Inventor Marketer Synergy in the Area of Advanced Technology Products

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In today's rapidly advancing technological world, technology-driven innovations comprise a substantial part of global innovation. The success journey of high-tech products such as drones, credit cards, SIRI from Apple depends not only on innovative design but also on strategic market positioning. This paper builds upon the proposed concept of synergy which has been recognized as one of the winners of the AMS Review Sheth Foundation Doctoral Competition for Conceptual Papers in 2024 (AMS Review, 2024). The concept of synergy implies alignment between the inventor's and marketer's perspectives in shaping the success and market longevity of advanced technology products. In this paper we have analyzed notable high-tech products, examining how this synergy influences their market outcomes. Findings shows that while technical advancements create potential, aligning inventor insights with marketer-driven strategies is essential for achieving commercial success and shaping the future of advanced technology products.

Keywords: Innovation, High-tech products, Marketing, Inventor-Marketer Synergy

1. Introduction

Advanced technology products are at the forefront of innovation, driving progress across industries and shaping the future. The development of high-tech products such as drones, credit cards, and SIRI from Apple has transformed industries and reshaped consumer experiences. However, the development of advanced technologies alone is not sufficient to generate value for consumers or financial returns for companies. They can deliver tangible benefits only when they progress effectively from the conceptual stage to marketplace. Not all advanced technology products achieve long term success in the market and generate good financial returns (George et al., 2002; Markham & Lee, 2013). Despite their innovative potential and capabilities, many products fail to sustain in the market over time. This raises an important question: What determines the success of an advanced technology product, and why do some of these innovations are successful while others struggle? And how can we move towards a sustained journey for these advanced technology innovations, maintaining their relevance and success in the long term?

The alignment between invention and marketability lies at the heart of these questions. While inventors bring technical vision, deep expertise, and creative insight into product development (Markham, 2013), marketers contribute a clear understanding of consumer needs, market positioning, and the strategies required for widespread adoption (Anderson, 1987) of the products. This paper explores the synergy between inventors and marketers, examining how their collaborative efforts can influence the journey of advanced technology products in the market. We aim to uncover how this inventor-marketer synergy impacts product longevity by studying prominent high-tech products that have succeeded or struggled. This study will provide valuable insights into the elements necessary for translating technological advancements into market success.

This research paper focuses on these research questions:

1. How does the alignment (or misalignment) between inventors' vision and marketers' strategies influence the journey of advanced technology products?
2. What market outcomes can be achieved when inventor-marketer synergy is effectively established?

This study adopts a case-based approach, analyzing advanced technology products to understand the idea of inventor-marketer synergy. Through qualitative analysis of product journeys, and market performance data, we investigate how inventor-driven innovation and marketer-led positioning intersect in shaping product success or failure. Insights from both successful and struggling products has been considered for this study.

This research contributes to the understanding of advanced technology product success by highlighting the important role of inventor-marketer collaboration. The findings provide valuable insights for innovators and marketing professionals, offering a strategic roadmap to enhance the impact and sustainability of high-tech products in the market.

In the next section, we will present the idea of synergy (Section 2) between inventors and marketers, followed by a literature review (Section 3) examining its reflection in existing research and its impact on the success of high-tech innovations. Then, in Section 4, we will discuss the research gap and motivation for this research. Next, we will explain the methodology of the study (Section 5) and analyze case studies (Section 6) of high-tech products to explore the application of the inventor-marketer synergy concept. The contribution section (Section 7) will outline the implications of these findings and contribution, followed by the limitations of the study and propose directions for future research (Section 8).

2. What do We Mean by Inventor-Marketer Synergy?

Inventor-Marketer Synergy refers to a consonance between inventor's and marketer's thought process, where each brings their unique expertise to make a product's journey successful. This synergy is built on the idea that inventors and marketers have distinct yet complementary roles in the product development process (Tronvoll & Plangger, 2024). On the one hand, Inventors bring technical expertise, innovative ideas, and a deep understanding of the product's functionality and purpose (Perry-Smith & Mannucci, 2017). They are often focused on creating something new, solving problems, and developing a product that is technically advanced and unique (Roberts, 2007). However, without effective communication and understanding of the market, even the best inventions can struggle to reach their full potential (Chiesa & Frattini, 2011; Yohn, 2019). On the other hand, marketers are experts in understanding consumer behavior, market trends, and the strategic positioning of products (Dutta et al., 1999). They play an important role in ensuring that the product reaches the right audience, aligns with their needs, and stands out in a competitive market (Anderson, 1987). If marketers translate the inventor's original vision into a compelling message that resonates with consumers and drives adoption, the product is more likely to achieve widespread success and meet both its technological potential and market demands.

This Inventor-Marketer Synergy Framework, which we previously developed, was recognized as a winner in the AMS Review Sheth Foundation Doctoral Competition 2024 for Conceptual Papers (AMS Review, 2024). It defines this synergy as the integration of the inventor's technical expertise and the marketer's strategic positioning. The framework suggests that the positioning of a product can be effectively guided by an inventor's original vision and technical insights, offering marketers valuable direction. This means that marketers can leverage the inventor's deep understanding of the product's core purpose, unique features, and target audience to align their marketing strategies with the original intent of the invention.

In this paper, we apply this framework to advanced technology products such as drones and credit cards to explore how the synergy between inventor's and marketer's perspective influences the success and sustainability of advanced technology products in competitive markets.

3. Literature Review

1. Commercialization of Advanced Technology Products

The commercialization of advanced technology products involves the process of developing the technical innovation and then its transformation into market-ready solutions that generate value for consumers and profits for companies. The commercialization stage in a product's journey is typically the most costly (Beard & Easingwood, 1996) and critical stage because if commercialization fails, all the previous costs incurred in the product's development will be wasted. Therefore, companies and marketers need to carefully examine previous successful products to understand what made them successful to increase the success rate of new product commercialization. It is important to consider the entire new product development journey during the commercialization process of product. Important questions such as- how the product has been developed and why the product was developed can provide marketers valuable insights and clues to make better marketing strategies for the product.

In many cases it has seen that the biggest challenge does not lies in the invention of advanced technology products but in their successful market commercialization (Gans & Stern, 2003). Beard & Easingwood (1996) also explain that the success of new products majorly depends on how marketing managers execute the marketing strategies. It has been highlighted in many studies that products become more successful and eventually profitable if marketing activities executed effectively (Cooper, 1979, 1994; Cooper & Kleinschmidt, 1993; Link, 1987; Rothwell & Robertson, 1973).

The commercialization of high technology products is a challenging process that requires careful identification and evaluation of a technology's market potential (Dorf & Worthington, 1987). It has been recognised that creators of a product has the best understanding of the potential of their creation (Spulber, 2012), as they hold a unique vision and deep insights into its intended purpose and capabilities. A creator of the product engages in a long process while creating a product and is informed by a knowledge-based perspective of a product(Maggitti et al., 2013). By considering the creator's views and vision, marketers can gain a clearer understanding of the technology's potential and clues regarding how it should be positioned in the mind of the customers. This collaboration allows marketers to translate the inventor's insights or idea into a strategic value proposition (Gans & Stern, 2003) for the target customers, facilitating the market commercialization of the product.

2. Inventor-Marketer Synergy and Advanced Technology Products

The collaboration between inventors and marketers in the journey of new products has long been recognized in previous studies (Fisher et al., 1997; Griffin & Hauser, 1996; Hise et al., 1990; Rein, 2004; Souder, 1988). These studies emphasize that early alignment between inventors and marketers enhances product relevance and streamlines the journey from prototype to commercialization (Acur et al., 2012). Goldenberg et al. (2001) in this study highlights the importance of the original idea of the creator of the Product. Marketers can make persuasive communication messages by incorporating inventor's perspective and product's genesis story (Wang et al., 2019) for advanced technology products.

Researchers have identified several factors that contribute to the failure of technological products. These include unmet customer expectations, lack of uniqueness, limited or unclear information about the product, inadequate understanding of customer needs, poorly defined target markets(Chiesa & Frattini, 2011), ineffective marketing strategies , and issues with pricing or distribution(Rosen et al., 1998). If the concept of inventor-marketer synergy is considered, many factors that lead a product toward failure could be eliminated. For example, when inventors take users into account during product development,

it helps address key factors such as customer expectations, uniqueness, and target market clarity. Similarly, if marketers recognize the importance of the inventor's perspective and incorporate these insights into the product's positioning, it can reduce other factors (ineffective marketing strategies and unclear information about the product), enhancing the product's chances of success.

4. Gaps in Literature and Research Motivation

While prior studies have explored the importance of inventor and marketer of the product, their early alignment, and commercialization challenges of high-tech products, but there remains a gap in examining how inventor-marketer synergy specifically impacts high-tech product outcomes. Existing literature on high-tech commercialization and innovation management has not fully addressed the ways in which inventor-marketer alignment may influence the market journey or sustainability of advanced technology products.

This study seeks to fill this gap by applying the Inventor-Marketer Synergy idea to high-tech products, exploring the role of this synergy in addressing the problems these products face in competitive markets. By doing so, our research aims to contribute new insights into the commercialization of technologically advanced products through an empirical exploration of inventor-marketer synergy.

5. Methodology

This study employs a qualitative, conceptual research approach to examine the role of Inventor-Marketer Synergy in the market success of advanced technology products. By analyzing existing high-tech products, this research draws on secondary data sources, including case studies, published reports, articles, and prior research on successful and unsuccessful high-tech products. This approach allows us to observe and interpret how synergy between inventors and marketers may influence product outcomes across various industries.

We focused on a diverse range of high-tech products, including consumer products, communication tools, and artificial intelligence, biotechnology to identify patterns where Inventor-Marketer Synergy impacts market success. Using products such as drones, credit cards, and SIRI from Apple as illustrative examples, this study examines how alignment between inventor vision and marketing strategy can enhance product-market fit, influence customer adoption, and support long-term viability. We explore the history and journey of these products from the perspective of the inventor's original intent and the subsequent market positioning, analyzing how this alignment has influenced their market journey and success.

6. Findings

New inventions and advanced technology products are constantly being developed, and only some make it to the commercialization stage. A few go on to achieve success, capturing the market, while others fade into obscurity. Why do some products fail to attract customer attention while others succeed? How could this be associated with the creator and marketer of the product? If inventors or creators consider user needs and target customers during the creation process, could it lead to a higher-performing product? Or, if marketing aligns more closely with the inventor's vision, could this improve the success rate for new technology products?

In this section of paper, we summarize the key insights from analyzing the journey of different high technology products through the lens of Inventor-Marketer Synergy and their market performance (Table – 1). To understand these products' journeys, we referred to credible sources, including official product websites, magazine articles, newspaper reports, and Statista data. These sources provide a well-rounded view of each product's history, the inventor's vision, and how it was ultimately positioned and received in the market. The following table presents examples of advanced technology products from varied industries, offering a comprehensive look at each product's journey, the influence of inventor-marketer alignment, and the resulting market outcomes.

Table 1 *Inventor Marketer Synergy in the area of Advanced Technology Products*

High Technology Products	Failed/Successful	Inventor-Marketer Synergy
Apple SIRI	Towards success	The concept for Siri originated from an advanced research project in artificial intelligence focused on developing an AI-powered assistant for military purposes (Mohamed, 2023). During the project, the team realized the potential for such an assistant in personal and consumer applications. This insight led them to create a venture dedicated to bringing this technology to everyday users (S.R.I., n.d.). Later, Apple acquired this venture which supports the original vision of the creators and promote Siri in the same way as a revolutionary cognitive personal assistant for its devices (Byte, 2023).Here, the product was marketed in the same way it was originally intended, and we can see that Apple's Siri proved to be a successful product.
Drones	Towards success (DRONEII, 2024; Statista, 2024b)	Drones were initially invented as advanced military tools primarily used for surveillance and targeted missions, suited to defence needs. However, as the technology evolved and drone price decreased(Drones - Worldwide, 2024), they began attracting interest from civilian and commercial sectors as well. Businesses and marketers started exploring and promoting new applications for drones (Joel, 2013), such as crop monitoring in agriculture (Thaker, 2022), photography in events,

		and parcel delivery. These new uses transformed drones from military tools into commercial products, now widely adopted across diverse industries. Here also, the core application (unmanned aerial vehicle) of the product created by the inventor was effectively promoted by the marketer in the market, resulting in the product flourishing and its usage expanding across various applications.
Google Wave	Failed (Agarwal, 2024; Google, n.d.; Raza, 2020)	Google wave has been created for real time collaborative communication to integrate features of email, instant messaging, and document sharing in a single platform (Sperling, 2010). The vision behind Google Wave was to provide teams and a dynamic workspace where multiple users could simultaneously edit, share, and discuss content in real time, replacing traditional communication methods with a more interactive experience. However, Wave's complex and confusing design made it hard for users to understand and use easily (Raza, 2020), and its marketing did not adequately convey how Wave's unique features could be utilized (Agarwal, 2024), leading to low user adoption. It appears that a lack of consideration of users and an unclear understanding of the target audience during the product creation led to significant market struggles, eventually leading the company to discontinue it (Google, n.d.).
Genetic Editing Technology	Banned (Sadeghi, 2023)	Genetic editing technology was originally developed with the vision of eliminating hereditary diseases and preventing serious illnesses from being passed down to future generations (Bergman, 2019). The inventor's intent was to address and potentially eradicate genetic disorders, providing a revolutionary approach to health and well-being. However, as the technology advanced, concerns arose over its potential misuse for creating "enhanced" humans with modified traits beyond health —such as physical, cognitive, or aesthetic enhancements (McKie, 2015). This possibility led to significant ethical debates and fears regarding inequality, designer babies, and unintended consequences for human evolution. The creators of the technology had not fully accounted for the broader societal impacts and potential misapplications of gene editing. Consequently, the technology faced substantial opposition, and regulatory bodies were compelled to impose restrictions or bans, preventing further development in several countries.
Apple Newton	Failed (Apple, n.d.; Bajarin, 2024; Honan, 2013; Musgrove, 2021)	The Apple Newton, an early personal digital assistant (PDA) is a high technology product (Bajarin, 2024). It was created with the vision of transforming how people manage information. However, due to ineffective marketing, the Newton struggled in the market (Musgrove, 2021). If the marketing approach had been better aligned with the product's features and targeted a more specific audience, it might have better resonated in the market, possibly resulting in greater success and longevity.
Segway (Personal Transporter)	Towards failure (Alchemist, 2023; Golson, 2015; Lynch, 2020; Sandler, 2020)	Segway was a personal transporter that was once praised by Time as the "Best Invention of 2001(Lynch, 2020)." However, the inventor lacked a clear purpose or strong vision in his creation. He himself admitted that it was simply a "fun project" and "not part of the original plan(Sorvino, 2016)." He added, "we never sat down to make the Segway" with any specific purpose in mind (Sorvino, 2016). Somewhere the lack of a strong or clear vision meant that he didn't ponder over who he was making it for, what essential features it should have, or the cost aspect(Alchemist, 2023; Golson, 2015). Due to the inventor's lack of a clear vision for his creation, marketing couldn't propel it forward, and the product headed toward failure. If the inventor had initially thought about the product's use, its target users, and taken these considerations into account, perhaps a revolutionary technology-based product could have been successful.
Credit Card	Towards success (Kapron, 2023; Statista, & The Nilson Report, 2024; Statista, 2024a)	The use of credit has a long history, but the first multipurpose charge card was created in response to a personal incident. The inventor, Frank McNamara, forgot his wallet while dining at a restaurant, and he didn't want to face the embarrassment of being unable to pay. This led him to create the first charge card, known as the Diners Club card, which allowed people to make payments without carrying cash(Diners Club International, n.d.). However, today, the use of credit cards has evolved significantly. Marketers expanded the core purpose of credit card created by the inventor and its potential (Kerre, 2019). They recognized the potential to position the credit card not just as a payment solution, but as a symbol of status, convenience, and financial flexibility. As marketers began promoting the card as a tool for managing finances, earning rewards, and accessing credit, the card gained traction among a broader audience (Nichols, 2014). This shift in usage patterns can be attributed to effective marketing strategies that changed the perception of the card from a necessary backup to an everyday financial tool.

7. Contribution

This research contributes to the fields of innovation management and marketing by exploring the specific role that inventor-marketer synergy plays in the success of advanced technology products. Building on the established Inventor-Marketer Synergy Framework, this study applies it to high-tech products to analyze how the alignment between inventors' original visions and marketers' strategic positioning affects both market acceptance and long-term product viability.

This study sheds light on how inventor-marketer synergy can enhance or hinder the commercial success of advanced technology products, offering valuable insights that increase high-tech product success rate. By examining real-world examples, this research illustrates how collaborative alignment between inventors and marketers can impact both the market journey and

sustainability of these innovations. This focus on high-technology applications expands the relevance of the Inventor-Marketer Synergy Framework, showing its applicability to industries where both rapid innovation and consumer adaptability are essential for sustained success.

Furthermore, this research adds depth to existing theoretical discussions on innovation and market strategy by providing an empirical look at high-tech product outcomes through the lens of inventor-marketer synergy. This contribution not only enriches the theoretical discourse on cross-functional collaboration in advanced technology sectors but also offers practical insights for organizations seeking to improve product outcomes in technology-driven markets.

8. Limitations and Future Research Directions

This study provides valuable insights into the role of inventor-marketer synergy in supporting the sustained journey of high-tech products. However, there are several limitations that must be acknowledged. Acknowledging these limitations in future offers a foundation for refining the framework in future studies and expanding its relevance to a broader spectrum of high-tech innovations.

First, the study focuses on a limited number of high-tech products, while these examples are illustrative, they may not capture the full range of products present across diverse high-tech sectors. Future research could extend this framework to other advanced technology industries to confirm and generalize the findings.

Second, this research relies on a retrospective analysis of established products, meaning it examines outcomes after they have achieved market presence. This approach does not allow for real-time observation of the inventor-marketer interaction as it unfolds. Future research could adopt a longitudinal approach, observing products from development through commercialization, to capture more dynamic insights into the evolving inventor-marketer relationship.

Finally, the study's qualitative approach provides rich insights but may limit the scope for broader generalizations. Case studies offer depth, yet they rely on subjective perspectives that may introduce biases. Future research could include quantitative measures or mixed methods approaches to validate findings across larger datasets and enhance generalizability.

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