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# PJMTR

## Presidency Journal of Management Thought & Research

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**Research Papers**



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## From the Editor's Desk ...

The 21st Issue of PJMTR welcomes you. This issue brings you a new experience of reading with a broad base of knowledge, challenging your mental capacities to relish and satisfy your craving for research.

The first paper in line is about "Dimensions of Healthcare marketing in India". This paper delves into the depth of differences in marketing objectives and the hospitals' approach.

The next paper takes you into the world of "Bancassurance- the global trends and opportunities." This paper details the various factors that contribute to Bancassurance business.

For preserving capital adequacy, Basel norms and guidelines help to evaluate the performance of the Banks. This topic is elaborated in the next paper "Performance Evaluation of State Bank of Patiala in Basel II Regime."

The next paper is exciting. Augmented reality enhances the teaching process and helps achieve a higher level of outcome-based learning. "A study on the value proposition of AR applications in education: Bloom's taxonomy and pedagogy perspective" will surely bring in lots of debatable questions.

So brace yourself to this new issue of PJMTR and enjoy reading!!

I am looking forward to receiving a positive response of your original articles and research papers.

Happy reading and good luck!

Chief Editor

**Dr. R. Venkataraman**

# Contents

**Vol. XI No. 1** **January - June 2021** **ISSN 2229-5275**

**Research Papers**

# DIMENSIONS OF HEALTHCARE MARKETING IN INDIA

Sindhu R. Menon* & Naseer Mohamed Jaffer**

**Abstract**

*Increasing commercialization and consumerism in the healthcare sector have made marketing very relevant to healthcare providers. The objective of this study was to understand the dimensions of healthcare marketing in India from a provider perspective. Data for this descriptive study was collected through experience surveys and secondary research and analyzed using content analysis. The study was conducted in Bengaluru (Tier I city) and Thiruvananthapuram (Tier II city) in March 2020. The paper details the various marketing tools employed by Indian hospitals and investigates the differences in marketing objectives and approach of corporate/large and small hospitals. While bigger hospitals try to reach a wider section of people through their marketing for awareness generation and image building, small hospitals focus on customer retention through relationship building. The paper also explores ethical aspects of healthcare marketing and concludes that though healthcare is a social sector, marketing by hospitals is unavoidable in the current competitive business environment.*

## Introduction

The Healthcare sector comprises providers (hospitals), pharmaceuticals, diagnostics (imaging and pathology), medical equipment and supplies, health insurance, and telemedicine. The hospital industry accounts for 80 percent of the healthcare market. The private sector dominates healthcare delivery in India and has registered significant growth over the last couple of decades. With rising health consciousness and increased awareness about health-related services, hospital services in India are now in the 'growth phase' of the product life cycle. The growth phase is characterized by an increase in the number of competitors and severe competition among the players. This is exactly what is happening in the private hospital sector. Consumerism is also on the rise in the healthcare sector with people making informed choices. This makes marketing not just relevant but a necessity for the hospitals in the private sector. This paper examines the many dimensions of marketing by private hospitals in India.

## Review of Literature

According to the National Health Accounts (2014-15), 71 percent of Total Health Expenditure (THE) is in the private sector. 65.8 percent of ailments treated on medical advice

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are in the private sector (NSS 2019). This establishes that the Indian healthcare sector is dominated by the private sector both in terms of expenditure and utilization. The growth of the private sector was however not steady across the years. It was gradual till the 90s after which it started gaining pace. During liberalization in the 90s, the number of private healthcare providers started rising, however, it was after 2000 that this growth became steeper with the health sector getting more liberalized than ever before (Shailender Kumar Hooda, 2015). In 2000 the Central Government allowed 100 percent FDI in the hospital sector through automatic route thereby pushing up FDI in the hospital sector from a mere Rs. 31 crores in 2001- 02 to Rs. 3995 crores in 2013-14. Within the healthcare sector, FDI in the hospital sector increased from 12.8 percent in 2000 to 25.5 percent in 2013. National Health Policy 2017 recommends collaboration with 'for-profit' private hospitals to provide medical services where a gap exists in public sector provision. Bijoya Roy (2017) states that this would increase private sector involvement in the delivery of healthcare services in the public sector, gradually leading to an expansion of the market of private hospitals.

An increase in the number of private hospitals has resulted in competition and consequently provided scope for marketing to create a preference for specific providers. Grover (2016) states that globalization and technological advancements have made patients more enlightened and specific about their needs resulting in a paradigm shift in healthcare marketing which in turn leads to competition among healthcare providers. Private hospitals are profit-driven and they have to cover their various overheads and expenses (Khatib 2009) hence they have to use hospital marketing techniques and relationship management to expand business (Khatib 2011). Marketing is so relevant in healthcare that the target group is now referred to as 'healthcare consumers' rather than 'patients'. Corbin et al (2001) state that consumers are now more involved in making healthcare decisions owing to the increased cost of healthcare. Kay (2007) stresses the importance of marketing for healthcare organizations in providing information to consumers that would help them in making healthcare decisions. Kirti Udayai (2003) states that a new focus on the needs and expectations of consumers has resulted in the rise of consumer-driven healthcare marketing. In his book, Berkowitz (2003) states that though in earlier times marketing in healthcare was a little more than advertising it has evolved in the last thirty years. Marketing is thus inevitable for healthcare providers, however, it has to be ethical. Catoiu et.al. (2013) emphasizes that marketing of healthcare should follow a code of ethics as outlined by apex bodies both in the field of medicine and marketing.

**Research Gap**

RV Baru (1993), Sankar Deepa (2001), and T R Dilip (2010) have stated that the private healthcare sector in India is not an extensively explored area for research. Though statistical details about the private sector are published by different sources (National Health Accounts, Directorate of Health Services, NSS data, etc.) and analyzed by researchers to assess utilization, expenditure patterns, diseases treated, distribution, accessibility, etc. management related issues as marketing is hardly studied, especially in India. Research in healthcare marketing is a relatively new area (Stremersch, 2008). Whatever few studies are there address marketing from a customer perspective but not from a provider perspective. This paper attempts to address that research gap.

## Research Objective

The objective of the study is to understand the dimensions of healthcare marketing in India from a provider perspective.

## Research Methodology

The study is descriptive in nature. Balogun et al (2017) did a systematic review of literature on healthcare marketing. The author stated that most of the authors whose research papers were reviewed had used a qualitative approach in data generation. In this study also qualitative method was used. Experience surveys were conducted with marketing professionals incorporate / large hospitals, office bearers of Indian Medical Association, Kerala branch, and proprietors of small hospitals. Twelve depth interviews were conducted in total. Separate in-depth interview schedules were used as a research tool. Secondary research was conducted to get a deeper perspective about healthcare marketing specifically about ethical issues, and it involved a systematic and detailed review of relevant academic and management literature with a general focus on healthcare and a specific focus on healthcare marketing. Content analysis was used to analyze the data. The study was conducted in March 2020.

## Scope of the Study

NSS 2019 reports the percentage of treated ailments receiving allopathic treatment as 95.4 percent in India. The study is restricted to allopathic hospitals as they form the largest chunk by far, in the health care delivery system in the country. Geographically the study was restricted to two Indian cities – Bengaluru, a Tier I city, and Thiruvananthapuram, a Tier II city. Private hospitals are growing the fastest in these categories of cities.

## Operational Definitions

Small hospitals: Clinics, diagnostic centers, or hospitals with 0 to 50 beds (in line with the definition of Small Healthcare Organisation as given by the National Accreditation Board for Hospitals and Healthcare Providers – NABH).
Large/corporate hospitals: Hospitals with 50 beds or more or hospitals that are part of corporate chains.

## Major Findings

### Marketing by Large / Corporate Hospitals

Large/corporate hospitals in India usually have a marketing department and a marketing budget just like any other commercial organization. Their marketing efforts are mainly aimed at awareness generation and brand building, with a focus on attracting new patients. These hospitals widely advertise using both conventional and digital media (including social media as Facebook, YouTube, and Twitter). Special digital agencies handle internet publicity that includes maintaining well-managed websites, search engine optimization, boosting of 'likes' and managing Twitter handles. Large/corporate hospitals regularly organize medical camps in apartments, colleges, and offices offering discount coupons that would entitle the participants to special rates for select services in the hospitals. These camps are organized any time of the year, though special efforts are made to organize them on medically significant days as World Diabetes Day, World Heart Day, etc. Many of the corporate hospitals use a hub and spoke model to extend their geographical reach. Diagnostic centers and clinics operating near major cities act as 'spokes' feeding patients to the main hospital in the cities that act as the hub. Only consultations and diagnostic services are offered in the diagnostic centers and clinics. Patients who need complex medical procedures

are referred to the main hospital. Another marketing strategy is to organize seminars for doctors as a part of Continued Medical Education (CME). Through these seminars, the hospitals create awareness among doctors about specific medical facilities and technologies available in the hospital for diagnosis and treatment. These doctors would then recommend to their patients the right hospitals for doing complex medical procedures when the situation arises. Thus these CME programs help large hospitals to attract patients through other doctors.

Large/corporate hospitals pay attention to public relations as well. Whenever a new facility is added to their services they issue press releases. Also, they get media coverage by treating newsworthy patients or patients with newsworthy diseases. These hospitals get major channels to cover them in health-related documentaries. Specialists from these hospitals participate in health shows/phone in programs aired by major channels. Some of the large hospitals do promotions specifically for medical tourism as well. Marketing activities specific to medical tourism include liaising with medical travel agencies, word of mouth (customer experience), and internet marketing. Internet marketing includes having a content-rich website, increasing search engine optimization (SEO), social media marketing, patient testimonials, and providing information about their city (from a tourism perspective). Large/corporate hospitals use CSR (Corporate Social Responsibility) activities to build their brand. For example, a major hospital chain is helping Kerala Government rebuild the PHCs (Primary Health Centers) that were destroyed during the 2018 floods. Such CSR activities help in generating goodwill among people.

**Marketing by Small Hospitals**

Marketing by small hospitals is more subtle and is more focused on customer retention and relationship building rather than expansion of the customer base. Traditionally they used to rely on word of mouth for popularizing their establishments. Healthcare service offered is made competitive by going beyond just consultation services. Many of them offer consultation by specialists in their clinics on specific days, comprehensive health checkups, special consultancy services for pregnant women/children, etc. Some of them have laboratories and pharmacies too so that patients don't have to go elsewhere for diagnostics and medicines. As an additional source of revenue generation, they also sell health-related items as special foot ware for diabetes, insulin pens, BP apparatus, thermometer, etc. Informal tie-ups with local medical laboratories and pharmacies is another method that works both ways in attracting patients.

Generally, small hospitals do not advertise using print media or outdoor media, though exceptions are there. However, small hospitals use digital marketing though to a much lesser extent compared to large hospitals. Many of these small hospitals have their web sites though it is not updated and managed as required. They enlist their establishments in sites like Justdial which ensures that their names come up in Google searches. They enlist in online service portals as Practo not only to help their patients in fixing appointments but also to create a certain 'tech-savvy' image for their establishments.

Doctors of small hospitals strive to create visibility and build credibility as a part of their marketing strategy. For creating visibility for themselves they participate in 'ask the doctor' and other kinds of medical programs aired by

regional channels. Also, in case of medical-related social issues (as the spread of the COVID19 virus) doctors of small hospitals address medical concerns during news programs or special programs aired by regional channels. Credibility is usually built by displaying the doctors' medical degrees and awards and recognitions won. Being part of professional bodies like the Indian Medical Association and the State Medical Council also helps in building credibility.

**Main Differences in Marketing by Large / Corporate Hospitals and Small Hospitals**

Though both large/corporate hospitals and small hospitals use marketing to attract patients, their approach is different. While large/corporate hospitals focus more on attracting new patients small hospitals focus on customer retention through relationship building. Among the 7Ps of service marketing (product, price, placement, promotion, process, people, and physical evidence) small hospitals' focus is more on their product (service) and people (usually locally recruited). Large hospitals pay more attention to promotion, process, and physical evidence than small hospitals. While large hospitals advertise extensively small hospitals rarely advertise. Though both use social media marketing, large/corporate hospitals pursue it aggressively whereas for smaller hospitals it is just about having some visibility in the digital space. Large/corporate hospitals focus more on public relations than small hospitals. In short, though large/corporate hospitals and small hospitals market their services the former is more aggressive than the latter in their marketing efforts.

**Ethical Aspects of Healthcare Marketing**

The Medical Council of India, through a notification brought out in 2002 (and amended in 2010) has laid down the ethical practices to be followed in the marketing of healthcare services. According to this, direct or indirect soliciting of patients or drawing attention by way of advertising by a physician or a group of physicians is considered unethical. Physicians are not expected to advertise their professional position, qualification, skill sets, specialties, or any such aspects that would lead to self-aggrandizement. However, the healthcare landscape has undergone many transformations of late. The sector is highly commercialized and healthcare is being sold just like any other commodity that obeys the rules of market dynamics. Private players dominate healthcare delivery and competition is tough and widespread. In this context maybe it is time to take a relook at IMC's stand on the ethics of healthcare marketing.

**Managerial Implications**

Private hospitals operate in a highly competitive business environment. Hence private hospitals have to adopt marketing strategies to generate awareness among healthcare consumers and create a preference for themselves. The paper outlines the general marketing practices adopted by small and large hospitals. Management of these categories of hospitals can deploy methods that would suit them the most, giving due consideration to the ethical aspects of healthcare marketing.

**Limitations of the Study**

The findings of the study should be generalized keeping in mind two aspects:

1. Geographical coverage was limited to just only two cities (Bengaluru and Thiruvananthapuram). 2. Qualitative research methodology was followed.

**Scope for Further Research**

The paper outlines various marketing tactics adopted by large and small hospitals in India. They all may not be equally effective in generating footfall. The effectiveness of these marketing tactics from a customer perspective can be further researched upon. Though increased competition in the healthcare sector makes marketing inevitable, it still is a social sector. Customer attitude towards healthcare marketing from an ethical perspective can be further studied.

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# Is Bancassurance alive? The Global Trends and Opportunities

Irala Lokanandha Reddy* & P. Sreelatha**

**Abstract**

*The financial sector reforms integrated financial markets and brought out transformation in banks and financial services globally. Deregulation in the financial sector and competition necessitated the conglomeration of banking markets whereby banks diversified into insurance activities. This exercise on the part of banks and insurance companies led to a novel concept called bancassurance. Bancassurance is an arrangement to distribute insurance products through a banking network. The present study aims to understand the trends of bancassurance in different countries of Europe, Africa, America, and Asia. European countries have a strong bancassurance market. However, in developing countries, growth is at a slow pace. Rising population, increased household income, and savings, favourable regulatory reforms, and digitalization are a few factors that can contribute towards sustainability bancassurance business shortly.*

## 1. Introduction

Over a decade or so, liberalization, financial sector deregulation coupled with the integration of the world financial markets resulted in a transformation of the functioning of the banking and financial services. This has created opportunities as well as challenges. As economies grew, there was an obvious need to provide sophisticated and innovative financial services and products to cater to the diverse needs of its stakeholders.

Insurance is a product that is sold than bought. Most of the Indian population is either uninsured or underinsured. Moreover, the sale of products like insurance requires personal counseling and continuous persuasion. However, distribution posed a major challenge for insurance companies.

Traditionally, the "tied agency" channel continued to remain as the primary distribution channel for insurance products. When the Insurance sector was opened for private and global players, the traditional insurers were forced to face cut-throat competition caused by the entry of global private players. The traditional insurance companies found it difficult to sell insurance without incurring heavy distribution expenses

Although the tied-agency channel existed as a dominant distribution channel, there was a felt need for a cost-effective alternative distribution channel, which can tap the huge insurable population of over one billion in India.

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In this regard, the IRDA report of 2001-02 expressed its concern towards low penetration of insurance and also suggested the way how banks, as corporate agents, with their wide geographical network and profound customer loyalty can come forward for the mutual benefit of banking and insurance industry. Besides, banks can also earn commission income from cross-selling. In Oct 2002, this resulted in an amendment, whereby, the recognized banks, NGOs, cooperatives, and panchayats can act as intermediaries to sell the insurance products.

On the other side, with growing competition and a dynamic regulatory regime, the profit margins of banks declined. While banks had to look for additional sources of generating revenue, insurance companies were forced to think of an alternative distribution channel to market their services and products. At this juncture, banks, with their wide branch network, and large customer base, were thought of as a viable distribution channel, useful for the insurance industry to increase penetration at a much faster pace. In this context, 'Bancassurance' came out as an innovative strategy to harness the synergies between banks and insurance companies.

Realizing the growth potential in the insurance industry, many banks such as SBI, ICICI, HDFC have established their insurance subsidiaries. It was felt that the well-trained bank staff would provide a comparative analysis of various insurance policies and design the best suitable plan according to the customer profile. The insurance companies would provide mainly risk management benefits to the parent company

While the concept of Bancassurance took off in a big way, it was not with issues and challenges. Did this channel help Bankers and Insurance Companies? What had been the experiences of the world? We present a systematic review of the bancassurance around the world, and try to answer the question of whether it is still alive?

## 2. Review of Literature

Morgan, Glenn (1994) examined the growth of bancassurance in the UK and concluded that selling insurance requires distinctive skill, and putting bancassurance into operation involves a complex process.

Bryan Clontz (1997) identified that traditional insurance distribution channels failed in meeting the requirements of lower- and middle-income groups in America. Bancassurance would become the appropriate channel, which brings such advantages as increased choice, value, and accessibility.

Sekhar Chandra Y (2001) stated that only 25% of the global insurable population in India is insured and among these 25%, majority are underinsured and concluded that banks might emerge victorious in tapping the huge customer base, who is to be insured.

Isabella Falautano et al (2003) emphasized that bancassurance should optimize the relationship with clients.

Lymberopolos et al (2004) proposed that while cross-selling the insurance products and services, the banks shall have to design effective marketing strategies to increase awareness and willingness of customers and accordingly, prepare an integrated communication plan.

A. Karunagaran (2006) concludes that bancassurance in the future would become a rule than an exception. This shall mean a 'win-win situation' for banks, insurers, and customers in India.

Fields, L Paige et al (2007) researched the financial viability of different combinations of bancassurance. They concluded that the financial markets reacted a bit positively to the bancassurance merger announcements. Further, the bancassurance model is a feasible one for well-managed bidders looking for the right opportunities to expand geographically.

L. Paige Fields, et al (2007) provided evidence on how the bancassurance mergers have resulted in wealth gains for the potential for bidders.

Panayiotis G. Artikis et al (2008) observed that the regulatory framework, integration of global financial markets, the cultural and financial attributes of the particular market, and the public's preferences towards various services and products were critical to favor or hinder the development process of bancassurance model.

Orla Gough et al (2009) obtained views from eight focus groups and through a postal questionnaire survey conducted in the context of the UK. They found that the purchase process through bancassurance was initiated due to the long 'ongoing' relationship between bancassurer and customer.

Franco Fiordelisi et al (2011) assessed the gains of cost and profit efficiency facilitated by bancassurance in Italy. Their study revealed that the gains in cost efficiency are found in the insurance industry.

Anand Pejawar (2013) concluded that the microinsurance products can be sold through bancassurance to the huge rural population in India.

Sahelian Daniela Nicoleta (2015) stated that the factors attributing to bancassurance success as simple products and processes, the insurer's representatives being present on the bank's board, and compatibility of objectives between the banks and insurers.

Keith Komen Kiptis (2016) concluded that capital adequacy, management quality, and asset quality have a positive influence on bancassurance and the bank's financial performance in Kenya.

Mousumi Choudhury et al. (2016) found that purchasing life insurance products through the channel of bancassurance offers several benefits such as ease of buying, reliability, and after-sale services.

Sharma et al (2016) emphasized that indicators like population size and structure, banking structure, literacy rate, insurance density, and penetration explain the bancassurance success. His study further revealed that the premium share of the Bancassurance channel in the "individual new business" is more in the case of private life insurance companies than that of their public counterparts.

Jin-Lung Peng Et al (2017) investigated the banks engaged in the bancassurance business in Taiwan. His study covered the period 2004 to 2012 revealed that such banks experienced efficiency improvements and accrued greater profits and accounted for increased shareholder value. Further, the adoption of a diversification strategy in bancassurance was found to impact bank performance.

Ilja Arefjevs (2017) developed an efficiency assessment model primarily to assess the financial alliances in the management of pension funds in the Baltic countries. Seventeen out of twenty pension fund management companies were operated under the

Bancassurance. Small and medium-sized companies were found to be capable of achieving better competitive efficiency.

Sreenish S. R. et al (2017) analyzed the possibilities of bancassurance to sell life insurance services and products in the cashless and digitalized economy. In this context, the channel of bancassurance was found to be unique compared to other channels of distribution. Bank staff, as insurers were found to be giving better financial advice about the insurance products and services to their customers.

Dharmaraj (2018) conducted a survey and explored the perception of branch managers and revealed that proper coordination between insurance companies and banks makes the bancassurance more productive.

Valentina Ninova (2018) discussed the practices of bancassurance in Bulgaria in terms of the benefits of bancassurance to the three stakeholders: customers, banks, and insurance companies.

Shinde Damayanti G et al (2018) discussed bancassurance models used by insurance companies and banks in India. A study on five major nationalized banks showed that these banks avoided participating in managing insurance activities and seen accepting low risks.

Tsai-Jyh Chen (2019) investigated the impact of bancassurance on the reputation of the corporates and their profitability with special reference to life insurers in Taiwan. He concludes that the quality of service quality had a profound effect.

Praba Devi, P (2019) tried to understand the evolution of the bancassurance business in the Indian context through a review of the literature. The study also identified the research gaps and provided scope for further research.

Minghui QIAN et al (2020) analyzed the social sustainability dynamics of bancassurance in China. China's bancassurance helped its Rural Revitalization and as well as the small and micro-enterprise development. The study revealed that the government needs to increase subsidies, expand the space of China's bancassurance, and optimize the risk-taking ratio of banking and insurance providing companies, for a healthy and professional bancassurance business.

Miguel Angel Latorre Guillem (2020) compared the insurance service by brokers with the advisory services of banks on insurance. It is revealed that the customer values the broker's advisory service. However, for standardized insurance products, customers preferred the bank's services.

Pushpa Latha et al (2020) discussed the concept, scope, and models of bancassurance and also presented a SWOT analysis of bancassurance. It is concluded that the bancassurance success lies in banks ensuring excellent customers relationship.

Ikhwan Abiyyu et al (2020) observed that such strategic issues as product development, customer segmentation, and digital initiatives in selling insurance are key determinants of the bancassurance business.

## 3. Methods

The present paper is a modest attempt in providing some insights into the global trends in bancassurance across various countries. Firstly, we discuss the conceptual-framework of bancassurance, Then, we focus on various facets such as the need for the emergence of bancassurance, the regulatory aspects, performance, and trends in different countries.

### *3.1. Concept of Bancassurance*

The term 'Bancassurance' originated in France in the year 1980. Bancassurance in its simplest form is "the distribution of insurance products through a bank's distribution channels". "The broad philosophy behind Bancassurance is to combine the manufacturing capabilities and selling culture of insurance companies with the distribution network and large client base of banks" (Bramham, Irala, et al., 2004). It is a strategy adopted by banks or insurance companies aiming to operate the financial market in a more or less integrated manner (Swiss Re, 1992).

#### *3.1.1. Benefits of Bancassurance*

The bancassurance constitutes three parties - the banker, insurer, and the customer. The advantages accrue to each of them. Table 1 presents some of the benefits.

**Table 1. Benefits of Bancassurance**

| To the Banks | To the Insurance companies | To the Customers |
|---|---|---|
| Source of fee-based income | Increase insurance penetration | Availability of comprehensive financial products at one place |
| Expansion of product portfolio | Access to customer database at low cost | Lower premium due to fewer distribution costs |
| Better customer relationship in the long run | Reduced dependence on agents, who charge high commission | Strengthened relationship with the banks |
| | Fewer chances of policy lapses due to the loyal nature of bank customers | Customer satisfaction |

#### 3.1.2. *Challenges of Bancassurance*

The bancassurance model is not free from risks and challenges as outlined below.

**Image risk for Banks:**

The Banks not only sell the insurance products, but they also sell so under their name. For many a customer, the Bank is the only reference point. The bank is risking its image being the frontline face of the product. As the bank cannot exercise full control over the intermittent customer service and finally handle claims, the unavoidable or otherwise delays or problems associated with the settlement of claims can put the image of the bank at risk.

**The expertise of Banking personnel:**

Qualifications and experience of account managers at the bank dealing with

Insurance products might become a hurdle as they are not as trained as the traditional insurance agents. This could severely limit the take-off and possible growth of this channel as selling insurance products require a skill set different from those needed to sell general banking products.

**Product Cannibalization Risk**

At times promoting the insurance products can take a toll on the sale of traditional banking products. Cannibalization is a potential real risk.

**Cultural Differences**

The real cultural differences between insurers and bankers can create potential problems to the bancassurance model

### *3.2. Models of Bancassurance*

Broadly, there are four bancassurance models – Referral, Corporate agent, Joint venture, and Broking. These models are depicted in Table 2.

**Table 2. Models of Bancassurance**

| | |
|---|---|
| **Referral** | It is an arrangement whereby banks provides only infrastructure and client database for commission. Banks have no risk. Initially, all the banks started with this model. It would be suitable for all types of banks including cooperative banks and Regional Rural Banks. |
| **Corporate Agency** | Here, the bank staff acts as a corporate agent for the insurance product for a fee/commission. This model is suitable for mid-sized banks. The commission income earned will generally be attractive compared to the referral model. However, bankers are expected to have professional knowledge about the insurance products for which the staff must be imparted training. |
| **Fully Integrated Financial Service/ Joint Ventures** | This model is a fully integrated one and involves a comprehensive relationship between an insurance company and the bank. Banks have wholly-owned insurance subsidiaries either with or without foreign participation. Big and financially sound banks can reap more benefits. Now, almost all banks have set up their wholly-owned insurance subsidiaries either with or without foreign participation. |
| **Broking** | Banks sell products of all insurance companies that best meet the requirement of their customers. However, it is riskier for the banks due to accountability on account of mis-selling and also increases costs of training to the bank staff. Bank-led insurance companies may face potential conflicts of interest. |

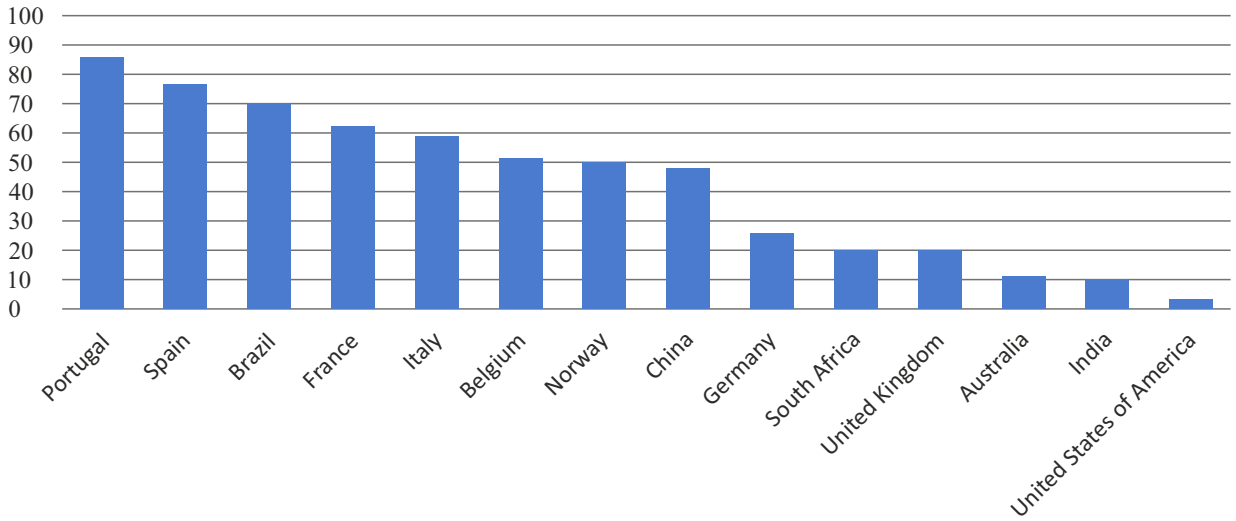
*(Source: IRDAI, Report of the Committee on distribution channels, 2008)*

All the bancassurance models are universally applicable. In India, the corporate agency is the most widely used model. Nevertheless, larger banks like HDFC, SBI, and ICICI with sound financials having set up joint ventures and acquired a considerable share in the insurance market.

## 4. Global Trends in Bancassurance

The growth in bancassurance varied across the regions of the world in respect of one's level of economic activities, legal regulations, models adopted, customer preferences, and also products sold through the channel of banks. The share of new business in EMEA, APAC, and Oceania regions in 2016 is displayed in Chart1. It is observed that European countries dominated the bancassurance markets. Portugal records the highest share of 86% and the US at the lowest share of 3%. All European countries recorded more than 50% of growth. The share of South Africa and the UK is at 20%, Australia at 11%, and India at10%.

**Graph 1: Global Trends in Bancassurance**




**Source: Reinsurance Group of America, Incorporated**

Bancassurance has been assuming significance in almost all countries worldwide. The global market size of the bancassurance touched around US$ 1,166 Billion in 2018 and is projected at US$ 1,665 Billion by 2024, growing at a CAGR of 6.1% during 2019-2024. Digitalization in bancassurance would provide incredible opportunities to enable personalization, a superior customer experience, and an omnichannel offering. Also, insuretech innovations such as "Payment Service Directive 2" (PSD2) and the "Insurance Distribution Directive" (IDD) intensify the competition and may influence the consumer buying behaviors and hence their purchasing patterns, which will augment the bancassurance growth.

A brief description of bancassurance trends across a few countries is discussed below.

### *4.1. Bancassurance in EMEA Regions (Europe, Middle East, and Africa)*

Daniel (1995) differentiates bancassurance development into three phases.

(1) Before 1980: during which banks sold closely related insurance products and services such as consumer credit, home property, and currency theft insurance;

(2) After 1980: banks expanding into savings related insurance products and services; endowment contracts, which promised a lump sum payment at a future date,

(3) In the 1990s: banks making major progress in general insurance activities, including various annuity investment contracts and whole-life insurance products.

Banking firms in Europe entered insurance in a full-fledged manner during the 1990s on financial sector deregulation under the 1989 Second Banking Coordination Directive. From January 1993, the financial institutions present in the European Union (EU) countries could operate in member countries without obtaining a license in a guest country. This resulted in the cross-selling of several services by universal banks and large retailers. Customers were offered better pricing when they were purchasing a bundle of financial services compared to single product customers. This led to the rapid growth of bancassurance rapidly in Europe.

The bancassurance model has its origin in France during the mid-1980s. It spread across several parts of Europe. In Europe, the Bancassurance is operated either through owned subsidiaries or through joint ventures. The insurance products such as protection, health, and non-life (which are medium-term and long-term having tax advantage and with low risk) are generally distributed by the staff of the bank. Specialized insurance advisers are appointed to sell sophisticated products. The policies were attractive in the regime of a general decline in interest rates. In Central Europe, banks distribute savings products usually with profit endowment and unit-linked offered with benefits like accident/death, permanent disability, and critical illness. Countries like Austria, Italy, Ireland, and the UK use internal and external brokerage systems for the sale of commercial insurance policies.

In France, the contribution of bancassurance increased from 42% in 1991 to 64% in 2013 in life insurance and in property/casualty insurance the corresponding figures are 1% and 13%[18,19]. Changes in regulatory norms such as Hamon Law (which enabled the insured to terminate their policies any time after one year) and Accord National Interprofessionnel (ANI) (requiring the employees to be provided supplemental health insurance by the employers) paved the way towards bancassurance.

In 2009, the market share for life insurance is highest in Portugal at 86.7%, followed by Italy at 74.4%, Spain at 66.3%, Austria at 64.8%, France at 60%, Turkey at 56.4%, and Belgium 42.4%. By 2012, Portugal and Spain remained the largest markets in terms of market share. In Turkey, France, and Italy, bancassurance accounted for over 50%

The demand for alternative investment options and also a reduction in government spending on social security created more demand in pension and market-linked saving products. Besides, the fiscal incentives for bancassurers also played an important role in the success of bancassurance in Europe. However, the growth of the bancassurance business in North European markets like the UK and Germany was slow due to the non-attractiveness of product offerings. Moreover, the non-bancassurance channels particularly were distributing the insurance products in the UK. In Germany, bancassurance growth was constrained by regulatory issues.

Moreover, insurance penetration is low in several European countries – Life insurance penetration in Spain, Italy, and the UK are 5.2 percent, 7.6 percent, and 12.2 percent respectively as per OECD statistics. In Italy, less

than 25 percent of bank customers in Italy (28 percent in Spain) have a policy of life insurance.

Although bancassurance is becoming important in the Middle East, there are few restrictions placed on banks in selling insurance products and penetration of life insurance is very low.

In Africa, bancassurance sales grew because of the product bundling. A Finaccord report state that approximately 90% of mortgages, as well as personal loans, were tied with credit life insurance policies. Also, personal automobile insurance and household insurance were tied to lending products. Mobile banking is likely to increase the potential growth of bancassurance.

### *4.2. Bancassurance in America*

Bancassurance in the United States of America has a low market share. The Glass Steagall Act prohibited the sale of most insurance products and services through bank channels. Gramm-Leach-Bliley (GLB) legislation supported the growth of the bancassurance business in the US. The dominant product sold by US bancassurers is annuities, being tax-advantaged investment instruments. In the non-life segment, there is a demand for property and mortgage insurance products. Traditional channels of distribution such as agencies still dominate in Canada, owing to the low commission for bancassurers. Between 2012 and 2013, in North America, the value of life insurance premiums from bancassurance plunged by around 27%, as per the Bank Insurance and Securities Research Institute (BISRA).

In Latin America, on financial deregulation, banks were permitted to sell insurance products and the policies first sold were fire and motor, i.e., non-life policies, followed by life policies. Brazil, Mexico, and Chile earned the highest commissions for bancassurers. Moreover, the success of the bancassurance business in these countries is on account of the brand equity of banks. This means the foreign insurance companies, looking for more insurance penetration, partnered with the well-established local banks so that the former can familiarize themselves with the local needs. This made bancassurance not only cost-effective but also enabled a faster reach and growth in those countries. Argentina, Mexico, and Brazil's bancassurance market are into pension products, (due to their aging population) and also simple savings oriented life insurance products. In Mexico, of total life and annuity premiums, bancassurance accounted for between 10% and 15% in 2001. In Chile, between 1999 and 2003, the bancassurance average annual growth of individual and group policies was 53.8% and 25.9% respectively. During 2012, Bancassurance accounted for approximately 80% of total life insurance premiums in Brazil, while in Mexico bancassurance it represented 41% of total sales. This is because of the favorable regulatory environment.

### *4.3. Bancassurance in Australia*

Bancassurance in Australia emerged during the 1990s when the large banks acquired major fund management and life insurance businesses to match their existing products. Life insurance is sold with wealth management products to both retail and corporate customers and sold more with the lending products (consumer credit insurance) and through direct channels for cost-efficient distribution. Basel III norms, additional local Australian Prudential Regulation Authority (APRA) imposts would enable the banks to focus on capital management and efficiency, The Royal

Commission's anti-hawking granted protections to consumers for the unsolicited sale of insurance products. The incentives were also reduced to employees for cross-selling products, affecting the bancassurance business. However, the disruption from regulations and delivery of digital and data capabilities create new opportunities for foreign and local players in the Australian bancassurance market.

### *4.4. Bancassurance in Asia-Pacific*

Bancassurance channel saw growth in Asia in the last ten years. Bancassurance was introduced in Singapore in 1992; Malaysia in 1996; India in 2000; China and Japan market in 2001; Philippines 2002; South Korea in August 2003. The growth is from the sale of products of life insurance, protection, health endowment, and pension products. In China and India, investment-linked and savings oriented insurance policies are fetching greater return are in demand. The share of Bancassurance increased to more than 35% in China in 2009 from less than 25% in 2005. In China, bancassurance contributed significantly due to a large number of commercial bank branches and also post offices catering to huge client bases

In Asia-Pacific, foreign insurers are integrating with the domestic banks as a platform to distribute the products to optimize partnerships in generating additional sales locally and internationally through its wide distribution networks. For example, AXA partnered with Mandiri in Indonesia, Metrobank in the Philippines and UkrSibbank in Ukraine, AIA with CIMB and BCA in Indonesia, BPI in the Philippines, and Public Bank in Malaysia. Mostly life and health products are sold. For instance, in Thailand, AXA is selling protection with savings and in Indonesia, unit linked savings with protection. It is also targeting SMEs for commercial insurance. In South Korea, bancassurance registered more than 7% of the total premium in April-June 2006. Bancassurance is present in life as well as the non-life segments in Japan. The growth of the bancassurance business in South Korea and Japan is also because of the decline in the interest rates.

In Malaysia, Maybank (one of the largest banks in Malaysia) integrated with Mayban Life insurance (which started in 1992) for bancassurance. The Maybank with its enormous customer base could pass on cost-saving benefits to its customers besides providing other services. Subsequently, Mayban General Assurance (Berhad) also partnered with Fortis for the distribution of non-life products.

On the other hand, India has a vibrant market for bancassurance with its large number of commercial banking branch networks. In 2002, IRDAI allowed banks to function as corporate agents for the distribution of insurance. Banks can become agents either with no-risk or as a joint venture, involving a risk component. The demand is high for health, endowment, life insurance, and pension products. Moreover, the market share in bancassurance is high among private insurers.

Although bancassurance is a rapidly emerging channel, traditional channels such as agencies and direct marketing channels are predominant. For instance, while in LIC, being the sole public sector insurer, individual agents contributed almost 98% of the individual new business premiums, while in the case of private-sector players it was 51% during 2009-2010.

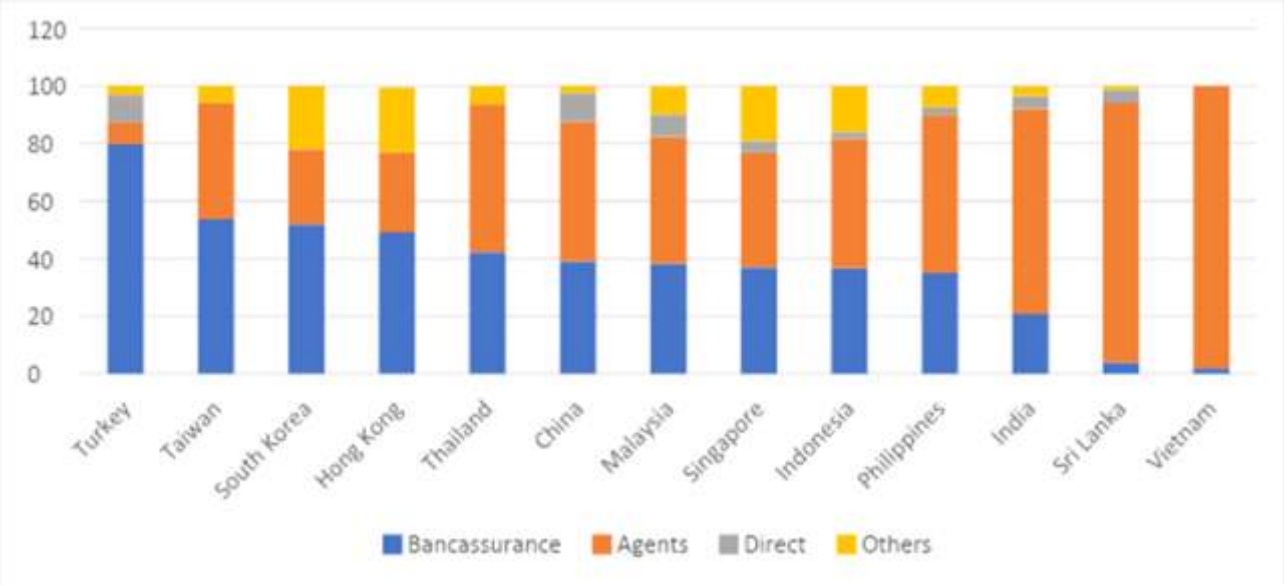
Among the Asian countries, in the life insurance business, during the year 2010-14, the share of

Indonesia increased from 44.6% to 60%; Singapore from 27% to 36%; Thailand from 40.9% to 49.8% and India from 24.9% to 43.6%. It can be seen that Indonesia has contributed the highest share of 60%. It is also observed that there is an increase in the share of Indonesia by 15%, Singapore and Thailand by 9%, and India by 19%. It is interesting to note that growth is highest in India during the year 2010-14.

The market share of bancassurance in 2014-15 in terms of premium income (USD Millions) in the Asia-Pacific region revealed that China has the highest share followed by South Korea Taiwan and Hong Kong and India. Sri Lanka has the lowest market share. Bancassurance business has grown by a compound annual growth rate (CAGR) of more than 95% in Pakistan during 2008-14.

In a bancassurance survey conducted by FALIA (The Foundation for the Advancement of Life & Insurance Around the world) China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Pakistan, the Philippines, Singapore, Sri Lanka, Taiwan, Thailand, Turkey, Vietnam. Bancassurance market share of life insurance channel-wise premium in the Asia-Pacific region is displayed in Chart 2

**Graph 2: Percentage of Market share in Channel-Wise Life Insurance Premium in the Asia-Pacific region**




**Source: FALIA Bancassurance Survey 2016**

Among these countries, it is observed that more than 70% of the premium is generated from bancassurance and agency channels. Turkey has the highest share of the bancassurance channel with almost 80%. Thailand, Hong Kong, South Korea, and Taiwan shared between 40% and 54%. The market share of China, Malaysia, Singapore, Indonesia, the Philippines, and India varied approximately between21% and 40%. The share was much lower in Sri Lanka capturing 4% while Vietnam has the lowest share with just 2%. It is also clear that the agency channel is dominating in Vietnam, followed by Sri Lanka, India, the Philippines Thailand, China, Indonesia, Malaysia, Taiwan, Singapore, Hong Kong, South Korea, and Turkey.

However, the proportion of direct and other channels is relatively lower in almost all these countries (Chart 2). Bancassurance seems to cover non-life products in Nepal and India. In Singapore, a bancassurance agreement between Chubb and regional bank DBS is made to develop micro-insurance products for protection against cyber threats.

Ease of restrictions on foreign ownership favored bancassurance**.** In 2018, China allowed 100% of foreign-owned insurers to operate and in 2015, foreign ownership in India is increased from 26% to 49%. Insurers and banks made about 50 agreements of bancassurance in Asia-Pacific in 2017 and 2018, in Nepal, Vietnam, India, Pakistan, and other markets. In Singapore, Hong Kong, Indonesia, and India, authorities are using the 'sandbox' approach as part of the insurrection initiative for use of digital channels to increase insurance penetration and benefit the policyholders.

**5. Conclusion**

It is quite evident from the above discussion that bancassurance contributed to substantial growth in the financial services sector. Currently, the life segment bancassurance dominates the insurance market. The global market size of the bancassurance touched around US$ 1,166 Billion in 2018 and is projected at US$ 1,665 Billion by 2024, growing at a CAGR of 6.1% during 2019-2024. Digitalization in bancassurance would provide incredible opportunities to enable personalization, a superior customer experience, and an omnichannel offering

Developed countries like France, Portugal, and Spain have matured the bancassurance market. Amidst the increasing competition, governments across the regions like China, Middle East, and Africa brought new regulations that supported the growth of domestic markets. The Insurance Authority (IA) of the United Arab Emirates (UAE) in 2018, laid out that "the insurance companies, including takaful, to market policies through banks established or licensed to operate in the UAE". AIA Hong Kong has launched the blockchain-enabled solution for bancassurance to improve efficiency and enhance customer experiences. In developing countries, macroeconomic factors viz., regulatory changes and low insurance penetration; and socio-demographic shifts such as aging population, rising household incomes, technological advancements, changing consumer purchasing patterns, concern over health and social security, implementation of strict guidelines by the regulators on wealth management products are creating opportunities for bancassurance.

A World Health Organization report states that " the proportion of the world's population over 60 years will nearly double from 12% to 22% from 2015 to 2050". The rising population would have an impact on the growing need for health and life insurance products as well as retirement plan products. Hence, this global demographic shift becomes a significant demand driver for the bancassurance business particularly in developing countries like India. Besides, digital disruption is likely to deliver personalized services to cross-sell resulting in higher levels of customer satisfaction and retention. Also, with the outbreak of pandemics like the coronavirus disease (COVID-19) crisis taking over the world, insurers have come up with various COVID plans to cover the hospitalization expenses of the insured.

Finally, for the successful implementation of the bancassurance concept, both banks and insurers

must become customer-centric and adopt a strategic approach in product design and development to offer simple propositions that offer value to customers to customers.

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# Performance Evaluation of State Bank of Patiala in Basel II Regime

Suman Goel * & Raj Kumar **

**Abstract**

*The banking sector performs a role as a major component of the financial service sector. It comprises mobilizing financial resources and directing them to actions with higher projected rates of return for a specified level of risk. To defend banks from various threats and risks in the future, few guidelines have been given by regulatory authorities all over the world and one such standard is approved by the Basel Committee for Banking Supervision (BCBS) for preserving capital adequacy which is attaining a position in current era all over the world. These guidelines are known as Basel norms. This paper aims to evaluate the performance of the State Bank of Patiala (SBP) before and after the Basel II implementation. This performance has been determined by taking four financial ratios viz. cost-income ratio, return on equity, operating profit to total assets, and credit- deposit ratio. This study is based on secondary data. The data has been collected from annual reports of RBI, journals, and various websites. Independent sample T-test has been used to measure the difference in selected ratios over the two periods and it shows no significant improvement between the periods excluding the case of Cost- Income Ratio and Cost- Deposit Ratio which presents an unfavorable impact of Basel II implementation.*

*Keywords: Basel- II norms, SBP, RBI, India.*

## Introduction

Basel II Accord suggested banking rules and parameters issued by the BCBS. The Basel II had its leading intention of reinforcing the worldwide banking structure. It more clearly correlates capital needs with the particular categories of risks that banks face. Recognizing the requirement for a more wide-ranging and resilient framework, the Basel committee intended an advanced version in 1999, which gives for the better association of regulatory capital with basic risk and also addresses the risk occurring from financial transformation thereby contributing to improved risk supervision and control.

Basel II was mainly presented in June 2004 by BCBS, which became effective from March 2005. It was considered to be the advanced and improved version of the Basel I accord. All banks operating in India are to preserve minimum "Capital Funds" at 8% of "Total Risk-Weighted Assets. Banks are required to reveal their risk exposure, etc to the central bank. In India, all commercial banks have initiated implementing Basel II with effect from March 31, 2007 – even though a marginal extending

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beyond this date should not be ruled out in consideration of the latest indications on the state of preparedness. RBI report (2013) observed that "foreign banks working in India and Indian banks with existence overseas shifted to the Basel II framework with effect from March 31, 2008". Moreover, "all other scheduled commercial banks (except regional rural banks and local area banks) are anticipated to move around to the amended framework not later than by March 31, 2009".

As compared to Basel I, Basel II is a much broader framework of banking supervision and was fully implemented in April 2009 in India, where banks are required to keep a Capital to Risk-Weighted Assets Ratio (CRAR) at 9% (RBI, 2013). It not only deals with the CRAR calculation but also has provisions for supervisory review and market discipline.

The State bank of Patiala, established in 1917, was an associate bank of the state bank of India (SBI). It merged with SBI on 1 April 2017. In the present study, the performance of SBP has been analyzed pre and post-Basel II implementation till its merger.

**Research Hypotheses**

- Ozili (2015) had analyzed the bank's profitability and the effect of the Basel Capital Accord on six Nigerian banks during the period of 2006 -2013. The results demonstrated that the Basel norms had no major effect on bank profitability.
- Khan et al. (2013) measured the operational efficiency of elected Malaysian and Pakistani Islamic banks for the period 2006-2011. They inspected that Malaysian Islamic banks were relatively more capable in the forms of income-expense ratio and operating efficiency ratio, while Pakistani Islamic banks have admirable assets deployment latent.
- Dhanapal and Ganesan (2012) highlighted that major variables affecting the operating profit have been documented as Spread, Total Expenses Total Income, and NPA. Further, the stepwise regression exposes that cost to income is the leading variable for changing the profitability
- Shanmugasundaram (2011) assessed the operational, efficiency, and profitability variables of the public sector banks, pre, and post Basel I's perspective. These variables were scrutinized with the help of a few financial ratios. The study results revealed that banks' performance has been improved after Basel I implementation. The operational efficiency variables explicated humble improvement owing to enhanced profitability.
- Sitheswaran and Pradeep (2010) emphasized that the implementation of new Basel norms, enhanced transparency, and disclosures, advanced corporate governance, and deployment of highly developed technology might carry economic steadiness in the banking sector.
- Kumar and Sreeramulu (2008) measured the performance of Indian banks in terms of the employee's cost and productivity ratios for the period from 1997-2008. They inspected that the performance of modern banks was superior in comparison to conventional banks.

### Parameters used for Measuring Performance

On account of the literature review, the bank's performance is measured by using the following variables:

- Cost- Income Ratio (CIR)
- Return on Equity (ROE)
- Operating Profit to Total Assets (OPTA)
- Credit- Deposit Ratio (CDR)

### Objectives of the Study

The objective of this study is to evaluate the performance variables of SBP before and after the implementation of Basel II norms.

### Research Methodology

The SBP bank was taken as a sample for the study The present study covers a period of 14 years starting from 2002-03 to 2015-16 divided into two sub-periods namely pre-Basel II starting from 2002-03 and ending with 2008-09 and post-Basel II norms from 2009-10 to 2015-16 (See Table 1). To see the differences in the selected parameters in the two periods, an Independent sample T-test (parametric test) was used. The study uses only secondary data, which were collected from annual reports of RBI. The data composed from this source have been employed and compiled with due care according to the need of the study. For statistical analysis, M.S. Excel and SPSS20 software packages were used.

**Table I: Pre & Post Basel II Description of Key Ratios of SBP**

| As of March, 31 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pre- Basel II | | | | | | | Post- Basel II | | | | | | |
| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| CIR | 34.81 | 30.9 | 35.96 | 45.51 | 45.63 | 47.57 | 45.12 | 40.79 | 43.05 | 42.88 | 51.96 | 58.23 | 55.62 | 51.22 |
| ROE | 25.22 | 27.39 | 15.21 | 14.17 | 15.52 | 15.92 | 18.20 | 16.01 | 16.65 | 17.95 | 13.17 | 7.80 | 5.41 | -12.85 |
| OPTA | 3.83 | 4.17 | 2.92 | 2.01 | 1.78 | 1.46 | 1.50 | 1.80 | 2.24 | 1.96 | 1.49 | 1.30 | 1.39 | 1.48 |
| CDR | 60.14 | 58.23 | 57.97 | 65.66 | 73.42 | 74.94 | 72.64 | 71.80 | 75.56 | 79.25 | 83.23 | 84.68 | 86.03 | 76.84 |

*Source: Compiled from RBI' Annual Publications*

### Significance of the Study

The present research study has made an effort to assess the performance of SBP before and after the implementation of Basel II norms. SBI's merger with its five associate banks was an imperative step towards strengthening the banking and financial system. Out of the five associate banks, the performance of SBP was analyzed in the present study. With the help of this analysis, we come to know whether the SBP has shown significant improvement on selected parameters in two periods.

### Limitations

The present study has covered only one public sector bank due to limitations of time and resources.

**Analysis of Data**

**a) Test of Normality**

**HYPOTHESIS**

Ho: Performance parameters are not different from a normal distribution.

H1: Performance parameters are different from a normal distribution.

**Test**: Kolmogorov-Smirnov test

**Significant level**: 95%

It is good practice, once we have entered data, to test for normality of distribution. In this way, we can be sure that our data has achieved an important assumption for parametric testing. Kolmogorov-Smirnov test is a more suitable test of normality of distribution. These types of tests essentially test your data for the goodness of fit against pre-calculated normally distributed values. The table-2 shows that this variable is more than 0.05 in the significance column of the output table by accepting the null hypothesis stating that the data are normally distributed and has filled that requirement of the parametric test. Since the data are normally distributed we use the parametric test i.e. Independent sample T-test.

**Table II: Tests of Normality for Performance variables**

| | | Test of normality | |
|---|---|---|---|
| | | **Kolmogorov-Smirnova** | **P-value** |
| Cost- Income Ratio | Pre -Basel II | .294 | .069 |
| | Post -Basel II | .245 | .200* |
| Return on Equity | Pre -Basel II | .278 | .109 |
| | Post -Basel II | .221 | .200* |
| Operating Profit to Total Assets | Pre -Basel II | .248 | .200* |
| | Post -Basel II | .267 | .142 |
| Credit- Deposit Ratio | Pre -Basel II | .235 | .200* |
| | Post -Basel II | .182 | .200* |

* This is a lower bound of the true significance.
a. Lilliefors Significance Correction

*Source: computed by SPSS 20 Software Package*

**b) ANALYSIS OF HYPOTHESIS**

**HYPOTHESIS**

Ho: There is no significant difference between the mean of performance variables of SBP pre and post-Basel II implementation.

H1: There is a significant difference between the mean of performance variables of SBP pre and post-Basel II implementation.

**Test:** Independent sample T-test

**Significance level**: 95%

The T-test, which evaluates the difference between the mean of these variables for two different periods is not significant (P.>.05) in the case of ROE and OPTA. The study has observed a decline in the mean value of the above-said variables. So, the T-test conducted to evaluate these variables accepts the null hypothesis. Based on the results produced from the table-3, the performance of this bank is not significantly different between the two periods in the case of ROE and OPTA. On the other hand, a major increment was observed in the mean value of Cost Income Ratio and Cost- Deposit Ratio after Basel II implementation. Accordingly, this means the difference between CIR and CDR was confirmed significant statistically by rejecting the null hypothesis because the p-value is less than .05 level of significance. Hence, it shows the adverse impact of Basel II implementation on CIR and CDR since the higher these ratios, the worse for the Bank's performance.

**Table III: Pre & Post Basel II Evaluation of SBP's Performance**

| SBP | | Descriptive | | | Independent Samples Test | | |
|---|---|---|---|---|---|---|---|
| | | N | Mean | S.D. | t-value | p-value | Remarks |
| CIR | Pre -Basel II | 7 | 41.00 | 6.782 | -2.240 | .045 | < 0.05 Significant difference |
| | Post -Basel II | 7 | 49.14 | 6.817 | | | |
| ROE | Pre -Basel II | 7 | 18.804 | 5.303 | 2.124 | .055 | > 0.05, No Significant difference |
| | Post -Basel II | 7 | 9.163 | 10.776 | | | |
| OPTA | Pre -Basel II | 7 | 2.5243 | 1.1233 | 1.934 | .094 | > 0.05, No Significant difference |
| | Post -Basel II | 7 | 1.6657 | .3439 | | | |
| CDR | Pre -Basel II | 7 | 66.143 | 7.508 | -3.895 | .002 | < 0.05 Significant difference |
| | Post -Basel II | 7 | 79.627 | 5.248 | | | |

*Source: Computed by SPSS 20 Software Package*

## Conclusion

The above said results of the study conclude that after Basel II implementation, SBP's performance had not enhanced in terms of CIR and CDR. It shows no improvement in these ratios. But no significant change was found in terms of ROE and OPTA. Therefore, there is an opportunity that wholly Basel III implementation with a better risk management system will progress the bank's performance in India in long run. Further, for implementing Basel III, banks have to develop strong parameters. After the merger, *SBI* will become a much larger and better bank and also reap the advantages of economies of scale, geographical diversification, enhanced operational efficiency, profitability, and low costs through branch and staff rationalization, cross-border development, and growth of market share.

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# A Study on Value Proposition of AR Applications in Education: Blooms Taxonomy and Pedagogy Perspective

Ravi Shankar Bhakat*

**Abstract**

*Augmented reality(AR) is affecting traditional education framework and training activities by its interactive nature. Being an interactive technology, it can enhance the teaching process and outcome-based learning.*

*Outcome-based learning is an important aspect of Bloom's taxonomy. It comprises hierarchical models that can categorize the objectives teaching-learning process in order of difficulty. The paper focuses upon the scope and potential in the educational innovation process for achieving a higher level of outcome-based educational objectives. Based on the insights, AR applications in achieving educational objectives can prove disruptive for the education sector.*

## Introduction

The application of innovation in education can fulfill the transformational goals of education. Educational institutions that ignore emerging technologies often lag behind their global counterparts. This may further create repercussions and social impact and economic returns via poor educational performance and employability.

Educational institutions can make themselves prepared to leverage the multiple opportunities offered by emerging technologies. Among the various pathbreaking technologies of the next IT revolution viz. AR, big data, machine learning, IoT, AR can greatly traditional education framework and training programs due to the enhancement of the engagement with subjects.

Whether we consider online educational portals or the regular classroom interaction model, there lies a scope to incorporate the elements of 'Blooms Taxonomy'. Global edtech startups and educational institutions are putting continuous efforts into streamlining their services while adopting augmented reality (AR). Bloom's taxonomy was a method to classify the goals in the education system.

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The Taxonomy for understanding the Educational Objectives attempts to classify the educational goals, objectives, and standards. This creates an avenue for creating an organizational standard for improving communication regarding educational activities. The actual work on the Taxonomy focused on six categories with subcategories. There was a provision of the hierarchical framework of various objectives in order of difficulty. Thus, to achieve a higher-order or complex skill demands an ability to fulfill the achievements of a previous lower order.

Educators and content creators can apply the findings of this paper in developing their teaching materials as per the five levels of bloom´s taxonomy. Proper usage of immersive technologies can incorporate the lost element in traditional brick and mortar institutions along with enhancing online education processes.

**Blooms Taxonomy**

In today's world of education, the main focus of a tutor is to help the students attain the learning objectives of the course that is being taught. The tutor's main attempt is to understand the learner and to induce the subject's concepts into the student's young brain. They can understand the abilities of a student and train him accordingly as per Bloom's Taxonomy. Setting question paper should cover all the areas of learning effectively.

Bloom's Taxonomy is described as a method of classifying educational objectives, educational experiences, learning processes, and evaluation questions and problems. It can act as a precursor of contemporary evaluation techniques and is connected with other concepts such as creative and critical thinking, problem-solving skills, etc. The method was named after Benjamin Bloom, chairperson of the committee assigned to develop a new taxonomy. Initially, Bloom's Taxonomy had only the Cognitive domain and later two additional domains, psychomotor and affective were annexed. Thus, the taxonomy encompasses three domains: cognitive, affective, and psychomotor. The cognitive domain is usually benchmarked to capture learning activities. (Bloom, 1956).

Human thinking was classified into six levels viz. “knowledge, comprehension, application, analysis, synthesis, and evaluation”. The Cognitive domain focuses mainly on the thinking abilities of a person. Bloom initially divided it into six subparts depending on what ability, a person must have, to grasp. These were listed in the increasing levels of complexity. Later, these were respectively changed to verb forms viz. “remembering, understanding, applying, analyzing, evaluating and creating”. (Bloom, 1956; Bloom, 1976).

Knowledge level focuses entirely on the memorization ability of the person and can be termed as the simplest. Sample keywords include what, name, and label. The comprehension level is one level above the knowledge level. It involves those questions which a person can explain based on what the person has memorized (hence the added complexity). A few keywords from this domain are generalized, interpret, and report.

The next level is the application level which captures the ability to apply the knowledge that has been acquired by a person. Post application, the analysis level is expected where the person is expected to recognize the different parts of what the person has learned by identifying certain parameters. The words like analyze, categorize, and characters belong to this level.

The synthesis level explains the ability of a particular person to combine many coherent ideas into one. The complexity level increases and illustrated by words viz. design, hypothesize and Develop. The final level is the evaluation level which is supposed to test the ability to critically interpret and comment upon a given topic. This domain consists of keywords viz. judge, recommend, and justify.

The original compendium of Taxonomy volume gave prominence to the assessment of teaching-learning with mostly multiple choice. The revision was done to suit a new two-dimensional framework of Knowledge and Cognitive Processes. In this version, the knowledge resembles the classification of the initial Knowledge category. Cognitive processes are modified further to create corresponding verb forms albeit with few changes of order in terms of objectives complexity. Knowledge is renamed as Remember, Comprehension as Understand, Synthesis as Create and pushed to the top. The remaining taxonomy categories were directly substituted with their verb forms viz. Apply, Analyze, and Evaluate. The hierarchical structure was retained but with an element of flexibility entwined with the original Taxonomy (Krathwohl, 2002).

Based on the initial taxonomy many educational researchers enhanced the works to suit the objectives of the teaching-learning environment. According to the upgraded version, the original educational objectives were classified into the "knowledge dimension" and the "cognitive process dimension." The "knowledge dimension" is a category of knowledge, including factual knowledge, conceptual knowledge, procedural knowledge, and metacognitive knowledge. The "cognitive process dimension" is further divided into categories: remember, understand, apply, analyze, evaluate, create(Krathwohl, 2002).

**Learning Innovations**

With the advent of digital innovations and rapid human-computer interaction, students are expected to be engaged in learning activities. Educators can be attentive to the learner's ability to remember, apply, analyze, evaluate, create. The skills are to be critically assessed in the external and internal context of a classroom.

Compared to traditional style and classical instruction methods, computer-mediated methods viz. simulation and animation can increase the students learning in the higher order of Bloom's Taxonomy. The focus on problem-solving can be prioritized with the help of various learning innovations fulfilling higher order of educational objectives(Fang 2018).

The role of new and emerging technologies should essentially be a part of the teaching-learning environments. Considering the pervasiveness of digital applications associated with desktop web and mobile web, educators can try new methods of teachings. These applications may consist of augmented reality technologies and related educational teaching kits. All these technologies can be classified roughly into categories: cloud-based web technologies, desktop computers, smartphones, and tablets (personal digital assistants). Considering the ongoing innovations and hybridization, the application may belong to more than one category and affirmatively depict overlapping nature.

The main role of innovations is to engage the interest, motivation, and engagement of students in both inside and outside classroom

activities. Students can leverage mobile apps and look beyond passive consumption of knowledge and indulge in active collaboration-based learning. This way higher cognitive skills related to analysis and creation can be allowed to develop. Integration in a seamless learning environment design could further benefit from multiple activities, such as online social learning, simple collaboration, or cooperation activities(Jagušt 2019).

Mobile applications aim at moving from the basic skills of "know" and "comprehend" to "analyze" or "synthesize". It then attempts to develop "learner controlled" activities treating technology as a facilitator and tool to assist learners to reflect upon, construct new knowledge, and apply it for solving problems. Educators must strive for a student-centric environment where the subjects are allowed to deal with a real-world scenario using the extension of applications (Chung 2019).

Mobile technology can be used for stimulating higher levels of thinking in all phases of a learner's life viz. preschool, elementary, secondary, and higher education levels There is evidence of learners' higher cognitive levels in the field of language, maths, sciences, and arts subjects. Based on the diverse applications and the pervasiveness of mobile technology it can be feasible for educators everywhere(Crompton 2019).

Even at higher education and university levels, educators can use interactive apps, virtual simulations, augmented reality for imparting training in the areas of ethics, corporate social responsibility, and sustainability(Montiel 2019).

**Augmented Reality and It's Value Proposition**

Augmented reality or AR is a three-dimensional application of immersive technology that merges the real world and the digital world. The AR innovations require three foundations: application and tools for real-world tracking, software to process information and enhance the perception of the real world, and hardware and devices to integrate the data of the real and digital environment. Therefore AR can be said to enhance the perception of the user of innovations with relevant information(Azuma 1997). Integrated with mobile, in the avatar of MAR(Mobile based AR), it can also work for the betterment of students(Saidin 2019). With the advent of self-learning and lifelong learning, AR can be used for improving knowledge in a self-paced interactive manner (Mahmoudi 2018). Learning can be transformed from passive to active learning(DePriest 2002, Schmitz 2012).

AR-based interactive education environments can lead to cognitive development through playful interactions and improve strengthen understanding(Sambodo 2018). Multisensory inputs in the educational process can significantly increase learning performance. One basic application of AR is to incorporate QR codes as cues and a launch pad for shifting from the real world to the virtual world. This can also be made more promising with the addition of markers and geo-location-based trails (Chatel 2017). Multiple AR platforms will make these technologies evolve quickly with diverse applications(Elmqaddem 2019).

The positive impact of using ICT viz. AR can be rapidly expanded in educational activities. Various do-it-yourself platforms have many modules and components that have the potential

to add sophisticated application features such as behavior tracking and analytics, and augmented reality(Peechapol 2018, Acros et. al. 2016). The personalized learning can also be extrapolated with the help of AR applications thereby removing the barriers in the learning process by providing a more personalized focus on the learner behaviors(Hwang 2016). AR mnemonic images using mnemonic techniques is an effective method of enhancing the memorization of information thereby focusing on the basic levels of cognitive processes(Nordin 2019, Solak 2015, Santos 2016).

AR-based learning can assist in the visualization of abstract and difficult concepts with the help of easy to grasp structures and models. Teaching kits based on these innovations can make effective learning. Also, the outcome of the learning can be surely linked in terms of the cognitive aspects of Bloom's taxonomy. In simple words, AR can involve different levels of cognitive activities or higher-order thinking (Elmunsyah 2019).

With the regular enhancement of the immersive nature of AR, app learners can be provided a completely novel experience(Ibáñez 2018). AR-guide systems can induce positive responses among users and technology acceptance attitudes(Chang 2014). AI, Robots, and digital teaching assistants can be developed using the multimedia options of AR technology(Hsu 2018, Crittenden 2019). Students and teachers both can be benefitted from the AR-based technological innovations (Cubilo 2015). The participants of AR applications can be positively motivated thereby leading to a higher level of performance (Nincarean 2013, Zhao 2018).

The potential of AR for business education and higher education is also promising. Games with the role-play of consultants in a virtual company can build basic skills(Puja 2011). Multiple easy to use platforms can be used for developing AR applications(Pradibta 2018). Immersion, navigation, and manipulation of the learning process can be induced with AR-based games and kits thus ensuring favorable educational outcomes(Cheng 2013). Holograms and realistic 3D objects can be seamlessly integrated with the physical environment (Saenz 2017). Skills such as spatial thinking, abstract thinking, problem-solving can be taught using AR-based learning systems(Wu 2013). Also, enhancing team performance can be improved through these innovations (Salvetti 2018)

Users can learn content through interactive AR scenarios and concepts can be easily introduced with AR and fulfilling Bloom's taxonomy. (Ji 2018, Acros et. al. 2016). Approaches to providing such feedback are myriad and include technology-assisted approaches, amongst others, such as adaptive eLearning environments, neural computing, web-based environments, video technology, formative audio feedback, screencasts, and augmented reality(Patel 2017, Juan 2018).

**Outcome Based Learning and AR**

We are in the stage of rapid technological development and profound discoveries of life and learning in connected contexts(Anderson 2012,meskhi 2019). Revised Bloom's taxonomy can be used in education through innovations(Ekren 2017). Students with varied intellectual abilities can be assisted with teaching-learning systems (Peterson 2019).

AR promotes knowledge acquisition, ideation, creativity, and various higher-order skills (Redondo 2012, Capuano 2015). Meaningful learning demands an environment that fosters group learning and collaborative learning with cooperation. AR is such a tool achieving the objective of creating such a conducive environment in multiple pedagogical contexts (Taraouco 2006, Alrashidi 2015).

Some of the barriers to learning can be cured by AR-based educational programs: content too difficult, or the language poses a problem, or that their computer skills are inadequate(Hartman 2001). Understanding the barriers and developing suitable tools can help to achieve the desired state of cognitive achievements (Stellingwerff 2019). Playing with the rich content and multimedia information opens up a gate of the new world of learning scope and opportunities(Rhodes 2017, Hsu 2018).

**Conclusion**

AR as a novel solution in education is rapidly developing into useful educational tools and applications. It has the potential of becoming a disruptor with the ability to alter our perception and cognitive processing (Elmunsyah 2019). The flexibility aspects of AR support on learning media has more advantages than ever (Brown 2018).

AR-based learning media can visualize abstract concepts and structures of an object model. This makes learning media more effective. students are more attracted to learning by utilizing the latest technology. The research findings state that teachers and trainers across the education setup must equip themselves with hands-on knowledge of AR tools in learning. AR Technology is an appropriate tool for improving the gaps in the teaching-learning environment with the capacity to fulfill outcome-based learning with higher-order thinking skills. Policymaking pertinent to education should priorities the use of emerging technologies viz. augmented reality in K12, higher education, and lifelong learning.

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