Chapter 7
Revolutionizing Healthcare:
A Marketing Approach to Digital Twin Technology

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ABSTRACT

Digital twin technology has emerged as a transformative force for healthcare in an age marked by technological progress. Various marketing strategies aimed at bringing digital twin technologies to the healthcare sector are explored in this chapter. Digital twins is a virtual model of a physical real-world product. Digital twins offer a revolutionary approach to the delivery of healthcare, enabling personalized treatment, predictive analysis, and remote monitoring. By analyzing market dynamics, defining target audiences, and creating value propositions, healthcare organizations can effectively support the benefits of digital twining. The research provides concrete steps to promote the effective use of digital twin technologies. The strategies for content marketing, social media engagement, and SEO alongside the importance of email marketing campaigns are highlighted. In addition, the importance of consumer success stories, regulatory compliance, and data-based measurements to ensure that marketing efforts are successful is emphasized.

1. INTRODUCTION

Among the many technologies brought forth by Industry 4.0, One of the most popular technologies is digital twin technology. It was a concept introduced for manufacturing and has now been receiving attention in a wider range of domains. Digital Twin Technology refers to the technology that allows us to represent a physical object or model from the real world to the virtual world. A digital twin is connected

to its physical counterpart through sensors, actuators, and other data-gathering devices. This allows for simulations, monitoring, quick decision-making, analysis, and optimizations. A step-by-step approach is adopted to implement Digital Twins. Although digital twins have gained traction across various domains, their impact in the healthcare sector is particularly profound.

Marketing plays a major role in establishing a loyal customer base for the product as well as inviting new customers towards the product. The study explores several marketing tactics that might help digital twin technology adoption in the healthcare industry. It emphasizes the strategies most efficient to work with the digital twin technology. It also talks about the considerations to keep in mind concerning the regulations, policies, and compliances.

The following are the chapter's primary contributions:

1. Digital Twins in Healthcare
2. Analyzing the Market and Preparing to Enter the Market
3. Content Marketing Strategy
4. Key Considerations for Effective Marketing Strategy
5. Long-term Strategic Planning

The rest of the chapter is arranged as follows: Section 2 discusses the uses and requirements of digital twins in healthcare from patients to healthcare professionals as well as medical devices. Section 3 sets the base for starting the marketing by identifying the target audience, analyzing the market, and preparing to enter the market. Section 4 explores the various methods of marketing present today and how to apply them to digital twins. Section 5 focuses on maintaining the customer base and talks about the policies and regulations. Section 6 discusses the importance of strategic planning for the long term and analyzing the product using KPI or other measurement tools. Section 6 concludes the chapter.

2. DIGITAL TWINS IN HEALTHCARE

Like many other technological advancements taking place in the healthcare sector, the adoption of Digital Twin Technology is one among them. Digital Twins can be applied in several areas of healthcare. By combining the digital and physical worlds, it has the power to completely transform healthcare by empowering medical professionals to make well-informed decisions. Table 1 talks about the methodologies used to construct digital twins across different healthcare fields (Meijer et al., 2023)

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