Innovation Management in Small and Large Companies: Comparative Insights From Switzerland

Kristine Metuzale, Moritz David Widmer, Dario Meyer and Rolf Meyer
University of Applied Sciences and Arts Northwestern Switzerland, Windisch, Switzerland

kristine.metuzale@fhnw.ch
moritz_widmer@hotmail.com
dario.meyer@fhnw.ch
rolf.meyer@fhnw.ch

Abstract: Innovation is a key driver of growth, competitiveness, and technological progress at both micro and macro levels. Despite Switzerland's position as the world's most innovative country, there is limited research on how innovation is managed within its businesses. This study addresses this gap and explores how small and large Swiss companies establish innovation strategies, processes, and structures to achieve organisational goals. This comparative study examines innovation management in small (10–49 employees) and large (250+ employees) Swiss companies across various industries, using qualitative semi-structured interviews with innovation leaders. Findings show that while both groups prioritize innovation, their approaches differ. Large companies rely on structured processes but often face bureaucratic barriers to radical innovation. In contrast, small firms benefit from agility and intuitive practices but may lack efficiency due to informal processes and limited evaluation. Innovation culture is easier to shape in small firms through direct leadership, whereas large firms struggle to encourage risk-taking. The study suggests that large firms can enhance innovation by adopting more agile methods, while small firms could benefit from more structured planning and evaluation. This paper enriches academic understanding of innovation management by providing a qualitative comparison of small and large Swiss businesses and offers practical insights for companies and policymakers aiming to strengthen innovation capabilities.

Keywords: Innovation Management, Innovation Practices, Small and Large Companies, Switzerland

1. Introduction

Innovation is a key driver of competitiveness at both the company and national level creating a reinforcing cycle to foster business growth and economic development (Dobrinsky, 2008). For 14 consecutive years, the Global Innovation Index published by the World Intellectual Property Organization (2024) has been ranking Switzerland as the leading country in innovation. According to the Swiss Federal Statistical Office (n.d) in 2022 over 99% of all companies in Switzerland were SMEs with fewer than 250 employees, employing over 66% of Switzerland's working population. SMEs are the backbone of the Swiss economy and key to innovation. However, despite Switzerland's leadership, technological and societal changes challenge companies of all size (Meyer et al., 2023)

The latest report on innovation and digitalisation in the Swiss private sector, indicates a 3.7 % rise of companies actively engaging in R&D. At the same time, the average share of R&D expenditure on the turnover remained constant compared to the previous period, meaning that the concentration of R&D expenditure in the economy has decreased. (SBFI, n.d.) According to the European Innovation Scoreboard 2024, Switzerland's closest competitors, the Nordic countries, are making strong advances in innovation while Switzerland achieved only modest gains. Switzerland has recently made progress in venture capital availability and SME product innovation, reversing a long decline. However, SMEs introducing business process innovation is decreasing.

Switzerland's innovation ecosystem is characterized by a strong interplay between research institutions, private sector, and government support. For example, to support SME innovation, the Swiss innovation agency Innosuisse (2025) launched a programme for companies with fewer than 500 employees. This is in line with research that suggests that Swiss companies need to review their innovation management efforts to stay competitive.

Businesses need to increase the effectiveness and efficiency of internal innovation activities by means of systematic innovation management comprising a set of strategic and operational tasks for planning, organising and controlling innovation processes (Gaubinger et al., 2015). In other words, innovation management is critical for business to remain competitive. Amid declining R&D spending in Switzerland, we conduct this study to explore key elements of innovation management, including innovation strategy, process, structure, culture, and innovation tools, from the perspective of large and small companies in Switzerland. It identifies internal enablers, differences, challenges, and opportunities, based on an empirical study addressing the following research questions:

1. How do small and large companies in Switzerland develop their innovation strategies, processes, and structures to achieve organisational goals?
2. What are the key factors influencing innovation culture, including leadership and employee engagement?
3. How do small and large companies manage resources, measure outcomes, and leverage tools to foster innovation?

This study will inform the discussion on innovation management in Swiss small and large businesses and its role in securing Switzerland's future as an innovation leader, while also providing input on potential support programmes

2. Theoretical Background

The ability to innovate products, services, processes and business models is essential for success in the market and boosting growth (Carrillo et al., 2015). The critical importance of innovation has led to extensive debate and development around its definition.

The meaning of innovation has evolved through economic, industrial, and technology development, increased role of customer satisfaction and its role as a management process (Trott, 2008). According to Trott (2008), innovation is the management of all activities involved in the process of idea generation, technology development, manufacturing, and marketing of a product or manufacturing process or equipment. Building on this, innovation can be further understood through four distinct lenses, categorising the type of change involved (Bessant & Tidd, 2024). These include alterations to the product itself (what is offered), the process by which it's created and delivered, the position or context in which it's introduced, and the fundamental paradigm or underlying mental models guiding the organisation's actions. Over time, innovation went from being an internal process to a collaborative approach called open innovation, defined as "the use of purposive inflows and outflows of knowledge to accelerate internal innovation and expand the markets for external use of innovation" (Chesbrough, 2006), a future that will be more extensive, engaging, and involve a wider variety of participants.

To handle these increasingly complex and evolving innovation processes effectively, a structured approach is needed, which is where innovation management comes in. Literature presents us with a wide range of definitions of innovation management. According to Havlíček et al. (2013) it refers to the structured process of generating, validating, and implementing new ideas within an organisation. Gaubinger et al. (2015) state that goal-oriented steering and shaping of innovation activities within a company require structured and coordinated activities aimed at an innovation's successful introduction. These definitions show that effective innovation doesn't happen in a vacuum. Achieving successful innovation outcomes relies on carefully managing and integrating diverse elements. For this paper we focus on the five elements according to Birkenmeier & Brodbeck (2020), which are innovation strategy, processes, organisational culture, and structure as well as innovation tools. While broader aspects like external collaborations, digital transformation, and strategic R&D investment are increasingly important in today's innovation landscape, this paper primarily focuses on the internal dimensions of innovation management within organisations. The subsequent sections will analyse these key elements of innovation management.

2.1 Innovation Strategy

Managing the innovation strategy requires understanding the what, why, and when of innovation activity. This means developing, reviewing, and updating an innovation policy and strategy consistent with the organisation's mission and setting goals for innovation (Igartua et al., 2010). The innovation strategy must be derived from the corporate strategy. The innovation strategy must reflect the objectives, priorities and framework conditions of the corporate strategy and refine or concretize them (Schori & Roch, 2012).

An innovation strategy explicitly defines key aspects such as the required level of innovativeness (e.g., the percentage of future revenue to be generated through innovations), the strategic focus areas for innovation (e.g., CO2 reduction initiatives), and the permitted or desired types of innovation (e.g., product, process, or business model innovations) (Augsten et all., 2017). Crucially, the innovation strategy also dictates the allocation of resources, including the strategic investment in research and development (R&D), to achieve defined innovation goals (Birkenmeier & Brodbeck, 2020).

In principle, the development of an innovation strategy is very company specific. It is therefore not possible to make a general distinction between companies. Due to their size and the corresponding resources available,

large companies can usually invest more resources in the structured development of the innovation strategy, in-depth analyses, and market research. In contrast, communication and implementation are significantly easier for small companies. (Hugentobler et al., 2020)

2.2 Innovation Process

Innovation process are the general business processes and practices that enable teams to operate effectively and collaborate toward a common goal (Dougherty, 1999). Understanding and defining a clear innovation process helps organisations create a common framework for discussion, establish metrics, and set goals for each stage. Desouza et al. (2009) identified five key stages: idea generation and mobilization, screening and advocacy, experimentation, commercialization, and diffusion and implementation.

Traditionally, large manufacturing organisations used stage-gate systems for innovation project approval, development, and costing. However, these proved too linear and rigid for changing markets. The Agile development process, originating from the software industry, offers a more adaptive, collaborative, and change-thriving approach. A hybrid Agile–Stage-Gate model integrates the best of both. (Cooper & Sommer, 2018)

Literature suggest that small companies face several challenges regarding their innovation processes, mainly due to their limited resources. This can be partially solved by utilising the ecosystem of partners, suppliers and customers. Through close cooperation, companies can take up ideas from external partners and develop them into innovations. (Schori & Roch, 2012) Large companies have substantial resources but must allocate them carefully to avoid limiting their impact.

2.3 Innovation Structure

For innovation to flourish, suitable organisational structures, that enable collaboration across functional lines are essential (Dougherty, 1999). Organisational innovation structure can foster cooperation and reduce uncertainty, enhancing ways to deal with the challenges and change (Ferraro & Iovanella, 2016). This includes establishing structures that facilitate engagement with external networks, partnerships, and open innovation initiatives. Above all, the structure must support the innovation strategy and steer innovation efforts in the direction of the goals set by the strategy. Additional structures should be kept to a minimum and anchored on a broad basis so that everyone is involved in innovation. (Birkenmeier & Brodbeck, 2010)

Large companies often struggle with rigid processes and separate disciplines, making radical innovation difficult. While they excel at incremental improvements, they face challenges when competing with agile startups that quickly adapt to customer needs and implement bold ideas. To overcome this, large firms create dedicated structures like innovation hubs, incubators or others to foster innovation. (Sauberschwarz & Weiß, 2018) In small companies, forming interdisciplinary innovation teams is challenging, so external participants like customers, suppliers, or consultants are often included. The successful formation and operation of these teams also depend on the availability of diverse skills and human resources. An innovation manager is essential to maintain clear responsibility. This role can be filled by the CEO, a board member, or an external consultant — each bringing different strengths. (Schori & Roch, 2012)

2.4 Innovation Culture

Corporate culture plays a crucial role in creating space for innovation. It includes the mindset and norms that allow individuals and teams to think imaginatively, to take prudent risks, and to seek out, create and introduce innovative solutions. (Dougherty, 1999) A strong innovation culture also fosters the development of critical skills and the effective utilisation of human resources necessary for driving innovation. Traditional hierarchical corporate structures places too much focus on process optimisation hindering culture that fosters innovation, which requires prioritising values, attitudes, and creativity. Furthermore, "empowerment" is key: leaders must actively support innovation and create conditions that enable innovation to thrive. (Augsten et al., 2017) The central question remains how leaders can effectively shape a culture that promotes innovation? Augsten et al. (2017) identify eight elements that contribute to a strong innovation culture: openness, freedom to dream, personal growth, diversity, collaboration, patience, embrace failure and space for innovation.

Innovation culture is easier to shape in a small company, as management is closer to employees. Leading by example, promoting desired values, and maintaining open, two-way communication are crucial. Employees should be encouraged to propose and pursue new ideas, with active appreciation for their contributions. (Schori & Roch, 2012)

2.5 Innovation Management Tools (IMTs)

Innovation management tools are a way of thinking and finding creative solutions within the company to achieve the strategic objectives. In this context, IMTs can be seen as a range of techniques that help companies to enhance creative efforts in developing new ideas. There is no set of developed and proven IMTs for solving specific challenges the business faces. (Hidalgo & Albors, 2008) IMTs support the entire internal innovation process, encompassing methods for identifying innovation potential, assessing customer needs, evaluating ideas, monitoring technological and competitive developments, and managing projects (Birkenmeier & Brodbeck, 2020).

When it comes to idea generation, there are two types of tools to distinguish: systematic idea generation through various creativity methods, and random idea generation. Examples of systematic idea generation include brainstorming, the 6-3-5 method, brainwriting, mind mapping, and more. In random idea generation, it is important to utilize the potential of all employees and establish an idea management system that allows the systematic collection of individual ideas. All ideas must then be systematically evaluated and further developed if potential is recognized. (Birkenmeier & Brodbeck, 2010)

Tools should be initiated by the person responsible for innovation, although small companies often lack this expertise. The management has often other priorities and tasks, so it may make sense to hire external consultants for these competencies (Schori & Roch, 2012). In large companies, it makes sense to build these competencies internally and, if necessary, develop methods tailored to the company**.**

These key elements of innovation management identified in the theoretical study form the basis for the qualitative research and the interviews with companies.

2.6 Regional Context of the Study

Although Switzerland ranks very high in global innovation, the concentration of R&D expenditure in the economy has decreased (SBFI, n.d.) This particularly applies to Swiss SMEs who face difficulties to innovate. There is limited research on innovation management across Swiss businesses. It primarily examines some, but not all, individual elements of innovation management like innovation culture (J.-U. Meyer, 2014); idea finding and project development (Luggen et al., 2005) or industry affiliation like construction (Girmscheid & Hartmann, 2001) and others. This qualitative study examines key elements of innovation management: innovation strategy and process, structure, culture and tools in large and small Swiss enterprise. It identifies differences, challenges, and opportunities across businesses of different sizes.

3. Methodology

Alongside the theoretical literature review, a qualitative study was conducted with 12 Swiss companies, 6 large and 6 small from various industries in the German-speaking region, selected for its role as the country's economic powerhouse (Federal Statistical Office, n.d.). To gather relevant input, innovation-focused companies from various industries, including startups and established businesses, were selected. In-depth interviews were conducted with employees directly involved in innovation, such as innovation managers and executives.

A structured interview approach with predefined guidelines allowed for comparative analysis. Interviews covered five key areas from the literature: innovation strategy, process, structure, culture, and tools. To ensure openness and protect sensitive information, data was anonymized during processing and analysis.

The study uses the Swiss Federal Statistical Office's company size classification.

Table 1: Swiss Federal Statistical Office's company size classification

Size category	Number of employees	
Micro company	1-9	SMEs
Small company	10-49	
Medium company	50-249	
Large company	>250	

Small and large companies were chosen for the study as they together represent 54.8% of the Swiss workforce (Bundesamt für Statistik, n.d.). This highlights the significant impact of effective innovation management on performance, competitiveness, and job creation, while enabling comparison between the two groups.

Each one-hour interview was recorded, anonymized, and transcribed for detailed analysis. Using atlas.ti, a qualitative content analysis was conducted with a coding system based on five key areas from the interview guidelines. A total of 48 codes were applied, leading to the analysis of over 500 quotations.

4. Results

In this section, the interviews are analysed, and the most noteworthy statements are be highlighted to uncover insights from companies.

4.1 Innovation Strategy

Large companies see innovation as a strategic tool to extend product life cycles or adapt products, while small companies view it as a response to customer needs, often driven by close relationships. Some small firms use innovation strategically to differentiate rather than compete on price. Formal innovation strategies are common in large firms; small companies prefer flexible, hands-on approaches. Large companies reflect innovation's value through dedicated resources and turnover investment but risk viewing it mainly as development. Small companies focus more on innovation's external impact to boost market presence and customer engagement.

Interviews suggest large companies struggle to communicate innovation priorities due to complex hierarchies, while small companies find it easier as leadership works closely with employees. A large company noted: *"But the willingness to implement can sometimes be challenging... We're working on communicating this even more clearly."* Large firms use measurement tools to track product performance against business cases, whereas small companies rely more on intuition and customer feedback. One small company said: *"There was no analysis of why it did not succeed."* Some are beginning to value objective evaluation, with one manager stating*: "Since the last project was very extensive, various teams have realised that this should be done."*

4.2 Innovation Process

Innovation processes in Swiss companies differ significantly between large and small companies. Large companies use structured, standardized processes with some subsidiary flexibility, as one representative said: "*The process is the same for the entire company and all innovation projects. The goal is for each division to establish this process within its own process landscape."* Small companies use more informal, agile approaches but risk less strategic decisions. A small company manager noted: "*It is not a concrete process. It's more individual. ... To be honest, our process is not documented*." Another added: "*Structure, leadership, and control are a little lacking. If we have a good idea, we try it out. But it's not very systematized."*

Large companies typically use stage-gate processes with defined KPIs to manage risk and reduce sunk costs, often leading to incremental innovation. Smaller firms favour agile, pragmatic decision-making in regular team meetings, resembling informal design thinking. While smaller companies maintain close ties with customers and suppliers, they engage external partners less formally. In contrast, large firms actively collaborate with startups, suppliers, and universities to enhance innovation.

4.3 Innovation Structure

In both large and small Swiss companies, innovation responsibility is clearly assigned, with smaller firms relying more on personal initiative. All interviewees felt accountable, highlighting the recognized importance of innovation. Employee involvement in innovation differs notably. Small companies engage everyone to leverage diverse team input. Large companies vary: some focus on specific teams, others encourage bottom-up ideas. One large company said, "*We don't start strategic projects top-down. We let them grow from the bottom*," while another noted, "*You never reach everyone. It remains a challenge*." Involvement depends on company structure and views on employee contributions.

4.4 Innovation Culture

Both small and large companies value openness, diversity, and employee input. Large companies are moving from conservatism toward embracing feedback, while smaller ones emphasize diverse teams and idea-sharing.

Resistance to new ideas exists in both, driven more by company age and industry than size, young companies behave differently from older ones. Learning from mistakes is widely seen as vital, with failure accepted as part of innovation.

Workshops promote a growth mindset, though it's unclear how widely this is embraced by all employees. Large companies foster innovation via structured initiatives, workshops, and internal communities. Smaller companies use a decentralized approach, relying on employee responsibility and informal encouragement, as one representative said: *"It is promoted by the individual team leaders who discuss values and goals with employees. Innovation is assessed there, and it is also reinforced that employees should come forward with ideas."*

Large companies are generally satisfied with their innovation culture but face challenges balancing innovation with established processes. A large company said: *"One wishes that everyone could speak the language of the innovator... The question is often: new or tried and tested?"* Smaller companies, though content with their culture, feel they could speed up turning ideas into market-ready products. A small company noted: *"We come up with ideas and prototypes relatively quickly but actually finishing them and bringing them to market quickly is where we could improve."*

4.5 Innovation Management Tools

Large companies actively gather employee ideas through methods like pitch competitions and monthly innovation questions. However, these ideas often lack alignment with strategic goals. One representative noted: *"Idea management has been buried... We don't believe that innovation starts with ideas!"*

Small companies aim for structure but face challenges in idea collection; some use platforms like Jira, while others struggle with participation. Both small and large businesses agree monetary incentives don't drive innovation; recognition, awards, and feedback are preferred. All stress the importance of feedback on ideas and follow-up. Creativity methods are used situationally in both, without being overly emphasized.

5. Discussion

The interviews show that innovation management is important for all companies; however, many different approaches and structures exist. The results confirm both that innovation strategies are developed company-specifically and that significant differences exist between the approaches of large and small companies (Hugentobler et al., 2020). Large firms use innovation as a strategic tool, while small ones focus on customer needs and practical approaches over formal planning. This aligns with the strategic innovation elements identified in the literature, where strategy defines the required innovativeness, specific focus areas, and the type of innovation pursued (Birkenmeier & Brodbeck, 2020). Findings indicate that large companies often formalise these strategic dimensions, whereas smaller firms' strategies might emerge more organically from immediate market interactions and customer demands.

The findings on innovation processes align with the literature indicating that resource availability influences the innovation processes in large versus small businesses (Vakulenko, 2021). Large companies use their resources to establish formal and structured processes. While traditional Stage-Gate systems are still common, and literature points to hybrid Agile-Stage-Gate models as a way to balance control and flexibility (Cooper & Sommer, 2018), our study didn't find adoption of these hybrid models among the interviewed. Small companies are more used to agile processes due to their limited resources, which allow more flexibility, but can be less focused on the strategy (Desouza et al., 2009). The literature suggests that small firms are more in need of external help. In contrast, our results show that large firms engage external partners more formally and broadly than small companies (Schori & Roch, 2012). This highlights how companies' interaction with outside partners differs significantly by company size, rather than just their need for help. This distinction is important for understanding how open innovation principles, which focus on sharing knowledge (Chesbrough, 2006), are put into practice. A company's size affects how it formalizes collaborations, shaping their scope and nature.

Results confirm that the responsibility for innovation is clearly assigned. The involvement of everyone in small companies aligns with the literature, which also mentions broad participation (Link & Rees, 2017). The diverse approaches in large companies are noteworthy, with no single method dominating. (Edison et al., 2018) have also shown that methods such as intrapreneurship, internal ventures, and crowdsourcing were used. These diverse structural approaches also reflect the importance of enabling diverse skills and human resources to drive innovation within different organizational contexts.

In both large and small companies, the results and literature show that openness, diversity, and employee input are valued (Augsten et al., 2017). Interestingly, it is not only the company size influencing resistance to new ideas, but also the age of the company. There is a gap between literature and practice regarding embracing failure. The adoption is questioned by the interview partners, leading to the implication that fear of failure might still prevent risk-taking. Large companies use structured initiatives to cultivate their innovation culture, which can lead to tension between innovative ideas and established processes. Smaller firms use more informal and decentralized options to establish their culture, as shown in the literature (Schori & Roch, 2012).

Large companies often gather employee ideas but struggle to align them with business goals, raising doubts about the value of collecting many ideas. Small companies use idea collection tools but face low employee engagement, likely due to limited resources, as noted in the background reading. Both types occasionally use innovation management tools (IMTs), but small firms' challenges suggest a resource gap. Recognition and feedback have proven more effective than financial rewards in promoting innovation. Although IMTs broadly cover areas like identifying innovation potential, assessing customer needs, and tracking technological trends (Birkenmeier & Brodbeck, 2020), our findings show a primary focus on idea generation and collection, with difficulties linking ideas to strategy and maintaining employee involvement. This suggests a gap between the theoretical scope of IMTs and their practical use across different company sizes.

Based on our discussion, we propose the following framework:

Table 2

Framework Category	Large Companies	Small Companies
Innovation Strategy	• Often a strategic tool for product adaptation/extension. • More resources for formal, structured development, analysis, research, implementation can be complex. • Internal value reflected in resource allocation. Risk of viewing it as purely development effort. • Implement measurement tools, monitor performance vs. business case. • Challenge of clearly communicating priorities through complex hierarchies.	• Often led by customer needs rather than strategy. Flexible, hands-on approach common. • Less formal development likely due to limited resources. Communication and implementation are easier. • Focus on enhancing market presence and customer engagement. • Rely more on intuition/customer feedback, though some recognize the need for objective methods.
Innovation Process	• Structured, formalised, often standardised processes (e.g., Stage-Gate) across the organization. • Significant resources available yet require effective use. • Use of KPIs to minimise sunk costs, manage risk; often results in incremental innovation. • Actively seek formal input from partners (startups, suppliers, universities)	• Often informal, improvised, agile processes, less documented. Risk of less strategic investment decisions. • Resource-constrained. Can leverage external capacities like consultants, suppliers, and customers. • Pragmatic decision-making, often in regular team meetings. • Closer to customers/suppliers but engage them less formally.
Innovation Structure	• Clearly assigned responsibilities. • Varied approaches of team involvement. • Form: May struggle with rigidity. Often create dedicated structures to foster innovation.	• Clearly assigned responsibilities, often rely on personal initiative. • Team/Involvement: Difficulty forming diverse internal teams, tend to engage everyone across teams. Often include external participants. • More simple organisational structures likely.
Innovation Culture	• Cultivation is more challenging due to scale/hierarchy. They use structured initiatives (workshops, internal communities). • Shifting from conservative past, embracing feedback/challenge • Values: Openness, diversity, encouraging input valued. • Failures are seen as essential. Workshops used. Skepticism as to whether this mindset is widespread. • Generally satisfied but acknowledge challenges balancing innovation with established processes. Resistance can exist.	• Easier to shape culture due to management proximity, direct influence, leading by example. • Foster diverse teams, enable idea-sharing, openness. • Failures are seen as an essential part of the process. • Resistance can exist.
Innovation Management Tools (IMTs)	• Build internal competencies. Can develop tools/methods tailored to the company. Creativity methods used situationally. • Idea Management: Use various approaches yet ideas often lack strategic alignment; 'idea management' itself is occasionally questioned. • Monetary incentives are ineffective; recognition, appreciation and feedback are preferred and more impactful.	• Often lack internal expertise. May rely on external consultants or simpler methods. Creativity methods used situationally. • Idea Management: Trying structured collection but facing participation challenges. • Monetary incentives are ineffective; recognition, appreciation and feedback are preferred and more impactful.

6. Conclusion

Findings show that innovation is important to both large and small companies, with clear responsibility assigned. However, their approaches differ. Large companies use structured processes but struggle with internal communication and aligning employee ideas with strategy. Small companies are more flexible and client-driven, fostering innovation through intuition but risk inefficiencies due to a lack of formal processes and evaluation. Innovation culture is easier to shape in small firms, while large companies face tension between innovation and established processes. To improve, large companies should adopt more agility, and small ones more structured planning and evaluation.

This study has limitations, focusing on only 6 small and 6 large Swiss companies in the German-speaking region. Still, it offers valuable insights into innovation management. Future research could include all company sizes and regions of Switzerland, expand the sample, and use longitudinal studies to track innovation management over time.

Ethics Statement

This research followed ethical principles to protect participants' privacy. Informed consent was obtained in advance, and all names were anonymized and coded to ensure confidentiality. No identifying information was disclosed, and all established ethical guidelines were strictly followed.

AI Statement

No artificial intelligence (AI) tools were used to conduct the research, analyse data, or generate findings presented in this paper. Any AI assistance was limited to supporting tasks such as translation, grammar and style refinement during the writing process. The integrity of the research methods and analysis is human driven.

References

Augsten, T., Brodbeck, H., & Birkenmeier, B. (2017). Innovation und Strategie. In T. Augsten, H. Brodbeck, & B. Birkenmeier (Eds.), *Strategie und Innovation: Die entscheidenden Stellschrauben im Unternehmen wirksam nutzen* (pp. 9–41). Springer Fachmedien. https://doi.org/10.1007/978-3-658-15684-8_2

Bessant, J. R., & Tidd, J. (2024). *Innovation and entrepreneurship* (4th ed.). John Wiley & Sons.

Birkenmeier, B., & Brodbeck, H. (2010). *Wunderwaffe Innovation—Was Unternehmen unschlagbar macht—Ein Ratgeber für Praktiker*. Orell Fuessli Verlag.

Birkenmeier, & Brodbeck, H. (2020). Marktleistungsentwicklung. In W. Hugentobler, K. Schaufelbühl, & M. Blattner (Eds.), *Integrale Betriebswirtschaftslehre: Lehrbuch zur Webplattform www.bwl-online.ch.* Orell Füssli Verlag.

Carrillo, J. E., Druehl, C., & Hsuan, J. (2015). Introduction to Innovation WITHIN and ACROSS Borders: A Review and Future Directions. *Decision Sciences*, *46*(2), 225–265. https://doi.org/10.1111/deci.12131

Chesbrough, H. W. (2006). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Harvard Business Publishing.

Cooper, R. G., & and Sommer, A. F. (2018). Agile–Stage-Gate for Manufacturers: Changing the Way New Products Are DevelopedIntegrating Agile project management methods into a Stage-Gate system offers both opportunities and challenges. *Research-Technology Management*, *61*(2), 17–26. https://doi.org/10.1080/08956308.2018.1421380

Desouza, K. C., Dombrowski ,Caroline, Awazu ,Yukika, Baloh ,Peter, Papagari ,Sridhar, Jha ,Sanjeev, & and Kim, J. Y. (2009). Crafting organizational innovation processes. *Innovation*, *11*(1), 6–33. https://doi.org/10.5172/impp.453.11.1.6

European Commission (2024). *European Innovation Scoreboard 2024*. Publications Office of the European Union. https://data.europa.eu/doi/10.2777/779689

Dobrinsky, R. (2008). INNOVATION AS A KEY DRIVER OF COMPETITIVENESS. *UNECE Annual Report Economic Essays*.

Dougherty, D. (1999). Organizing for innovation. *Managing Organizations: Current Issues*, 174–189.

Edison, H., Wang, X., Jabangwe, R., & Abrahamsson, P. (2018). Innovation initiatives in large software companies: A systematic mapping study. *Proceedings of the 2018 International Conference on Software and System Process*, 140–141. https://doi.org/10.1145/3202710.3203164

Federal Statistical Office. (n.d.). *Gross domestic product per canton and region*. Retrieved 2 April 2025, from https://www.bfs.admin.ch/content/bfs/en/home/statistics/national-economy/national-accounts/gross-domestic-product-canton.html

Ferraro, G., & Iovanella, A. (2016). Revealing correlations between structure and innovation attitude in inter-organisational innovation networks. *International Journal of Computational Economics and Econometrics*, *6*(1), 93–113. https://doi.org/10.1504/IJCEE.2016.073364

Gaubinger, K., Rabl, M., Swan, S., & Werani, T. (2015). Corporate Success Through Market Driven Innovation. In K. Gaubinger, M. Rabl, S. Swan, & T. Werani (Eds.), *Innovation and Product Management: A Holistic and Practical Approach to Uncertainty Reduction* (pp. 3–25). Springer. https://doi.org/10.1007/978-3-642-54376-0_1

Girmscheid, G., & Hartmann, A. (2001). *Innovation management in construction companies—An integrated model*. https://doi.org/10.3929/ETHZ-A-006000593

Hidalgo, A., & Albors, J. (2008). Innovation management techniques and tools: A review from theory and practice. *R&D Management*, *38*(2), 113–127. https://doi.org/10.1111/j.1467-9310.2008.00503.x

Hugentobler, W., Schaufelbühl, K., & Blattner, M. (2020). *Integrale Betriebswirtschaftslehre.* Orell Füssli Verlag.

Igartua, J. I., Garrigós ,Jose Albors, & and Hervas-Oliver, J. L. (2010). How Innovation Management Techniques Support An Open Innovation Strategy. *Research-Technology Management*, *53*(3), 41–52. https://doi.org/10.1080/08956308.2010.11657630

Innosuisse. (2025). Projektausschreibung für KMU. Retrieved 17 June 2025 from https://www.innosuisse.admin.ch/de/projektausschreibungen-fuer-kmu

Link, A. N., & Rees, J. (2017). *Chapter 9: Firm Size, University Based Research, and the Returns to R & D*. https://www.elgaronline.com/edcollchap/edcoll/9781786432780/9781786432780.00017.xml

Luggen, M., Birkenmeier, B., & Brodbeck, H. (2005). Innovation management in networks of entrepreneurial firms. *International Journal of Entrepreneurship and Innovation Management*, *5*(1/2), 69. https://doi.org/10.1504/IJEIM.2005.006498

Meyer, J.-U. (2014). *Strengthening Innovation Capacity Through Different Types of Innovation Cultures* (SSRN Scholarly Paper No. 2506307). Social Science Research Network. https://doi.org/10.2139/ssrn.2506307

Meyer, R., Meyer, D., & Schmutz, T. (2023). Do SMEs actually know what Business Model Innovation is? Evidence from Switzerland. *European Conference on Innovation and Entrepreneurship*, *18*(1), 617–625. https://doi.org/10.34190/ecie.18.1.1737

Sauberschwarz, L., & Weiß, L. (2018). *Das Comeback der Konzerne: Wie große Unternehmen mit effizienten Innovationen den Kampf gegen disruptive Start-ups gewinnen*. Vahlen.

SBFI. (n.d.). *Innovation und Digitalisierung in der Schweizer Privatwirtschaft*. Retrieved 24 March 2025, from https://www.sbfi.admin.ch/sbfi/de/home/dienstleistungen/publikationen/publikationen-bestellen/innovationsbericht_kof_2022_d.html

Schori, K., & Roch, A. (2012). *Innovationsmanagement für KMU*. Haupt.

Trott, P. (2008). *Innovation Management and New Product Development*. Pearson Education.

Vakulenko, M. (2021). The moderating role of innovation capability in the relationship between the liability of smallness and innovative outputs. *Technology Analysis & Strategic Management*, *33*(8), 914–926. https://doi.org/10.1080/09537325.2020.1850674

World Intellectual Property Organization. (2024). *Global Innovation Index 2024: Innovation in the face of uncertainty.* WIPO. https://tind.wipo.int/record/50062