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Integrating Banking and Health Insurance for Secure Future

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Abstract -In an era marked by technological advancements and interconnected financial services, the integration of banking and health insurance emerges as a strategic approach to foster a secure future for individuals. This conceptual framework envisions a seamless synergy between the banking and health insurance sectors, leveraging data analytics, blockchain technology, and artificial intelligence to enhance customer experiences, mitigate risks, and promote overall financial well-being.

The integration process involves the convergence of financial and health data, allowing for a more comprehensive understanding of an individual's financial and health profile. Through secure data sharing mechanisms and advanced analytics, this integrated system enables personalized financial and health planning, ensuring that individuals are better equipped to manage unforeseen medical expenses without compromising their overall financial stability.

Blockchain technology plays a pivotal role in establishing a secure and transparent infrastructure for data sharing and transaction processing. Smart contracts, built on blockchain, automate claims processing and facilitate real-time settlement, reducing administrative overhead and enhancing efficiency in the health insurance domain. Additionally, the decentralized nature of blockchain ensures the integrity and confidentiality of sensitive health and financial information.

Artificial intelligence further enhances the integrated system by providing predictive analytics and risk assessment tools. By analyzing individual health data, spending patterns, and lifestyle choices, AI algorithms can predict potential health risks and recommend personalized insurance and financial products. This proactive approach not only empowers individuals to make informed decisions but also allows insurers and banks to offer targeted solutions that align with customers' evolving needs.

Furthermore, the integration of banking and health insurance creates opportunities for innovative financial products, such as health savings accounts linked to investment portfolios. This dual-purpose approach encourages individuals to save for both their short-term medical needs and long-term

financial goals, fostering a culture of financial responsibility and resilience.

Keywords :- Integrated Financial Services,Data Analytics ,Blockchain Technology,Artificial Intelligence,Predictive Analytics,Risk Assessment ,Smart Contracts,Personalized Financial Planning ,Health Insurance Innovation

1. INTRODUCTION

In the ever-evolving landscape of financial services and healthcare, the integration of banking and health insurance emerges as a transformative strategy poised to shape a more secure future for individuals and families. This innovative approach aims to bridge the traditional gap between these two crucial sectors, recognizing the intrinsic link between financial well-being and health stability.

At its core, the integration seeks to create a seamless synergy between banking and health insurance, fostering a comprehensive and holistic approach to individual financial planning. By intertwining these previously distinct realms, individuals can now navigate the complexities of both their monetary and health-related needs with greater efficiency and coherence.

The impetus behind this integration lies in the recognition that financial health and physical well-being are intertwined facets of a person's overall prosperity. Financial stress often exacerbates health concerns, and conversely, unexpected medical expenses can severely impact one's financial stability. This initiative strives to mitigate such challenges by providing a unified platform that addresses both financial and health-related aspects, offering individuals a more resilient and secure foundation for the future.

Moreover, the integrated approach leverages cutting-edge technologies and data analytics to personalize services, empowering individuals to make informed decisions about their financial and health portfolios. This data-driven synergy facilitates proactive risk management, enabling early detection of potential financial pitfalls and health-related issues.In essence, the integration of banking and health insurance heralds a new era in comprehensive financial planning, where individuals no longer view their monetary and health affairs in isolation.

By combining the strengths of these sectors, we pave the way for a more resilient, secure, and interconnected future, where individuals can confidently navigate life's uncertainties with the support of a unified financial and health ecosystem. This strategic alignment not only enriches the customer experience but also underscores the commitment to holistic well-being, ensuring a safer and more prosperous future for all.

Key Objectives:

1 Financial Resilience:The integration aims to enhance financial resilience by providing individuals with tools to navigate economic uncertainties. Through personalized banking solutions aligned with health insurance offerings, individuals can better plan for medical expenses, creating a safety net that mitigates the financial impact of unexpected health crises.

2. Data-Driven Insights: By harnessing the power of data analytics, the integrated system offers personalized insights into an individual's spending patterns, lifestyle choices, and health history. These insights enable more accurate risk assessments, allowing for tailored financial and insurance solutions that cater to the specific needs of each individual.

3. Streamlined Services: The integration eliminates silos between banking and health insurance, resulting in a seamless and user-friendly experience. From consolidating premium payments to providing real-time updates on health-related expenditures, the unified platform simplifies administrative processes, ensuring that individuals can focus on their well-being without unnecessary bureaucratic hurdles.

4. Innovative Products:The collaboration between banking and health insurance fosters the development of innovative products that go beyond traditional offerings. From health savings accounts with attractive interest rates to bundled packages that combine banking perks with comprehensive insurance coverage, individuals can access a range of products designed to optimize both financial and health outcomes.

5. Promoting Preventive Healthcare:The integrated system incentivizes preventive healthcare measures by linking financial rewards or discounts to healthy lifestyle choices. This proactive approach not only benefits individuals in terms of reduced insurance premiums but also contributes to a healthier society overall, lowering the burden on healthcare systems.

2. Body of Paper

The expansion of health insurance coverage in India plays a pivotal role in the nation's journey towards achieving Universal Health Coverage (UHC). The low allocation of funds by the government for healthcare has resulted in challenges related to the capacity and quality of services provided in the public sector. Consequently, a significant majority, nearly two-thirds of the population, turns to the more expensive private sector for medical treatment. This shift, combined with low financial protection, results in a substantial burden of out-of-pocket expenditure (OOPE), making India's population susceptible to catastrophic health expenses and subsequent impoverishment.

The impact of healthcare spending is not confined to any specific socioeconomic group; it affects all segments of the population. The absence of adequate financial protection intensifies the vulnerability of individuals across various income levels, emphasizing the urgent need for a comprehensive health insurance framework. Pre-payment through health insurance emerges as a crucial mechanism for risk-pooling, offering a safeguard against not only catastrophic but also impoverishing expenditures arising from unexpected health shocks.

A significant demographic in this context is termed the "missing middle," constituting approximately 30% of the population, or 40 crore individuals, who currently lack any form of financial protection for health. The Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), launched in September 2018, along with State Government

extension schemes, provides comprehensive hospitalization cover to the bottom 50% of the population, approximately 70 crore individuals. However, about 20% of the population, equivalent to 25 crore individuals, is covered through social health insurance and private voluntary health insurance.

The remaining 30% of the population falls into the category of the missing middle, lacking health insurance coverage. The actual number of individuals without coverage is higher due to existing gaps in PMJAY and overlaps between various schemes. The missing middle is a diverse group, spanning all expenditure quintiles and existing in both urban and rural areas. Concentrations are observed in the top two quintiles of rural areas and the top three quintiles of urban areas. This demographic is primarily composed of the self-employed, encompassing both agriculture and non-agriculture sectors in rural areas, while in urban areas, it comprises a wide array of occupations, including informal, semi-formal, and formal sectors.

Recognizing the unique challenges and diversity within the missing middle is essential for devising targeted and effective health insurance solutions. Bridging this gap is not only a matter of financial inclusion but also a critical step towards ensuring comprehensive and equitable healthcare coverage for all segments of the Indian population.

The absence of a low-cost health insurance product tailored to the needs of the missing middle segment has resulted in a significant gap in coverage, despite their ability to pay nominal premiums. To address this issue, the proposal suggests the development of a comprehensive health insurance product

specifically designed for the missing middle, aiming to expand coverage and improve financial protection.

Currently, the majority of health insurance schemes and products available in the Indian market do not cater to the unique requirements of the missing middle. Private voluntary health insurance, intended for high-income groups, is often priced beyond the affordable range for this demographic, making it inaccessible. Similarly, contributory products like ESIC and government-subsidized insurance, including PMJAY, are closed products, unavailable to the general population due to concerns about adverse selection.

The proposed solution involves modifying and standardizing an existing health insurance product, building upon the foundation laid by the Arogya Sanjeevani plan launched by IRDAI in April 2020. While Arogya Sanjeevani provides a basic benefits package common across insurers, it faces limited uptake due to high premiums and delays in covering certain diseases and treatments over a two-to-four-year period.

The modified product for the missing middle should address these shortcomings. Firstly, it should feature lower delays in coverage, ensuring all diseases and treatments are included at the earliest to enhance its attractiveness. Additionally, the product should incorporate out-patient benefits to showcase greater value to customers and contribute to better health

outcomes. The indicative product is outlined in Table 3 for hospitalization insurance and Table 4 for out-patient products.

A critical aspect of the proposed product is its affordability. It is suggested that the product be offered at a cost ranging from one-third to half of the Arogya Sanjeevani premiums. Specifically, for a family of four, the proposed cost is Rs. 12,000, making it more accessible to the missing middle. The pricing strategy acknowledges the financial capacity of this demographic, with industry consultations indicating that most segments of the missing middle can afford to pay Rs. 4,000 to Rs. 6,000 per family per year for hospitalization insurance. Additionally, a subscription model for covering out-patient benefits is suggested at Rs. 5,000, further aligning with the financial capabilities of the target population.

This proposal not only addresses the coverage gap for the missing middle but also recognizes the importance of affordability in encouraging the uptake of voluntary contributory health insurance. By tailoring the product to the specific needs and financial capacity of the missing middle, the aim is to create a sustainable and inclusive health insurance solution for this significant segment of the population.

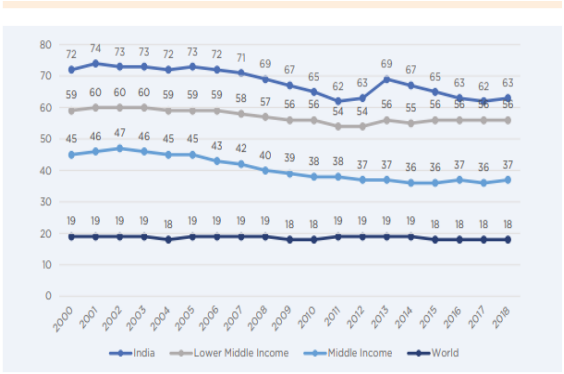

Figure 1: *OOPE as percentage of current health expenditure, India, and select country aggregates, 2000-2018*

Source: *World Bank Open Data (accessed March 2021)*

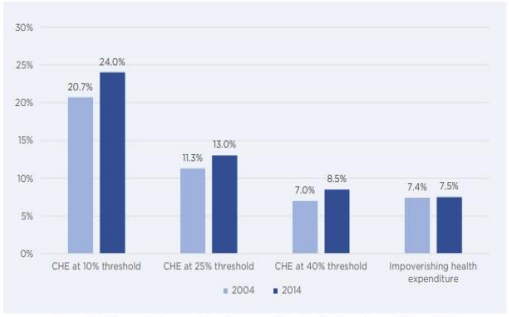

Figure 2: *Incidence of Catastrophic and Impoverishing Health Expenditure, 2004 and 2014*

Source: *Ravi, S. et al. Health and Morbidity in India (2004-2014). Brookings India.*

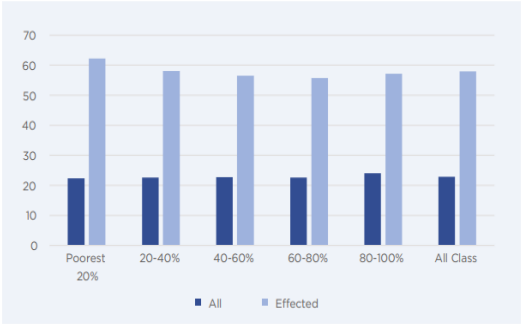

Figure 3: *Incidence of catastrophic health expenditure (at 10% level) among total and affected households, by household expenditure quintile, 2014*

Source: *Choudhury, M., et al., 2019. Analyzing Household Expenditure on Health from the 71st Round of Survey by the National Sample Survey Organization in India (Report Submitted to the World Health Organization).*

Note: *Affected household refers to those that accessed any healthcare in the survey year*

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India's health insurance landscape encompasses a variety of schemes, broadly categorized based on the financing source, target group, and the compulsory or voluntary nature of the scheme. The following paragraphs provide an overview of the major types of health insurance schemes in India.

1.Government Subsidized Health Insurance Schemes:

Government-subsidized health insurance schemes aim to provide either fully or partially subsidized insurance coverage to specific targeted segments of the population. These schemes typically focus on the poor and the informal sector. The flagship scheme in this category is the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), launched in September 2018. AB-PMJAY is the largest health insurance scheme in India, building on the Rashtriya Swasthya Bima Yojana (RSBY). It offers fully subsidized comprehensive secondary and tertiary healthcare packages with an annual coverage of Rs. 5 lakhs per family on a floater basis. This scheme covers 10.9 crore families, or 49 crore individuals, identified as deprived in the Socio-Economic Caste Census (SECC) 2011. AB-PMJAY operates in 33 States and Union Territories and includes a national portability feature, allowing beneficiaries to avail benefits anywhere in India.

Additionally, individual states have their own health insurance schemes, referred to as extension schemes. These schemes, catering to approximately 20 crore individuals, extend coverage beyond the central AB-PMJAY scheme. State extension schemes may include specific groups such as the disabled or individuals earning below state-specific income thresholds. Some state extension schemes provide a broader or more comprehensive benefits package. Many of these state schemes were in existence before AB PM-JAY and are aligning with PMJAY while expanding coverage to additional groups. The primary focus of state schemes is on the poor, although some schemes also cover non-poor unorganized sector employees. Most of these schemes are fully subsidized, with exceptions like the 'Arogya Karnataka Scheme,' which is partially subsidized.

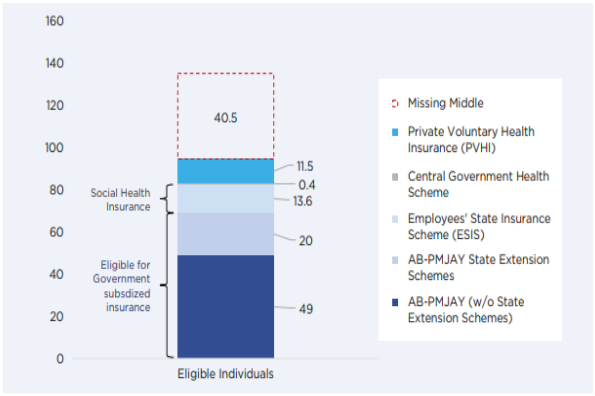

Figure 4: Number of individuals eligible or covered, by health insurance scheme type

Source: See Table 1 for sources and notes

Social Health Insurance (SHI) Schemes:

Social Health Insurance (SHI) schemes in India are compulsory and contributory, primarily targeting organized sector employees. In these schemes, both employees and employers, whether from the government or private enterprises, contribute premiums mandated by the government to secure health insurance coverage. The Employee State Insurance Scheme (ESIS), managed by the Employee State Insurance Corporation (ESIC) under the Ministry of Labour and Employment, stands out as the largest scheme in this category, boasting 13.6 crore members as of 2019. ESIS provides comprehensive coverage, including both in-patient and out-patient benefits, to private establishment workers and their families. The scheme covers workers earning less than Rs. 21,000 per month in most industries with ten or more employees. Another notable SHI scheme is the Central Government Health Scheme (CGHS), administered by the Union Government, which provides coverage to around 40 lakhs of its employees as of 2021. Additionally, some government departments have distinct

schemes that directly offer healthcare services through self-owned dispensaries and hospitals, rather than acting as insurance schemes. Examples include Central departments like Railways and Defence, catering to employees, veterans, and pensioners with coverage for both in-patient and out-patient services. Paramilitary forces under the Home Ministry, such as Border Security Forces (BSF) and Indo Tibetan Border Police (ITBP), also operate large hospitals in border areas.

Private Voluntary Health Insurance (PVHI) Schemes: Private Voluntary Health Insurance (PVHI) schemes are contributory and voluntary, offering retail insurance products to individuals and families or group business enterprises. These schemes cover nearly 11.5 crore individuals, encompassing both individual/family-focused plans (4.2 crore persons) and group plans targeting private enterprises and their employees (7.3 crore persons). Group insurance schemes cater to corporates and private enterprises where employee compensation exceeds the Rs. 21,000 ceiling under ESIC. While the PVHI market has witnessed significant growth, nearly doubling from 6.1 crore in 2013-14 to 11.5 crore in 2018-19, it still only covers 9% of the total population. The overall health insurance market, measured by premiums collected, has more than doubled from Rs. 20,000 crores in 2014-15 to nearly Rs. 45,000 crores in 2018-19, according to the latest annual report from the Insurance Regulatory and Development Authority of India (IRDAI).

Despite the growth in the health insurance sector, a substantial portion of the population remains uncovered under existing schemes. The overview highlights that existing schemes often target deprived and poorer segments of the population or the relatively better-off in the organized sector. The 'missing middle,' constituting at least 30% of the population or 40 crore individuals, lacks health protection through existing schemes. They are ineligible for government-subsidized health insurance schemes (PMJAY and State extension), not covered by social health insurance schemes (ESIS, etc.), and have not opted for PVHI. This underserved population segment, referred to as the 'missing middle,' presents a challenge for expanding health insurance coverage, and this document explores the obstacles and potential solutions to address their unique needs.

CONCLUSIONS

The integration of banking and health insurance emerges as a strategic imperative for ensuring a secure future for India's population. The existing health insurance landscape in the country reveals significant coverage gaps, particularly for the 'missing middle'—a substantial segment comprising at least 30% of the population, deprived of any health protection through insurance. While government-subsidized schemes like Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) and social health insurance schemes target specific demographics, a considerable portion remains underserved.

The synergy between banking and health insurance can catalyze financial inclusion and bridge the existing gaps. Collaborative efforts can introduce

innovative, low-cost health insurance products, specifically designed for the missing middle. By leveraging banking infrastructure for premium payments, outreach, and awareness campaigns, the integration can enhance accessibility and affordability. The proposed comprehensive health insurance product, building on existing frameworks like Arogya Sanjeevani, can be instrumental in addressing delays, expanding coverage, and offering outpatient benefits.

Moreover, banking institutions can play a pivotal role in facilitating premium payments, streamlining enrollment processes, and educating the public about the benefits of health insurance. This convergence aligns with the broader goal of achieving Universal Health Coverage, ensuring that a larger proportion of the population, including the missing middle, can safeguard their well-being without succumbing to catastrophic health expenditures. The collaborative efforts of the banking and health insurance sectors are not only essential for financial security but also contribute significantly to the overall well-being and resilience of the nation.

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- Dr. K. Geetha: Expertise in insurance and financial services research.
- Dr. Rakesh Agarwal: Research focus on insurance and actuarial science.
- Dr. Neelam Rani: Specializes in insurance and financial planning research.
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