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LEVERAGING BRAND EXTENSION AND SERVICE INNOVATION IN THE DIGITAL ERA: TRANSFORMATIVE STRATEGIES FOR MEDICAL SCHEMES

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ABSTRACT

Healthcare faces significant digital transformation, urging medical schemes to innovate for competitiveness and member satisfaction. This study investigates how brand extension and service innovation can enhance the competitiveness and sustainability of medical schemes, focusing on differentiation and value delivery. Driven by digital transformation and consumer demands, medical schemes must adopt innovative strategies to effectively meet evolving healthcare needs. This study uses qualitative methods, including literature review and case study analysis, to examine brand extension and service innovation in healthcare. Using data from various medical schemes, a longitudinal analysis conducted from 2015 to 2022 on adopting Efficiency Discount Options (EDOs) versus non-EDO options. It also included a comparative cost analysis and case studies to assess the impact of digital transformation. Of the ten medical schemes analyzed over the period 2016-2022, EDOs grew significantly from 9% in 2016 to 31% in 2022, providing substantial cost savings compared to non-EDO options across the analyzed medical schemes. Additionally, digital transformation in healthcare saw increased adoption of digital platforms, enhancing patient engagement and service delivery, though ethical considerations in telemedicine practices remain crucial. Brand extension and service innovation strategies can enhance member satisfaction and operational efficiency, helping medical schemes differentiate and thrive. This study provides a strategic framework for medical schemes to leverage digital advancements effectively, meet consumer expectations, and achieve sustainable growth in healthcare delivery.

Keywords: Brand Extension; Digital Transformation; Healthcare Sector; Medical Schemes; Operational Efficiency; Patient Engagement; Service Innovation; Telemedicine

INTRODUCTION

The healthcare sector is undergoing a significant transformation, driven by rapid advancements in digital technology and the changing expectations of consumers. Medical schemes are under mounting pressure to innovate and adapt as a critical sector component. They must do so to remain competitive and meet their members' evolving needs (Appleby et al., 2021). Traditional approaches are no longer sufficient, medical schemes must explore new strategies to differentiate themselves and deliver enhanced value. This paper investigates how leveraging brand extension and service innovation can serve as transformative strategies for medical schemes in the digital age, with a clear focus on the need for differentiation and value enhancement. Brand extension, leveraging an established brand name to introduce new products or services, has been widely adopted across various industries to capitalize on existing brand equity and foster customer loyalty (Aaker & Keller, 1990; Prosser & James, 2003; Peng et al., 2023). In medical schemes, brand extension can involve introducing new health services, wellness programs, or insurance products under a recognized and trusted brand (Prosser & James, 2003). This strategy does not always lead to attracting new customers as in traditional business due to market structure issues. However, it does expand the range of offerings and enhance the brand's perceived value.

On the other hand, service innovation involves adopting and integrating new technologies and processes to improve service delivery and operational efficiency (Santa et al., 2014). The digital era has ushered in numerous innovations, such as telemedicine, electronic health records (EHRs), and mobile health applications, which have revolutionized how healthcare services are delivered (Berry et al., 2006; Haleem et al., 2021). For medical schemes, embracing these innovations is crucial for enhancing member experiences, improving health outcomes, and achieving operational efficiencies (Fisk et al., 2000). This paper explores the intersection of brand extension and service innovation and their combined potential to drive growth and digital transformation in medical schemes. By examining current trends, theoretical frameworks, and real-world case studies, we seek to provide a strategic roadmap for medical schemes to harness these strategies effectively. The integration of brand extension and service innovation offers a promising pathway for medical schemes not only to meet but also exceed the expectations of their members, ensuring long-term sustainability and success in an increasingly competitive market (Appleby et al., 2021; Sedighi et al., 2022).

LITERATURE REVIEW

Brand Extension in Healthcare

Brand extension has been extensively researched across various industries, including healthcare. Successful brand extensions can enhance customer loyalty, brand equity, and financial performance (Aaker & Keller, 1990). In the healthcare sector, brand extension may involve introducing new health services, wellness programs, or insurance products under an established brand (Prosser & James, 2003; Peng et al., 2023).

Brand extension strategies are crucial in healthcare, where leveraging existing brand equity can facilitate market penetration and patient engagement (Pitta & Katsanis, 1995). A common form of brand extension in this industry is "Line Extension," where healthcare providers or pharmaceutical companies introduce variations of their core services or medications based on different delivery models or premium levels (Sinapuelas & Sisodiya, 2010). This allows them to meet diverse patient needs and preferences while capitalizing on existing brand trust and recognition (Keller, 2008).

According to Aaker & Keller (1990), line extensions in healthcare retain the essential benefits and therapeutic efficacy of the original treatments while offering variants that address specific patient demographics or medical conditions. This strategy enhances patient choice and access to healthcare options, promoting operational efficiencies and cost-effectiveness in service delivery (Thomas & Chalkidou, 2016).

Healthcare organizations often use line extensions to mitigate risks associated with introducing new treatments or services (Sinapuelas & Sisodiya, 2010). By leveraging existing brand associations and patient loyalty, healthcare providers can accelerate the acceptance and adoption of new offerings within their patient populations (Keller, 2008). This is particularly advantageous in healthcare, where patient trust and brand confidence significantly influence treatment decisions and provider selection (Aaker & Keller, 1990). Additionally, variations in delivery models, such as telemedicine options, home healthcare services, or personalized medicine approaches, allow healthcare brands to cater to diverse patient preferences and delivery needs (Haleem et al., 2021). This strategic diversification supports healthcare organizations in enhancing patient-centered care and improving overall patient outcomes.

Efficiency discount options in medical schemes function as a specialised approach where schemes provide discounts on monthly contributions through controlled access to care via directly contracted networks of healthcare providers (Govuzela et al., 2021; Willie et al., 2021). This approach parallels brand line extension in EDOs, expanding a brand's offerings and leveraging its established equity to drive growth and comprehensively meet consumer needs.

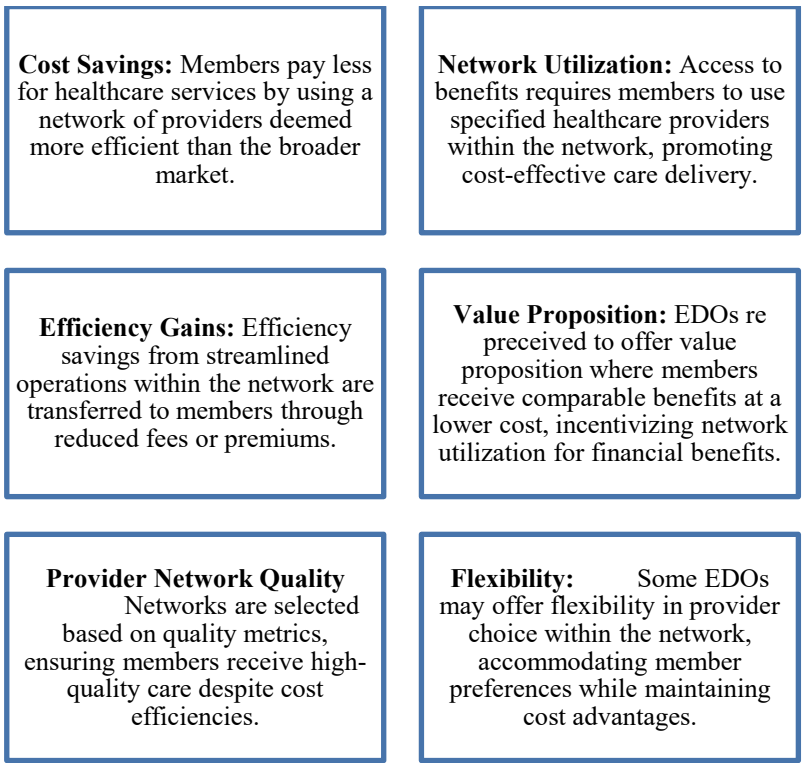

Figure 1. Characteristics of EDOs- Brand line extension
Source: Govuzela et al. (2021) and Willie et al. (2021)

Service Innovation in The Digital Era

The integration of digital technologies has profoundly transformed healthcare services, ushering in a new era of efficiency and patient-centred care. This review examines the transformative impact witnessed across healthcare delivery, with advancements and user

engagement metrics exemplifying broader industry trends. Digital platforms such as websites, mobile apps, and social media have enabled significant improvements in patient access and engagement, facilitating the dissemination of health information and delivery of services (Topol, 2019; Robbins et al., 2022).

Emerging trends highlight a shift towards personalised healthcare experiences facilitated by AI-driven chatbots and telemedicine solutions, enhancing patient-provider interactions and accessibility to healthcare services (Golinelli et al., 2020; Haleem et al., 2021). Best practices in digital healthcare include leveraging technology to streamline administrative processes, improve diagnostic accuracy through data analytics, and enhance patient outcomes through remote monitoring and telehealth services (Renjith et al., 2021). These practices enhance operational efficiency and empower patients with greater control over their health management decisions, fostering a more engaged and informed healthcare consumer base. The evolving landscape of digital health underscores the importance of continuous innovation and adaptation to meet evolving patient needs and expectations, promising improved healthcare delivery and patient satisfaction in the digital age. Figure 2 below depicts the integration of service innovation to digital transformation in private health insurance that enhances customer experience through intuitive platforms and personalised insurance options. It improves operational efficiency by automating claims processes and managing provider networks effectively. Additionally, it supports telehealth services, ensures secure data management, and promotes transparency in costs and fraud prevention.

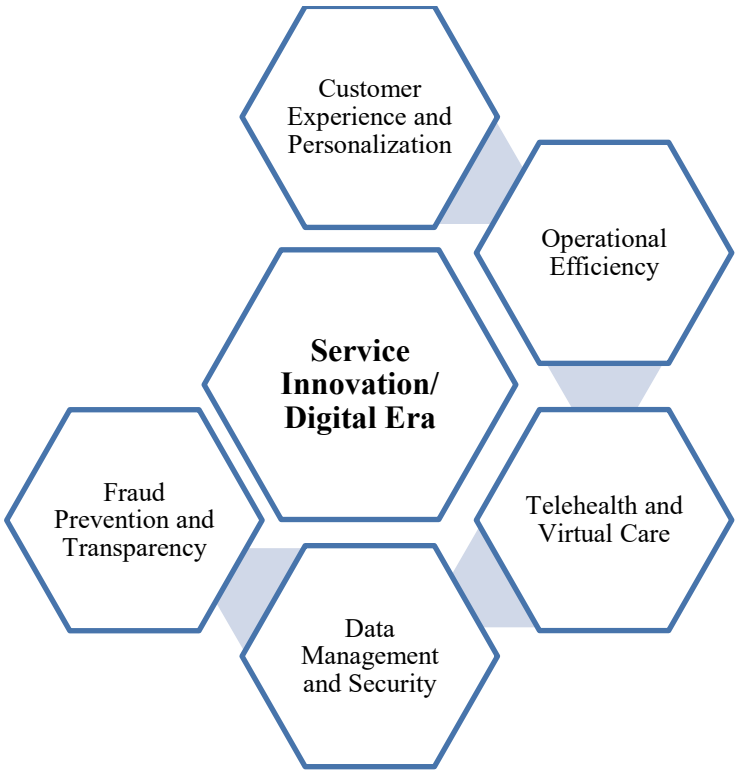

Figure 2. Digital Integration in Private Health Insurance

Table 1. Summary studies

Study	Topics and Objectives	Key Findings
Topol (2019); Robbins et al. (2022)	Healthcare workforce readiness for digital transformation	- Digital platforms like telehealth and AI-driven systems improve healthcare workforce readiness.

Golinelli et al. (2020)	Patient-provider interactions and accessibility	- Adopting digital platforms such as websites and mobile apps enhances patient-provider interactions and accessibility to healthcare.
Renjith et al. (2021)	Remote patient monitoring and telehealth technologies	- Remote patient monitoring and telehealth technologies, including websites and mobile apps, drive service innovation in healthcare.
Topol (2019)	Digital future readiness of the healthcare workforce	- Emphasis on preparing the healthcare workforce for the digital future, including using websites and mobile apps in healthcare delivery.
Burde (2011) & Blumenthal (2011)	Impact of HITECH Act on digital health records	- Impact of HITECH Act in promoting digital health records and technological innovation, including websites and mobile apps, in healthcare.

The literature gap identified across these studies primarily revolves around the insufficient exploration of how private health insurance sectors integrate and leverage digital platforms for service innovation (Blumenthal, 2011; Topol, 2019; Golinelli et al., 2020; Topol, 2019; Burde, 2011; Robbins et al., 2022; Renjith et al., 2021). There is a need for research that examines explicitly how private health insurers adopt digital platforms such as telehealth, websites, and mobile apps to enhance patient-provider interactions and service accessibility.

Theoretical Frameworks

This study employs two primary theoretical frameworks to analyse the adoption of brand extension and service innovation in medical schemes within the context of digital transformation.

Brand Extension Theory

As articulated by Aaker & Keller (1990), brand extension theory posits that leveraging an established brand name to introduce new products or services can enhance market penetration and customer loyalty. This strategy involves extending the brand into new healthcare services, wellness programs, or insurance products under a trusted brand umbrella (Prosser & James, 2003; Peng et al., 2023). This approach allows medical schemes to capitalise on existing brand equity, mitigating risks associated with new service introductions and accelerating consumer acceptance. By expanding their service offerings under a recognised brand, medical schemes can foster more robust patient engagement, enhance perceived value, and differentiate themselves in a competitive market.

Service Innovation Framework

The service innovation framework focuses on adopting and integrating new technologies and processes to improve service delivery and operational efficiency (Berry et al., 2006; Fisk et al., 2000). In the digital era, healthcare organisations are increasingly adopting digital platforms such as websites, mobile apps, and telemedicine solutions to enhance patient-provider interactions, streamline administrative processes, and empower patients in managing their health (Haleem et al., 2021). This framework emphasises continuous innovation to meet evolving patient expectations and regulatory demands.

Aim

This paper explores how medical schemes can leverage brand extension and service innovation in the digital era to enhance service offerings, improve customer satisfaction, and achieve sustainable growth. It seeks to provide actionable insights and a strategic roadmap for medical schemes by examining current trends, theoretical frameworks, and case studies.

RESEARCH METHOD

This paper employs a qualitative research approach, utilising a literature review and case study analysis to explore the intersection of brand extension and service innovation in healthcare (Crowe et al., 2021). The literature review synthesises existing research on these topics, while case studies provide practical examples of successful implementation. The literature review focuses on academic articles, industry reports, and relevant publications from the past two decades. Sources include peer-reviewed journals such as the Journal of Marketing, Journal of Service Research, and Health Affairs (Ferreira et al., 2023). We analyse case studies of medical schemes that successfully implement brand extension and service innovation strategies (Bartlett & Vavrus, 2017). These case studies provide real-world examples and highlight best practices and lessons learned. A non-random sampling frame was employed to select the schemes used in the trend analysis (Elfil & Negida, 2017). This approach resulted in a convenient sample of 10 schemes, which collectively account for over 600,000 lives enrolled in both efficiency discount options (EDOs) and non-efficiency discount options (NEDOs) over the review period from 2015 to 2022. In 2022, the sample included 32 EDOs and 29 NEDOs (Parent options).

RESULTH AND DISSCUSION

Brand Extension in Healthcare

For the trend analysis, a convenient sample of schemes was examined. This totalled 10 schemes, which account for just over 600,000 lives of (EDO and non-EDO) benefit options over the review period, which covered 2015-2022. In 2022, the split between the benefit option types was 32 EDOs and 29 non-EDO (Parent) options. Figure 1 illustrates the progression of Efficiency Discount Options (EDOs) compared to Non-Efficiency Discount Options (Parent Options). From 2016 to 2022, there has been a notable progression in adopting efficiency discount options (EDOs) compared to non-efficiency discount options (NEDOs). In 2016, EDOs emerged for the first time, totalling 57,401, while NEDOs stood at 637,910, making EDOs 9% of the total options. By 2017, EDOs increased to 77,140 against 624,941 NEDOs, raising the proportion of EDOs to 12%. This upward trend continued in 2018, with EDOs reaching 90,938 and NEDOs slightly decreasing to 619,016, resulting in EDOs accounting for 15%.

The growth in EDOs was even more pronounced in 2019, with numbers rising to 117,485, compared to 629,505 NEDOs, thus making up 19% of the total options. In 2020, EDOs increased to 138,046, while NEDOs declined to 593,195, bringing the proportion of EDOs to 23%. This trend of rising EDOs persisted in 2021, reaching 157,641, with NEDOs at 594,924, resulting in EDOs representing 26%. In 2022, the number of EDOs grew to 181,796, while NEDOs continued to decline to 584,669, culminating in EDOs making up 31% of the total options. This steady rise in EDO adoption reflects a significant shift towards more efficient and cost-effective healthcare plans over the seven years.

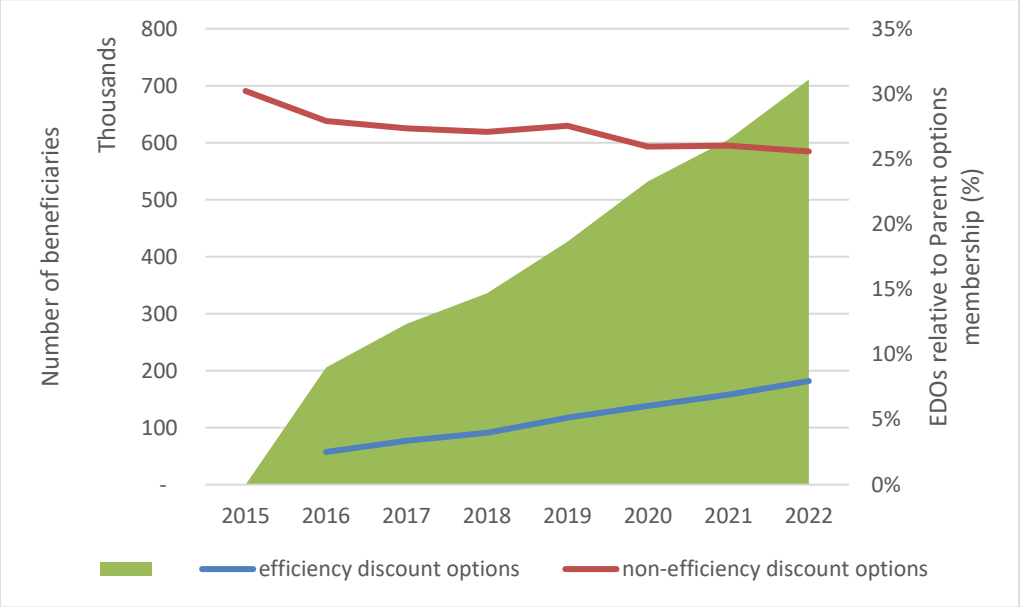

Figure 3. Progression of Efficiency Discount Options (EDOs) vs. Parent Options (2015-2022)

Price Differential

The range in the price differentials between EDOs and non-EDO options across various medical schemes reflects significant cost savings available to members who opt for network-restricted plans. Across the listed medical schemes, the price differentials between EDOs and non-EDO options vary widely, showcasing diverse strategies in cost management and member benefits. The savings range from modest reductions to substantial discounts, influenced by the scheme's network efficiency, negotiated provider rates, and member utilisation patterns. The other contributing factor is the salary badges that some medical schemes employ relative to the premium. The gross contribution per beneficiary per month ranged between 11-62%, potentially translating to savings for beneficiaries in EDOs (Table 3).

Table 2. Price Differentials: EDOs vs. Non-EDO Options Across Medical Schemes- Gross contributions income per beneficiary per month- Premium proxy measure for 2022

Medical scheme	*Efficiency discount options (R)*	*Non-efficiency discount options (R)*	*Price differential (%)*
Scheme 1	1373	1696	-24%
Scheme 2	1 910	3 103	-62%
Scheme 3	1 819	2 829	-56%
Scheme 4	1 868	2 299	-23%
Scheme 5	1 376	2 233	-62%
Scheme 6	1 585	2 162	-36%
Scheme 7	2 793	3 173	-14%
Scheme 8	2 096	2 328	-11%
Scheme 9	1 870	2 246	-20%
Scheme 10	1 187	1 343	-13%
Consolidated	1 517	2 235	-47%

Service Innovation in the Digital Era
Discovery Health Medical Scheme (DHMS) and Bonita's Case Study

Integrating digital technologies has transformed service delivery into healthcare, making it more efficient and patient centric. In 2022, Discovery Health Medical Scheme saw substantial digital growth, with monthly website users increasing to 154,828 and soaring to 610,372 in 2023, marking a 294% rise. Daily website logins grew by 23%, reaching 52,400, while mobile users per month declined by 33%, but daily logins surged by 85% to 53,370. WhatsApp registered users grew by 22% to 632,180, with daily interactions up 58% to 2,540. HealthID users expanded by 54% to 6,368, and social media followers increased by 14% to 1,373,384. Similarly, Bonitas Medical Scheme experienced robust digital engagement, including a 912% increase in WhatsApp agent chats, reaching 203,820, and a 176% rise in WhatsApp bot and self-service interactions, totalling 207,821.

Table 3. Adoption of Digital Platforms by Medical Schemes: DHMS & Bonitas Case Study

Discovery Health Medical Scheme (2022,2023)			
Website users per month	154,828	610,372	294%
Website logins per day	42,694	52,400	23%
Mobile users per month	875,818	590,730	-33%
Mobile logins per day	28,794	53,370	85%
WhatsApp registered users	520,000	632,180	22%
WhatsApp interactions per day	1,604	2,540	58%
Current HealthID users	4,139	6,368	54%
Social media followers	1,200,000	1,373,384	14%
Bonitas (2021,2022)			
Live chat interactions	21,914	33,780	54%
Chatbot interactions	22,223	50,650	128%
WhatsApp agent chats	20,149	203,820	912%
WhatsApp bot and self-service interactions	75,427	207,821	176%

Source: Adapted from Townsend et al. (2019)

Integrating Brand Extension and Service Innovation

In the evolving digital healthcare landscape, wearable devices are instrumental in wellness programmers such as Discovery Health's Vitality programmed, allowing members to monitor diverse health metrics, including mental health indicators, and encouraging proactive health management (Townsend et al., 2019). Alongside these, remote monitoring devices and self-assessment tools integrated into these initiatives empower members to remotely assess and track their health, enhancing their engagement in personal health management. Furthermore, medical schemes have improved accessibility to healthcare by funding telemedicine consultations, ensuring convenient healthcare access for its members, which was primarily prevalent during the pandemic (Willie et al., 2022).

Bonitas extends support through Baby Line, a pediatric telemedicine service providing round-the-clock telephonic advice at no cost to parents of children under three years old (Sansgiry, 2024). Despite these advancements, ethical concerns in telemedicine have emerged, prompting the HPCSA to caution against services like Hello Doctor, underscoring the need for ethical telemedicine practices to safeguard patient care and uphold professional standards (Townsend et al., 2019) These efforts collectively signify a transformative shift towards digital health solutions, aiming to improve healthcare accessibility, operational efficiency, and ethical standards within the healthcare sector. Figure 4 illustrates the integration of brand extension, service innovation, and digital transformation in medical schemes, showcasing the

implementation of telemedicine, personalized health apps, and AI-driven decision support (Haleem et al., 2021).

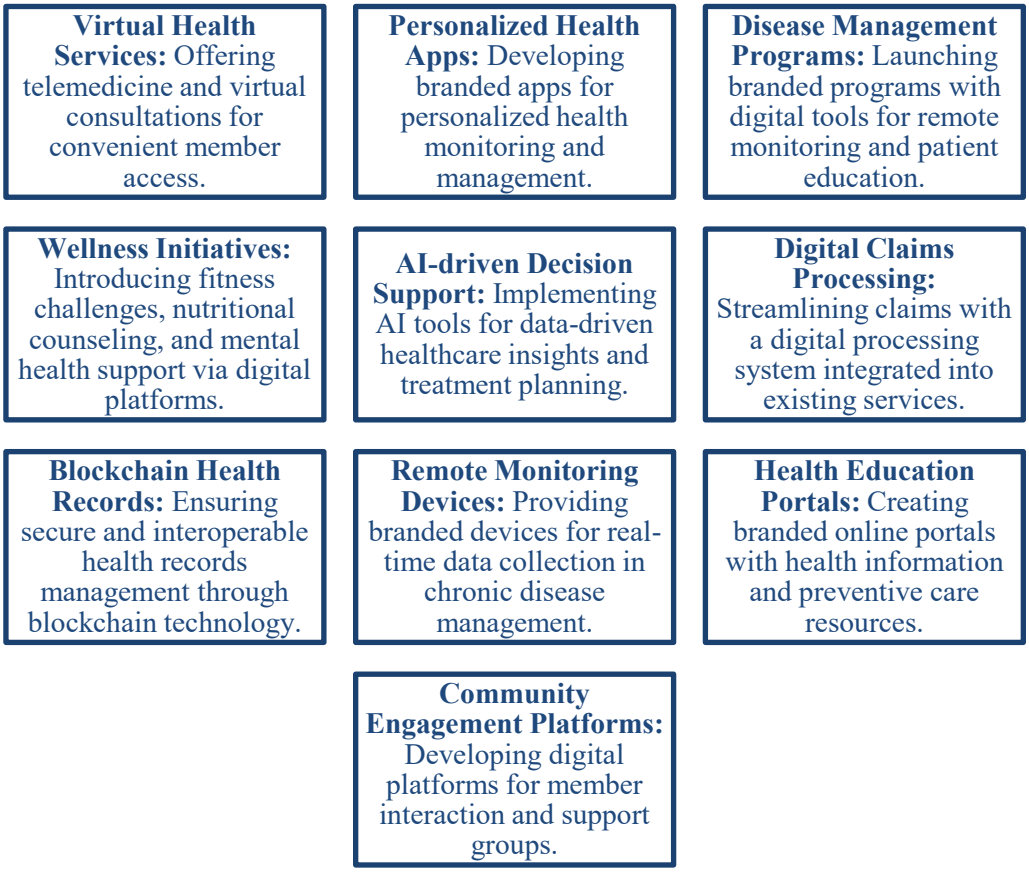

Figure 4. Integration of Brand Extension, Service Innovation, and Digital Transformation in Medical Schemes

Table 4. integration of Digital Health Innovations and Ethical Considerations in Healthcare

Topic	*Details*
Wearable devices	Discovery Health's Vitality programme and other schemes utilise wearable devices to assess members' mental health and other conditions.
Remote monitoring devices and self-assessment tools	These tools are integrated into wellness programmes of various medical schemes, enabling members to monitor and assess their health remotely.
Telemedicine consultations	GEMS funds telemedicine consultations to provide accessible care for its members.
Paediatric telemedicine (Baby Line)	Bonitas provides free 24/7 telephonic advice through BabyLine for parents of children under three years old.
Warning on unethical telemedicine (Hello Doctor)	The HPCSA cautioned against using Hello Doctor and similar services due to ethical concerns about telemedicine practices in healthcare.

Source: Haleem et al. (2021)

Discussion

The healthcare sector is rapidly evolving due to digital advancements, necessitating medical schemes to innovate for competitiveness and member satisfaction (Appleby et al., 2021). This paper explores how brand extension and service innovation can transform medical schemes in the digital age, enhancing differentiation and value (Aaker & Keller, 1990; Berry et al., 2006). Brand extension in healthcare leverages established brand equity to improve patient engagement and operational efficiency through strategies like line extensions (Prosser

& James, 2003; Keller, 2008; Peng et al., 2023). These approaches broaden service offerings and strengthen brand loyalty and market penetration. Service innovation in the digital era, driven by technologies such as telemedicine and mobile health apps, revolutionizes healthcare delivery by improving patient access and operational effectiveness (Topol, 2019; Haleem et al., 2021; Robbins et al., 2022; Renjith et al., 2021). Embracing these innovations is crucial for enhancing member experiences and achieving sustainable growth (Fisk et al., 2000).

Theoretical frameworks of brand extension theory and service innovation provide insights into how medical schemes can effectively adopt these strategies amidst digital transformation (Sedighi et al., 2022; Jejeniwa et al., 2024). These frameworks guide enhancing service offerings to meet evolving patient needs and expectations. Case studies of Discovery Health and Bonitas illustrate significant digital engagement, highlighting the transformative impact of wearable devices, remote monitoring tools, and telemedicine services on healthcare accessibility and patient engagement. Ethical considerations in telemedicine, underscored by regulatory bodies like HPCSA, emphasize the importance of ethical practices to uphold patient care standards and professional integrity in healthcare delivery (Townsend et al., 2019).

CONCLUSION

Integrating brand extension and service innovation offers medical schemes a transformative pathway to enhance healthcare accessibility, operational efficiency, and patient engagement in the digital age. By leveraging established brand equity and embracing technological advancements responsibly, medical schemes can navigate challenges, meet evolving consumer expectations, and achieve sustainable growth in an increasingly competitive healthcare landscape.

LIMITATIONS

Despite the potential benefits, several limitations hinder the adoption of brand extension and service innovation in medical schemes. The study employed a non-random sampling frame, which, although encompassing many medical schemes with diverse demographic and risk profiles, is not representative. Consequently, the findings cannot be generalized.

Regulatory challenges are significant, as compliance with evolving healthcare regulations and stringent privacy laws poses substantial hurdles to the seamless implementation of digital health innovations. These regulations vary across regions and require medical schemes to navigate complex legal frameworks to ensure patient data protection and regulatory compliance.

Additionally, uneven technological adoption and infrastructure limitations present obstacles. While some medical schemes possess robust technological capabilities, others face challenges in uniformly upgrading their infrastructure to support advanced digital health solutions. This disparity can impede the widespread implementation of telemedicine, remote monitoring, and other digital health tools across diverse healthcare settings. Cost implications also play a crucial role. The substantial initial investment and ongoing maintenance costs associated with integrating new technologies and expanding service offerings can be prohibitive for many medical schemes, particularly those with limited financial resources. Managing these costs while ensuring sustainable service delivery remains a critical concern for healthcare providers seeking to enhance patient care through innovative digital solutions.

RECOMMENDATIONS

Addressing challenges and maximizing opportunities is crucial to optimizing the benefits of brand extension and service innovation in medical schemes. Key recommendations include enhancing digital literacy among healthcare professionals and members to facilitate the seamless adoption of digital health technologies. Collaborating with technology providers, regulatory bodies, and healthcare professionals enables co-creating innovative solutions tailored to patient needs. Upholding stringent ethical guidelines in telemedicine and digital health practices ensures patient safety and fosters trust. These strategies aim to enhance operational efficiency, drive innovation, and maintain ethical integrity in the delivery of healthcare services.

AUTHOR CONTRIBUTION STATEMENT

Michael Mncedisi Willie (MMW) is the sole author of this study. MMW was responsible for the manuscript's conception, design, data collection, analysis, interpretation, and drafting. He conducted all critical revisions and approved the final version for publication. His comprehensive efforts and dedication were essential to completing this research.

ACKNOWLEDGEMENTS

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ETHICAL CONSIDERATIONS

This study carefully addressed Several ethical considerations in adopting brand extension and service innovation in medical schemes. The data used in this study was anonymised, ensuring no specific information was disclosed unless it was publicly available in annual reports or other sources referenced correctly.

DECLARATION OF CONFLICT OF INTEREST

The authors declare there are no conflicts of interest related to this study. The research was conducted independently and impartially, with no financial or personal relationships that could have influenced the outcomes. All funding sources for the study were transparently disclosed, and no external entities had any influence over the study design, data collection, analysis, or interpretation. The authors have adhered to all ethical guidelines and maintained the integrity and objectivity of the research throughout the process.

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