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## THE EFFECTS OF INTRAPRENEURSHIP PROGRAMS ON DIGITAL TRANSFORMATION – A MULTIPLE CASE STUDY

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# THE EFFECTS OF INTRAPRENEURSHIP PROGRAMS ON DIGITAL TRANSFORMATION – A MULTIPLE CASE STUDY

*Completed Research Paper*

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## Abstract

*Despite extensive scholarly inquiry, organizations still face formidable impediments during the process of digital transformation. While research emphasizes the importance of intrapreneurial competencies and the role of individual employees, organizations struggle to leverage their employees' potential for innovation and change. This study engages in a multiple-case analysis to elucidate the role of intrapreneurship programs in fostering digital transformation. Our findings reveal that intrapreneurship programs have multi-level effects on digital transformation beyond the development of new ventures. We identify that failed projects foster participants' competencies, cultural, structural, and technological changes, and learning capabilities within the organization. Our results question the meaning of failure in digital transformation and intrapreneurship research and position intrapreneurship programs as practical means for digital transformation.*

*Keywords: Digital Transformation, Intrapreneurship, Case Study, Failure*

## 1 Introduction

In contrast to former transformations, Digital transformation (DT) is not a one-time change but a continuous transformation towards a state that enables organizations to innovate and adapt to the ever-changing business environment driven by digital technologies (Hanelt et al., 2021). Despite the wealth of knowledge accumulated in recent years, organizations face significant challenges to achieve such a state (Haskamp et al., 2021; Poláková-Kersten et al., 2023), and stories of failed DT are pervasive (e.g., Morgan, 2019). Employee resistance, organizational inertia, and the lack of skills contribute to these challenges (Haskamp et al., 2021). While the role of leadership has been thoroughly discussed (Tumbas et al., 2017), the role of ordinary employees remains vague in DT literature.

Intrapreneurship programs represent one means to foster a culture encouraging adaptability and innovation (Reibenspiess et al., 2019), and have proven effective in driving innovation and preparing organizations for change (Vassilakopoulou and Grisot, 2020). However, nearly 90% of corporate venturing programs do not reach their intended goals (Onetti, 2021; Shepherd et al., 2013), typically assessed based on revenue (Gutmann, 2019; Neessen et al., 2019). Thus, many organizations question

the investment in such programs (Onetti, 2021). However, research from other fields, such as education, suggests that failure inherits significant learning effects on individuals (Darabi et al., 2018). Accordingly, participants of intrapreneurship programs who do not achieve their goal of developing a new venture still acquire intrapreneurial competencies, e.g., proactiveness, networking, and risk-taking (Neessen et al., 2019). Intrapreneurial competencies have been claimed to be essential in today's rapidly evolving business environment. For example, Blanka et al. (2022) argue that employees need intrapreneurial competencies to apply digital expertise favoring DT, which, based on the elements and interrelationships of the DT process identified by Vial (2019), are also fundamental to DT success.

Evaluating intrapreneurship solely based on direct effects overlooks the transformative potential of intrapreneurship programs, even in the case of failed projects (Ambos & Tatarinov, 2022). The conceptualization of DT as a continuous change in a continuously changing business environment challenges the assumption that failure is inherently negative. As DT is about continuous learning and adaptation, intrapreneurship programs offer opportunities for employees and organizations to develop much-needed competencies. So far, intrapreneurship programs and DT have been investigated separately. A thorough examination could help understand the interplay of intrapreneurship programs and DT. Thus, we ask:

*How do intrapreneurship programs contribute to digital transformation?*

We employed a multiple case study involving five organizations in Germany and Switzerland (Yin 2018). We derived five effects of intrapreneurship programs on DT: Effects on (1) organizations' cash flow through successful (digital) innovations, (2) participants acquiring personal, social, methodological, and technical competencies, (3) organization's learning capability, (4) cultural, structural, and technological changes, and (5) motivation, retention, and hiring of employees. In this regard, intrapreneurship programs act as a mechanism to learn much-needed competencies on the individual level and contribute to organizational change, even when individual projects fail. Our results imply that intrapreneurship programs yield benefits for DT efforts. While the effects are not necessarily novel and may have contributions beyond DT, we argue that the novelty and relevance lie in structuring them along with the necessities of DT. Thus, our study contributes to the existing body of DT research by adding descriptive knowledge on the value of intrapreneurship programs, integrating intrapreneurship and DT research, and challenging existing knowledge on the notion of failure.

## **2 Theoretical Background**

### **2.1 Digital Transformation**

DT refers to the profound and comprehensive changes that organizations undergo in response to the pervasive influence of digital technologies on various aspects of their operations, processes, products, and services (Vial, 2019) and involves a fundamental shift in an organization's culture and capabilities (Grover et al., 2022). Employees are crucial for DT because they are not only the users and developers of digital technologies but also enablers or inhibitors of the associated organizational transformation (Blanka et al., 2022). For example, today's (digital) business environment requires fast, and thus, decentralized decisions. Thus, employees need to take on new roles and responsibilities, necessitating empowerment, a sense of ownership and engagement (Bitzer et al., 2021), the relevant information, and digital skills and tools to perform their jobs effectively (Mikalef et al., 2021). Further, employees possess valuable insights and domain expertise that can contribute to the identification of innovative ideas and solutions (Reibenspiess et al., 2022). Involving employees in the DT process encourages a culture of innovation, where ideas are generated, tested, and refined collaboratively (Grover et al., 2022; Reibenspiess et al., 2022). Employees should serve as change agents within their respective roles and departments. Their active participation and advocacy for digital initiatives can drive organizational-wide adoption and acceptance of digital technologies, minimizing resistance and accelerating transformation (Blanka et al., 2022). DT is a dynamic process that requires organizations to learn, adapt, and evolve continuously (Hanelt et al., 2021). Employees play a vital role in this process by embracing a growth

mindset, adopting new working methods, and constantly updating their skills (Neessen et al., 2019) to keep pace with technological advancements (Martin-Rojas et al., 2019). As employees act as the interface between the organization and its customers, organizations must foster a customer-centric mindset, enabling them to understand and respond to evolving customer needs. In summary, employees are integral to DT initiatives. Engaging and empowering them is critical for organizations to effectively navigate the complexities of DT (Bitzer et al., 2021). While the literature addresses the changing role of employees and the need for innovation, we lack methods and strategies to leverage employee's full potential for DT.

## **2.2 Intrapreneurship**

As innovation has become imperative, organizations have opened the innovation process beyond R&D departments. As such, the concept of *open innovation* has emerged. Open innovation refers to a decentralized process characterized by purposeful management of knowledge exchange across organizational boundaries, including various stakeholders in the value-creation process, e.g., customers and suppliers (Chesbrough & Bogers, 2014). In contrast to open innovation, *intrapreneurship* is an internally focused innovation concept, referring to employees who act like entrepreneurs inside organizational boundaries (Pinchot, 1985). Intrapreneurial behavior is characterized by proactiveness, networking, risk-taking, innovativeness, and opportunity recognition and exploitation (Neessen et al., 2019). By empowering employees to make decisions and implement their ideas, organizations tap into the untapped potential of their workforce and create an environment that encourages experimentation and risk-taking (Reibenspiess et al., 2022). Research has shown that organizations encouraging intrapreneurship benefit from increased adaptability (Blanka et al., 2022).

*Intrapreneurship programs* are a vehicle to foster intrapreneurial behavior (Ghura & Erkut, 2021), e.g., through processual guidance (Desouza, 2017), methodological support (Menzel et al., 2007), and digital collaboration tools (Reibenspiess et al., 2022). These programs allow individuals to benefit from the organization's resources and stability (Blanka, 2019). As employees collaborate across departments and disciplines, these programs promote a culture of collaboration, knowledge sharing, and continuous learning (Menzel et al., 2007). Intrapreneurship projects are usually assessed by the (expected) revenue (Benbya & Leidner, 2018). A successful project leads to product, service, or process innovations (Neessen et al., 2019), business model innovations, or corporate ventures (Masucci et al., 2021). Like the high failure rate of ventures (Soto-Simeone et al., 2020), most intrapreneurship projects fail, thus questioning investments in intrapreneurship programs (Onetti, 2021).

However, beyond the potential to develop novel business models and product, service, and process innovations directly impacting organizations' cash flow (Gutmann, 2019; Neessen et al., 2019), intrapreneurship programs might also contribute to the innovativeness of individuals and organizations and, thus, organizations' DT. Blanka et al. (2022) show that intrapreneurial competencies greatly benefit DT, i.e., intrapreneurial and digital competencies on the individual level contribute to organizational capability development. Which intrapreneurial competencies help organizations achieve these organizational capabilities for DT remains unclear. Moreover, intrapreneurship research typically focuses on organizational outcomes and less on the impacts of employees in intrapreneurial projects and on the organizational effects of intrapreneurship programs. It neglects second-order effects, e.g., through employees who fail with their projects but bring their learnings back to the organization. We propose that employees who have engaged in an intrapreneurship program, even if their project did not deliver the initially aspired outcome, have acquired methods, skills, and a mindset benefiting DT. Although both intrapreneurship programs and the challenges of DT overlap in terms of content and structure, we lack an integrated view. In particular, the logic and forms of existing and possible interactions require in-depth consideration.

## 3 Methodology

### 3.1 Case Selection

Our study focuses on organizations that have implemented intrapreneurship programs. We selected the organizations based on four criteria (Wu et al., 2022): (1) size of the organizations, (2) diversity in intrapreneurship programs, (3) experience with intrapreneurship programs, (4) focus on digital intrapreneurship, and (5) data accessibility. (1) We selected organizations with diverse employee numbers to ensure a representative sample. Intrapreneurship programs are predominantly found in established organizations (Pinchot & Soltanifar, 2021; Reibenspiess et al., 2022). Thus, our sample consists of organizations with over 5,000 employees (for details, see Table 1). (2) To ensure generalizability, we selected organizations with different intrapreneurship program setups and industry backgrounds. (3) To adhere to the principles of typicality, we selected organizations with experience in intrapreneurship (Wu et al., 2022). Thus, the programs had to run for at least one year to draw valid conclusions about impact. (4) We select cases where digital technologies play a major role in the process of the intrapreneurship program or as an essential part of the aspired innovations. (5) Since data accessibility was crucial, we developed a structured database to identify organizations with intrapreneurship programs in German-speaking countries. We then contacted possible candidates, describing the research objectives, required materials, and the estimated scope of the inquiry. Then, we conducted online pre-interviews to assess the eligibility of the case organization and their willingness to participate in multiple interviews on the topic.

### 3.2 Case Description

Our study comprises five organizations: **Case A** represents the automotive industry. Their intrapreneurship program is a full-time program spanning nine months, conducted outside corporate boundaries in a different city. Employees need to apply for the program and are then selected based on their motivation and diversity in background. After being accepted to the program, employees move to a city away from the mother organization's headquarters and live with other intrapreneurs for nine months in an arranged setting. The setting strives to intensify the learning experience and focus of the employees. The program has been running for seven years and aims to teach entrepreneurial methods and foster new business development. The case company uses digital tools in their process and the focus is only on digital innovations. Accordingly, employees are not allowed to develop analog innovations in the program. **Case B** offers insurance services. Their intrapreneurship program allows employees to remain in their original jobs and work part-time as intrapreneurs, starting at 20%. The time commitment can intensify to 100%, depending on the project's outcome. The program has been operating for five years and aims to drive new business development. The company uses a digital intrapreneurship platform. They run campaigns in the company to specifically nudge employees into developing innovations for a specific field, e.g., digital innovations for the automotive industry. The company focuses on developing digital innovations. **Case C** is a retail and consumer goods conglomerate manufacturing household and commercial appliances. The organization's intrapreneurship program is part-time and lasts at least eight months within the corporate boundaries. The program has been running for over two years and aims to promote new business development and teach an entrepreneurial mindset. The company uses no specific digital intrapreneurship platform but uses digital tools for prototyping. There is no focus on digital innovations, i.e., also analog innovations are allowed, however, most innovations leverage digital technologies. **Case D** represents the media and telecommunications industry, specifically mobile and internet services. Their intrapreneurship program allows part-time intrapreneurs to allocate 20% to 100% of their working time to innovation alongside their day-to-day jobs. The program has been operating for nine years and aims to drive new business development and cultural transformation. The company also uses a digital intrapreneurship platform to organize the process. While analog innovations are also allowed, innovations based on digital technologies are in the focus. **Case E** belongs to the banking industry and focuses on consumer banking, including cards and loans. The organization's intrapreneurship program enables intrapreneurs to initiate projects alongside

their day-to-day job, beginning at 20% innovation time. This time commitment can also increase to 100%, depending on the project's outcome. The program has been running for six years and aims to drive new business development and cultural transformation within the organization. The company also uses a digital intrapreneurship platform to organize the process. While analog innovations are also allowed, innovations based on digital technologies are in the focus.

These case descriptions highlight the diversity among the selected organizations in terms of industry, number of employees, years of operating an intrapreneurship program, and the nature of their intrapreneurship program. While all cases share the objective of promoting new business development and have some sort of focus on digital technologies as part of the innovation, there are differences in program types (full-time vs. part-time), program locations (within corporate boundaries vs. outside the corporate boundaries), and strategic goals (teaching entrepreneurial methods, fostering cultural transformation, and developing an entrepreneurial mindset).

| Case | Industry                   | Employees       | Program Type                                       | Years of Operation | Program Objective                             |
|------|----------------------------|-----------------|----------------------------------------------------|--------------------|-----------------------------------------------|
| A    | Automotive                 | > 50,000        | Full-time; nine months, outside corporate boundary | 7                  | Entrepreneurial methods, business development |
| B    | Insurance                  | < 10,000        | Part-time, 20%-100% next to the regular job        | 5                  | Business development                          |
| C    | Retail                     | 10,000 – 50,000 | Part-time; > eight months                          | 2,5                | Business development, entrepreneurial mindset |
| D    | Media & Tele-communication | 10,000 – 50,000 | Part-time, 20%-100% next to the regular job        | 9                  | Business development, cultural transformation |
| E    | Banking                    | 10,000 – 50,000 | Part-time, 20%-100% next to the regular job        | 6                  | Business development, cultural transformation |

Table 1. Information on case organizations

### 3.3 Data Collection

We structured the process into four steps. Within the *first step*, we chose the data collection method. As Yin (2018) suggested, we selected semi-structured interviews as the primary data source. We analyzed additional documents related to the organization's intrapreneurship programs and DT strategy for data triangulation. Further, we included each organization's annual report for analysis. In the *second step*, we chose the interviewees. The selection of interviewees followed specific criteria, aiming to include different perspectives, i.e., employees responsible for the organization's intrapreneurship program and the organization's DT. Occasionally, these roles overlapped within the same departments. We strived to interview at least one C-level management employee in each organization to gain insight into the strategic connection between intrapreneurship and DT. In the *third step*, we prepared the interviews by developing a semi-structured interview guideline. We developed this guideline based on a broad research question (i.e., "How are intrapreneurship programs connected to DT?"), and structured it based on initial theoretical concepts related to intrapreneurship programs, DT, and their connection. We reviewed and modified the guideline in consultation with an intrapreneurship expert from practice. In the first part of the interviews, we asked how the organization understood and enabled intrapreneurship. We also asked for the effects the organization recognizes from intrapreneurship. We asked for the organization's DT strategy and endeavors in the second part. In the third part, we strived to understand the interaction of the two phenomena, comprehend how the organization strategically positioned intrapreneurship, and conceptualize the connection between its intrapreneurship activities and its DT goals.

| Case                     | Position of interviewees                                 | Length (min) |
|--------------------------|----------------------------------------------------------|--------------|
| A<br>(Automotive)        | Head of Digitalization Department                        | 72           |
|                          | Project Lead: Digitalization Department                  | 40           |
|                          | Project Member: Digitalization Department                | 45           |
|                          | Venture Developer at Intrapreneurship Program            | 81           |
|                          | Head of Technical Innovation Management                  | 43           |
|                          | Head of Intrapreneurship Program                         | 30           |
| B<br>(Insurance)         | Innovation Manager                                       | 90           |
|                          | Senior Manager Ecosystem                                 | 72           |
|                          | Innovation Manager                                       |              |
|                          | Group Strategy & Digital Transformation                  | 82           |
|                          | Guild Owner IT Architecture                              | 60           |
|                          | Chief Technology Officer (CTO)                           | 30           |
| C<br>(Home appliances)   | Director Intrapreneurship                                | 60           |
|                          | Senior Incubation Manager at Intrapreneurship Program    | 82           |
|                          | Head of Organizational Development and Talent Management | 49           |
|                          | Director Digital Innovation                              | 48           |
| D<br>(Telecommunication) | Chief Executive Officer (CEO)                            | 85           |
|                          | Chief Digital Officer (CDO)                              | 65           |
|                          | Head of Exploration                                      | 54           |
|                          | Head of Intrapreneurship                                 | 50           |
|                          | Lead Digital Transformation                              | 71           |
|                          | Chief Learning Officer (CLO)                             | 25           |
| E<br>(Banking)           | Lead Digital Transformation and Intrapreneurship Program | 92           |
|                          | Lead Client Experience Digital Transformation Stream     | 53           |
|                          | Director Digital Business                                | 50           |
|                          | New Business Innovator                                   | 52           |

Table 2. Information on interviewees

In the *fourth step*, we conducted the case interviews between January 2022 and April 2022, ranging from 30 to 90 minutes (for details, see Table 2). We refined and specified the interview guidelines throughout the data collection and analysis process to align with the research question addressed in this paper (Gioia et al., 2013). All interviews were recorded and transcribed by a service agency. During the interviews, one researcher asked the interview questions while the other researcher took field notes for later analysis.

### 3.4 Data Analysis

We conducted an exploratory coding approach following the principles of Gioia et al. (2013). The dataset comprised 64 documents, including 26 interview transcripts and 38 additional documents. We initiated the data analysis during the interview phase and adapted our approach iteratively based on the interplay of data analysis and data collection (Gioia et al. 2013). Our coding process consisted of six steps, which we repeated iteratively (Figure 1). In the first step, we attached open codes to the transcripts, representing the specific word choice of the interviewees. At this point, we pursued a case-by-case data analysis. In total, we generated 2297 codes across the five cases. Due to the number of codes, we clustered these codes into five overarching themes in the second step. These themes were close to the overarching topics covered in the semi-structured interview guideline: intrapreneurship approaches,

intrapreneurship goals, intrapreneurship effects, DT strategy and activities, and organizational challenges related to DT. We decided to continue with the codes regarding intrapreneurship effects, as these seemed the most insightful. We extracted the 277 codes regarding intrapreneurship effects in the third step. We aimed to identify similarities in effects and occurrence patterns (Yin 2018). Thus, we aggregated the findings across the cases to create a cross-case synthesis (Yin 2018). In the fourth step, we followed Gioia et al.'s (2013) recommendation to use the informants' terms and merged identical codes to smoothen the data analysis process, resulting in 158 first-order concepts. In the fifth step, we grouped these concepts into 48 second-order themes. During this step, we recognized a pattern and, thus, clustered the concepts into individual and organizational themes. We derived 14 aggregate dimensions by iterating between first-order concepts and second-order themes. The aggregate dimensions refer to intrapreneurship programs' individual and organizational effects on DT. In the following, we describe and discuss our findings.

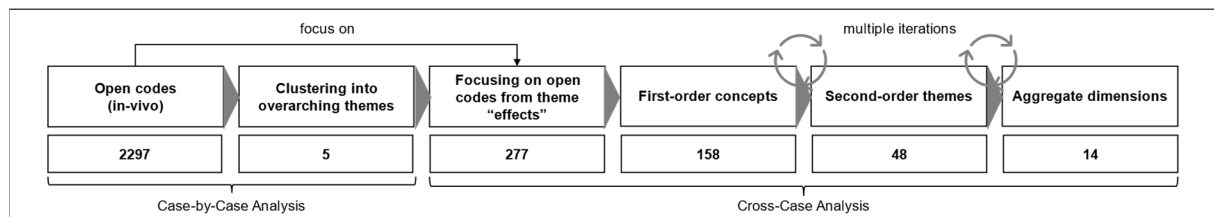


Figure 1. Data analysis process

## 4 Results

Our results imply that intrapreneurship programs affect organizations and promote organizational transformation, independent of the success or failure of individual projects. While successful projects lead to innovations (embodied by new ventures), so-called failed projects affect organizations because participants learn competencies that enable them to innovate when returning to their day-to-day work. In contrast to traditional training, the learnings stick better through the employees' intrinsic motivation and the hands-on attitude in the intrapreneurship program. *"We have also felt that it has a transformational dimension. We are contributing to the organization's transformation. Not [...] in the sense of digitalization, i.e., that we are now making the organization extremely digital, but above all because we promote the skillset and the mindset of the people, the way of working we experience here. We now have almost 150 alumni who took part in the program and who, when they return, continue to live this spirit in their core organization and thus also contribute to the transformation of the entire organization."* (Head of Intrapreneurship Program, Automotive). In our study, we recognize effects of both successful and failed projects. Regarding successful projects, we refer to **effects on cash flow through innovation**. In the following, we focus on the effects of failed projects. We distinguish between **effects on participants acquiring competencies** (Section 4.1), **effects on organizations' learning capability** (Section 4.2), **effects on the organization through cultural, structural, and technological changes** (Section 4.3), and **effects on motivation, retention, and hiring** (Section 4.4).

### 4.1 Effects on Participants Acquiring Competencies

The data shows that the participants adopt *personal, social, methodological, and technical* competencies. Back at their regular jobs, these participants can develop digital solutions much faster and stay independent of IT service departments, increasing project autonomy and speed.

#### 4.1.1 Personal Competencies

Employees learn to take **ownership**, which means they learn to be proactive and take responsibility for their actions. *"It's like a big maze for me, intrapreneurship, and every time you realize, oh, I have this new issue, and ask yourself: how do I solve that? And then, you talk to people, search, discuss, try, find*



*a way, and go to the next step and: oh, second maze. So, you learn a lot about empowerment because only you can find the solution. Of course, with the help of others. But in the end, it's your judgment call to see how to go about things.” (Innovation Manager, Insurance).*

Further, employees are triggered to reflect on their strengths, limits, and the skills they need from other team members. Consequently, employees increase their **reflectivity** and challenge the status quo, which helps an organization improve constantly. *“Yes, in some areas, we are just a part of it, but still, we try to act in a mindset as if we own the entire product. It's not always easy, and we don't always succeed. Even though everything may seem easy and great, we are not perfect. We have our difficulties, too. But that helps me realize that if I'm just a small cog, I should also act accordingly. If I dare to question other things or at least aspire to understand them, I think it helps improve the small cog and contribute better to the bigger picture.” (Director Digital Innovation, Home Appliances).*

Further, employees learn how to cope with negative feedback, which fosters their **resilience**. The experience teaches employees to let go of failed projects, seeing this as an educational experience for future innovation. *“Knowing what I can do but also recognizing my limits and a certain level of resilience so that even if something goes wrong, I know who I am and can quickly move on without letting it bring me down. I believe these are the most important ones. Maybe a little bit of courage that goes hand in hand with it.” (Director Intrapreneurship, Home Appliances).*

Our interview partners emphasize that participants of intrapreneurship programs develop the competency to tackle the unknown and navigate in **volatile, uncertain, complex, and ambiguous (VUCA) environments**, including the **adaptability** to change. *“We will increasingly need people who can cope with the complexity and, most importantly, adapt. When you do intrapreneurship, I think you learn that the hard way because you keep on hitting walls and have to find a solution. [...] If you look at the people who are doing such kind of experience or program, they will be more likely to succeed in different roles or to adapt and cope with this environment because it's kind of a crash course in VUCA for me.” (Innovation Manager, Insurance).*

#### 4.1.2 Social Competencies

Intrapreneurship programs also foster social competencies. Since intrapreneurs need team members with complementary skills, they enhance their **networking**. During the analysis, it became apparent that programs within corporate boundaries had a higher internal networking effect than those that pursue intrapreneurship at a separate location. *“It's symbolic in a way that even if I have nothing to do with people outside my line of work or department, I just call them up and ask. So that has already happened, more networking, more interactions.” (Director Intrapreneurship, Home Appliances).* Unlike entrepreneurs, intrapreneurs must deal with corporate boundaries in developing their innovation. These corporate boundaries are controlled by multiple stakeholders, such as top management, supervisors, or corporate IT. Therefore, participants enhanced their **stakeholder management** competency during the process. *“Those are sort of the things that are at the centre, and probably also self-responsibility, pitching, stakeholder management, those are the key skills that emerge.” (Head of Intrapreneurship, Telecommunication).*

#### 4.1.3 Methodological Competencies

Employees who participate in an intrapreneurship program learn methodological competencies and how to apply them. Our analysis reveals that participants develop competencies in **agile methods, pitching, and digital marketing** and enhance their **financial literacy**.

Organizations use **agile methods** to develop digital products and services in intrapreneurship programs. Thereby, intrapreneurs learn techniques and a mindset that refers to agile project management. The interviewees indicated that the participants transferred the learned methods to their day-to-day jobs, questioning and changing the methods and processes of the organization. *“We stress within the process that everything has to be validated with the end user in mind. [...] I think that way of working and the*

*iterative mode of having an idea, looking at the market, validating, coming back, readjusting, and doing it again. I think that can help our workforce achieve this customer centricity.” (Innovation Manager, Insurance). “Others say I’m doing this now with my team. I’m introducing routines now. I learned how to work with dailies, weeklies, and retros in the think tank, and we don’t do that at all. Why don’t we do that? Let’s talk about how we can bring that into our organization. And then, that’s how transformation takes place.” (Head of Intrapreneurship Program, Automotive).*

Like entrepreneurs, intrapreneurs must convince (internal) investors to proceed with the project. In the program, the participants acquire **pitching** competencies, which they can use to fund ideas they want to push within their regular jobs. *“We have observed, and it was a beautiful observation in the first batch, that people develop incredibly quickly within the program. A good example is a young colleague from Quality Management who had an idea [...] Initially, he was very cautious, reserved, and hesitant when pitching. However, [the] last pitch was outstanding.” (Senior Incubation Manager at Intrapreneurship Program, Home Appliances).*

Since intrapreneurs are responsible for all steps during the intrapreneurship process, they also need to consider the marketing of their product. Therefore, they learn **digital marketing** competencies to understand how marketing works in times of user tracking, smartphones, and information overload. *“During the past two months, I learned a lot of new things. With the [intrapreneurship program], I had a comprehensive guide full of inspiration for advancing my idea. Additionally, I enhanced my skills in web development and digital marketing.” (Blog article from intrapreneur, Telecommunication).*

Intrapreneurs are responsible for managing the investments for their projects. Being responsible for both the realization and economic aspects is a learning step for most employees. When intrapreneurs return to their job, they build on their improved **financial literacy**. They do their job more independently since they can assess the financial implications of their actions. Thus, they can make more realistic forecasts when they initiate activities and evaluate opportunities. *“Why am I doing this? Does it make financial sense? Many people don’t have financial responsibility. And then you don’t think about: How much effort does it require? So, there are so many cases where you sometimes look at it and think: Okay, that sounds great, but how will you make money from it?” (Head of Exploration, Telecommunication).*

#### 4.1.4 Technical Competencies

Our interviewees reported that intrapreneurs come in touch with multiple digital technologies, which show them the affordances of digitalization and how it works. *“And in the context of digital transformation: Many ideas are just in the digital context, and you learn digitally. What possibilities are there, for example, to be able to validate something without development? And that’s why I feel that it simply does a bit to show you the possibilities in the digital context.” (Head of Exploration, Telecommunication).* For example, they learn **web development** methods or gain a deeper **understanding of technology** like blockchain, AI, or data analytics.

## 4.2 Effects on Organizations’ Learning Capabilities

While the primary goal of implementing the intrapreneurship program was in most organizations to increase revenue streams by developing ventures, our interviewees repeatedly mentioned how intrapreneurship fostered the **learning capability** of their organization. Even though these effects were not the initial goal of any organization, our interviewees recognized and valued the learning effects that spurred the organization over time. Since failed intrapreneurs typically transfer back to their regular jobs, they transfer their knowledge to their job and other colleagues, thus increasing the knowledge transmission at the organization. *“Of course, it can be done, and it is done. It is not just a love story. It is also criticized, even at the management level. In part, there are proponents and opponents, where we also say, yes, this is of no economic use to us, but there is this learning effect, which is extremely important for the organization.” (Group Strategy & Digital Transformation, Insurance). “We weren’t just doing this to amuse people [...]. We want ideas, and they should someday turn into money. [...] But somewhere along the way, we knew [...] that this is also a learning journey. And I think we also learned*

*that this learning is almost as important. We were probably not so aware of that at the beginning. We didn't explicitly write that down as a goal, and we realized that that's an important point. If you are in this soft area and say people learn a lot, you can imagine that there are people who love this and others who hate such stories.” (Innovation Manager, Insurance).*

### **4.3 Effects on the Organization Through Cultural, Structural, and Technological Changes**

We identify **cultural**, **structural**, and **technological changes** that happen when intrapreneurs return to the regular organization after a failed project.

#### **4.3.1 Cultural Changes**

The interviewees reported that the intrapreneurship program changed their organization's culture – even though only Case D and Case E actively aspired to a cultural change. Our interview partners note that the intrapreneurship program has enabled their organization to **overcome its resistance to change** towards a collective willingness to change. Further, they highlight that intrapreneurial projects are a more subtle, intrinsic, and natural change mode. *“I think that the beauty of the intrapreneurship program is that it is a transformation that is not labelled as a transformation. Agility, for example, has been such a transformation with us, or simplicity, and then it is launched as a large program, and afterward, training is provided. Sometimes people are like (...) oh, here comes another damn program! And that gives a certain resistance. If you don't tag it as transformation, [...] you don't feel like it's about you transforming, but you can then work on your idea. That's much more promising to change yourself because you don't have the defensiveness at the beginning.” (Head of Exploration, Telecommunication).*

Our interviewees stated that the intrapreneurship program acted as a **mindset shift** toward entrepreneurship, which the participants demonstrated back in their regular jobs. While the mindset shift happens individually, it results in a cultural transformation. The interviewees explained that the intrapreneurship program contributed to a more **creative, innovative, failure-tolerant, and collaborative culture**. *“90% fail and do not spin off or become new products. And they naturally return to their old departments and roles, taking what they have learned from us. So, we want to transfer the entire mindset of Lean Startup, Design Thinking, and especially the culture of failure being okay and failure being necessary and helpful, to some extent.” (Director Intrapreneurship, Home Appliances).*

#### **4.3.2 Structural Changes**

Our interviewees explained that the **permeability** of the hierarchy had increased. They have witnessed that the collaboration across hierarchical levels has improved since the program's introduction. Further, interviewees mentioned that participants emphasized the role of the customer so strongly that their organization put the customer at the top of their organigram, symbolizing the mindset change of the entire organization. On top of that, functional silos have been reduced, leading to increased collaboration. The case organizations have realized that employees develop **cross-functional teams** from the start of each intrapreneurship project to gather information, feedback, and skills. As this development enhances the communication flows within intrapreneurship teams, it affects the communication flows and structures within the organization, including lasting structural changes. *“We are now finding that we must add cross-business units internally for every team that starts. Our [program is] a bit of a lever for forming interdisciplinary teams. [...] They are looking for the people [...] that the team still needs to continue, and we are fishing in the individual business units. The program is a catalyst for implementing more cross-business unit teams.” (Senior Incubation Manager at Intrapreneurship Program, Insurance).*

#### 4.3.3 Technological Changes

The participation of employees in intrapreneurship projects enables the organization to **access new technologies and trends**. Since intrapreneurs initiate these projects based on intrinsic motivation, they transfer their interests and knowledge of current technologies and trends to the organization. Initiating and participating in an intrapreneurship project enables employees to learn how to detect promising technological developments and adapt them to the core business. Thus, it is not only the individual employee who gains technical competencies, but the intrapreneurship program fosters technological changes at the organizational level. One interview partner claimed that it should be expected from any employee to be informed about novel market developments. *“In former times, R&D did innovation; the rest [didn't] must deal with it. So, for me, that's a daily task, to be informed, to know what's going on in the market. That is an expectation that I have of my employees.”* (Director Digital Business, Banking).

#### 4.4 Effects on Motivation, Retention, and Hiring of Employees

Besides the effects on the employees participating in the program and those being influenced by returning intrapreneurs, organizations profit from the program's mere existence. The organizations maintain higher **retention** as the intrapreneurship program signals that the organization values the ideas of its employees. Moreover, an intrapreneurship program displays a culture that values the ideas and potential of its employees, thus attracting potential hires. The case organizations recognized that intrapreneurs often attract other intrapreneurs, thus enhancing the **hiring** process and the quality and **motivation** of the applicants. Allowing employees to innovate next to their day-to-day jobs fosters **motivation**. The increased motivation not only refers to the intrapreneurship project itself but also transfers to the regular job upon returning and can spill over to other colleagues. *“You have to use the intrapreneurship program [...] as an opportunity for employer branding to attract people.”* (Chief Learning Officer, Telecommunication). *“The appreciation of the employee. I feel that it doesn't even have to be that that's the biggest idea. But the employee is much more motivated and brings so much more to the organization afterward.”*

### 5 Discussion

#### 5.1 Intrapreneurship Programs and Digital Transformation: An Interplay as a Strategic Approach

With our study, we strive to understand the potential effects of intrapreneurship programs on organizational change, especially on DT. Our results show that intrapreneurship programs can have different levels of effects on organizations. While the academic discussion to date has mainly focused one-dimensionally on the direct success of such programs in terms of corporate venturing (Neessen et al., 2019; Onetti, 2021), our results show that both a new understanding of the added value of intrapreneurship programs needs to be developed and their positive effect on DT should be reflected in the strategic thinking of organizations. The effects of intrapreneurship programs that we have identified are essential precursors and fundamentals of a successful DT (Bitzer et al., 2021; Blanka et al., 2022; Vial, 2019). Thus, we recommend closely aligning the strategic approach of intrapreneurship programs and DT to significantly increase the respective prospects of success (Karlsson & Tavassoli, 2016; Vial, 2019). With our results, we are opening up the discussion of the IS domain to innovation and intrapreneurship research to understand DT success from an interdisciplinary perspective. We develop five fundamental research paths for a Digital Intrapreneurial Transformation (illustrated in Figure 2).

First, successful intrapreneurship projects lead to direct **effects on organizations' cash flow through innovation**. Successful projects do have positive impacts and directly influence an organization's cash flow through more efficient processes or innovative products and services (Neessen et al., 2019; Onetti, 2021). This manifests in a strategic response to the market by using and implementing digital technology and an adaption of value creation mechanisms to gain positive impacts (Vial, 2019). Second, from

participating in intrapreneurship programs employees substantially gain **effects on participants acquiring competencies** in terms of personal and professional growth. These competencies are crucial for DT and play a vital role in understanding and adapting complex, fast-changing, and tech-savvy environments and reducing organizational barriers like inertia and resistance (Blanka et al., 2022; Hanelt et al., 2021; Vial, 2019). Third, by running intrapreneurship programs organisations create positive **effects on organisations' learning capabilities** when developing sets of individual competencies. The capability of an organization to learn builds the foundation for its survival as DT is understood as a continuous change where organizations must constantly adapt to an ever-changing business environment (Hanelt et al., 2021) and consider disruptive forces in their strategy of transformation (Vial, 2019). Fourth, we identify **effects on the organization through cultural, structural, and technological changes** that align with research on DT, e.g., a culture fostering change, the implementation of cross-functional teams, and leveraging novel technologies (Vial, 2019). Fifth, intrapreneurship programs do have **effects on the motivation, retention, and hiring of employees**. These effects do have an impact on internal as well as external talent. For example, colleagues of former participants profit from the participants' experiences and competencies. Further, DT literature emphasizes the role of the work environment in engaging and developing the current workforce and being attractive to highly skilled employees in today's war of talent (Frankiewicz & Chamorro-Premuzic, 2020). Intrapreneurship programs inspire and engage participants, leading to higher motivation and commitment to the organization's goals. Therefore, intrapreneurship programs do have long-term implications for talent acquisition and development which is crucial for organizations to develop adequate resources for DT (Vial, 2019).

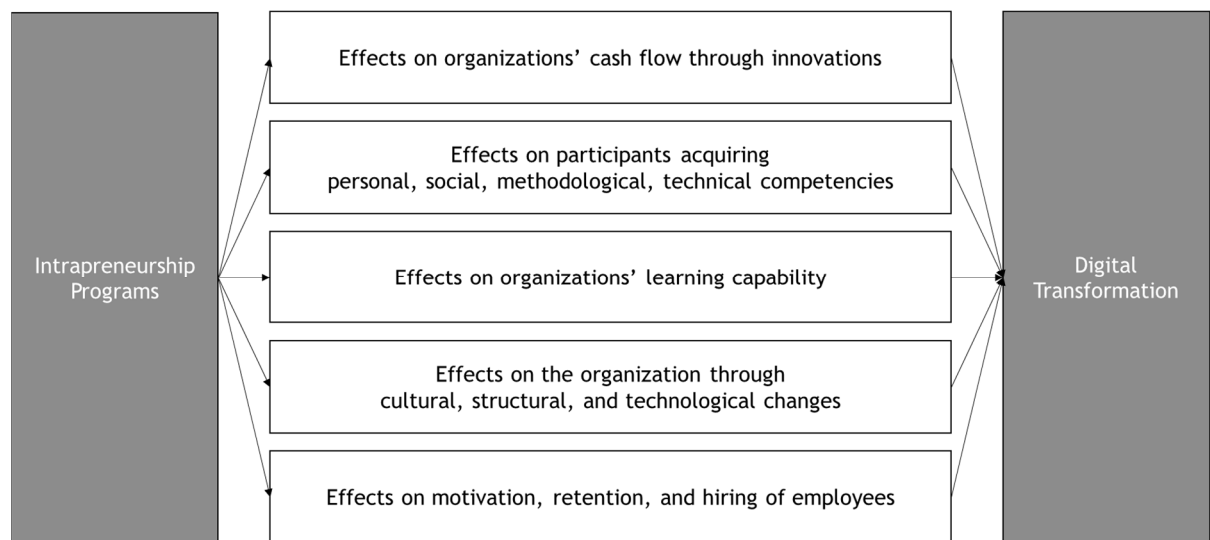


Figure 2. Framework on effects of intrapreneurship programs on digital transformation

## 5.2 Theoretical Contribution

Our study contributes to intrapreneurship and DT research. While DT requires fundamental changes in the value proposition, processes, structures, culture, and technology (Vial, 2019; Wessel et al., 2021), organizations face the challenge of leveraging their employees' potential to make these changes happen. Our research shows that intrapreneurship programs address these challenges. In the following, we specify our theoretical contribution to DT literature:

First, our work offers five levels of effects that directly link back to the necessities of DT (see Section 5.1). Intrapreneurship programs address the development of individual competencies and organizational changes which are crucial for the process of DT and its success (Vial, 2019). As, with their hands-on approach in real-world projects, intrapreneurship programs are based on the reflective process of discovery- and experiential-based learning (Druckman & Ebner, 2018; Miller, 2023), thus, supporting

employees' understanding of complex environments, shaped by technologies, and markets. Therefore, intrapreneurship programs allow their participants to experience the opportunities and design options offered by digital technologies and possible impacts on their organization and industry. This enables companies to achieve a new level of openness and commitment to digital change as well as the acquisition of applied skills through hands-on interaction with digital technologies. By examining the effects of intrapreneurship programs, we add an understanding of how to nurture the building blocks of DT. For example, our insights relate to the work by Vial (2019) by revealing the effects of intrapreneurship programs on the enhanced use of digital technology, changes in value creation, structural changes, and overcoming organizational barriers (Vial, 2019).

Second, we offer a new perspective on (project) failure. While stories of failed DT prevail (e.g., Morgan, 2019) and intrapreneurship programs are criticized because individual projects often do not culminate in a successful venture (Onetti, 2021), our results question the notion of failure in both literature streams. We observe that the failure of projects has positive effects on organizations because participants acquire diverse competencies, foster changes in their teams and departments, and contribute to organizational learning capability (Ambos & Tatarinov, 2022). Further, since DT is not a one-time change but represents the beginning of a state where change is the new normal (Hanelt et al., 2021), failure inherits valuable learning. These learnings might be more valuable for long-term success than individual projects. This insight resonates with the often-stressed concept of a failure culture in DT literature (Paula et al., 2023), which we would reframe into a learning culture, where “failure” in one place is the foundation for learning. Third, an intrapreneurial mindset is vital for DT (e.g., Blanka et al., 2022), but we know little about bringing it to the whole organization. Our research shows that intrapreneurship programs do exactly that. Most employees fail with their projects and return to regular jobs. They return with their acquired competencies and act as intrapreneurs within their departments and teams. Fourth, intrapreneurship programs inherit the idea of a transformation not labelled as a transformation. DT research stresses the challenge of inertia and resistance to change (Haskamp et al., 2021). While DT often follows a top-down logic that requires changes from departments, teams, and individuals (Bitzer et al., 2021), intrapreneurship programs focus on employees willing to take the initiative. Therefore, the organization does not need to overcome inertia but provide those already motivated with the necessary resources, e.g., time, money, tools, and training. The organization gets out of the way of those who want to drive change without raising conflicts with those who wish to follow their daily business.

We contribute to the academic discourse about intrapreneurship by enhancing existing literature on the effects of intrapreneurship programs. The literature typically recognizes that projects can result in corporate ventures, new products, or process innovations (Neessen et al., 2019). We extend this understanding by identifying individual and organizational effects irrespective of the (direct business) success of projects. While existing literature has recognized that intrapreneurial competencies are crucial for DT (Blanka et al., 2022), specific intrapreneurial competencies have not been the subject of past research. We advance research at this intersection and propose studying the human side of DT. By understanding that intrapreneurship programs offer more than the chance to create digital ventures, organizations can leverage intrapreneurship programs as a powerful tool for driving DT. These findings contribute to a deeper understanding of the broader implications of intrapreneurship programs.

### **5.3 Practical Implications**

First, our research demonstrates that employees participating in intrapreneurship projects develop social, technical, methodological, and personal competencies even if their projects fail. These competencies empower employees to make decisions, drive projects, thrive in less hierarchical structures, and foster a culture of innovation and agility. Second, our findings emphasize the significance of intrapreneurship programs in boosting employee motivation and commitment. Organizations can tap into their creative potential and enhance their dedication to DT goals by providing employees with opportunities to engage in intrapreneurial activities. In times of war for talent, managers should not stand in the way of people but make it possible for employees to do such projects. Either they succeed with a venture bringing revenue, or they bring the knowledge and mindset back to their regular job. Third, our study highlights

the transformative effects of intrapreneurship on the entire organization. Intrapreneurship programs contribute to cultural, structural, and technological changes. For example, employees learn to identify and adopt new technologies relevant to the core business. Furthermore, intrapreneurship programs foster structural changes, such as forming cross-departmental teams and alterations in organizational design, promoting communication and collaboration. Fourth, managers can leverage the impact of intrapreneurship programs on their culture as intrapreneurs take proactive action and drive innovations. These insights allow managers to take away three critical propositions for future action. First, reframe failure within the organization and foster a learning culture that recognizes the value of failure as a means of gaining diverse skills and driving organizational learning. Second, nurture intrapreneurship programs as they encourage entrepreneurial mindsets and enable employees to act as intrapreneurs within their departments and teams, driving innovation and change from within. Last, consider intrapreneurship programs to overcome resistance to change by providing motivated employees with the necessary resources and support, enabling them to drive transformation.

## **6 Conclusion**

Our work examines the effects of intrapreneurship programs. We found that employees participating in intrapreneurship programs develop personal, social, methodological, and technical competencies, even in the case of project failure. These competencies are not limited to intrapreneurship projects but are transferred to their regular jobs, leading to cultural, structural, and technological changes at the organizational level. Based on our findings, we illustrate the effects of intrapreneurship programs. Our study contributes to intrapreneurship and DT research, demonstrating the valuable role of intrapreneurship programs, challenging the notion of failure in DT and intrapreneurship research, and highlighting intrapreneurship programs as a transformation that is not labelled as one. So far, we have provided insights based on the subjective and qualitative observations of employees in charge of the intrapreneurship program or organization's DT. We build the foundation for future research to delve into the intersection of intrapreneurship and DT to deliver more diversified insights, e.g., by considering the role of intrapreneurs and their managers. Such research might provide archetypes that lead to individual effects, uncover the dark sides of intrapreneurship programs, or dive deeper into how to enact the role of employees after they complete the intrapreneurship program. Further, it might be interesting to examine what happens when employees are back full-time into their position, how they transfer their learning into practice, and how long it takes to lead to lasting impact. Such insights would be valuable to sharpen our understanding of the effects of intrapreneurship programs on DT that reach beyond our initial study. Further, we encourage future research to challenge our insights, e.g., to study the significance and strength of the effects with quantitative methods.

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