to anticipate upcoming IT and market trends. On the other hand, ITCF-A more strategically and actively pursues a fusion (transcendence) of aspects of exploration and exploitation.

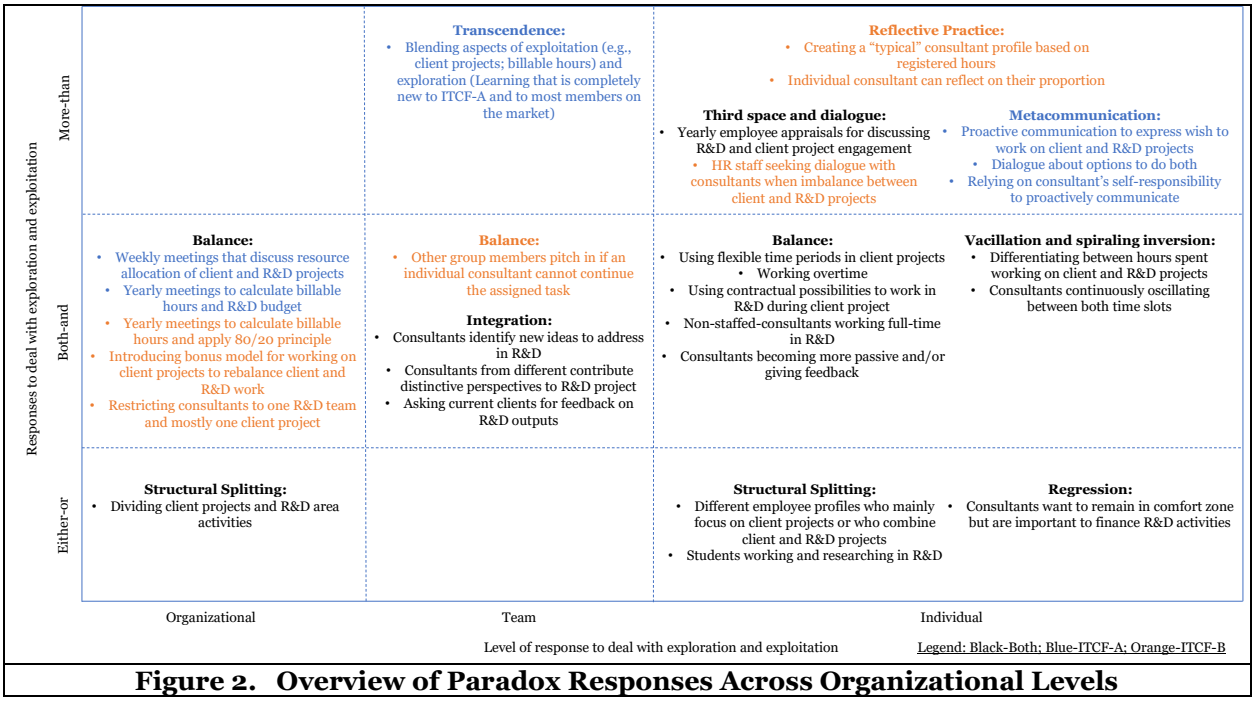

Figure 2. Overview of Paradox Responses Across Organizational Levels

With the spearhead projects, ITCF-A conducts R&D activities on billable client projects by, e.g., testing how new solutions work in practice, identifying their potential, and learning the limits of these innovations. Informants underscore the possibility of fusing exploration and exploitation, which depends on several factors. First, the industry and its number and level of regulatory requirements can stall the fusion of R&D and client projects. While ITCF-A's service portfolio is less industry-specific, ITCF-B has specialized in providing IT services to banking and insurance, which informants consider very conservative. Another factor that underpins the opportunity to fuse exploration and exploitation is the project stage, where our case organizations enter the project. Whereas ITCF-B is primarily hired when the proof of concept is written and the budget and general project conditions are settled, ITCF-A also enters projects (e.g., spearhead projects) where the proof of concept does not exist yet. Here, ITCF-A drives multiple pre-sales activities, such as presenting innovative topics (e.g., LLMs or Kubeflow) at practitioner-oriented data science conferences and in podcasts, which increases its visibility and coverage as an innovative IT consulting firm and allows the acquisition of client projects that have high R&D character.

On the **individual level**, consultants from ITCF-A and ITCF-B who work in R&D alongside client projects vacillate between the two project types. Informants mention that this approach is suitable for small and medium-sized IT consulting firms, which often lack the financial resources to hire many full-time R&D employees. As one of ITCF-A's R&D team leaders emphasizes, the R&D budget can compensate for short-term gaps in client project staffing but not for extended periods. Both organizations also employ a dynamic approach to balancing exploration and exploitation at the individual level, allowing consultants to decide whether and how much time to spend on R&D. This dynamic balance is necessary due to the volatility of the project phase-dependent workload. Interviewees from both firms stress that a consultant's stage of life (e.g., a young newcomer who is single, a parent with child care responsibilities, building a house) may influence their decision to participate in R&D alongside client projects. Another similarity is the shared

conviction that R&D work enriches the jobs of those with the intrinsic motivation to experiment with new technologies or develop new services or products (Adler & Borys, 1996). By accommodating those who focus solely on client projects and those who want to work in both project types, ITCF-A and ITCF-B meet their employees' respective needs, potentially ensuring long-term job satisfaction and commitment to the firms (Sheridan, 1992). While in both cases consultants are free to choose whether they want to exploit and explore, there are differences in the way informants describe responsibility. In ITCF-B, consultants must find a way to balance client and R&D work. In this regard, one of the partners and head of HR stresses that whereas beginners receive help to deal with both activities, experienced consultants are supposed to be able to handle them. In contrast, in ITCF-A, consultants are responsible for communicating wishes to identify options for working in R&D in addition to the client project. Another difference revolves around restricting the participation in multiple R&D teams and client projects. Whereas in ITCF-A, there is much leeway to decide how many R&D teams and individual consultants want to be active, in ITCF-B, consultants are allowed to assist in one R&D team only. ITCF-B previously allowed consultants to participate in more than one R&D team but noticed that consultants lost focus and efficiency. ITCF-B's head of R&D stresses that consultants' short and valuable time for R&D should be used as efficiently and effectively as possible.

Theoretical Contribution, Practical Implications, and Limitations

We started our study with an interest in understanding how small- and medium-sized IT consulting firms deal with the simultaneous demand for creating new knowledge and market offerings while ensuring short-term revenues. While the literature addressing this phenomenon recommends the simultaneous pursuit of exploration and exploitation activities, it proposes navigation approaches that mainly build on the idea of separation. Drawing on paradox research, our findings show that small- and medium-sized IT consulting firms apply diverse response practices across different levels, challenging this separation-based notion. Hence, our study contributes to the exploration-exploitation literature in various ways.

We show that the IT consulting firms in our sample face demands for and tensions between exploiting and exploring on different levels. While previous studies' research design mainly focused on one level only (for more details, see Kassotaki, 2022), initial studies (e.g., Andriopoulos & Lewis, 2009; Kassotaki et al., 2019; Papachroni et al., 2016) responded to Raisch and Birkinshaw's (2008) call for more multi-level studies. Similar to these multi-level studies, we show that organizational-level demands and tensions permeate the individual level. In contrast to Kassotaki et al. (2019) and Papachroni et al. (2016) we not only show demands and tensions, but also responses applied on the different level. Covering different levels also allowed us to identify that issues with ambidexterity on one level can be compensated on another level. For instance, when individuals faced temporal conflicts of working in R&D and client projects, the team level could compensate for this because another person could pitch in and take over. By doing so, R&D and client activities can simultaneously continue, which makes that exploration and exploitation on the project and organizational level keep going. This example also illustrates another surprising aspect which exploration-exploitation has not mentioned so far, namely that there are different degrees of involvement in exploration. Our results show that consultants, who are willing to do R&D but feel overwhelmed with client work temporally assume a less active role by focusing on the provision of feedback or participation in knowledge-sharing events to keep their knowledge updated. In so doing, the individual does not entirely refrain from exploration activities but tries to find a balance between exploration and exploitation by what Li (2021) calls reducing expectation. Literature on contextual factors and individual-level exploration and exploitation assumes that individuals "make their judgment about how to divide their time between conflicting demands" (Gibson & Birkinshaw, 2004). However, our results in the context of IT consulting firms suggest that pursuing exploration and exploitation at the individual level depends on external factors such as the client project phase, workload volatility, and the consultant's stage of life. Furthermore, our IT consulting firms do not provide a fixed proportion of exploration and exploitation, ensuring flexibility and freedom for individual consultants. These results indicate that dynamic balancing of exploration and exploitation is not only an issue at the organizational level (Luger et al., 2018) but also at the project and individual levels. By emphasizing the dynamic nature of balancing exploration and exploitation at the individual level, we add to research that mainly focuses on dynamism (Luger et al., 2018) and time (Mathias et al., 2018) at the organizational and managerial levels.

We also contribute to the literature applying a paradox lens to the exploration-exploitation phenomenon. Building on W. K. Smith and Lewis (2011), previous studies (Andriopoulos & Lewis, 2009; Gregory et al., 2015) often applied differentiation and integration responses. By relying on Putnam et al.'s (2016) and

Fairhurst and Putnam's (2024) categorization, we illustrate that our case organizations use approaches that involve and go beyond integration (both-and) and differentiation (either-or). ITCF-A and ITCF-B apply balancing, transcendence, and dialogue and communication practices in addition to differentiation and integration responses. Berti and Cunha (2022) argue that most paradox studies advocate for 'one best way' (often both-and) to deal with paradoxes, limiting the potential of a conceptual lens that aims to deepen our theorizing on dealing with oppositions like exploration and exploitation. Our study addresses this point by identifying that our case organizations apply either-or, both-and, and more-than responses on different levels. This indicates that a portfolio of responses from different categories is necessary to navigate exploration and exploitation activities. In this regard, we answer Fairhurst and Putnam's (2024) call for more studies that research repertoires of responses to navigate seemingly opposing elements. Although our study shows that IT consulting firms in our sample apply either-or, both-and, and more-than responses, the applicability of some approaches may differ based on multiple factors. For instance, on the project level, ITCF-A can use a transcendence response by fusing aspects of R&D (exploration) and client projects (exploitation), in contrast to ITCF-B. As illustrated in the results section, the reasons are related to factors such as industry, type of clients, level of trust with clients, project type, and point of project entry. To the best of our knowledge, the influence of these factors on the possibility of transcendence has yet to be discussed in the literature at the intersection of exploration-exploitation and paradox.

Our study also has important implications for practitioners. First, our results show that IT consulting firms and general organizations need to be aware of the exploration- and exploitation-related demands and tensions that permeate the whole organization, and their navigation requires a portfolio of distinct responses on various levels. Second, our study shows that temporary issues of balancing exploration and exploitation on the individual level can be handled on the project level to pursue organizational ambidexterity. Third, while individual consultants are responsible for vacillating between exploration and exploitation, communication and dialogue practices are crucial to support and find a balance. In this regard, communication and dialogue first makes the hidden wish explicit and open up a field of possibilities. Second, dialogue and communication help negotiate and prioritize the options within the organization and with clients. Hence, it is important for organizations to establish a culture of open communication and dialogue. Fourth, organizations that want to pursue a transcendence of exploration and exploitation should reflect aspects such as the industry, project types, the timing of project entry, and the organizational size. Our findings offer significant insights into how small and medium-sized IT consulting firms utilize paradox research responses to navigate exploration and exploitation simultaneously. However, it has limitations that future research can address. First, the exploratory nature of our in-depth multi-case study of two IT consulting firms necessitates further work to verify, revise, and advance our findings to ensure broader generalizability. Second, our sample consists of IT consulting firms with a dedicated R&D structure, raising the question of how firms without such a structure pursue exploration and exploitation from a paradox lens. Future research can use our framework to analyze and compare IT consulting firms with and without a dedicated R&D structure. Third, the transferability of our findings to large IT consulting firms remains to be determined, as our cases are small and medium-sized organizations. Future studies can investigate how the paradox research responses differ between small, medium-sized, and large IT consulting firms. One IT consulting firm we investigated recently began diversifying its portfolio by developing its own products, involving a different approach to development, testing, client engagement, and marketing. As this development is still in its early stages, we could not identify its impact on the responses to navigate exploration and exploitation. Future studies may compare the influence of innovating product and service portfolios on exploration-exploitation responses over time.

Conclusion

Focusing on two small and medium-sized IT consulting firms, we empirically identified different demands and tensions they face when pursuing exploration and exploitation simultaneously. Building on paradox research and the analyzed empirical data, we developed an overview and classification of various approaches these IT consulting firms use to navigate exploration and exploitation. Our main contribution to the extant literature at the intersection of exploration-exploitation and paradox, which primarily focused on either-or or both-and responses, is providing a framework of a repertoire of responses used on different levels. We also provide explanations of why our case organizations applied certain responses. With our study, we hope to motivate future research on repertoires of responses to navigate exploration and exploitation.

References

Adler, P. S., & Borys, B. (1996). Two Types of Bureaucracy: Enabling and Coercive. *Administrative Science Quarterly*, *41*(1), 61–89.

Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-Exploration Tensions and Organizational Ambidexterity: Managing Paradoxes of Innovation. *Organization Science*, *20*(4), 696–717.

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

Berti, M., & Cunha, M. P. E. (2022). Paradox, Dialectics or Trade-Offs? A Double Loop Model of Paradox. *Journal of Management Studies*, *60*(4), 861–888.

Berti, M., Simpson, A. V., Cunha, M. P. E., & Clegg, S. (2021). *Elgar introduction to organizational paradox theory*. Edward Elgar Publishing Limited.

Bledow, R., Frese, M., Anderson, N., Erez, M., & Farr, J. (2009). A Dialectic Perspective on Innovation: Conflicting Demands, Multiple Pathways, and Ambidexterity. *Industrial and Organizational Psychology*, *2*(3), 305–337.

Bloomfield, B. P., & Danieli, A. (1995). The Role of Management Consultants in the Development of Information Technology: The Indissoluble Nature of Socio-political and Technical Skills. *Journal of Management Studies*, *32*(1), 23–46.

Boumgarden, P., Nickerson, J., & Zenger, T. R. (2012). Sailing into the wind: Exploring the relationships among ambidexterity, vacillation, and organizational performance. *Strategic Management Journal*, *33*(6), 587–610.

Bryman, A., & Bell, E. (2015). *Business research methods* (Fourth edition). Oxford University Press.

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

Dixon, J., Brohman, K., & Chan, Y. (2017). Dynamic Ambidexterity: Exploiting Exploration for Business Success in the Digital Age. In *Proceedings of the 38th International Conference on Information Systems,* Seoul, Korea.

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

Fairhurst, G. T., & Putnam, L. L. (2024). *Performing organizational paradoxes*. *Routledge studies in communication, organization, and organizing*. Routledge.

Gibson, C. B., & Birkinshaw, J. (2004). The Antecedents, Consequences, and Mediating Role of Organizational Ambidexterity. *Academy of Management Journal*, *47*(2), 209–226.

Gregory, R. W., Keil, M., Muntermann, J., & Mähring, M. (2015). Paradoxes and the Nature of Ambidexterity in IT Transformation Programs. *Information Systems Research*, *26*(1), 57–80.

Groysberg, B., & Lee, L.-E. (2009). Hiring Stars and Their Colleagues: Exploration and Exploitation in Professional Service Firms. *Organization Science*, *20*(4), 740–758.

Jarzabkowski, P. A., Lê, J. K., & van de Ven, A. H. (2013). Responding to competing strategic demands: How organizing, belonging, and performing paradoxes coevolve. *Strategic Organization*, *11*(3), 245–280.

Kassotaki, O. (2022). Review of Organizational Ambidexterity Research. *SAGE Open*, *12*(1).

Kassotaki, O., Paroutis, S., & Morrell, K. (2019). Ambidexterity penetration across multiple organizational levels in an aerospace and defense organization. *Long Range Planning*, *52*(3), 366–385.

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

Li, X. (2021). Solving Paradox by Reducing Expectation. *Academy of Management Review*, *46*(2), 406–408.

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

Luger, J., Raisch, S., & Schimmer, M. (2018). Dynamic Balancing of Exploration and Exploitation: The Contingent Benefits of Ambidexterity. *Organization Science*, *29*(3), 449–470.

March, J. G. (1991). Exploration and Exploitation in Organizational Learning. *Organization Science*, *2*(1), 71–87.

Mathias, B. D., Mckenny, A. F., & Crook, T. R. (2018). Managing the tensions between exploration and exploitation: The role of time. *Strategic Entrepreneurship Journal*, *12*(3), 316–334.

Miles, M. B., & Huberman, A. M. (2009). *Qualitative data analysis: An expanded sourcebook* (2nd Edition). SAGE.

Mu, T., van Riel, A., & Schouteten, R. (2020). Individual ambidexterity in SMEs: Towards a typology aligning the concept, antecedents and outcomes. *Journal of Small Business Management*, 1–32.

Myers, M. D. (2013). *Qualitative research in business et management* (2nd Edition). SAGE.

Myers, M. D., & Newman, M. (2007). The qualitative interview in IS research: Examining the craft. *Information and Organization*, *17*(1), 2–26.

Nordenflycht, A. von (2010). What Is a Professional Service Firm? Toward a Theory and Taxonomy of Knowledge-Intensive Firms. *Academy of Management Review*, *35*(1), 155–174.

Noy, C. (2008). Sampling Knowledge: The Hermeneutics of Snowball Sampling in Qualitative Research. *International Journal of Social Research Methodology*, *11*(4), 327–344.

Oesterle, S., Buchwald, A., & Urbach, N. (2022). Investigating the co-creation of IT consulting service value: Empirical findings of a matched pair analysis. *Electronic Markets*, *32*(2), 571–597.

O'Reilly, C. A., & Tushman, M. L. (2013). Organizational Ambidexterity: Past, Present, and Future. *Academy of Management Perspectives*, *27*(4), 324–338.

Papachroni, A., Heracleous, L., & Paroutis, S. (2015). Organizational Ambidexterity Through the Lens of Paradox Theory. *The Journal of Applied Behavioral Science*, *51*(1), 71–93.

Papachroni, A., Heracleous, L., & Paroutis, S. (2016). In pursuit of ambidexterity: Managerial reactions to innovation–efficiency tensions. *Human Relations*, *69*(9), 1791–1822.

Poole, M. S., & van de Ven, A. H. (1989). Using paradox to build management and organization theories. *Academy of Management Review*, *14*(4), 562–578.

Putnam, L. L., Fairhurst, G. T., & Banghart, S. (2016). Contradictions, Dialectics, and Paradoxes in Organizations: A Constitutive Approach †. *Academy of Management Annals*, *10*(1), 65–171.

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

Revilla, E., & Rodríguez-Prado, B. (2018). Bulding ambidexterity through creativity mechanisms: Contextual drivers of innovation success. *Research Policy*, *47*(9), 1611–1625.

Robinson, O. C. (2014). Sampling in Interview-Based Qualitative Research: A Theoretical and Practical Guide. *Qualitative Research in Psychology*, *11*(1), 25–41.

Sarker, S., Xiao, X., Beaulieu, T., & Lee, A. (2018). Learning from First-Generation Qualitative Approaches in the IS Discipline: An Evolutionary View and Some Implications for Authors and Evaluators (Part 1/2). *Journal of the Association for Information Systems*, *19*(8).

Schad, J., Lewis, M. W., Raisch, S., & Smith, W. K. (2016). Paradox research in management science: Looking back to move forward. *Academy of Management Annals*, *10*(1), 5–64.

Sheridan, J. E. (1992). Organizational Culture and Employee Retention. *Academy of Management Journal*, *35*(5), 1036–1056.

Skjølsvik, T., Løwendahl, B. R., Kvålshaugen, R., & Fosstenløkken, S. M. (2007). Choosing to Learn and Learning to Choose: Strategies for Client Co-Production and Knowledge Development. *California Management Review*, *49*(3), 110–128.

Smith, A., David H., & Sutherland, F. (2017). The explore–exploit tension: A case study of organizing in a professional services firm. *Journal of Management & Organization*, *23*(4), 566–586.

Smith, W. K. (2014). Dynamic Decision Making: A Model of Senior Leaders Managing Strategic Paradoxes. *Academy of Management Journal*, *57*(6), 1592–1623.

Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of Management Review*, *36*(2), 381–403 (Academy of Management Review, 36(2), 381-403).

Tushman, M. L., & O'Reilly, C. A. (1996). Ambidextrous Organizations: Managing Evolutionary and Revolutionary Change. *California Management Review*, *38*(4), 8–29.

Voss, G. B., & Voss, Z. G. (2013). Strategic Ambidexterity in Small and Medium-Sized Enterprises: Implementing Exploration and Exploitation in Product and Market Domains. *Organization Science*, *24*(5), 1459–1477.

Wenke, K., Zapkau, F. B., & Schwens, C. (2021). Too small to do it all? A meta-analysis on the relative relationships of exploration, exploitation, and ambidexterity with SME performance. *Journal of Business Research*, *132*, 653–665.

Yoon, C., Lee, K., Yoon, B., & Toulan, O. (2017). Typology and Success Factors of Collaboration for Sustainable Growth in the IT Service Industry. *Sustainability*, *9*(11), 2017.