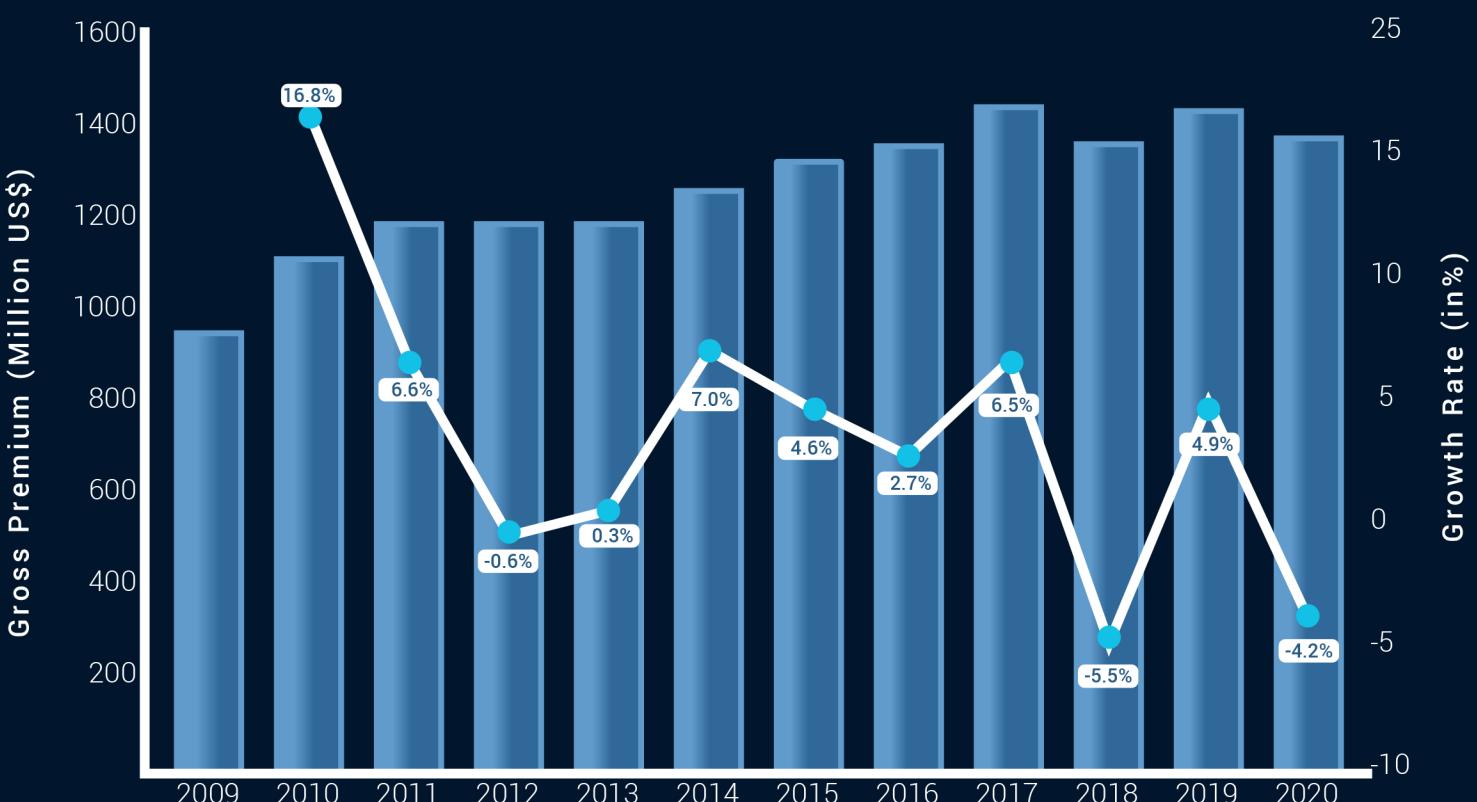


Insurance density (top-left) and penetration (bottom-left) in Bangladesh by sectors from 2009-2020. The GDP growth of the country during the same time period is significantly steeper (a factor of ~3 faster) compared that of the gross premium (right).



Insurance gross premium (left) and industry growth rate (right) from 2009-2020.
*Data Sources : IDRA, Swiss Re, World Bank, Macrotrends

Areas of Innovation

Document Processing & Digitalization

Paper-based business is still the norm in Bangladesh. This time-consuming, error-prone, and expensive manual practice is one of the major factors contributing to occupational inefficiencies as well as poor CX. Document processing, including digital archiving and data extraction, is the most important step towards digitalization, and subsequently, to AI-enablement. For local firms, digitalization should be the area of the highest priority. A combination of advanced technology and a digital data center guarantees a competitive edge to any insurance firm among its peers.

Pioneering AI techniques, such as Optical Character Recognition (OCR) and Natural Language Processing (NLP), should be combined to succeed in digitalization efforts. These are publicly available technologies, of which organizations could take advantage through some skill development strategy. Skilled resources would be able to digitalize various documents: Government Forms, NID, Vehicle Number Plates, Bank Loan Forms, Payment Receipts, Policy Forms, Claim Documents, Birth and Death Certificates, etc.

Backend activities, such as underwriting, claims processing, office administrative tasks, etc., are the primary candidates where AI-led automation promises manifold upturn in operational efficiency. This results in reduced overhead associated with labor and real estate, and consequently, enables firms to offer products at a competitive price.

Mobile enabled services are important to go beyond digitalization because they reduce reliance on intermediaries, increase business transparency, increase customer convenience by providing easy access to information, and facilitate means to reach out to larger audience. Despite the wide-ranging benefits only 30% insurance firms have mobile apps registered in the Google Play. Moreover, a majority of these apps lack standards to meet customers' needs as well as expectations. This observation suggest that the incumbents have not yet fully appreciate the necessity to invest in transformational facilities to satisfy the need of digital consumers. The prevailing mentality is risky because it makes the local companies vulnerable to insurtech challengers and disruptors.

Document Processing & Digitalization



Invoice

Your Company LLC Address 123, State, My Country P 111-222-333, F 111-222-334
<http://mrsvvoice.com>

BILL TO:
John Doe
Alpha Bravo Road 33
P: 111-222-333, F: 111-222-334
client@example.net

SHIPPING TO:
John Doe Office
Office Road 38
P: 111-333-222, F: 122-222-334
office@example.net

Invoice #	00001
Invoice Date	12/12/2001
Name of Rep.	Bob
Contact Phone	101-102-103
Payment Terms	Cash on Delivery

Amount Due: \$4,170

NO	PRODUCTS / SERVICE	QUANTITY / HOURS	RATE / UNIT PRICE	AMOUNT
1	Tyre	2	\$20	\$40
2	Steering Wheel	5	\$10	\$50
3	Engine Oil	10	\$15	\$150
4	Brake Pad	24	\$1000	\$2,400

Subtotal	\$275
Tax (10%)	\$27.5
Grand Total	\$302.5

THANK YOU FOR YOUR BUSINESS

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THANK YOU FOR YOUR BUSINESS



Novel OCR and NLP algorithms can be used for digitalization processes and archiving valuable business data permanently.

Underwriter Ratemaking & Reserve

Insurers routinely use data, analytics, and statistics to understand customers' behavior. However, the traditional tools and methods employed in the industry have very limited capabilities. The existing methods are suitable for shallow (limited number of clients) and lean (a handful of client attributes) datasets but are inadequate for handling deep (millions of customers) and wide (thousands of attributes) datasets. The advanced technology can easily eliminate this roadblock because it can handle customer data of any shape and size. Supported by a wealth of highly sophisticated, publicly available data mining and statistical tools, AI paves the way for the underwriters and insurance market specialists for data driven decision making.

Actuaries and underwriters use classical tabular models or rate tables to set up the premium structure for customers. For limited amount of data this practice adds value, and its power can be leveraged using conventional technologies. However, for large volume of data this method is not only inadequate because of its inability to scale but also falls short to leverage the full potential of the data. From the outcomes of many AI-driven use-cases conducted by the insurers in the USA, it is now well established that the introduction of AI algorithms makes significant improvement in actuarial ratemaking models and reserve estimates. It also speeds up the entire workflow of the pricing model, increases the productivity of the professionals involved, and supports developing innovative products.

Identifying Hidden Risk Factors

The existing actuarial models typically use a limited number of risk factors, including age, gender, occupation, income, benefit type, and smoking habit, to predict the likelihood of a claim to occur or to predict the likelihood of the duration a claim once it started. This practice precludes customary methods from delivering the best results and make adverse impact on corporate's claim reserve strategy.

The AI offers the capability to develop multitude of such models using hundreds of attributes available in the insurer databases and promises a new standard of underwriting models with improved performance. The AI algorithms can easily recognize new risk factors that would have been missed or overlooked following current best practices.