Post-Pandemic Recalibration of the Insurance Industry through Digital Transformation

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Abstract

India is one of the economies across the globe worst affected by the Covid19 pandemic. In the BFSI (banking and financial services) sector, insurance has been one of the last sectors to embrace digitalization. This research effort has attempted to understand the digital transformation of the insurance sector that was spurred by the Covid-19 pandemic. Actions taken by the insurance sector and actions by regulator helped in facing the unprecedented challenges posed by a black swan event like the pandemic. Capital protection was a concern for insurers due to increase in claims and losses in investment incomes during the pandemic. The key research question being addressed centres on how insurance sector can recalibrate itself to adapt to the new normal post recovery from the pandemic. Based on an intensive review of published secondary sources of information, the findings have been presented. Insurers must leverage their innovative capabilities to revamp their value proposition to customers. Insurance industry must regain the trust of customers by enhancing service quality levels, enhancing distribution effectiveness and introducing new products that can meet the needs of customers. Investing in measures to improve awareness among customers can improve penetration levels and persistency ratios. Digitalization is proving to be a game changer for the insurance sector in the new normal. This will involve new ways of engaging with customers through revamping of existing business models and digitalization across the entire insurance value chain including all customer touch points. The paper makes certain recommendations that can lead to the insurance sector as a whole gaining sustainable competitive advantage

Keywords: Pandemic, Insurance, Digital transformation, Online aggregators, data mining, business model, Innovation

Introduction

Insurance is a long-gestation business. The government's latest economic survey data has indicated that India's life insurance penetration has moved from 2.82% (2019) to 3% (2022) and non-life insurance penetration has moved from 0.94% (2019) to 1% (2022). These figures are lower than the global averages of 3.35% and 3.88% respectively.

2022 marks the 22nd year of liberalisation of India's insurance sector. The insurance sector was liberalized in the year 2000. Yet, penetration rates have more or less remained stagnant. The insurance penetration is 3.42% of GDP (Global average 6.2%), while the insurance density is USD 55 (world average is USD 595). The sum insured to GDP ratio (a measure of protection) is low and stands at 55% (in developed markets, it is between 150-250%). Despite two decades of liberalisation and significant participation from foreign and domestic participants, India still lags the world average in terms of penetration and density. The insurance density (premium to population) was very low at $77 in 2019 in which life is $58 and non-life only $19. Globally, it is $379 and $439 for life and non-life, respectively.

India Protection Quotient Survey was conducted by Max Life and Kantar, IMRB. 2/3rds of urban India own life insurance, only 1/5th of them own term insurance and close to 53% are unaware about term insurance. Strong solvency norms have ensured that no insurance company has gone bust in the last 20 years.

In India, private insurance companies have 48% share in general insurance segment and 29% market share in life insurance. The Indian insurance market has been focused on growing the top line, increasing gross premium levels and volume selling (selling more policies). Investment-led profits have contributed to revenues for the insurance sector but the business model has paid insufficient attention to propping up underwriting profits. During the last 5-6 years, the non-life sector has grown at a rate of 13% to Rs. 1, 50,000 crores (2019). The rise in middle class population has given hope that the industry would touch Rs. 4 lakh crores by 2025. It remains to be seen

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whether this target can be achieved considering the fluid situation that we are in now.

In March 2016, the FDI cap on insurance companies was increased from 26% to 49% to ensure greater flow of foreign investments into the Indian insurance sector. The insurance amendment bill was passed in 2021 to increase the FDI limits in insurance to 74%. This move was aimed at ensuring access of growth capital for those insurers who were yet to be listed. This will also enable expansion of distribution reach, promote investment in technology deployment and stimulate new product creation.

The pandemic caused the deepest economic disruption since World War 2. The pandemic led to assorted adverse events against which protection was offered by the industry. Insurance is a capital-intensive business and after the pandemic, many Indian insurers were not in a position to invest further capital in their companies. Mid-size and smaller players had to recapitalize themselves to compete effectively with larger players.

Let us look into some of the other challenges that the insurance sector faces. The pension assets in India are 8% of GDP while in advanced countries these are roughly 90% and more than the GDP of the country. As per 2011 census, only 12% of the Indian working population were covered under any pension plan. Attracting millennial population to buy health and life insurance covers will continue to pose a challenge for the industry.

Despite these challenges, many insurers turned innovative by shifting rapidly to online channels and automated production tasks. This has led to increase in operational efficiency and improvement in the speed of decision making. Process and product innovations and innovations in operating models have enabled insurers to deal effectively with the challenges posed by the pandemic. Renewed focus on risk analysis and crisis planning has led to reinvention of risk management models, reassessment of liabilities and explore ways to improve returns on investments. This has led to a massive shift in the insurance operating model. The need for a fit between market needs and insurance products has never been so great.

This research reviews not only the challenges faced by the insurance sector but also investigates the role of technology in rejuvenating the prospects of the sector. The goal is to assess the future of the insurance sector in the current context.

Review of Literature

Let us assess the turn of events in the insurance sector during the pandemic. Covid-19 led to a slump in demand for life insurance and non-life insurance covers though later there was a surge in demand for life and health insurance covers. Covid-19 pandemic exposed the fact that the health insurance penetration in India was inadequate. Some of the challenges faced by insurance companies during Covid-19 pandemic

- Issues related to employee productivity and employee engagement
- Decline in new business revenues and renewal collection
- Increase in claims outgo for health and death claims
- Weakening investment returns and cost ratios

The pandemic disrupted the insurance value chain necessitating higher integration, simplicity and convenience. Digitalization and work from home resulted in accelerated development of new insurance products and services. The industry had to ensure clear and consistent messages to customers to substitute downsized call centre capacities for high volume customer queries.

IRDA's initiative of facilitating the adoption of simple and standardised insurance products worked in the favour of the insurance industry. The ratio of domestic gross direct premium income (GDPI) underwritten by non-life insurers in respect of health insurance to GDP was 0.3% in 2020-21, 0.25% in 2019-2020 and 0.24% in 2018-19.

Though there was increased interest in health insurance after the pandemic broke out, this did not translate into increased business for insurers. The GDPI dropped from 20.7% in 2018-19 to 13.3% in 2020-21. Reduced income levels during Covid-19 and the need to set a separate fund for emergencies may have prompted people to postpone buying health insurance covers. Though these statistics are not encouraging, the market share of health insurance in terms of GDPI increased continuously from 26.6% (2017-18) to 31.6% (2020-21).

Data from IRDAI (Insurance Regulatory and Development Authority of India) showed that India's private life insurers performed better than LIC during the pandemic due to the use of digital technologies. The new business premium of private insurers rose 16.29% over the previous fiscal year while that of LIC grew by a mere 3.48%. Though the insurance business was seriously affected in 2020, within a year, the tables seem to have turned. In March 2021, aggregate new business premium of life insurers rose 70.87% to Rs.43,416.5 crore. The pandemic led to an increased demand for life insurance covers.

Table 1: Gross Premium Income (Life)

Gross Premium Income		Rs crores					
Year	2015 _16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	2020 - 21	2021 - 22
LIC	239667.7	300487	318223	337506	379390	403287	428025
Pvt insurers	88434.35	117989	140586	170627	193521	225445	264589

Growth in FY21 was driven by single premium policies. The lockdown and social distancing norms affected the sales of group insurance and pension plans. 96% of these policies are sold through LIC agents. There was however an increase in demand for individual protection plans. LIC is witnessing an increase in online sales of its products and is expecting that demand for pension and annuity plans would swell in the future.

Table 2: Gross Premium Income (Non-Life)

Gross Premium Income		Rs crores					
Non -Life							
	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	2020 - 21	2021 - 22
Public Sector	47691	60219	67794	68659	73263	71844	75033
Private Sector	39694	53805	65420	81287	90744	98000	109753
Standalone Health							
Insurance	4153	5858	8314	11354	14473	15755	20867
Specialised insurer	4842	8247	9134	8148	10437	13115	15047

Table 3: Net Profit (Life)

Net Profit (Life)		Rs crores					
Year	2015 _16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	2020 - 21	2021 - 22
LIC	2517.85	2231.74	2446	2689	2713	2901	4043
Pvt insurers	4897.12	5496.15	6065.99	5747	5016	5760	3708

Table 4: Net Profit (Non-Life)

Gross Premium Income		**Rs crores**					
Non -Life							
	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	2020 - 21	2021 - 22
Public Sector	1499	-2551	2543	-3288	-5700	-1467	-6762
Private Sector	1333	2763	3798	3584	4037	5729	4099
Standalone Health							
Insurance	-177	27	-102	-298	-331	-1360	-1808
Specialised insurer	583	606	670	685	500	950	1614

Source: IRDA website

Bibliometric Analysis

Using the Scopus database, bibliometric analysis was conducted. The keywords that were used in the search string were "insurance" AND "Covid*" AND "pandemic". 677 documents were found. The distribution of the documents was as under:

Social Sciences – 330

Economics, Econometrics & Finance – 213

Environmental Science – 177

Business Management and Accounting – 163

Decision Sciences - 42

Table 5: A Vos viewer analysis

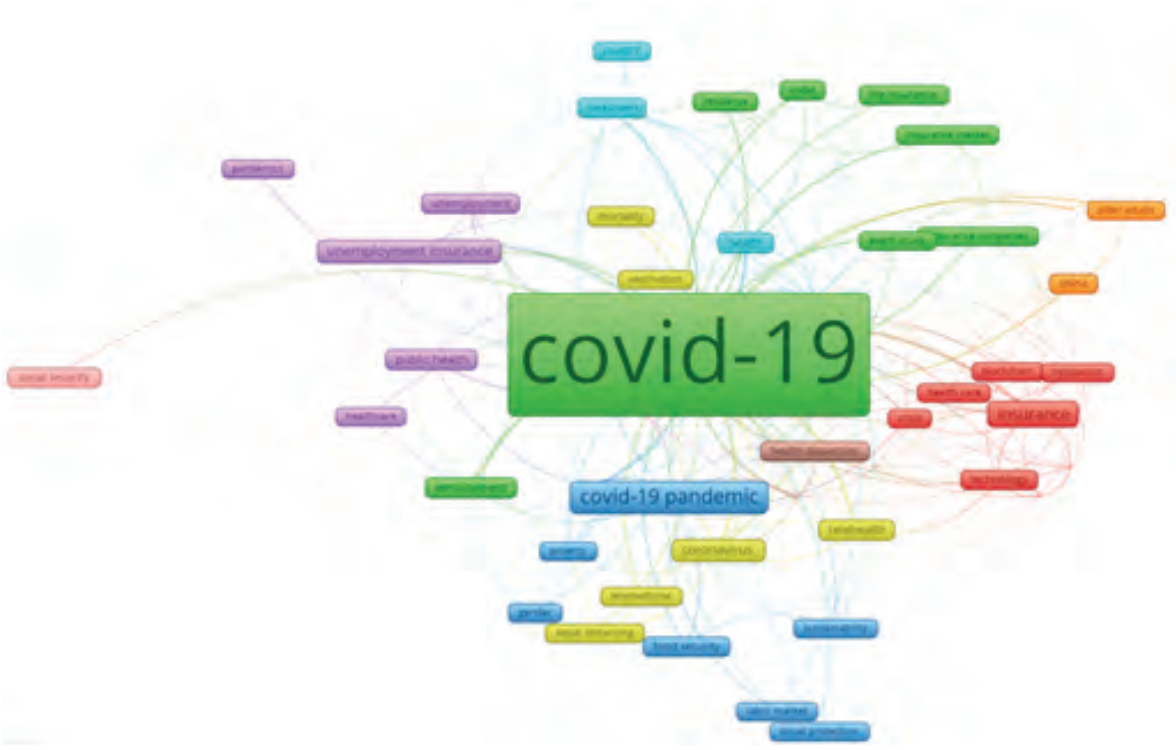
Keywords	Keyword occurrences	Total link strength
Covid-19	407	374
unemployment insurance	19	23
mental health	18	26
sars-cov-2	18	36
health insurance	14	13
public health	13	20
social determinants of health	12	21
Telehealth	12	17
Employment	11	13
Health	11	17
Lockdown	10	15

health disparities	9	14
health policy	9	13
social security	9	4
food security	8	9
Technology	8	19
Unemployment	8	13
life insurance	7	6
Mortality	7	8
artificial intelligence	6	20
big data	6	17
Crisis	6	11
Depression	6	10
Innovation	6	13
insurance market	6	10
older adults	6	6
Poverty	6	8
Resilience	6	9
social insurance	6	6
social protection	6	5
Sustainability	6	12
Vaccination	6	7
Blockchain	5	11
Digitalization	5	7
event study	5	6
Gender	5	15
health care	5	9
health services	5	5
Healthcare	5	5
labour market	5	7
social distancing	5	
Telemedicine	5	

Table 6: Ten clusters from Vos viewer chart analysis

Cluster No.	Items in the Cluster
1	Artificial intelligence, big data, block chain, Crisis, digitalization, health care, innovation, insurance, technology
2	Covid 19 pandemic, food security, gender, health, health insurance, labour market, poverty, social protection, sustainability
3	Covid -19, event study, India, insurance companies, insurance market, life insurance, resilience, social insurance
4	Corona virus, employment, health policy, social distancing, tele health, tele medicine, mortality, vaccination, SARS Cov-2
5	Hea lth care, pandemics, public health, unemployment, unemployment insurance
6	Covid 19, health, lockdown, pandemic
7	Health services, older adults
8	Health disparities, Social determinants of health
9	Depression, mental health
10	Social security

Figure 1: Covid - 19



Based on the above clusters, following interpretations are made

1 Indian insurance sector proved to be resilient during Covid-19 pandemic
2 Social insurance need (state support to population to deal with unemployment and sickness) was acutely felt
3 Unemployment insurance covers and health insurance covers were in demand during the Covid-19 pandemic
4 There was an acute need for social security
5 Increase in food insecurity and poverty during the pandemic
6 Social distancing norms necessitated monitoring health using tele medicine
7 Mental health cover had to be included as part of health insurance as the pandemic resulted in depression and mental health in segments of the population
8 Increase in mortality rates necessitated the need for vaccination against the pandemic
9 During the pandemic, an event study was conducted to analyse the impact of pandemic on financial performance of insurance companies
10 The use of block chain, AI technologies began being explored in the field of health insurance research
11 Health disparities in the population and social aspects of health became more glaring during the Covid-19 pandemic
12 The impact of pandemic on labour markets resulted in the need for social protection

Research objectives

1 To evaluate the impact of pandemic on the insurance sector
2 To identify the lessons that can be learnt by the insurance sector from the Covid-19 pandemic
3 To investigate the actions by the insurance regulator to support the growth of the insurance industry
4 To review the role of digital transformation in future prospects of the insurance business

Research Methodology

This is a conceptual paper where published secondary sources of information from websites and research journals have been accessed to understand the changes in the insurance sector in India during and after the Covid-19 pandemic. Considering that the early indications of pandemic began in late 2019 and continued until 2022, specific information about the events during the pandemic has been sourced during the period 2019 to 2022. A bibliometric analysis has also been done using data extracted from Scopus database. The figures for the financial performance of the Indian insurance sector (both life and non-life) in terms of gross premium income and net profit have been extracted from the website of insurance regulator (IRDAI- Insurance Regulatory and Development Authority of India). The information so sourced has been analysed to interpret the same and draw meaningful insights to address the research objectives.

Findings and Recommendations

Impact of pandemic on the life insurance business

Though there was renewed interest in life insurance schemes, pension schemes, annuity-based products and health insurance products during the pandemic, the economic downturn, low interest rates and vagaries of stock markets affected the investment income of insurers. Reduction in interest rates on bonds has added to the liquidity risk. Lloyds of London has pegged the losses for insurance sector as a result of the pandemic to $3 -$4 billion. Losses for the whole insurance sector reached around $ 203 billion.

Private life insurers performed better than LIC during the pandemic (as per information sourced from IRDA) due to their digital push. The new business premium of private companies increased to 16.29% over the previous fiscal year while that of LIC grew 3.48%. In March 2021, aggregate new business premium of life insurers increased to 70.87% (Rs 43,416.5 crores) – private companies grew at 83.52% and LIC at 64.68%. This shows that the pandemic resulted in a renewed consumer interest in life insurance.

As per another report in the Economic Times, until April 7, 2021 the insurance industry registered 10.07 lakh corona virus claims worth Rs 14738 crores. Rs 7907 crores of claims have been settled by insurers. Maharashtra had 36% claims with Gujarat 13%, Karnataka 7.5%, Tamil Nadu 7.4% and Delhi 5.7%.

As per a report in Financial Express (March 2021), life insurers reported 40% y-o-y growth in the last quarter. Use of digital means to complete customer transactions resulted in better performance of private players in life insurance. Private players also focussed on new product development, deploying the use of web aggregators for sales and diversifying the channel mix.

Single premium policies drove the growth of insurance sector during the pandemic. Lock down and social distancing norms had an adverse impact on the

agency channel. The new business premium from LIC's group insurance also declined. LIC hopes that in the new normal, the demand for pension and annuity plans will increase along with demand for sale of insurance products online.

The impact of the pandemic on business interruption became difficult to assess because of lack of data on types of policy wording. Insurers had to grapple with challenges of managing fixed costs when premium incomes were lowered and returns from investments began to show a dip. Strategic assessment of the portfolios became a necessity. This necessitated looking at the current balance sheet and the solvency provisions.

The pandemic has indicated to all the insurers (not in India alone, but across the globe), the need to review and update crisis management plans. Some insurers set up core task forces (also called emergency decision making units) to support customers during the crisis.

On a positive note, the insurance processes have become seamless due to digitalization. Employees, clients, distributors and other stakeholders were kept updated about the status of business continuity plans and safety protocols through comprehensive, technology-enabled communication systems. Chief information officers issued new cyber security protocols to ensure the safe exchange of highly classified information among those employees working from home. Employees in insurance sector worked in a remote set up to ensure business continuity. In future, this can set the tone for rationalisation of work force and possibly a hybrid working model can evolve for the insurance sector as a whole.

Impact of pandemic on non-life insurance business

Lockdowns and social distancing norms affected the production and sales of vehicles which directly impacted motor insurance business. Curbs in travel had a devastating impact on hospitality sector and event management. Liability insurance, property insurance and travel insurance businesses were deeply affected during the pandemic.

The pandemic led to increased demand for health insurance covers, though losses mounted due to unprecedented claims. The second wave resulted in greater number of hospitalizations adding to the claims ratio. Network partners began refusing cashless claims on present tariffs adding to insurer's liabilities. One cannot rule out longer trail of non-Covid chronic claims due to co-morbidities.

Long tail claims due to the pandemic will necessitate collaboration between health care professionals, actuaries and insurers. Insisting on a compulsory medical check-up as part of underwriting requirements was a challenge during the pandemic. In future, similar crises will need use of data and previous health records must be made intelligent use of.

IRDAI advised insurers to extend the grace or delay period by 30 days in case of policy lapse or renewal adding to the liquidity challenges for insurance businesses. Insurers were advised by IRDAI to accept Covid-19 claims under active health insurance policies. IRDA mandated that all general and health insurers start offering Corona Kavach – an indemnity-based health plan and Corona Rakshak – a fixed benefit health insurance – policies to their customers.

In India, several insurers launched Covid-19 insurance products in March 2020. These are short term products and offer fixed benefits – for example – covering a fixed amount in excess of hospitalisation schemes. The IRDA sandbox was useful because companies obtained approvals for risk cover in special situations.

The pandemic altered consumer behaviour, resulting in greater interest in term insurance policies. Earlier, the customer onboarding process was lengthy and laborious with the need to fill out application forms and indulge in paperwork. Fragmented systems led to service deficiencies. Insurance companies had to make effective use of digital channels to fill the gaps in both reducing threats to the production, activities, customer care, or protecting employees. Automatic pooling of data can expedite the onboarding process today.

In the short term, the pandemic has led to increase in claims and a consequential increase in losses due to decline in returns on investment. In the medium term, it is expected that there will be an adverse impact on growth and profitability. In the long term, one cannot rule out adverse impact on solvency and capital position; premium degrowth; reduced investment returns. Proactive management of asset categories will be needed to arrest investment risks due to market fluctuations.

Modernization of service architecture and digitization of contact points and procedures have empowered customers to fulfil their service needs. Notwithstanding this, the interactions between the insurance sector and policyholders will continue to remain phygital (physical + digital). The pandemic made insurers realize the need for reimagining physical interactions in the virtual mode.

Regulatory actions

IRDA introduced regulatory sandbox approach to facilitate innovations in the insurance sector, make insurance products more affordable and relevant for the insured and boost insurance penetration. It has

advised that general and health insurers can offer a standard health insurance product – customers must have a basic health cover to cater to their needs. Standard product must include basic mandatory covers and this must be uniform across the market. No additional add-ons or optional covers are allowed to be offered. Insurers must focus on improving the quality of underwriting and map pricing with risk assessment. IRDA has quickly moved capital solvency rules from standardized formula to risk-based capital. Volatility on the balance sheets will have to be correlated such as correlation of catastrophe and cyber models to underwriting, credit and market risks. Risk-based pricing and assets and liabilities management was important for insurers during the pandemic.

IRDA has allowed insurance companies that have completed 10 years of operations to raise capital through initial public offerings. New standards of public disclosure and corporate governance have become essential now.

Going forward, what changes are needed in the insurance business model?

The average data consumption in India is 1 GB a person a day. Indian insurance market is ready for a data driven online revolution. Today, only 2% of the population in India buys insurance online. Over 65% of India's population is under 35. Since protection gap in India is the highest in Asia, there is a need to create awareness about the need for protection and engage with customers through digital platforms

Insurance companies have to create better service platforms and cater to customer needs seamlessly in a way that customers can be served across all the channels. Facebook and Twitter can be deployed for receiving customer complaints and promoting new products and features. Using a chat bot, response time for customer requests on social media is 30 minutes.

Sales of insurance through intermediaries and direct online sales can be compared to trace their effectiveness. In offline, conversion of sale takes 7 days while in online, conversion of sale can happen in a day.

Automation of new business processes through integration of online platform with artificial intelligence and machine learning based auto underwriting system can be explored. Mobile apps can be used to compare premium of life insurance plans and pay premium online. The app will help the agents to store sales figures, maintain a premium calendar and customer directory and provide notifications for premium due dates and lapsed policies along with alerts for customer birthdays. Digitalisation has improved agent productivity by 15-10%.

Agency channel needs a complete revamp. Competency mapping of agents will encourage agent to guide the policyholder in selecting the right policy without worrying about his commission. Agents should be adept not only in selling policies but also in helping customers to file a claim. The industry must train rural youth to become insurance advisors. Just like banks appointing business correspondents to offer personalized service to customers, insurance industry can also follow a similar strategy. These business correspondents can double up as agents as well. Sales processes through tablets where agents can fill in the relevant information with the system prompting and recommending the right insurance plan for the customer will be another innovative approach.

It is vital to have committed and empowered agents who are recruited after a proper screening process. Ethical issues involving agents (particularly when an agent sells a policy to a customer so that he can get a higher commission) must be addressed on war-footing. An agent who isn't up-to-date about new insurance covers is a greater liability to the insurance organization as are unproductive employees.

Technology has made the customer an active participant in the buying process as customers no longer buy insurance policies – rather they buy insurance solutions. Companies like Aegon have abandoned both the agency and bancassurance channels. Digital sales reduce operational costs; so, the premium difference between offline and online is almost 35-40%. This is the reason online insurance aggregators are gradually capturing market share. On its part, the Government has promoted e-governance based common service centre network for the sale of small ticket insurance policies in the rural belt.

Online insurance aggregators are part of insurance supply chain. Pure term insurance products have been well marketed by aggregators. What insurance needs today is need-based selling through self -service technologies. It is worthwhile to compare the effectiveness of various channels of distribution of insurance. There is however a need for greater regulation for distributing insurance products online.

Policies with a preauthorized premium deduction method like direct debit/ ECS/ standing instructions and deductions from salary – these policies have a higher probability of survival than the ones where the customer initiates the payment every time.

Conclusion

Recalibration of the insurance sector post the pandemic must be an exercise invested with sufficient resources to make it more meaningful. Lessons learnt during the pandemic cannot be wished away or forgotten – rather the insurance industry must use this

as an opportunity to review their business agenda to make it more fit for purpose during the new normal. A well-known saying goes like this – The hour before dawn is the darkest. Thus, the insurance industry can rest assured that exciting times are ahead for the sector. What are needed now is unbridled optimism and a creative approach to serve customers better through an indefatigable value proposition.

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