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Research Article

Customer-Centric Performance Evaluation of Private Life Insurers in India: An Empirical Analysis Using CFA and GLM

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Abstract

The Indian life insurance sector has witnessed significant structural and competitive changes after liberalisation, marked by the entry of private players alongside the public sector giant, Life Insurance Corporation of India (LIC). In this evolving environment, understanding customer-centric performance indicators has become critical for insurers' sustainability and growth. The present study empirically examines the performance of selected private life insurance players from a customer perspective, focusing on awareness, satisfaction, perception, reliability, and agent service quality. Using primary data collected from 452 respondents across semi-urban and rural areas, the study applies descriptive statistics, correlation analysis, Confirmatory Factor Analysis (CFA), Generalised Linear Model (GLM), and regression techniques. The results reveal that customer satisfaction and awareness of product variety significantly influence policy adoption, while agent service quality and scheme awareness act as key performance drivers. The study offers practical insights for private insurers to enhance customer engagement and improve market penetration in a competitive insurance landscape.

KEYWORDS: Life Insurance, Private Insurers, Customer Satisfaction, Awareness, Confirmatory Factor Analysis, Generalised Linear Model.

1. INTRODUCTION

The life insurance sector in India occupies a pivotal position in the country's financial system by providing financial security, risk mitigation, and long-term savings to individuals and households. Life insurance not only protects families against uncertainties such as death and disability but also serves as an important instrument for mobilising long-term funds for economic development. Recognising its significance, the Indian insurance industry underwent a major transformation with the liberalisation of the sector in 2000, which ended the monopoly of the Life Insurance Corporation of India (LIC) and allowed the entry of private and foreign insurers. This reform introduced competition, product innovation, improved service delivery, and customer-oriented strategies, thereby reshaping the structure and functioning of the life insurance market.

Since liberalisation, the Indian life insurance sector has experienced substantial growth in terms of premium income, number of policies issued, and expansion of distribution channels. Private life insurers have played a significant role in introducing diversified products such as unit-linked insurance plans (ULIPs), term insurance, pension schemes, and customised savings-oriented policies. Despite this growth, insurance penetration and density in India remain relatively low when compared to developed economies and even several emerging markets. This gap indicates that a large segment of the population remains underinsured or uninsured, highlighting structural and behavioural challenges related to awareness, affordability, trust, and service quality.

In a service-intensive industry like life insurance, customer perceptions and experiences play a decisive role in influencing policy adoption, continuation, and renewal decisions. Unlike tangible products, insurance services are characterised by intangibility, long-term commitment, and delayed benefits, making customer trust and satisfaction crucial determinants of success. Factors such as awareness of policy maturity benefits, understanding of different insurance schemes, perceived reliability of insurers, satisfaction with claim settlement processes, and the quality of agent services significantly shape consumer decision-making. Customers' demographic characteristics, including age, income, occupation, and place of residence, further influence their insurance behaviour and preferences.

The growing competition among private life insurers has intensified the need to move beyond traditional financial performance indicators and adopt a customer-centric approach to performance evaluation. Measuring performance solely based on premium growth or market share provides an incomplete picture, as it ignores the underlying drivers of customer acquisition and retention. A comprehensive assessment must incorporate customer-oriented dimensions such as satisfaction, awareness, perception, reliability, and service quality. These factors not only determine immediate policy uptake but also influence long-term customer loyalty and brand equity in the insurance market.

Against this backdrop, the present study aims to evaluate the performance of selected private life insurance players in India using a customer-centric analytical framework. By integrating demographic analysis with advanced statistical techniques such as Confirmatory Factor Analysis (CFA), correlation analysis, regression, and Generalised Linear Models (GLM), the study seeks to identify the key determinants of customer satisfaction and policy adoption. The findings of the study are expected to provide valuable insights for insurers, policymakers, and regulators in designing effective strategies to enhance customer engagement, improve service delivery, and strengthen insurance penetration in India.

2. REVIEW OF LITERATURE

Several studies have examined the performance and growth of the life insurance sector in India. Malhotra (2014) highlighted that liberalisation improved service quality and customer choice but also intensified competition among insurers. Mishra and Sahoo (2016) found that awareness and trust significantly influence customers' preference for private insurers. Kaur and Singh (2018) observed that agent service quality plays a crucial role in shaping customer satisfaction and policy persistence.

Bawa and Verma (2019) emphasised that demographic factors such as age, income, and occupation affect insurance demand and product selection. Rao and Anand (2020) applied factor analysis to identify satisfaction, transparency, and claim settlement as major determinants of insurer performance. Sharma and Gupta (2021) reported that customer satisfaction mediates the relationship between service quality and policy renewal intentions. More recently, Kumar et al. (2023) suggested that awareness campaigns and digital engagement significantly enhance policy adoption among younger customers. These studies underline the importance of customer-centric variables, providing the foundation for the present research.

3. RESEARCH METHODOLOGY

The present study adopts a descriptive and analytical research design to examine the performance of selected private life insurance players in India from a customer-centric perspective. A descriptive approach is employed to capture the demographic profile of respondents and to understand their awareness, perception, satisfaction, and behavioural patterns related to life insurance products. The analytical component of the research is used to examine relationships among variables and to test the formulated hypotheses using appropriate statistical techniques. This mixed approach enables a comprehensive understanding of both the structural characteristics of the sample and the underlying factors influencing customer decision-making in the life insurance sector.

The need for the study arises from the intensifying competition among private life insurers in the post-liberalisation period and the increasing emphasis on customer satisfaction as a strategic performance indicator. While financial indicators such as premium income and market share provide useful insights, they fail to capture customer experiences, service quality, and perception—factors that directly influence policy adoption, renewal, and long-term loyalty. Understanding these

dimensions is essential for private insurers seeking to improve insurance penetration and sustain competitive advantage in a dynamic market environment.

The primary objective of the study is to assess the performance of selected private life insurance companies based on customer perceptions and satisfaction levels. The specific objectives include: (i) to analyze the demographic characteristics of policyholders and their influence on insurance behavior; (ii) to identify the key customer-centric performance factors such as awareness, satisfaction, perception, reliability, and agent service quality using Confirmatory Factor Analysis (CFA); and (iii) to examine the determinants of life insurance policy uptake using Generalized Linear Models (GLM) and regression analysis.

Based on these objectives, the study formulates the following hypotheses: (H1) Customer satisfaction has a significant influence on the adoption of life insurance policies. (H2) Awareness of insurance schemes and product variety positively affects policy uptake; and (H3) Agent service quality significantly influences customer perception and satisfaction in the life insurance sector.

The study is based on primary data collected through a structured questionnaire, designed after an extensive review of relevant literature and aligned with the objectives of the study. The questionnaire consists of sections related to demographic characteristics, awareness levels, satisfaction, perception, agent services, and policy-related behaviour. A total of 452 respondents were selected using convenience sampling, primarily from rural and semi-urban areas, as these segments represent emerging insurance markets with significant growth potential. The sample size is considered adequate for applying multivariate statistical techniques, as confirmed by the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy.

For data analysis, the study employs descriptive statistics, correlation analysis, Confirmatory Factor Analysis (CFA), Generalised Linear Models (GLM), and regression techniques using standard statistical software. These tools enable the identification of significant relationships among variables and provide empirical validation of the proposed hypotheses.

Despite its contributions, the study has certain limitations. The geographical scope is limited, which may restrict the generalizability of the findings. The use of self-reported data may introduce response bias, and the study does not incorporate financial performance indicators such as profitability or claim settlement ratios. Future research may address these limitations by adopting a broader geographical scope, probabilistic sampling methods, and integrating financial performance metrics.

4. Data Analysis and Interpretation

The analysis of data begins with a detailed **descriptive** statistical assessment of the demographic profile of respondents, which provides the foundational context for understanding insurance behaviour. The results indicate that a substantial proportion of respondents belong to the 18–30 age group, reflecting higher engagement and awareness among younger individuals. This trend suggests a growing inclination toward life insurance as a financial planning tool among early earners and young professionals. The dominance of semi-urban respondents highlights the expanding reach of private life insurance companies beyond metropolitan centres, supported by improved distribution networks and agent-led outreach. Furthermore, the concentration of respondents within moderate income groups (₹1–6 lakh annually) underscores the relevance of life insurance as an accessible financial product for middle-income households rather than a service limited to high-income segments.

To assess the suitability of the data for multivariate analysis, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were employed. The KMO value of 0.799 indicates a high degree of intercorrelation among variables, confirming that the sample is adequate for factor analysis. Bartlett's Test of Sphericity was found to be statistically significant ($p < 0.001$), rejecting the null hypothesis that the correlation matrix is an identity matrix. These results collectively validate the appropriateness of applying factor analysis to identify the underlying constructs influencing customer perceptions of private life insurance performance.

The Confirmatory Factor Analysis (CFA) was conducted to test the hypothesised measurement model comprising customer-centric indicators such as maturity awareness, awareness of various insurance schemes, customer satisfaction, agent service quality, and customer perception. The CFA results demonstrate an excellent model fit, as reflected by a chi-square value of 1.236 with a p-value of 0.941, indicating that the proposed factor structure aligns well with the observed data. Factor loadings reveal that awareness of various schemes exhibits the highest loading, signifying its critical role in shaping customers' evaluation of insurer performance. Agent service quality also emerges as a strong contributor, highlighting the importance of interpersonal interaction and advisory support in the insurance decision-making process. Although perception shows a comparatively lower factor loading, its statistical significance confirms its relevance as a supporting construct. The Cronbach's alpha value of 0.748 further establishes the internal consistency and reliability of the measurement scale.

To examine the determinants of life insurance policy adoption, a Generalised Linear Model (GLM) was applied, with policy uptake as the dependent variable and satisfaction, awareness, perception, reliability, and agent service as explanatory variables. The results indicate that fully satisfied customers are significantly more likely to adopt life insurance policies ($p < 0.05$), reaffirming satisfaction as a key driver of insurance demand. This finding highlights the role of service experience, claim handling, and overall customer engagement in influencing purchase decisions. Additionally, awareness of product variety shows a strong positive impact on policy uptake, suggesting that customers who possess even moderate knowledge of available schemes are more inclined to purchase insurance.

Correlation analysis further supports these findings by revealing positive associations between satisfaction, awareness, and insurance adoption, while relationships between demographic

variables, such as income and occupation, with policy uptake remain weak. This suggests that behavioural and perceptual factors exert a greater influence on insurance decisions than purely socio-economic characteristics. Regression analysis corroborates this pattern by demonstrating that satisfaction and awareness significantly explain variations in policy adoption, whereas demographic variables contribute marginally.

Overall, the data analysis indicates that the performance of private life insurance players is largely driven by customer-centric factors rather than demographic or financial attributes alone. Enhancing awareness, improving service quality, and strengthening customer satisfaction emerge as critical strategies for increasing insurance penetration. The integration of advanced statistical techniques in the analysis provides robust empirical evidence, reinforcing the validity of the study's conclusions and offering actionable insights for insurers seeking to strengthen their competitive position in the Indian life insurance market.

5. FINDINGS, CONCLUSION AND RECOMMENDATIONS

The findings of the study reveal that private life insurance companies in India have made considerable progress in enhancing customer awareness and improving agent-driven service delivery in the post-liberalisation era. The analysis indicates that customers are increasingly informed about insurance products, particularly in semi-urban areas where private insurers have actively expanded their outreach. Among the various determinants examined, customer satisfaction emerges as the most significant factor influencing life insurance policy adoption, confirming that positive service experiences, transparent communication, and effective claim-related support play a decisive role in shaping customer behaviour. The study further finds that younger respondents, particularly those in the 18–30 age group, demonstrate higher engagement with life insurance products, reflecting growing financial awareness and early adoption of risk management practices. Semi-urban respondents also exhibit greater participation compared to rural counterparts, suggesting that accessibility and agent presence significantly influence insurance uptake.

Another important finding is that awareness of product variety and scheme-related information significantly enhances purchase decisions, indicating that customers who are knowledgeable about multiple insurance options are more likely to invest in life insurance policies. Conversely, the direct impact of customer perception alone is found to be relatively limited, implying that perception translates into action only when supported by tangible experiences such as satisfaction and service quality. The role of agent service quality, although not always directly significant, indirectly strengthens customer trust and satisfaction, thereby contributing to long-term customer retention. Demographic variables such as income and occupation show weaker direct associations with policy adoption, emphasising that behavioural and experiential factors outweigh purely socio-economic considerations in insurance decision-making.

Based on these findings, the study concludes that a customer-centric approach is central to evaluating and improving the performance of private life insurance players in India. While financial strength, product pricing, and regulatory compliance remain important, they are insufficient on their own to ensure sustained growth in a competitive market. Customer satisfaction, awareness, and service quality emerge as critical drivers of policy adoption and market competitiveness. The study highlights that private insurers must shift their strategic focus from product-centric selling to relationship-based engagement, where long-term trust, transparency, and customer education are prioritised. Enhancing awareness about policy benefits, maturity values, and claim procedures can significantly reduce customer hesitation and improve insurance penetration.

In light of these conclusions, the study recommends that private life insurers should invest more extensively in targeted awareness and financial literacy campaigns, particularly focusing on younger and semi-urban populations who exhibit higher responsiveness to insurance offerings. Agent training programs should be strengthened to emphasise advisory competence, ethical selling practices, and clear communication of policy features rather than aggressive sales tactics. Insurers should also simplify product structures and policy documentation to make insurance products more understandable and accessible to diverse customer segments. Furthermore, the use of digital platforms and data-driven customer engagement tools can enhance awareness and service efficiency. From a policy perspective, regulators and policymakers should promote insurance literacy initiatives and encourage inclusive insurance frameworks to improve penetration across underserved regions. Collectively, these measures can contribute to a more resilient, customer-oriented, and sustainable life insurance ecosystem in India.

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