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ARTICLE

The Mediation Effect of Service Innovation on the Relationship Between Promotional Strategies and Market Share in Medical Schemes, South Africa

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Abstract

Orientation: The dynamic global healthcare landscape requires ongoing adaptation and innovation. Service innovation (SI) is pivotal for healthcare funders and providers, particularly in medical schemes, where it significantly enhances the effectiveness of promotional strategies (PS) and improves market share (MS).

Research Purpose: This study investigated the mediating effect of service innovation on the relationship between promotional strategies and market share in the private healthcare sector, with a focus on medical scheme beneficiaries in Gauteng, South Africa. It aimed to assess how service innovation amplified the impact of promotional strategies on market share and examined the implications of outsourcing marketing services.

Motivation for the Study: Rising complexity in the healthcare market and the need for medical schemes to attract and retain members amid growing competition drive this study. Understanding how service innovation mediates the relationship between promotional strategies and market share offers insights into optimising marketing efforts for better market penetration.

Research Approach/Design and Method: A quantitative research approach utilising a mediation analysis design was adopted. Data were collected from 260 beneficiaries of medical schemes in Gauteng, South Africa, through snowball sampling. The analysis followed the mediation framework proposed by Baron and Kenny, with additional validation conducted using STATA software, incorporating the approach developed by Zhao, Lynch, and Chen.

Main Findings: Service innovation partially mediates the relationship between promotional strategies and market share, accounting for approximately 12% of the total effect. This finding underscores service innovation's role in enhancing promotional strategies' effectiveness. It indicates that service innovation is a key explanatory mechanism through which promotional efforts contribute to the growth or retention of market share within the healthcare insurance sector.

Practical/Managerial Implications: Integrating service innovation into promotional strategies is crucial for healthcare funders and providers to improve market share. The study also underscores the importance of aligning outsourced marketing services with organisational goals to maximise effectiveness.

Contribution/Value-Add: This research provides empirical evidence on the partial mediation effect of service innovation, offering valuable insights for optimising marketing strategies and addressing challenges in outsourcing marketing services. Thus, it enhances competitive positioning in the healthcare sector.

Keywords: Healthcare Funders; Market Share; Mediating Effect; Medical Schemes; Outsourcing Marketing Services; Promotional Strategies; Quantitative Analysis; Service Innovation

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1. INTRODUCTION

In the evolving global healthcare landscape, organisations must prioritise adaptation and innovation to meet the growing challenges of patient care and rising disease burdens [1]. Healthcare funders and providers increasingly seek innovative solutions to address current and emerging healthcare challenges [2-4]. Issues such as demographic changes, escalating costs, and the demand for personalised care continuously drive the sector's need for improvement and innovation [2].

Healthcare funders, including government bodies, private insurers, and health maintenance organisations, play a crucial role in shaping the accessibility and delivery of care [5]. Their decisions affect resource allocation, service provision, and the overall fulfilment of patient needs. In this context, service innovation has become a crucial strategy for addressing challenges in healthcare delivery and financing. Developing and implementing innovative approaches to care enables healthcare funders and providers to enhance patient outcomes, improve operational efficiency, and align services more closely with patient expectations [6].

Service innovation is particularly vital given the strain on global health systems. The rising incidence of chronic illnesses and multimorbidity necessitates innovative strategies for care delivery [6,7]. Telemedicine, integrated care models, and digital health solutions exemplify how healthcare providers are adapting to these pressures, aiming to enhance service delivery and improve patient experiences [8,9].

Healthcare funders often rely on promotional strategies and service innovation to increase market share and attract new members. Promotional efforts, such as targeted marketing campaigns, help raise awareness and attract new members by emphasising the services' benefits [10-12]. At the same time, service innovation enhances the appeal and effectiveness of these services, ensuring that organisations meet evolving patient needs while distinguishing themselves in a competitive market [1].

2. BACKGROUND

In South Africa's highly regulated and competitive medical scheme landscape, organisations continually face the challenge of attracting and retaining members while striving to expand their market share [12,13]. Medical schemes and private health insurance organisations that offer coverage for healthcare expenses to their members are integral to the South African healthcare system, especially in facilitating access to private healthcare services [14]. Market share growth is critical for the sustainability and competitiveness of medical schemes, particularly in an industry characterised by stringent regulations, complex consumer needs, and evolving healthcare landscapes [13]. Traditional promotional strategies (PS), such as advertising, member engagement campaigns, and partnerships, have been widely used to enhance visibility and attract potential members [15,16]. However, the effectiveness of these strategies is increasingly dependent on the extent of innovation embedded within the services offered by the schemes.

Service innovation (SI) refers to introducing new or improved services, processes, or business models that create additional value for members and differentiate the organisation in the marketplace [17]. In the context of medical schemes, SI can include innovations in digital health services, personalised care packages, and streamlined administrative processes, all of which enhance the overall value proposition of the scheme. Integrating SI within promotional strategies improves the medical scheme's appeal and addresses the dynamic expectations of modern consumers, who demand more flexible, efficient, and customer-centric healthcare solutions. The relationship between PS and SI holds significant relevance in the medical schemes sector, where members are susceptible to both the cost and quality of services. In an increasingly competitive industry, schemes capitalising on innovative services are better positioned to differentiate themselves and gain greater market share.

3. LITERATURE REVIEW

Service innovation has emerged as a pivotal driver of competitive advantage, customer value, and operational efficiency, particularly in highly regulated and service-intensive industries such as healthcare [18]. It encompasses introducing new or improved services, processes, or delivery



mechanisms designed to enhance user experience and performance outcomes [19]. Conceptually, service innovation integrates novel service models, technological advancements, and customer engagement tools tailored to address specific challenges, such as enhancing patient care and maintaining cost efficiency [1,20].

In the healthcare context, continuous service innovation is essential and strategic. Berry [1] emphasises the role of self-confidence and collaborative patient engagement in driving innovation, especially in high-touch areas like oncology care. Flessa and Huebner [20] further emphasise the importance of strategic innovation management in addressing the needs of an ageing population and enhancing quality of life. Willie [21] asserts that service innovation enables product and service differentiation through digital and personalised interventions, enhancing service value communication and bolstering the effectiveness of promotional strategies.

Empirical research has consistently linked service innovation to improved organisational performance. For instance, Makgopa [22] finds that service innovations enhance profitability and market share, underscoring their strategic importance. Similarly, Lie Heng et al. [23] demonstrate that customer orientation enhances marketing performance by developing service innovation capabilities, emphasising the value of service-led differentiation. Chen and Chen [24] provide additional evidence by illustrating how different innovation types mediate the relationship between innovation use theory and market success, suggesting that early-stage innovations predict market performance.

Jung and Shegai [25] extend this discourse by identifying digital marketing innovation as a performance enhancer, mediated by marketing capability and moderated by firm size. These findings suggest a synergistic effect between innovation and promotional efficacy. In healthcare, digital innovations such as telehealth platforms, patient portals, and remote monitoring tools offer tangible value propositions in marketing efforts, contributing to customer satisfaction and institutional competitiveness [1,26]. These tools enable organisations to emphasise convenience, accessibility, and health outcomes, which are increasingly central to consumer decision-making.

However, integrating service innovation into promotional strategies poses challenges. Fragmented stakeholder objectives, reliance on third-party services, and regulatory constraints often hinder alignment and execution [13,27]. Strategic coherence between stakeholders is critical to fully realise innovation's benefits in promotional contexts fully. Furthermore, the theoretical linkage between service innovation and the effectiveness of promotional strategies, especially within healthcare, remains underdeveloped. While Porter and Lee [28] advocate for value-based healthcare models driven by innovation, empirical studies that quantify this relationship are sparse.

The effect of service innovation on market share has been acknowledged but insufficiently explored. Scholars such as Rodrigues et al. [29] and Varadarajan [30] argue that innovation enables organisations to differentiate their offerings, attract new customers, and penetrate previously untapped markets. Conversely, Dumitrescu et al. [31] caution that the absence of innovation can lead to customer attrition and a decline in market share. In medical schemes, innovations like electronic health records (EHRs), telehealth, and automated administration enhance service delivery and serve as key promotional differentiators [32]. Nevertheless, the literature lacks robust empirical frameworks that link service innovation and promotional strategies to measurable changes in market share, particularly in healthcare financing environments such as medical schemes [33,34].

4. STUDY AIM

The study aimed to analyse how promotional strategies directly impacted market share in medical schemes and evaluate the role of service innovation in enhancing the effectiveness of these strategies. Additionally, it examined how service innovation moderated the relationship between promotional strategies and market share. It assessed the challenges and opportunities associated with outsourcing marketing services and their implications for service innovation.



5. METHODOLOGY

5.1. Research Design

This study employed a quantitative research design, utilising mediation analysis, to examine the mediating role of service innovation in the relationship between promotional strategies and market share [35,36]. Mediation analysis served as a rigorous methodological tool that disentangled how an independent variable influenced a dependent variable indirectly through a mediator, thereby elucidating the mechanisms underlying observed effects [37-39]. By decomposing total effects into direct and indirect pathways, this approach offered nuanced insights into the complex interplay among variables [40]. Empirical evidence from Kankam-Kwarteng et al. [36] highlights the substantial impact of service innovation on marketing success in the retail sector, which justifies exploring its role within the private healthcare context, an industry characterised by evolving consumer expectations and intense competitive pressures. Focusing specifically on beneficiaries of medical schemes in Gauteng Province, South Africa, this study situated its investigation within a relevant and complex service environment, thereby contributing valuable insights into the strategic dynamics of healthcare marketing.

5.2. Research Approach

A deductive approach is employed, where theoretical propositions about the relationships between promotional strategies, service innovation, and market share are evaluated using empirical data. The study uses Baron and Kenny's [41] mediation analysis framework to examine the role of service innovation as a mediator. Statistical analyses are conducted using STATA software, with a significance level set at alpha < 0.05.

5.3. Study Population

The study population consisted of medical scheme beneficiaries residing in the Gauteng Province, South Africa. Respondents who were eligible for the study were 18 years or older. This population was selected to provide insights into the dynamics of promotional strategies and service innovation within the context of private healthcare.

5.4. Sampling Methods

The study utilised snowball sampling to identify and recruit beneficiaries of medical schemes within Gauteng Province. Snowball sampling is an effective technique for accessing participants from specific, often hard-to-reach populations, as it relies on referrals from initial subjects to expand the participant pool [42]. This method is particularly advantageous in contexts where individuals are part of a specialised group, such as healthcare beneficiaries, which may not be easily accessible through traditional sampling methods. The process involves:

- Initial Contact: The study commenced with a select group of known medical scheme beneficiaries who met the study criteria.
- Referral Process: These initial participants were asked to refer other beneficiaries within their network.
- Expansion: The referral process continued, with new participants recruiting additional respondents.

The sampling strategy aimed at 420 medical scheme beneficiaries. A total of 260 valid responses were obtained, yielding a response rate of approximately 62%. This sample size is sufficient to support the statistical analyses necessary for the study.

5.5. Data Collection

Data collection was conducted using an online survey instrument, which facilitated the distribution and completion of the questionnaire by participants. The survey employed a 5-point Likert scale, allowing respondents to indicate their agreement or disagreement with various statements related to promotional strategies, service innovation, and market share. This scaling method enabled the capture of a spectrum of responses, providing a more detailed and nuanced insight into participants' perceptions and experiences.



5.6. Data Analysis

The data obtained from the online questionnaires were analysed utilising Baron and Kenny's mediation framework to evaluate the mediating impact of service innovation. Further validation was conducted using the methodology proposed by Zhao, Lynch, and Chen [43]. The statistical analysis was conducted using the STATA program, and the results were interpreted about the study's assumptions and research objectives.

5.7. Use of AI

While preparing this manuscript, the authors utilised AI-based tools, including Grammarly and QuillBot, for language refinement, stylistic enhancement, and plagiarism detection. All outputs generated by digital tools were carefully evaluated and edited by the author, who takes full responsibility for the accuracy, completeness, and integrity of the final content.

6. RESULTS

To investigate the mediating effect of SI on the relationship between PS and MS, we applied the Baron and Kenny [41] approach. The analysis revealed significant results at each step:

- Step 1: The effect of PS on SI was significant, with a coefficient (B) of 0.308 (p=0.000).
- Step 2: The effect of SI on MS was also significant, with a coefficient (B) of 0.165 (p=0.002).
- Step 3: The direct effect of PS on MS was significant, with a coefficient (B) of 0.388 (p=0.000).

Given the significance of Steps 1, 2, and 3, corroborated by the Sobel test, the results indicate partial mediation. The Ratio of Indirect to Total Effect (RIT) was calculated at 0.116, indicating that service innovation mediates approximately 12% of the relationship between promotional strategies and market share. This partial mediation highlights the substantive, though not exclusive, role of service innovation in shaping the outcomes of promotional initiatives. Critically, this suggests that while promotional strategies directly influence market share, a meaningful portion of their impact operates through enhancements in service innovation. As such, service innovation emerges as a pivotal mechanism that enhances promotional effectiveness, providing healthcare insurers with a strategic lever to improve competitiveness and maintain market presence in a dynamic and customer-centric environment. Additionally, the Indirect to Direct effect (RID) ratio was 0.132, indicating that the mediated effect is approximately 0.1 times the size of the direct effect of PS on MS.

To validate these findings further, Zhao, Lynch, and Chen's [43] approach was employed. The direct effect of PS on MS remained significant (B=0.388, p=0.000), and the Monte Carlo test confirmed complementary mediation. The results were consistent with the Baron and Kenny approach, with an RIT of 0.116 and an RID of 0.132, affirming that SI partially mediates the relationship between PS and MS.

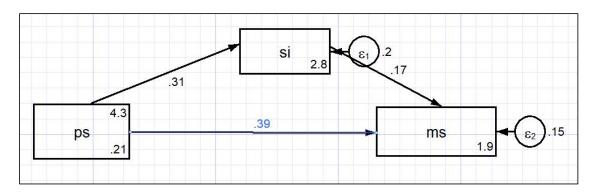


Figure 1. Mediation Analysis of Service Innovation on the Relationship Between Promotional Strategies and Market Share.



7. DISCUSSION

The findings of this study underscore the importance of SI as a mediator in the relationship between PS and MS, aligning with the existing literature that highlights SI's critical role in enhancing marketing performance in healthcare [1,20]. Service innovation has positively impacted marketing effectiveness by enhancing customer engagement, improving service delivery, and increasing market share [29,34]. This study's positive and significant mediating effect of SI is consistent with the assertion that service innovations, such as digital health tools and personalised care models, offer healthcare providers competitive advantages by improving user experience and service outcomes [1,26]. Furthermore, the findings support earlier studies that have examined the relationship between promotional techniques and market share in the hospitality industry.

By differentiating services and increasing consumer trust, Flessa and Huebner [20] contend that incorporating service innovation into promotional activities increases market position. This is accomplished by strengthening consumer trust. This study's results support these perspectives, revealing that when strengthened by SI, promotional methods have a considerable impact on market share levels. According to prior research, businesses that fail to innovate risk losing market share to rivals offering more technologically sophisticated services tailored to the consumer. This study's results support these perspectives, revealing that when strengthened by SI, promotional methods have a considerable impact on market share levels.

Prior research suggests that companies that do not innovate risk jeopardising their market share to rivals, who provide more technologically sophisticated and customer-focused services [31,44]. This study examined the role of SI in bridging the gap between promotional efforts and market outcomes, highlighting its strategic value in healthcare marketing [35]. The partial mediation effect seen in this study highlighted the significance of SI in this regard.

The literature on service innovation and market share is limited in quantifiable, direct relationships, particularly in highly regulated sectors such as healthcare [28,33]. This study addresses that gap by offering empirical evidence of the mediating role of service innovation in healthcare marketing. The findings suggest that healthcare organisations can enhance their market share by incorporating innovative service models into their promotional strategies. Innovations such as telehealth and automated health management systems can serve as strong differentiators, as Purcarea [26] emphasised, further reinforcing the importance of service innovation in gaining a competitive edge.

However, challenges identified in the literature, such as overreliance on third-party services and misaligned stakeholder objectives [13], were also observed in this study. These factors may hinder the full integration of service innovation into promotional strategies. A more strategically aligned approach, where stakeholder goals are synchronised, is necessary to maximise the impact of service innovation on promotional success. This finding aligns with the recommendations of Flessa and Huebner [20], who advocate for a unified strategy integrating service innovation and promotional tactics to optimise healthcare organisations' competitive positioning and market share growth. The significance of this finding lies in its direct link to the study's results, which demonstrated that while promotional strategies influence market share, their effectiveness is notably amplified when supported by targeted service innovations, highlighting the importance of strategic cohesion for achieving measurable market outcomes in medical schemes.

8. STUDY LIMITATIONS

This study has several limitations. First, snowball sampling may limit the generalizability of the findings, as it relies on referrals from initial participants, which can potentially introduce selection bias. Second, the cross-sectional design provides only a snapshot of the phenomenon and does not account for changes over time or establish causal relationships beyond the immediate context. Furthermore, self-reported data may lead to response biases and potential inaccuracies in participants' perceptions. Moreover, limiting the study to medical scheme beneficiaries in Gauteng, South Africa, may constrain the generalisability of the findings to other geographic regions or countries with distinct healthcare system structures.



9. RECOMMENDATIONS

To enhance promotional strategies through SI, healthcare organisations should integrate digital health tools, telehealth platforms, and personalised care models. This integration will differentiate services, improve customer engagement, and provide a competitive edge. Aligning stakeholders, including service providers and marketing teams, is crucial to maximise the impact of these innovations. Regular communication and collaboration can ensure that innovations are fully leveraged to improve service delivery.

Investing in staff training and fostering an innovative culture is essential to ensure the successful implementation of initiatives. Staff should be empowered with the skills to embrace and use modern technologies to enhance patient outcomes. Additionally, organisations should focus on scalable and sustainable service innovations that adapt to changing needs and regulatory requirements, ensuring long-term cost-efficiency and value. These steps will enhance the effectiveness of promotional strategies and improve market share in the healthcare sector.

10. CONCLUSION

This study emphasises the critical role of service innovation in mediating the relationship between promotional strategies and market share within South African medical schemes. Integrating innovative service models and leveraging digital tools enables healthcare organisations to differentiate themselves, enhance customer engagement, and gain a competitive edge. The findings highlight the importance of aligning stakeholder objectives, investing in staff training, and ensuring scalable innovations meet evolving healthcare needs. These strategies are expected to enhance service delivery while promoting long-term growth and competitiveness within an increasingly complex healthcare landscape.

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Contribution: The authors were instrumental in conceptualising and designing the investigation. Michael Mncedisi Willie (MMW) analysed the data and authored the manuscript. MMW formulated the methodology and was tasked with collecting, summarising, and analysing the data. Abigail Chivandi (AC) supervised and reviewed the investigation. Both authors contributed to the review and approval of the final manuscript. The author has read and agreed to the published version of the manuscript.

Informed Consent Statement: Not applicable.

Ethical Considerations: This study followed rigorous ethical guidelines. The research adhered to ethical standards of transparency, objectivity, and integrity to ensure the accuracy and credibility of the findings.

Data Availability Statement: The data supporting the findings of this study are available upon reasonable request from the first and corresponding author.

Conflict of Interest Statement: The authors declare that no conflicts of interest, financial, personal, or professional, could have influenced any aspect of the research process or its outcomes. This declaration ensures that the study's findings and conclusions are unbiased and solely reflect the research objectives and results. The data and findings presented are original and have not been published previously. This study complies with ethical guidelines and academic research standards.



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