Hidden Champions Revised: Towards a New Conceptual Framework

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Abstract: The business environment for Hidden Champions has evolved dramatically, with rapid technological advancements and the rise of Artificial Intelligence (AI) accelerating change and increasing the importance of data. This paper explores the need for an updated Hidden Champions model that reflects the critical roles of innovation, technology utilization, and social media visibility, emphasizing the transformative impact of AI on competitiveness. It suggests that mastery of AI and effective data use are indispensable for companies seeking to secure and expand their market positions in the current digital era. Integrating these elements, alongside a robust social media presence, is proposed as an essential criterion for identifying Hidden Champions. The paper argues that these updated core elements can serve as helpful indicators of a company's potential for growth and competitive advantage, highlighting that firms at the forefront of AI and data analytics can outperform rivals, regardless of their size or global footprint. It concludes that adapting to these changes by embracing AI, leveraging data, and engaging with social media can significantly enhance a company's ability to innovate and remain competitive in the fast-evolving market landscape. The *Hidden Challenger* model presented in this study proposes a strong theoretical basis, explaining the core elements and enabling future research to empirically validate the innovative model. It aims to guide companies and policymakers toward strategies that bolster competitiveness and ensure sustainable growth in an age dominated by digital transformation and AI.

1 INTRODUCTION

The profound changes in the global business landscape in recent years can be attributed to the rapid advancements in technology and the transition towards a digital economy. These shifts have fundamentally redefined industry structures, competitive dynamics, and success paradigms. The integration of digital technology into businesses has significantly altered how the world engages in commerce, communication, and development on a global scale (Mićić, 2017). The advent of digital technologies has revolutionized the fields of innovation and entrepreneurship, expanding the scope for value creation and capture (Nambisan et al., 2019). This evolution signifies a pivotal transformation in the operational and competitive strategies of global businesses. Within this context, Germany holds a remarkable position, with its share of Hidden Champions worldwide amounting to

46.2% (Simon, 2012). These 1,307 companies, identified by Prof. Dr. Hermann Simon, have bolstered Germany's export performance, showcasing the country's reliance on export-driven economic growth (Mönnig & Wolter, 2020). As such, Hidden Champions have been instrumental in Germany's economic achievements.

The advent of digital transformation marks a significant epoch, affecting both personal and professional spheres and bringing about comprehensive changes (Oswald et al., 2022). This shift has particularly impacted business models, prompting substantial reconfigurations (Schallmo et al., 2017). The landscape is now dotted with examples of enterprises that have rapidly risen to prominence by adeptly leveraging digital technologies, often displacing established market leaders in the process (Oswald et al., 2022).

Viewing digital transformation as the cornerstone of growth and prosperity, Germany recognizes the imperative to identify and understand the success

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strategies of companies thriving in this digital era (Samerski & Müller, 2019). It becomes evident that the traditional Hidden Champions model may no longer be adequate to address the evolving demands of the digital marketplace.

This era, characterized by the dominance of Artificial Intelligence (AI) and data, heralds a period where these elements are crucial for innovation and competitiveness. AI not only propels innovation but also allows for the optimization of processes, expansion of value propositions, and the creation of new business models (Lee, 2018). The proliferation of Big Data and advancements in analytics enable deeper insights into customer behavior, market trends, and operational efficiency necessitating business models to adapt more rapidly than ever (McKinsey Global Institute, 2018). The integration of AI and analytics into strategic planning amplifies competitive intensity and expedites the pace of innovation, making agility a critical factor for success in this challenging landscape.

Accordingly, this scientific paper suggests a novel framework to identify and scrutinize the success strategies of Hidden Champions in the digital age. This proposed approach aims to encapsulate the dynamic shifts within the business environment, highlighting pathways to sustained economic success amidst digital transformation and underscoring the pivotal role of AI and data in achieving corporate success. To achieve this, a detailed examination of the Hidden Champions concept is required, with a focus on the implications of rapid technological change and the significance of AI and data in transforming business models for the digital age.

2 HIDDEN CHAMPIONS

2.1 Fundamentals of the Model

Since 1990, author Prof. Dr. Hermann Simon has been engaged with the subject of Hidden Champions. He is the founder of the so-called "Hidden Champions Theory" (Membership - Association of German Hidden Champions, n.d.). His definition is widely spread and referenced in various publications. According to Simon (Simon, 2012a), a company must meet the following criteria to be classified as a Hidden Champion:

- It must be among the top 3 in its market worldwide or number 1 on its continent.
- Its revenue must be under 5 billion euros.
- It must have low public awareness.

Hidden Champions are highly innovative, yet little-known small and medium-sized enterprises (SMEs) with global or continental market leadership in specialized products.

Hidden Champions have a global orientation due to targeted globalization efforts (Simon, 2009). Furthermore, Hidden Champions have ample internal resources and a high capacity for innovation, distinguishing them from other SMEs (Witt & Carr, 2013). Digitalization is crucial for Hidden Champions to maintain their connection to international networks and participate in innovation-related digitalization processes (Wittenstein, 2020).

2.2 Related Paper

Hermann Simon's work in the 1990s laid the foundation for understanding the strategies and characteristics of Hidden Champions, focusing on small and medium-sized world market leaders from Germany (Vollert, 2012; Simon, 2007; Pittrof, 2011). Audretsch et al., 2018, examined the internationalization strategies of German Hidden Champions, characterized by high export ratios and specialization in premium products in niche markets. They highlighted that Germany, with its traditional support for a qualified workforce and strong medium-sized business structure, proves to be an ideal environment for Hidden Champions (Audretsch et al., 2018). Schenkenhofer provides a comprehensive analysis of the literature on Hidden Champions, identifying four main research areas: internationalization strategies, research and development strategies, geographical distribution, and other relevant topics. The study emphasizes that Hidden Champions innovate more than other companies, often in close collaboration with external research institutions (Schenkenhofer, 2022).

Wittenstein explores how Hidden Champions respond to digital transformation, arguing that, due to stronger dynamic capabilities, Hidden Champions are better equipped for digital transformation than other companies. Despite challenges such as limited openness to radical innovations and a focus on incremental improvements, the findings suggest that Hidden Champions may be better prepared for digital transformation than other firms. Breyer-Mayländer specifically focuses on the challenges and opportunities of digital transformation for Hidden Champions. The study sheds light on how medium-sized world market leaders specializing in niche markets approach digital transformation and the role of innovative technologies in this process. It focuses on adapting expertise to new requirements,

developing leadership skills, and creating training opportunities as part of lifelong learning (Breyer-Mayländer, 2022).

The study by Greeven et al. examined the various types of innovations employed by different types of companies, including Hidden Champions, in the Chinese market, as well as their competitive strategies and global business practices (Greeven, 2023). Kamp and Ruiz de Apodaca conducted a sample survey involving 20 companies in Spain to investigate whether international niche market leaders achieved their leading position as "early movers" or as "diligent followers". Their findings suggest that early market entry promotes the attainment of market leadership in niche markets, that the pioneer advantage is easier to sustain in niche markets than in mainstream markets, and that soft measures are more effective in niche markets than in larger markets. Their results also demonstrated that Hidden Champions and niche market leaders can be significant sources of technological advancement and economic value for the locations they inhabit. They emphasized that policymakers should pay more attention to this type of company (Kamp & Ruiz De Apodaca, 2023).

These studies underscore the significance of Hidden Champions for the global economy and provide valuable insights into the strategies through which small and medium-sized enterprises can become world leaders in their specific niches. They demonstrate how innovation capability, strategic market focus, and a strong export orientation contribute to the success of these enterprises.

2.3 Limitation of the Model

Rammer and Spielkamp highlight in their studies that small and medium-sized world market leaders, known as Hidden Champions, distinguish themselves through unique features such as operational efficiency, strong corporate cultures, and a focus on niche markets. Their competitive strategy is based on technological leadership and customer-specific solutions, granting them global competitiveness (Rammer & Spielkamp, 2019). The success of Hidden Champions is not a matter of chance but the result of a targeted strategic alignment, efficient resource utilization, and innovative processes. Despite similar investments in innovation as other companies, Hidden Champions achieve higher efficiency, attributed to superior technological capabilities and investments in human capital and HR management (Rammer & Spielkamp, 2019b). These findings show that research and development

activities, as well as the improvement of technological processes, are crucial for market leadership (Schlepphorst & Schlömer-Laufen, 2016). Hidden Champions actively contribute to the digitalization of their rural regions of origin by advancing both the digital infrastructure and digital competencies (Rietmann, 2023). These insights suggest that the traditional understanding of Hidden Champions may require re-evaluation.

3 INTRODUCING THE CONCEPT OF HIDDEN CHALLENGERS

This is where the concept of *Hidden Challengers* comes into play, taking into account the constantly changing requirements of a dynamic technological environment. The need for such a new concept is underscored by the speed of technology and the associated ever-evolving niche markets and innovation capabilities. *Hidden Challengers* could reflect the changing strategies and characteristics, particularly regarding their adaptability and ability to succeed in a rapidly changing technological landscape. Adapting to these new conditions and continuously developing their core competencies could be crucial for *Hidden Challengers* in the future to secure and expand their market leadership.

3.1 Digital Innovation Beyond Urban Dominance

The essence of the *Hidden Challenger* model lies in adapting their business models to digital transformation and efficiently utilizing technology. Through the proper use of technological capabilities and their innovation strength, they are capable of competing for market shares with established companies. Unlike the first criterion of Hidden Champions, which requires being among the top three globally in their industry or leading on their continent, the *Hidden Challenger* concept does not adere to this. This shift particularly acknowledges companies in rural areas where traditional success criteria may not apply equally, making the first criterion redundant in this context. Rural companies rarely rank among the top three globally or number one on their continent, partly due to unequal conditions highlighted by the study of Räisänen and Tuovinen in 2020, which also revealed that companies in rural areas face disadvantages in digitalization, evident through poorer infrastructure and slower internet connections (Räisänen & Tuovinen, 2020). By not meeting the

first criterion, these entities fall outside the Hidden Champions model, often remaining under the political radar. However, rural companies have broken stereotypes, becoming a driving force significantly contributing to the transformation and development of rural areas worldwide. The key to this success is technology, which has primarily improved market access (FasterCapital, 2023). The increasing participation of rural companies in the global market brings several benefits to the regions, such as revitalizing the local economy through job creation, increasing purchasing power by generating income, and attracting investors, leading to improved quality of life in the countryside and reducing urban-rural migration. The most significant advantage is inspiring the next generation through investments in local infrastructure and educational and health initiatives.

This phenomenon highlights the need to reconsider existing concepts and criteria to adequately capture and understand the peculiarities and challenges of companies in rural areas. This insight could be significant for further research in the Hidden Champions sector, opening perspectives for analysing and evaluating these companies. Overall, this consideration emphasizes the relevance of a differentiated approach to the Hidden Champions concept, particularly regarding their geographical location and changing economic conditions.
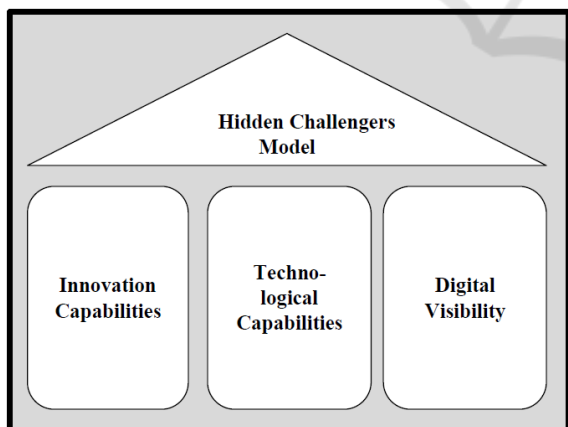
3.2 Core Elements of the Hidden Challenger Model

Figure 1: Core Elements of the *Hidden Challenger* model.

3.2.1 Innovation Capabilities

Another extremely important aspect is the companies' innovation capability. Studies by Hanaysha et al. in 2022 confirmed that the innovation capability of small and medium-sized enterprises significantly

impacts their economic sustainability, a finding also supported by a 2023 study by the Boston Consulting Group. The study showed that an innovation-oriented culture is one of the attributes that equip companies better for the future, allowing them to perform above average. These companies can better withstand resilience and leverage innovations for value-added growth. Innovation is not only crucial for individual companies, but also for countries and governments, especially for countries with scarce natural resources like Germany (Haag et al., 2023).

To assess a company's innovation capability, various metrics exist. Helm et al. explored which metrics are best suited for evaluating a company's innovation strength. They divided innovation power into three dimensions: innovation capability; innovation activity; innovation success. Their findings suggested that no single metric is sufficient to conclusively evaluate a company's innovation strength. However, the best results were achieved with approaches like the Innovation Score Card and the Scoring Method (Helm et al., 2006). This insight is considered in the new *Hidden Challenger* model, where these methods are applied to measure innovation strength, and the limitations of these methods are mitigated by the other criteria of the new model, thus reducing their weighting.

3.2.2 Technological Capabilities

In the evolving landscape of global business and innovation, technological capabilities have become a pivotal attribute for companies aiming to enhance their resilience against market fluctuations and competitive pressures. A particular area of focus within this domain is the application of AI, which has been identified as a critical component in driving forward-looking strategies and operations (Treacy, 2022; Weber, 2023). The deployment of such technologies not only enables businesses to streamline their processes, but also allows for the development of new products and services, tailored to meet the ever-changing needs of their customers.

The concept of digital maturity is essential for assessing a company's technological capabilities, offering a comprehensive evaluation of how effectively a business adopts and integrates digital technologies across all areas of its operations. This assessment goes beyond simply having technology within the organization, focusing instead on the extent to which digital tools and systems are utilized to achieve strategic objectives and foster innovation. Groskovs and Vemula (2018) propose a digital maturity assessment model that serves both as a tool

for researchers and a strategic instrument for managers, addressing the need for a conceptually clear method to measure digital maturity at the business model level (Groskovs & Vemula, 2018). Additionally, Eremina, Lāce, and Bistrova (2019) highlight the significance of digital maturity in enhancing a company's competitive moat and operational efficiency through their methodology applied to enterprises in the Baltic States (Eremina et al., 2019). For *Hidden Challengers*, the journey towards digital maturity involves several key steps, including the adoption of AI and other advanced technologies, the digitization of core processes, and the establishment of a culture that encourages experimentation and the adoption of digital-first approaches. By measuring their digital maturity, companies can identify areas of strength and potential gaps in their technological capabilities, enabling them to develop targeted strategies for improvement. This measurement is not a one-size-fits-all process, but rather should be tailored to reflect the unique context and objectives of each organization. Various frameworks and tools can be utilized to gauge digital maturity, including self-assessment checklists, maturity models, and benchmarks against industry standards. These assessments provide valuable insights into a company's digital infrastructure, its use of data and analytics, digital talent and skills, and the overall digital culture.

Integrating these technological capabilities, with an emphasis on digital maturity and the strategic application of AI, allows *Hidden Challengers* to not only navigate the complexities of the digital age but to thrive within it. By prioritizing technological advancement and digital transformation, these companies can enhance their competitiveness, drive innovation, and secure a strong position in the global market. This approach positions *Hidden Challengers* to capitalize on the opportunities presented by digital technologies, enabling them to outmanoeuvre larger, less agile competitors and redefine the paradigms of success in their respective industries.

3.2.3 Digital Visibility

The new framework emphasizes public awareness as one of the key points. In the Hidden Champions model, this criterion is negatively evaluated. Our alternative *Hidden Challenger* model emphasizes the necessity of digital visibility for business success. Digital marketing is crucial for promoting growth and visibility, even for Hidden Champions.

In a world where audiences increasingly use digital platforms for information and engagement,

neglecting digital presence can lead to a loss of market relevance. Adaptability and data-driven decisions remain central pillars of success. Hidden Champions should not see digital marketing as a departure from their core competencies but as an extension that allows them to adapt to digital needs and preferences. In our model, digital marketing is not just an advantage, but a necessity for *Hidden Challengers* in the digital age to solidify their market position and enhance their visibility without compromising their core identity. This digital visibility is measured using the Niche Brand Awareness Index, which utilizes online media, underlined by studies showing that digital marketing is essential for competitive advantage impacts business outcomes and is key in digital transformation for success (Leeflang et al., 2014; Gurbaxani & Dunkle, 2019; Dolega et al., 2021).

4 DISCUSSION

The three aspects, innovation power, technological capabilities and digital visibility are overlooked in the Hidden Champions model. This leads to highly innovative and promising companies being neglected as long as they are not among the top three globally or market leaders on their continent. The *Hidden Challenger* model aims to change this by focusing on the innovation capability, digital transformation and digital visibility of companies. In the context of Hidden Champions, companies that are successful despite low public awareness, the digital age poses new requirements. Traditionally, these companies are distinguished by high expertise and market success while remaining less known to the public. However, in the digital age, this reticence in public perception could pose a challenge.

This leads to the following three criteria for the new *Hidden Challenger* Framework:

- Company's innovation strength measured using the Innovation Score Card and the Scoring Method
- Company's technological capabilities measured using self-assessment checklists, maturity models, and benchmarks against industry standards
- Company's digital visibility is measured using the Niche Brand Awareness Index

5 CONCLUSION

The revision of the Hidden Champions model to incorporate innovation strength, technological capabilities, and digital visibility reflects the evolving demands of the digital era, providing a more precise method for identifying companies with high growth potential and competitiveness. Companies that drive innovation and effectively leverage technology, regardless of their global positioning, can succeed, with a strong presence on social media platforms potentially correlating with higher competitiveness. These insights offer valuable perspectives for businesses and policymakers to adapt their strategic decisions and strengthen competitiveness. Early adaptation to the changes in the revised model can potentially lead to long-term success for companies, bolstering their position in a rapidly changing business environment.

6 IMPLICATIONS FOR FUTURE WORK

In comparison to Simon's Hidden Champion model, the *Hidden Challenger* model represents a more up-to-date view of current demands placed on businesses, being much more responsive to the changing requirements of a dynamic technological environment. Despite its promising contextualisation, however, at the present time it lacks empirical validation and tangible measurable metrics that could substantiate its success. Metrics like the Niche Brand Awareness Index and the Innovation Score Card or the Scoring Method could be used to validate the *Hidden Challengers* model in future research. Moreover, further research is warranted, to determine how the core aspects of the model interact with each other and may be of varying importance to business success, and to establish the weighting of the core elements in the identification of *Hidden Challengers*. It is recommended that the proposed model be tested in specific regions and industries to assess its applicability and effectiveness in different contexts. The research gaps are to be systematically addressed in further studies to validate and refine the *Hidden Challenger* model and provide a strong empirical basis for future research.

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