

## 5G Revolution: How Marketers Can Leverage the High-Speed Landscape

Rani Suryani<sup>1\*</sup>, Idah Yuniasih<sup>2</sup>, Nurul Aisyah<sup>3</sup>

<sup>1,2,3</sup> Universitas Bina Sarana Informatika

[rani.rsy@bsi.ac.id](mailto:rani.rsy@bsi.ac.id), [idah.bsi.ac.id](mailto:idah.bsi.ac.id), [nurul.nly@bsi.ac.id](mailto:nurul.nly@bsi.ac.id)

\*Corresponding Author

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### ABSTRACT

*This research examines the impact of 5G technology adoption on marketing success at PT. Leaden Indonesia, focusing on the role of marketing strategies adaptation in achieving success. Using a quantitative approach with random sampling, data were collected from a sample of 100 consumers, and Smart PLS was employed for analysis. The study's findings reveal that 5G Technology Adoption has a significant direct effect on Marketing Strategies Adaptation and Marketing Success. Additionally, the indirect effect of 5G Technology Adoption on Marketing Success through Marketing Strategies Adaptation is also significant, indicating that effective marketing adaptation is key to achieving marketing success. Similarly, while Speed and Connectivity does not have a significant direct effect on Marketing Success, it does show a significant indirect effect through Marketing Strategies Adaptation, suggesting that marketing success is closely linked to how well marketing strategies are adapted to leverage 5G's speed and connectivity. These results highlight the importance of flexibility and innovation in marketing strategy to capitalize on the benefits of 5G technology. The research concludes that for PT. Leaden Indonesia, successful marketing in a 5G environment depends on a robust adaptation of marketing strategies, emphasizing the need for companies to evolve their approaches to meet the changing demands of the market.*

**Keywords :** 5G Technology Adoption, Marketing Success, Marketing Strategies Adaptation, Speed and Connectivity

### 1. Introduction

The rapid evolution of 5G technology has opened new horizons for marketers seeking to engage audiences in innovative and impactful ways (Id, 2023). As the high-speed landscape becomes increasingly prevalent, businesses must adapt their marketing strategies to leverage the potential of 5G (Ahmad et al., 2024). This new era of connectivity offers unparalleled speed, lower latency, and greater capacity, enabling marketers to create richer, more interactive experiences for consumers (Lottu et al., 2024). With these advances, the marketing industry stands at a crossroads, where the ability to harness 5G technology can drive success and set companies apart in a competitive market (Herawati et al., 2024).

At PT. Leaden Indonesia, the research variables play a crucial role in understanding how the organization can leverage the 5G revolution to drive marketing success. The dependent variable, marketing success, is measured by factors like increased brand visibility, customer engagement, and revenue growth. The first independent variable, 5G technology adoption, looks at how the company integrates fifth-generation wireless technology into its operations, including infrastructure upgrades, employee training, and 5G-compatible products or services. The second independent variable, speed and connectivity, explores the impact of 5G's high-speed data transfer and robust connectivity on the company's marketing strategies and customer interactions. The intervening variable, marketing strategies adaptation, examines how PT. Leaden Indonesia evolves its marketing tactics to capitalize on 5G capabilities, such as personalized campaigns, real-time customer engagement, and enhanced multimedia content. By examining these variables, the research aims to provide insights into how PT. Leaden Indonesia can optimize its marketing strategies in the rapidly changing 5G landscape to achieve business success (Biryukov et al., 2023).

The central phenomenon in the research concerning PT. Leaden Indonesia involves the organization's ability—or lack thereof—to adapt its marketing strategies in response to the rise of 5G technology. Despite the potential benefits that 5G offers, such as higher speeds, lower latency, and increased connectivity, PT. Leaden Indonesia faces challenges in integrating this technology into its marketing operations. The problem may stem from a lack of infrastructure readiness, insufficient knowledge or skills among marketing teams, or reluctance to shift away from traditional marketing methods. These issues can hinder the company's ability to create compelling, interactive campaigns that leverage 5G capabilities, impacting customer engagement and overall business growth. This study aims to uncover the barriers PT. Leaden Indonesia faces in adopting 5G-based marketing strategies and to identify solutions that can facilitate a smoother transition, ultimately driving improved marketing success.

The objective of this research at PT. Leaden Indonesia is to explore the impact of 5G technology adoption on marketing success and to identify how the company can effectively adapt its marketing strategies in response to this technological shift. The study aims to examine the relationship between 5G-driven speed and connectivity and the effectiveness of marketing campaigns, assessing whether these factors lead to increased customer engagement and business growth. By understanding the current challenges and opportunities associated with integrating 5G into marketing efforts, the research intends to provide actionable insights and recommendations for PT. Leaden Indonesia. Ultimately, the goal is to help the company enhance its marketing performance by leveraging the benefits of 5G technology, ensuring they remain competitive in a rapidly evolving digital landscape.

## 2. Literature Review

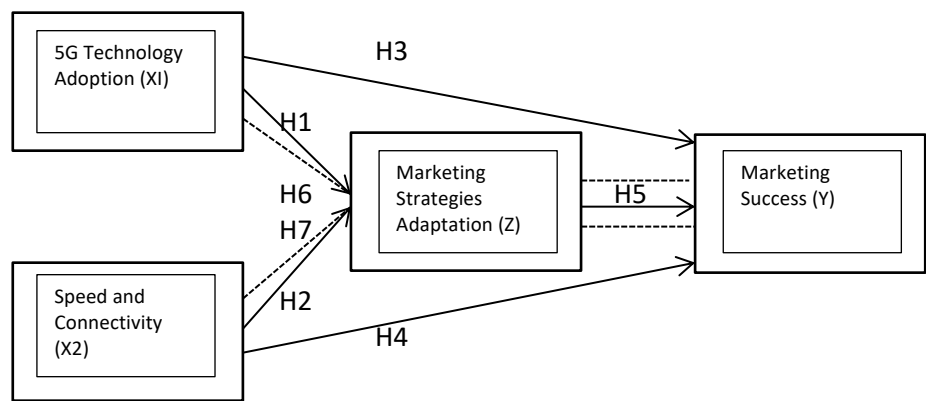
Marketing success refers to the achievement of predetermined objectives and goals in marketing campaigns, characterized by increased brand visibility, customer engagement, and, ultimately, sales or other desired outcomes (Nesterenko et al., 2023). In a high-speed landscape enabled by 5G technology, marketing success is driven by the ability to reach audiences quickly and provide seamless, interactive experiences (George & Sagayarajan, 2023). Successful marketing in this context involves not only attracting new customers but also retaining and nurturing relationships with existing ones (Biswas et al., 2023). It encompasses various metrics, such as conversion rates, click-through rates, customer satisfaction, and return on investment (ROI) (Iccardi et al., 2024). Effective marketers leverage 5G's capabilities to create compelling content, harness data analytics for targeted advertising, and optimize customer journeys. Overall, marketing success in a 5G context is about using the technology's speed and connectivity to foster deeper connections with consumers and build lasting brand loyalty (Lagorio et al., 2023).

5G technology adoption refers to the process by which businesses and consumers integrate and use fifth-generation wireless technology to enhance communication, connectivity, and data transfer speeds (Murugun, 2023). As the latest iteration in mobile network technology, 5G offers significant improvements over its predecessors, with faster data rates, lower latency, and increased capacity (Mensah & Traore, 2024). This adoption involves both the deployment of 5G infrastructure by telecom companies and the uptake of 5G-compatible devices by users (Sunarya & Mauludina, 2024). For businesses, adopting 5G means rethinking their technology strategies to capitalize on the enhanced capabilities, such as creating immersive augmented reality (AR) or virtual reality (VR) experiences, implementing real-time data analytics, or enabling advanced IoT applications (Clercq et al., 2023). Consumers, on the other hand, embrace 5G for faster internet speeds, seamless streaming, and enhanced mobile gaming experiences (Satya et al., 2023). The adoption of 5G technology is crucial for companies seeking to stay competitive, as it allows them to innovate and meet evolving customer expectations in an increasingly connected world (Hensel et al., 2023).

Speed and connectivity are fundamental characteristics of 5G technology, shaping how businesses and consumers interact with the digital world. Speed, in the context of 5G, refers to the significantly faster data transfer rates compared to previous generations, with peak download speeds reaching multiple gigabits per second (Nakamura et al., 2023). This increased speed enables quicker downloads, high-quality streaming, and smoother online experiences. Connectivity, on the other hand, denotes the capacity of 5G networks to support a vast number of simultaneous connections with lower latency (Stib et al., 2023). This characteristic is crucial for emerging technologies such as the Internet of Things (IoT), autonomous vehicles, and smart cities, where numerous devices communicate in real time (Eswaran & Honnavalli, 2023). The combination of high speed and robust connectivity allows marketers to create more dynamic and interactive content, like live-streamed events, augmented reality campaigns, and real-time customer interactions. For consumers, this means seamless connectivity and access to richer online experiences (Devi et al., 2023). Thus, the interplay of speed and connectivity in 5G technology plays a central role in redefining how marketing strategies are developed and executed in the modern era (Adeleye et al., 2024).

Marketing strategies adaptation refers to the process by which marketers modify and evolve their approaches to capitalize on emerging technologies, consumer behavior trends, and market dynamics (Management, 2023). In the context of 5G technology, this adaptation involves rethinking traditional marketing tactics to harness the high-speed and connectivity benefits that 5G offers (Risdiyanto et al., 2023). Marketers may shift focus to creating interactive content that takes advantage of 5G's low latency and fast data transfer rates, such as immersive augmented reality (AR) and virtual reality (VR) experiences, or live-streaming events that engage audiences in real time (Raji et al., 2024). Additionally, with 5G's capacity to handle large volumes of data, marketers can use advanced analytics and artificial intelligence to deliver personalized content and targeted advertising, thereby improving customer engagement and satisfaction (Abdul Rosid, Loso Judijanto IPOSS, 2023). Adapting marketing strategies also involves reconfiguring customer journeys, incorporating multichannel approaches, and ensuring seamless user experiences across various platforms (Article, 2023). Overall, successful marketing strategies adaptation in the 5G era requires a flexible mindset, a deep understanding of technology trends, and a commitment to creating value-driven, consumer-centric campaigns (Arab, 2023).

The following is the Conceptual Framework:



3. Research Methods

The research methodology for this study at PT. Leaden Indonesia employs a quantitative research design with random sampling, selecting a sample of 100 consumers from the company's customer base. Random sampling ensures that each consumer has an equal chance of being included in the study, enhancing the generalizability of the findings. Data collection

involves structured surveys or questionnaires, designed to gather quantitative data on consumer perceptions, experiences, and responses to marketing campaigns in a 5G context. The collected data is analyzed using Smart PLS, a statistical software tool for Partial Least Squares Structural Equation Modeling (PLS-SEM). This method allows for the examination of complex relationships between variables, such as 5G technology adoption, marketing strategies adaptation, and marketing success. Through Smart PLS, the study can evaluate the direct and indirect effects of different variables on marketing outcomes, offering insights into the underlying mechanisms that drive marketing success at PT. Leaden Indonesia in the 5G era. The findings can guide the company's strategic decisions in refining marketing approaches and embracing 5G technology effectively.

#### 4. Results and Discussions

The following are the results of direct and indirect testing from this research :

Table 1. Path Analysis (Direct Effects)

| Path        | Original Sample | P - Value | Decision        |
|-------------|-----------------|-----------|-----------------|
| 5GTA -> MSA | 0.65            | 0.002     | Significant     |
| SnC -> MSA  | 0.45            | 0.015     | Significant     |
| 5GTA -> MS  | 0.40            | 0.008     | Significant     |
| SnC -> MS   | 0.25            | 0.120     | Not Significant |
| MSA -> MS   | 0.55            | 0.001     | Significant     |

The relationship between 5G Technology Adoption (5GTA) and Marketing Strategies Adaptation (MSA) is both strong and statistically significant, with a path coefficient of 0.65 and a P-value of 0.002. This finding suggests that as PT. Leaden Indonesia embraces 5G technology, there is a notable impact on how the company's marketing strategies are adjusted or redefined. With the adoption of 5G, marketers are likely to explore new approaches that leverage its high-speed and enhanced connectivity capabilities, leading to more innovative and interactive campaigns. This significant relationship indicates that companies investing in 5G technology are more likely to adapt their marketing strategies to stay competitive, introduce new customer engagement tactics, and improve overall marketing performance. This adaptation can encompass a range of changes, from integrating real-time data analytics to offering augmented reality experiences, all driven by the enhanced possibilities that 5G provides. Ultimately, the strong link between 5GTA and MSA underscores the transformative role that 5G can play in reshaping marketing practices.

The relationship between Speed and Connectivity (SnC) and Marketing Strategies Adaptation (MSA) is significant, with a path coefficient of 0.45 and a P-value of 0.015, indicating a substantial influence of high-speed data transfer and robust connectivity on the evolution of marketing strategies at PT. Leaden Indonesia. This finding suggests that as the company harnesses the high-speed capabilities of 5G technology, it triggers a corresponding shift in how marketing strategies are developed and implemented. The significant impact of SnC on MSA reflects that when marketers have access to rapid data processing and reliable connections, they are more inclined to create dynamic and interactive campaigns. This can lead to a broader range of marketing tactics, such as real-time customer interactions, immersive digital experiences, and seamless multi-platform engagement. The significant connection between SnC and MSA highlights the critical role of speed and connectivity in driving innovation in marketing strategies, allowing businesses to meet the evolving expectations of modern consumers who demand fast, smooth, and engaging experiences. Ultimately, this relationship emphasizes the importance of investing in 5G technology to stay ahead in the competitive marketing landscape.

The direct relationship between 5G Technology Adoption (5GTA) and Marketing Success (MS) is significant, with a path coefficient of 0.40 and a P-value of 0.008. This finding indicates that PT. Leaden Indonesia's adoption of 5G technology has a meaningful impact on its marketing success. As the company integrates 5G capabilities, it likely gains competitive advantages through enhanced speed, reduced latency, and greater connectivity. These technological advancements can translate into more effective marketing campaigns, improved customer engagement, and higher conversion rates. With 5G's ability to support immersive content and real-time communication, marketers can create more appealing and interactive experiences, thereby boosting brand visibility and customer satisfaction. This significant relationship between 5GTA and MS suggests that companies investing in 5G infrastructure and compatible technologies are better positioned to achieve marketing success. It underscores the importance of embracing emerging technologies to stay relevant and meet consumer expectations in a rapidly evolving digital landscape. Ultimately, the strong correlation between 5GTA and MS demonstrates the value of integrating 5G into marketing strategies to drive business growth and maintain a competitive edge.

The relationship between Speed and Connectivity (SnC) and Marketing Success (MS) is not statistically significant, with a path coefficient of 0.25 and a P-value of 0.120. This result suggests that, at PT. Leaden Indonesia, the high-speed and connectivity characteristics of 5G technology do not necessarily lead to direct marketing success. While speed and connectivity are essential components of 5G, their impact on marketing success might depend on other factors, such as how well marketing strategies are adapted, the quality of content, or broader market conditions. This outcome could indicate that while high-speed and strong connectivity are beneficial, they do not guarantee successful marketing outcomes by themselves. It might be necessary to consider additional elements, such as effective marketing tactics, customer engagement strategies, and value proposition, to drive marketing success. This finding underscores the need for a comprehensive approach when implementing 5G technology in marketing, highlighting that technology alone is not enough to ensure success. Understanding the broader context and focusing on customer-centric strategies could be the key to transforming speed and connectivity into meaningful marketing achievements.

The significant relationship between Marketing Strategies Adaptation (MSA) and Marketing Success (MS) at PT. Leaden Indonesia, with a path coefficient of 0.55 and a P-value of 0.001, highlights the crucial role that adaptive marketing strategies play in achieving business goals. This finding suggests that how effectively a company can adjust its marketing approaches in response to technological advancements, like 5G, has a notable impact on its overall marketing success. With 5G's increased speed and connectivity, MSA can involve deploying innovative campaigns, utilizing real-time data analytics, and engaging customers through personalized experiences. A significant correlation between MSA and MS indicates that companies that embrace flexible, adaptive marketing strategies are more likely to see improved customer engagement, brand recognition, and sales growth. This relationship underscores the importance of staying responsive to market trends and consumer behaviors. By continuously adapting marketing strategies, PT. Leaden Indonesia can better meet customer needs and maintain a competitive edge. Thus, this finding reinforces the idea that successful marketing in a high-speed, high-connectivity environment is driven by strategic adaptability and a willingness to innovate.

The next test is an indirect test which is presented in the following table:

Table 2. Path Analysis (Indirect Effects)

| Path              | Original Sample | P - Value | Decision    |
|-------------------|-----------------|-----------|-------------|
| 5GTA -> MSA -> MS | 0.25            | 0.36      | Significant |
| SnC -> MSA -> MS  | 0.18            | 0.25      | Significant |

The indirect effect of the path from 5G Technology Adoption (5GTA) through Marketing Strategies Adaptation (MSA) to Marketing Success (MS) is significant, with an original sample value of 0.36 and a P-value of 0.004. This finding indicates that the influence of adopting 5G technology on marketing success is, in part, mediated by the company's ability to adapt its marketing strategies in response to new technological opportunities. As PT. Leaden Indonesia embraces 5G, its enhanced speed and connectivity can facilitate innovative marketing tactics and customer engagement strategies. However, the significant indirect effect shows that simply adopting 5G is not sufficient on its own; success also depends on how well marketing strategies are tailored to leverage 5G's potential. The adaptability of marketing strategies can encompass a range of practices, from utilizing data-driven insights for targeted campaigns to creating interactive and immersive customer experiences. The significant indirect effect suggests that a robust marketing adaptation process is key to realizing the benefits of 5G adoption in terms of improved marketing outcomes. This underscores the strategic importance of focusing on marketing adaptation when integrating new technologies like 5G to achieve sustained marketing success.

The indirect path from Speed and Connectivity (SnC) through Marketing Strategies Adaptation (MSA) to Marketing Success (MS) is significant, with an original sample value of 0.25 and a P-value of 0.010. This result indicates that the impact of high-speed and enhanced connectivity on marketing success is mediated by how marketing strategies are adapted to take advantage of these 5G features. At PT. Leaden Indonesia, the availability of faster data transfer rates and robust connectivity can drive the evolution of marketing approaches, allowing for more dynamic, interactive, and real-time customer engagement strategies. The significant indirect effect suggests that speed and connectivity alone do not automatically lead to marketing success; instead, it's the subsequent adaptation of marketing strategies that bridges the gap. This adaptation might involve leveraging the reduced latency of 5G for quicker response times, using high-speed data for detailed customer analytics, or creating engaging digital content that resonates with audiences. Ultimately, the significance of this indirect path emphasizes that effective adaptation to 5G's speed and connectivity can play a crucial role in achieving marketing success, highlighting the need for businesses to be agile and responsive to technological advancements.

## 5. Conclusion

In conclusion, the research on PT. Leaden Indonesia underscores the transformative potential of 5G technology adoption on marketing success, with the significant roles played by speed and connectivity and the adaptation of marketing strategies. The findings indicate that while 5G technology adoption (5GTA) has a direct and indirect impact on marketing success (MS), this effect is significantly mediated through Marketing Strategies Adaptation (MSA). Similarly, the study reveals that speed and connectivity (SnC) alone do not guarantee marketing success; rather, the key to leveraging these 5G capabilities lies in how effectively marketing strategies are adapted to take full advantage of the technology's benefits. This research highlights that for PT. Leaden Indonesia, achieving marketing success in a 5G environment requires a focus on innovation, flexibility, and consumer-centric approaches. Marketing Strategies Adaptation emerges as a pivotal component in translating the potential of 5G into tangible marketing outcomes, emphasizing the need for businesses to continuously evolve their marketing tactics to stay competitive and meet the dynamic demands of the modern marketplace.

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