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# Digital Revolution and Insurance Industry: Some Important Issues for India

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## ABSTRACT

*The last three decades have been characterised by not only an unprecedented development in digital technology leading to revolution in information processing but also for an unpredictable march of information technology (I.T.) related applications for an ordinary people. Facilities like internet and internet of things (IoT), especially smart-phones have brought almost all public information on the finger-tip of a common man. Technological advancements are transforming every industry at fast pace. As a part of the larger economy, insurance sector is not immune from the influence those changes. The technological advancements will have widespread impact across different aspects of insurance practice including sales, underwriting, claim settlement, dispute resolution and customer service. Digitalisation has opened new doors of opportunities for the insurance sector and has provided a breakthrough to deal with major challenges which the sector has been facing for a long time. The digitalisation has influenced almost all the areas of operation of insurance business including employees, customers and business partners all over the globe.*

*A relatively weak product distribution channel kept the level of insurance penetration at a very low level in India and the customers of small cities and rural India hitherto remained untapped. Distribution channels remained confined to agents only and were not cost effective. The boom of digital infrastructure and increase of mobile connectivity in rural areas along with internet facility have offered an opportunity to reach out to this untapped segment of population as well as spreading awareness about the insurance. New channels of distribution and the self-service facility will surely drive product operation. The article tries to highlight some areas of operation affected by information technology in the Indian insurance industry.*

**Keywords:** *Bancassurance, Insurance Information System (IIS), Customer Relationship Management (CRM) in insurance, Insurance Business Automation, Digitalisation of Policy Sale, Internet of Things (IoT), Big Data Analytics, Artificial Intelligence in insurance.*

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## **I. INTRODUCTION**

Forward march of information technology (I.T.) is ubiquitous and is transforming every segment of the economy all over the world. The digital advancements have changed the landscape of insurance practice and expected to manifest its imprint more vigorously in different areas of insurance practice in near future. Social media platforms, online educational videos and programmes are spreading insurance education among the masses. Official websites of the insurance companies and existence of online web aggregators are now playing the role of new distribution channels of insurance products as well as of an insurance-advisor. As a result of these developments distribution of insurance products is heading towards transparency and efficiency by mapping personalised insurance needs of the customers. Insurers are realising an ever-increasing need to have customer service-representatives who are responsive towards the specific problems of the customer and have the ability to interact with them to their satisfaction. It's pertinent to state here that the traditional channels will still be effective and will continue to exercise its influence. With the advancement of I.T. the customers are gradually becoming aware about their purchases being educated by different media platforms. They look around for the best product, brand name, product quality, operation and service support. Now-a-days we have Insurance Information System (IIS) which is an online information system with the databases of all policyholders and policies facilitates and enables online data retrieval and data manipulation including collection reminder, overdues, penalties and almost all insurance transactions. Customer Relationship Management (CRM) is boon to the insurance industry where a specially designed CRM-software can sell multiple insurance policies and pension plans to the same customer.

The Insurance market all over the world have found new channels of product distribution like web-aggregators and online portals for online insurance transaction. New types of insurance intermediaries are gaining familiarity among the masses. Similar trend is reflected in Indian Insurance market as the bancassurance have already emerged as a successful channel of product distribution. Realising the growth potential of Indian insurance market<sup>2</sup> different intensive marketing strategies are being adopted and insurance companies have come up with partnership tie-ups with banks<sup>3</sup>, a whole new market has opened up for insurers. With the emergence of new trends in consumers-behaviours, evolution of digital technology and liberalisation of the market, new channels of product distribution have emerged rapidly in recent years. Bancassurance makes use of various distribution channels. A win-win convergence of

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<sup>2</sup> Cigna TTK witnessed a huge opportunity of insurance business in its recent analysis.

<sup>3</sup> with banks like Bank of Maharashtra, Andhra Bank, and Saraswat Bank to name a few.

traditional distribution channels and new generation platforms is visible here which is supposed to cater to the divergent needs of different customer segments in India in the days to come. Accessibility is supposed to be the key to a greater penetration of insurance products.<sup>4</sup>

Customers all over the world have evolved to a great extent and are still evolving as the process of digitalisation have been taking over all aspects of human life and business. It has influenced the behaviour of customer like never before, as the buying and paying for services online is the evolving norm today. Like other segments of the economy, insurance industry, too, has evolved during the years under the influence of digital technology yet its pace of technology adoption has been slower compared to other segments of the economy. An I.T. enabled customer of insurance products today, is no more dependent on anybody for any information, necessary for making selection and purchase of policies. Now-a-days, insurance transactions like underwriting of policy, renewal of policy, intimation and processing of claims besides accessing to any information relating to a policy can also be done through any portable devices like smart-phone, tablet and laptops with the help of specially designed software applications.

## II. INSURANCE BUSINESS AUTOMATION

Employees and other business partners equipped with smart electronic devices along with cashless instant payment solutions are taking personalised insurance products to the doorsteps of the customers. Digitalisation has made it possible for the insurers to set up touch points for the customers that allow them to make a purchase or look for solutions of their problems in real-time anywhere anytime. Bajaj Allianz has set an example by successfully creating virtual offices and has reached out to more than 800 tier-two and tier-three towns in last five years.<sup>5</sup> It has enabled smooth integration among different systems which in turn has reduced complexity of operation. This reduced complexity has also improved efficiency and efficacy of the whole operation. Today not only it is important for insurers to adjust to this rapidly changing business environment, but also to be proactive towards identifying future opportunities and challenges to leverage on<sup>6</sup>.

### (A) Digitalisation of sales

Sales through digital platforms has taken a forward leap and is reasonably expected to grow considerably in the years to come. The role of always-on mobile devices that people carry with

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<sup>4</sup> C, Anitha & J. Esther Rajathi, *Bancassurance- A New Buzzword, Recent Trends in Insurance Sector in India*, Edited- K. Ravichandran, Abhijit Publications, Delhi, 110094

<sup>5</sup> Tapen Singhel, *Digitalisation and its Imprint on the Insurance Industry*, The Changing Face of Indian Insurance, The Boston Consulting Group, FICCI, 2017, Pp. 48-50.

<sup>6</sup> *Top Use Cases for Automation in the Insurance Industry*, available at <https://www.workfusion.com> visited on 30<sup>th</sup> May, 2021.

them, sometimes even in their toilets, and the internet is undeniable. Online purchase of insurance, therefore, is likely to grow in certain line of business. A wide and complex range of products and a clumsy process of realising a claim settled have been a deterrent for mass purchase of insurance policies in India. The digital revolution has changed the way customers make purchase decisions regarding a product. It has also paved the way for insurers to simplify the process to offer simple, customised and digitally integrated products. The insurers are simplifying the underwriting process by de-jargonising the products. Therefore, product can be very conveniently purchased and renewed by the customer either online and that's too via a mobile device within a very short period time. Moreover, insurers are engaged in creating flexible insurance product that suits specific needs of the customer groups and are constantly trying to tailor the product as per their requirements. The need of the time for the insurance industry is digital mapping of the entire customer lifecycle; insurers have to communicate and serve the customer the way they want which, like any other business, is the new tenets for any successful business in today's digitalised world.

### **(B) Insurance Information System**

Insurance Information System (IIS) is an online information system which retains data bases of policies and policyholders, facilitates online data retrieval and data manipulation regarding collection reminder, overdues, penalties and all transaction related issues of insurance practice. Following points sufficiently substantiate the need for IIS:

- Management of customer relationship
- Effective management of sales
- Instant access to information and solution of customers' problems
- Reminder to customers of service requirements, periodic follow-ups and alerts
- Info-tech techniques like enquiry, online transactions and support<sup>7</sup>

### **(C) Customer Relationship Management (CRM)**

Insurance organisation all over the world have realised the need for continuous customer engagement which means redefining the practice of insurance as the business is performed in this era of digitalisation. Customer engagement is another new area where the industry will give focus and digitalisation has also a very significant role to play here.<sup>8</sup> With smart phones customers have free access to a lot of information that enables them to continuously search for

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<sup>7</sup> R, Sudharsana Raamanujan, P, Nandakumar & T. Suthakar, Insurance Information System: An Emerging Model, Recent Trends in Insurance Sector in India, Edited- K. Ravichandran, Abhijit Publications, Delhi, 110094

<sup>8</sup> Dr. Savarimuthu & Dr. Revathi Bala, CRM- A Boon for Insurance, Recent Trends in Insurance Sector in India, Edited- K. Ravichandran, Abhijit Publications, Delhi, 110094

better products or service that suits their unique requirements. Moreover, they can now compare the similar services provided by different service providers at ease and in no time. Any techno-savvy customer now a days has 24x7 access to information via blog forums, Facebook, LinkedIn, Twitter etc. as well as company websites. The natural next step of this changed landscape is the digital evolution of insurance industry for both the insurer and insured. Such digital evolution will provide online platforms which can instantly connects the two, creating a win-win situation by providing unique and customised service to the customer. The mapping of customer lifestyle digitally is another possibility which is bound to herald a new era in the field of customer experience in insurance industry.

#### **(D) Internet of Things**

Like other sectors of economy, the **Internet of Things (IoT)** has introduced new types of convenience for the insurance sectors all over the world. It will improve business practices of the industry and enable it to assess the risk levels of clients in a better way. Internet connection in portable electronic devices of consumers is bound to result in huge implications for the insurance industry. Integration of consumers with insurance related IoT devices e.g., telematic devices for car, personal fitness trackers, Internet based home security devices etc. can help the insurers to provide usage-based insurance products by tracking the habits and activity of customers. Such information regarding the habit of the customer may also enable the insurers to offer discounts and other rewards for healthy and safe behaviour of the insured. Bajaj Allianz has set the platform for introduction of usage-based insurance products in India by launching the India's first telematics-based insurance scheme, Drive Smart, for its motor insurance customers.<sup>9</sup>

#### **(E) Big Data Analytics**

Bigdata analytics is emerging as a game changer for different sectors of the economy. The insurance industry is also receiving significant profitability as well as growth challenges. Analytics in actuarial tasks and underwriting process are helping insurers to assess the risks more accurately and fixing price more efficiently. Estimation of overall reserve and identification of key drivers of changes in loss assessment while advancing predictive and prescriptive analytics are enabling insurers to build a sustainable competitive advantage. Analytic solution is also helping insurers to understand the factors responsible for customer retention probabilities by enabling a comparative analysis of costs, risks, pricing and

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<sup>9</sup> Simon Behm, Ulrike Deetjen, Sanjay Kaniar, Nadine Methner and Bjonr, Munstermann, *Digital Ecosystem for Insurers: Opportunities through the Internet of Things*, available at [www.mckinsey.com](http://www.mckinsey.com) last visited on 30<sup>th</sup> May, 2021.

variability. Advance analytics is successfully being adopted in all product-lines and business functions, delivering great values to the customer as well as to the society at large. Surely, the integration of data analytics into the core of insurance business will be a new experience in the business journey of insurers. Ofcourse, there will be mistakes but eventually it will help in making intelligent business decisions based on scientific approach and analysis of empirical data thereby creating an epoch-making positive change in the field of insurance practice.

### **(F) Artificial Intelligence [AI]: New Game Changer in Insurance Industry**

Due to this digital revolution Artificial intelligence now-a-days is realising its potential in achieving human-like capabilities. Insurers all over the world are looking forward to harness the capabilities of AI in their insurance business by integrating the specific strengths of man and machine. Artificial Intelligence is rapidly developing itself as the foundational technology in areas as diverse as self-driving cars and financial trading. Self-learning algorithms are now routinely embedded in mobile and other online devices. Business researchers have been leveraging the huge benefits of data streaming and processing power from digital devices and connected sensors to improve AI performance. Machines has also decoded the speech and vision specifically and human communication in general. The implications of these developments are profound even for the insurance industry. There are two reasons for justifying the belief:

1. AI enabled machines are skilled in the art of speaking, reading text, and also to absorb and retain encyclopaedic knowledge. Machines having AI can interact with people intuitively and naturally on a wide range of topics at considerable depth.
2. They can identify objects and recognize optical patterns; machines can leave the virtual creation and join the real world.

Artificial Intelligence is an area that once disappointed its proponents but now a days striking considerably well as it now expands its reach into activities so far been performed by humans. AI programme, for example, have successfully detected specific types of cancer diseases more accurately than radiologists and has successfully run self-driving cars in metro cities. Therefore, the days are not too far when this AI will either replace or collaborate with human intelligence even in insurance industry. Realising its prospect even the traditional players in the field of finance, retail marketing, healthcare and other industries have started to invest billions into this field.<sup>10</sup>

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<sup>10</sup> Philipp Gerbert, Jan Justus, Martin Hecker, *Competing in the Age of Artificial Intelligence*, The Changing Face of Indian Insurance, The Boston Consulting Group, FICCI, 2017, Pp. 63-69.

Because, AI systems can think and interact, to a great extent, they are being invariably compared to people. While humans are fast at parallel processing (pattern recognition) and slow at sequential processing (logical reasoning), computer have mastered the former in narrow fields and are superfast in the latter. Just as submarines do not swim, machines solve problems and accomplish tasks in their own way.<sup>11</sup>

Market players who intend to gain advantage over other competitors through artificial intelligence need to work seriously in the area of machine implications that can learn and conduct human interaction as well as accomplish other high-level functions at better perfection, scale and speed. They need to identify the areas where machines can act better than human and vice versa and have to plan complementary roles and responsibilities for each other and redesign the processes accordingly.<sup>12</sup> The Executives need to identify where AI can create the most significant and durable advantage. It is already established that AI is well suited to areas with huge amount of data such as retail, and to routine tasks, such as pricing. But that heuristic approach oversimplifies the playing field. Increasingly, all corporate activities are awash in data and capable of being broken down in to simple tasks. While AI often requires, new structures, for both centralised and decentralised activities, that can be challenging to implement.

In order to reap the benefits market players ought to embrace the adaptive and agile ways of working and invest in setting up strategy that are common at start-ups and AI pioneers. Philipp Gerbert, Jan Justus and Martin Hecker advocate for looking at AI through these four lenses:

- Current need of the Customer
- Availability of Technological Support
- Big Resource of Data
- Decomposition of Process

For many business organisations, effective implementation of these steps systematically can be challenging. Companies need to be familiar with the currently emerging potentials of the technology, its fast pace of development and the required infrastructure, knowledge and skill to remain adaptive with this technological advancement. A centre of expertise in the required skills can only serve as a place to incubate technical and business acumen and can disseminate AI expertise throughout the organisation. But ultimately, AI belongs in and belongs to the

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<sup>11</sup> Martin Eling, Davide Nuessle, Julian Staubli, *The Impact of Artificial Intelligence along the Insurance Value Chain and on the Insurability of Risks*, The Geneva Papers on Risk and Insurance- Issues and Practice available at <https://link.springer.com> retrieved on 30.05.2021.

<sup>12</sup> Artificial Intelligence available at <https://www.content.naic.org> last updated 30/10/2020.



business and functions that must put it to its effective use.

### **III. CONCLUSION**

Taking into consideration all the above factors, it can aptly be said that, under the influence of Information Technology (I.T.) and Artificial Intelligence (A.I.), the industry is heading towards a rapid transformation in terms of insurance business practices specifically in relation to management of business and customer relationship in India. Though, technology adoption has been a bit slow in insurance industry yet it has been preparing for this great leap forward. It is equally true that the information technology also has been backbone of many transformations within the insurance industry over the past two decades. However, the past two decades will not be a patch on the next years to come. Therefore, each of the insurers will be in need of defining their own agenda and priorities. The journey to deliver a sustainable business in the face of all the rapid changes will not be easy. Insurers will need to place their bets on the most relevant priorities for them in the context of their business model and pursue them with conviction. Only when humans and machines will be able to integrate their potential for its most effective use, they will be able to mutually solve problems together- and learn from each other- will the full potential of AI be achieved.

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