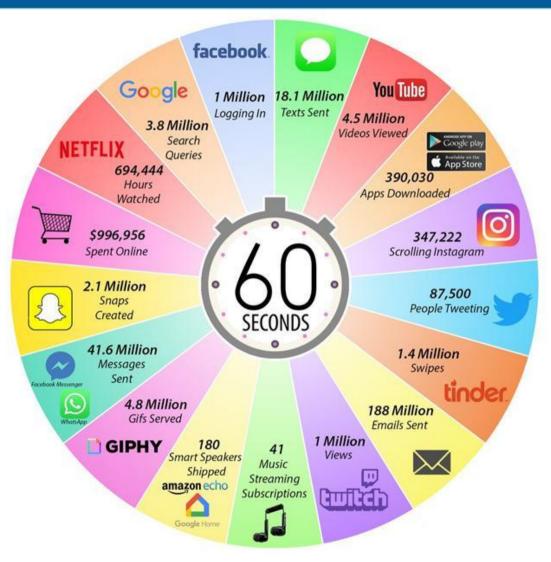
TechEdge @HDFC Life





This is the sole and exclusive property of HDFC Life. December 11, 2019

The World is changing at an accelerated pace...An Internet minute in 2019



There is a shift in the way services are delivered and measured...



Source: Infographic created by Lori Lewis (@LoriLewis) and Chris Chadd (@OfficiallyChadd)

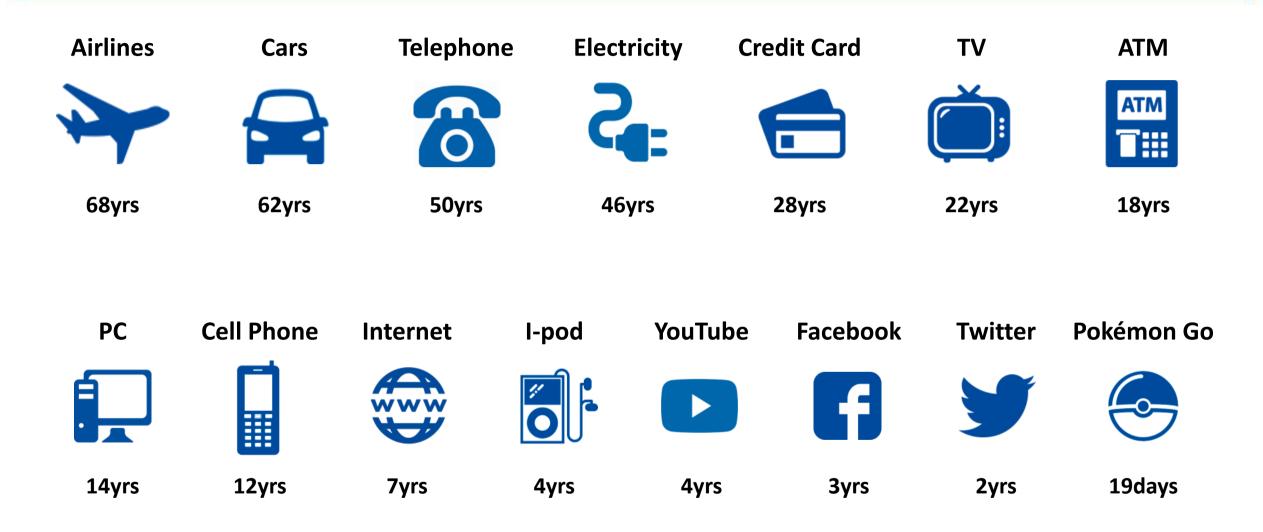
Enabled by new wave of digital disruptive technologies



Students are preparing themselves for jobs that don't exist, using technologies that haven't been invented in order to solve problems we don't even know are problems yet



...and time to reach 50 million users is reducing





Sectors are getting disrupted by digital natives and platforms

	2006 - 10	2011	2012	2013	2014	2015	2016	2017	2018	2019
Lending Marketplace	Deal4Loans bankbazaar.com				NAMÊSTE Credit paisabazaar@	KredX CoinTribe	Biz2Credit			
Consumer Lending					♀ PaySense ₹ rupeek	Zest	InCred kisebt	LAZYPAY		branch JUMO
SME Lending				E CAPITAL FLOAT NEOGROWTH	LENDINGKA₹T	<mark>\$</mark> zıploan	♥ VAYANA ✔ LOANS 4 SME	CREDABLE"		
P2P Lending			i-lend.in		Selenden: FAI₹CENT	KONEXO Lendbêx	fin≵y			Borrow Better, Lend Smarter
Financial Inclusion						M mahagram		kaleido <mark>fin</mark> Finläk	munshi G	
Neo Bank / Accounting							💋 iyo 👰 vyapar	OPPEN Constructions Occorrections Complete Lond () Pagetess	Khata Book	रा संसिन् , जा पॉवर
Neo- Entrants							Google amazon		∃ udaan OYO	•practo•
B2C Payments	Payim Ø freecharge		Zaggle MobiKwik		(j) INSTAREM	Paymatrix	PhonePe	true balance	CRED	
B2B Payments	₹ Pine Labs PayMate	Pay U [*] m¦swipe	-		novopay	<i>ARazorpay</i> √PayPhi zeta	Z Perpule	PayNearby \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	BharatPe Þ	
Investment & PFM			scripbox[©] ArthaYantra			Smallcase Sfisdom	KUVERA Groww	금 Streak	C CUBE Wealth	
Insurance	policybazaar	~easypolicy			turtlemint	ETINSURE RenewBuy		dīgit <u>ocko</u>	toffee McXtra Riskcovry	
Fintech Enablers	Perfios		CREDITVIDYA	rupee pswer		Think Analytics	CredoLab	≺ recko kuliza	fintuple SETU	



Source: Fintech India by Digital Fifth

... being unbundled and disrupted by new entrants

Unbundling of a Bank





Source: CB Insights Report on Disrupting Banking: The Fintech Startups That Are Unbundling Wells Fargo, Citi and Bank of America

...and these new entrants are working across the value chain









Servicing

AC安保险 ZhongAn Insurance





Source: medium.com

The disruptors have completely changed the customer experience expectation



Journeys in Clicks vs. Days







Blog & Reviews



Multichannel



Rent vs. Buy



15-Day Return



Network Speed

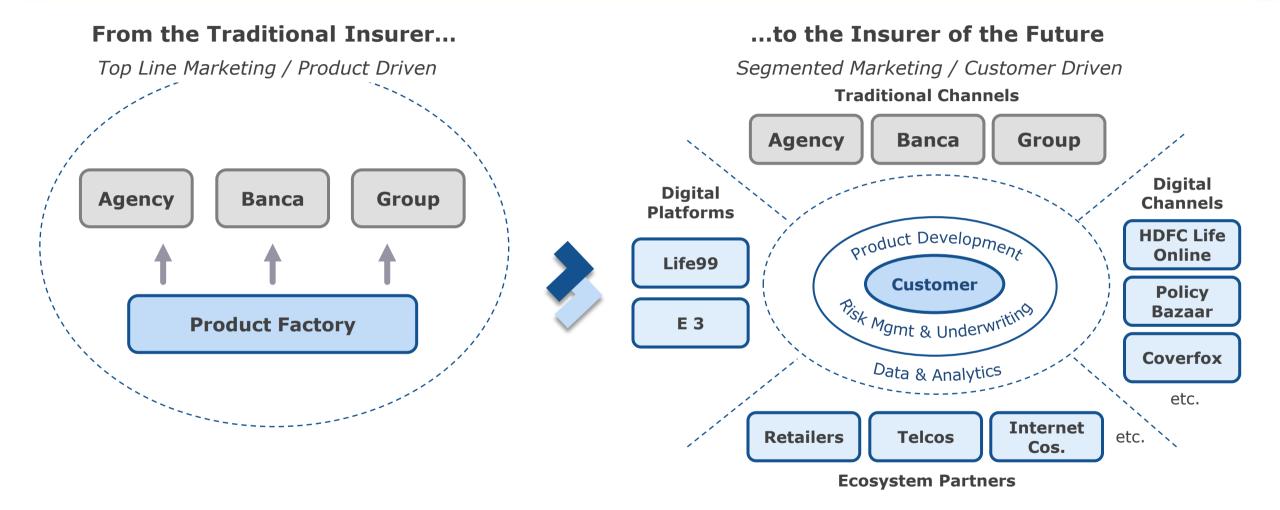


So, what have we been doing at HDFC Life?





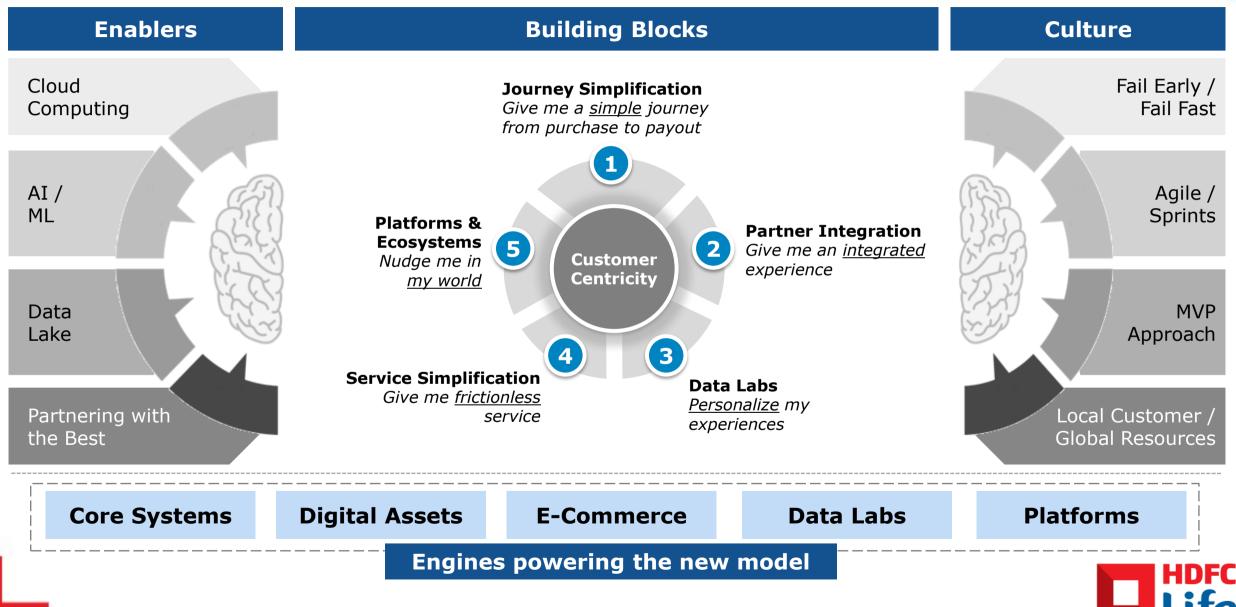
In the context of the new world HDFC Life changed its operating model...



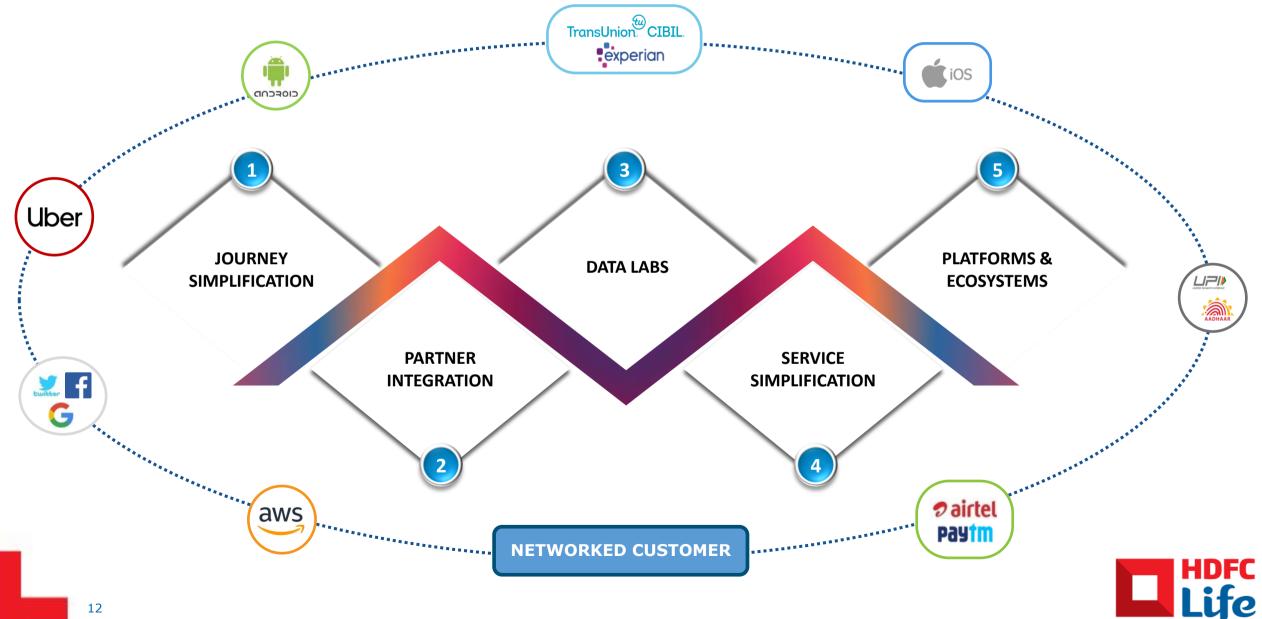
...The operating model moved from product centric to being customer centric



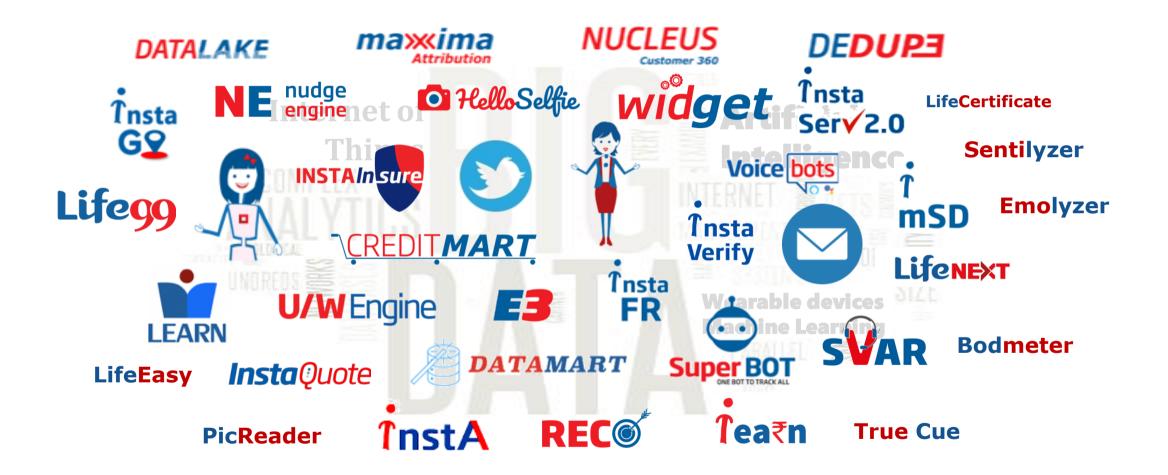
...and created multiple cognitive engines to serve the operating model...



...which were used to simplify the customer journey in 5 building blocks

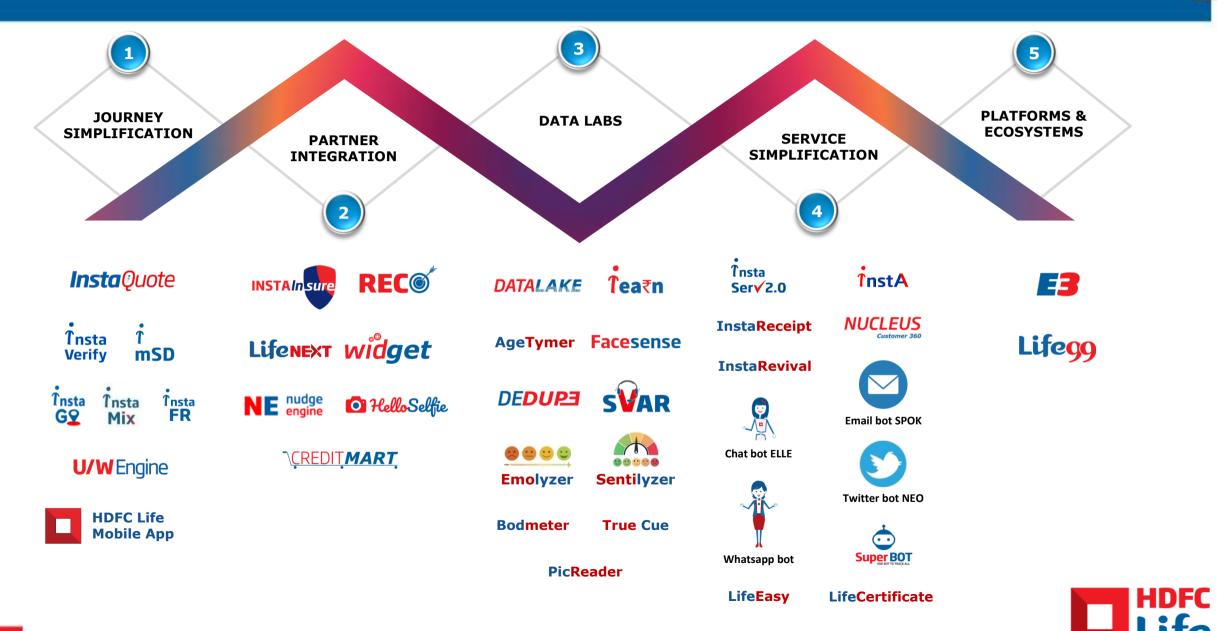


Cognitive engines rapidly developed a suite of products & microservices...





...aligned to solve customer needs



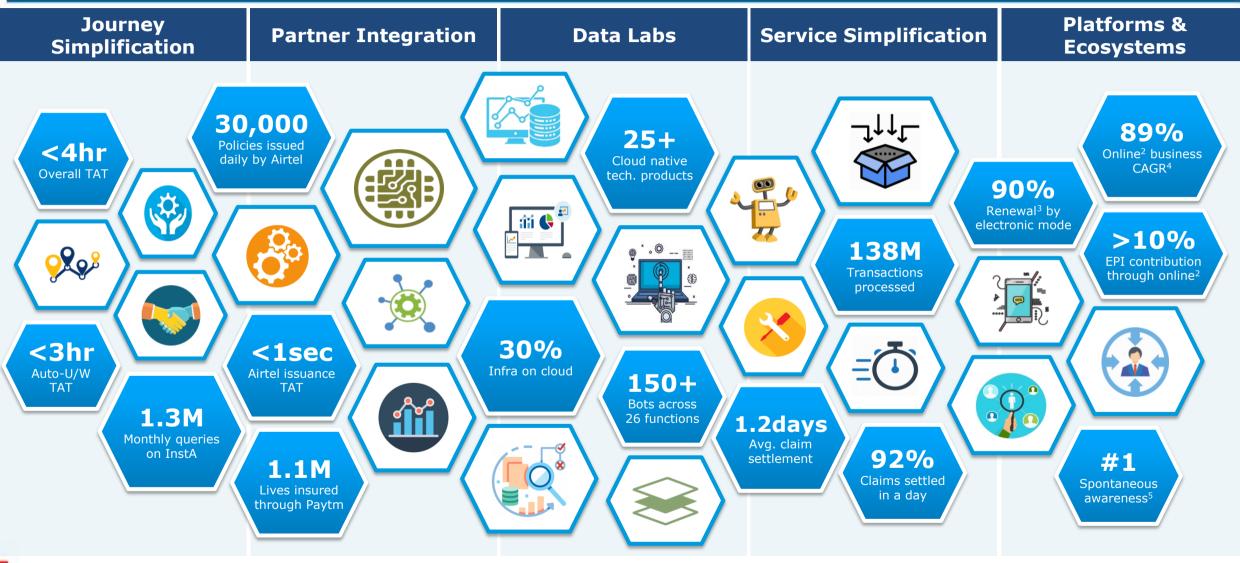
e

Our evolution is happening over a period of time...

	 Scalability issue Longer time to market Maintenance concerns Scope of automation System delay 			Digital & mobility		 Re-imagine insurance Threat of disruption Limited online exposure Personalized products Partner integration 			
			:	Lack of digital channels Empowerment to sales forces Manual data entry Inefficient platforms					
	Technolo	gy enablement					(
				Digital & mobility					
	2013	2014	2015	2016	2017	2018	2019		
Technology capability	 Infra / server Customer Rel Management Point of Sale 	ationship (CRM)	:	Online assets and digital tools Mobility Straight Through Processing (S Online Policy Sale (OPS) Learning Management System	TP)	 Data lake Customer 360 Campaign manager Recommendation engine Nudge repository Attribution 	2		
Partner	 Traditional pa Banca Feet on street Agency 		:	Website Search engine marketing Social media marketing Online web aggregators		EcosystemNew age partners			



...and has helped us reach a few milestones¹



1 All metrics / milestones as of current fiscal, unless otherwise specified 2 Online includes EDM and HDFC Net Banking 3 Based on NOP 4 FY17 - FY19

Life

16 5 Spontaneous awareness among internet users

...and transformed our business

	Pre	Post
Policy issuance TAT	~ 2 days in FY15	< 4 hours in H1FY20
Auto-underwriting policy issuance TAT	1 – 2 days in FY15	< 3 hours in H1FY20
Time to settle claims	9.3 days in FY17	1.2 days in Oct '19
Claims settlement ratio (Individual)	90.5% in FY15	99.0% in FY19
No. of partners	31 in FY15	270+ in H1FY20



While giving quite a few firsts to the industry...

HDFC Life Introduces Video Life Certificate – An Industry First – for its Annuity Customers	Life launches azon cloud	Atom	HDFC Life partners with IvyCamp to launch Futurance, a programme for startups				
RPA is perfect for elimination value adding tasks	HDFC Life launches service bot Neo	150 BOT	Chatbot				
HDFC Life launches Instalnsure; N insurance instantly	HDFC Life's Twin LifeEasy & Whats						
With INSTAInsure, HDFC Life Launches 3-Click Pre-Approved Insurance Offer							
		announces 'Ins rst virtual assis			FC Life is bullish on blockchain, Al d bots		
each other and gather insights.	HDFC Life partners with Google for ML powered marketing automation						
HDFC Life launches video life ce facility for pensioners	ertificate (Customer focus	drives	HDF(CLife HDFC Life collaborates with Google to maximise campaign results		



...we received industry recognition in the process*





* Non-exhaustive list of awards

Thank You



TechEdge @HDFC Life

December 11, 2019



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The TechEdge @HDFC Life

Technology today is evolving and disrupting businesses at a pace never seen before. Blurring lines of business coupled with increased flow of information has created an ultra-competitive market place where it has become important to continuously innovate, while being agile at the same time. There are numerous examples of sectors being disrupted, e.g., UPI and Google Pay in payments, Uber and Ola in licensed taxicab systems, Coursera re-defining traditional norms of education. And all this at an ever increasing speed, as seen in the image below.

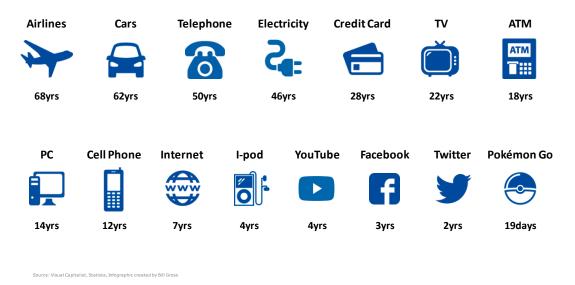


Fig 1: Time to 50 million customers – reducing at an alarming rate

At HDFC Life, we recognised this shift in dynamics and the need to make changes in some fundamental elements of business to survive and thrive...

- Transform business model from being product-centric to being customer-centric.
- Ability to constantly experiment with new and emerging technologies.
- Ability to embrace internal and external changes, uncertainties and adjacencies.

Accordingly, we started by transforming our business model from a product-centric one to a model where we keep the customer at the centre (Fig 2).

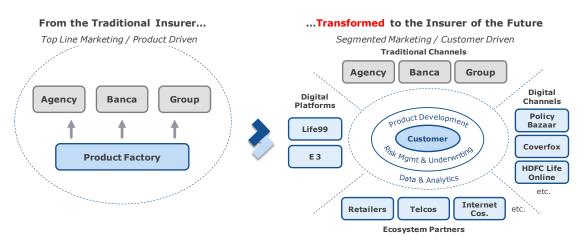


Fig 2: Operating model shifted from product centric to being customer centric

This involved a shift from being a traditional 'distributor and product play' model to becoming an evolved matrix of platforms, digital channels, ecosystems and traditional avenues fuelled by technology and analytics, with the customer at the core.

In parallel, we invested in multiple change engines that enabled us to stay ahead of the curve. The change engines operate in a collaborative manner with five key customer objectives in mind (Fig 3).

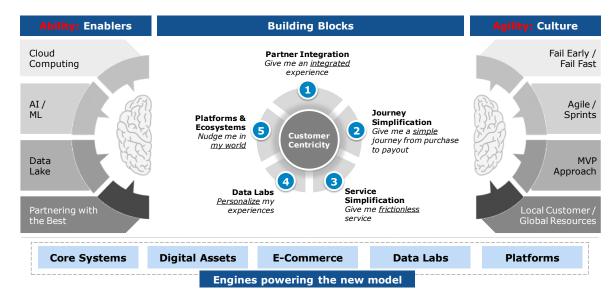


Fig 3: Multiple cognitive engines to serve the operating model

These eventually translate to the five building blocks as follows (Fig 4):

- 1. Journey Simplification
- 2. Partner Integration
- 3. Data Labs
- 4. Service Simplification
- 5. Platforms & Ecosystems

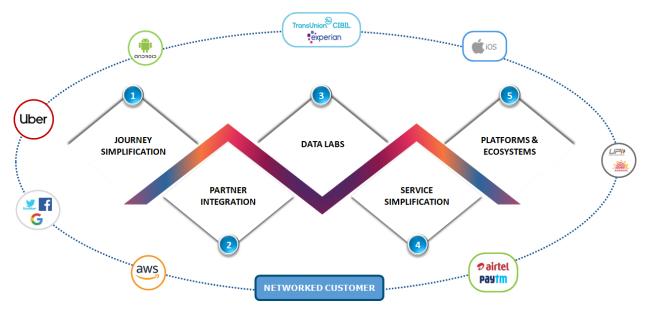


Fig 4: Simplifying the customer journey in 5 building blocks



1. Journey Simplification

Fig 5: Journey simplification at HDFC Life

We view the customer on-boarding process as a key element of our success. It is important to showcase ease of transaction and enable a simple and frictionless experience. To this end, we have developed a suite of mobile applications "Insta suite" comprising various sub modules that facilitate front line sales teams to onboard customers efficiently and effortlessly. Some of the key Insta apps are as follows:

- InstaMix: Used to create combo solutions covering multiple products to enable easy and insightful presentations for prospective customers.
- InstaGo: Geo-tagging enabled partner and lead management tool, which can help front line sales to track visits to their partners and customers.
- Mobile Sales Diary (mSD): Sales enablement solution that helps the field sales force through the core sales processes of illustration creation, quote generation, form filling, document upload and premium collection.
- InstaVerify: Tool for pre-conversion verification used at the point of sale; the tool enabled reduction in the dependency on call centres for call-based verification. Apart from English and Hindi, the app is available in 5 common vernacular languages. >3 mn customers verified through InstaVerify since launch.
- InstaHuddle: Enables sales team managers to connect with their teams to provide insights on key business topics and enhance their learning and knowledge.
- instA: Virtual assistant that leverages AI, ML and NLP technologies to answer product and process related questions of our sales and operations teams, enabling them to better serve our customers. It currently handles over 13 lakh queries per month across about 960 query types, with an accuracy of around 99%.

In addition, we are also present on third-party platforms, including online web-aggregators, such as PolicyBazaar, Coverfox and Easy Policy among others. We offer bespoke as well as plug and play technology integration solutions based on the digital maturity of the partner. We integrate our products and processes with partners who (a) build their own end-to-end platforms (where the journey happens on the partner's platform), as well as, (b) are on redirection mode where one part of the journey (typically quote & payment) happens on the partner's platform and the rest on our platform. This enables superior customer experience & ensures that our best practices as well as product updates & features are seamlessly integrated with our partners' systems.

In addition to the on-boarding process, we have also taken various initiatives to provide a simple and fast journey across the value chain, leveraging our capabilities in cloud computing, artificial intelligence, and robotics amongst others. Some of the key highlights of journey simplification include:

- Turnaround time (TAT) for policy conversion has reduced from 2 days in FY15 to <4 hours in H1 FY20.
- Online channel has grown at a CAGR of 89% between FY17 and FY19.
- HDFC Life ranks #1 in spontaneous awareness amongst internet users (Private life Insurers).



2. Partner Integration

Fig 6: Success at HDFC Bank, Paytm and Airtel

We currently have over 270 distribution partners, of which more than 40 are new-age ecosystem partners. To manage this distributor base, highly efficient platforms powered by advanced analytics, automation and artificial intelligence are needed. These platforms, which can be integrated with partners' applications through open APIs, enable us in striking a balance between costs, revenue, risk, and business quality. Open API-based integration also enables us to customise as per business needs of the respective partners.

Key examples of partner integration include:

- HDFC Bank: Approximately 82% cases are issued via 'straight through processing'. System integration has helped customers fill an application form within 10 minutes.
- Simplified journeys on Paytm and Airtel: We have successfully partnered with Paytm offering instant pre-approved insurance with a 3-click journey, and have insured 1.1 million lives since launch of the partnership in May 2019. With Airtel, we have bundled a life insurance cover of Rs. 4 lakh with a prepaid recharge of Rs. 249 and are on-boarding around 30,000 customers per day, with a Certificate of Insurance (COI) issuance TAT of less than a second.
- Credit Protect partners: Our LifeNext platform, designed specifically for partners who
 offer consumer loans, provides instant services across the value chain including, partner
 hierarchy mapping, payment modules, Insurance Certificate issuance, lead transfers and
 end-to-end workflows.
- Instalnsure: We offer pre-approved sum assured insurance solutions for pre-defined customer segments through Instalnsure. Using underwriting algorithms and deep integration with partner systems, these offers need minimal underwriting and documents.
- Sales Enablers: We have a suite of tech offerings, which enable frictionless customer journeys such as Hello Selfie, Credit Mart & other widgets. Personalisation through recommendation and nudge engines is helping us cross sell to our existing customers as well.

3. Data Labs

In 2012, the World Economic Forum stated that personal data is becoming a new economic 'asset class'. We have harnessed our customer data by enhancing our computing power and analytics abilities. To this end, we are working on 3 broad areas:

 Cloud Storage / Computing: Cloud computing is helping us reduce opex costs, increase scalability, eliminate version upgrade hassles and enable customisation as per changing business needs. We currently have over 25 cloud native products with 30% of the traditional infrastructure runs on cloud platform.

- Big Data: We use Big Data and analytics models across several business areas with the objective of accurately predicting customer behaviour, thereby providing a customised experience.
- Artificial Intelligence (AI): We believe that AI is the future of technology, and will facilitate businesses to identify, assess, and underwrite emerging risks and identify new revenue sources. Our current AI capabilities have helped us in the areas of risk mitigation at payouts, sentiment analysis at service touch points and hyperpersonalisation of sales incentives, among others.

Some of the capabilities built by us in this context include:

- Text AI: Our Twitter bot Neo and Email bot SPOK are used to handle common queries and queue management. The Sentilyzer tool, with an accuracy of 95%, helps us understand customer sentiments from email / text messages, helping us improve our service quality.
- Vision AI: Our AgeTymer tool provides an emotional trigger at quote stage, while FaceSense solution, which has an accuracy of 92%, is used for customer verification at the stage of Payouts. Yet another solution, Bodmeter, helps in determining customer BMI from a selfie.
- Speech AI: We have created an industry-first voice bot sVar, which has helped improve the efficiency of the revival process. Our voice authentication solution TrueCue has an accuracy of more than 98%.
- Machine Learning (ML): Our ML models and algorithms are used across functions including new business (e.g., prediction of customers with high purchase power), on-boarding (e.g., predicting possible fraud or early claims), customer retention (e.g., predicting customers who may renew proactively) and employee management (e.g., identifying employees with high attrition risk). Our propensity models have helped increase appointment rates with customers by ~42%. Within the on-boarding process, our Risk+ model has helped convert additional premiums at lower risk and avoid potential payouts of about Rs. 210 Crore through effective screening of high risk cases.
- Cognitive bots: We use such bots for automating manual processes across different functions to improve operational excellence. We have over 150 bots across 26 functions.

4. Service Simplification

Given our emphasis on customer-centricity in the new model, service simplification emerged as a key building block of our strategy. Using our solutions and capabilities listed above, we now offer simplified service to our customers, centred around:

- Instant experience: Today, a personalized customer experience is not just expected, but is demanded. Keeping this in mind, we have created a suite of mobile applications mobile app for customers that enables policy servicing at their fingertips; InstaServ, used by branch operations team for customer transactions at our branches, that helps faster and accurate resolution of customer queries; Insta Receipt, that enables instant issuance of renewal premium payment receipts; Insta Revival, that enables the processing of lapsed cases to make them 'in-force' thereby improving our persistency.
- 24x7 experience: To provide 24x7 service experiences, we have deployed customer service bots – chat bot Elle, Twitter bot Neo, email bot SPOK, and WhatsApp bot Etty – across all digital touch points, including our portal and social media avenues.
- Process automation: We have deployed over 150 cognitive bots 41% of them automating complex business processes. These bots impact 26 different functions, and have completed over 138 million transactions in FY19 to bring in greater scale, efficiency, and 24X7 service delivery, resulting in significant improvement in turnaround times as well as elimination of non-value added activities. Key manual tasks, including rule-based transactions viz. case allocation and de-dupe etc., have been taken over by these cognitive bots reducing specific process TATs.
- Frictionless experience: As an organization focused on the customer journey, we have identified various customer pain points and have introduced key initiatives such as Life Easy, an analytics-driven investigation process, which has enabled us to settle 92% of claims (non-investigated cases) within 1 day of intimation; Customer 360, a real-time customer interaction aggregator to understand customer needs holistically and offer better service; Life Certificate, a tool that enables senior citizens to provide their survival status remotely through a video, thereby resulting in faster processing of annuity payouts; Quick Register, a tool that allows 3-click auto debit registration supported by multiple banks and card networks.

5. Platforms and Ecosystems

We believe that ecosystems offer us a way to tap the captive customer base of our partners, providing us an opportunity to generate new profit pools in non traditional ways.

- We have tied up with several non-traditional ecosystem partners like Airtel, Paytm and Uber, among others, to tap into this opportunity.
- In addition, we have also taken the lead in orchestrating platforms and ecosystems in areas where we believe we are the natural owner. Our retiral platform 'Life 99' launched earlier this year (under our pension subsidiary) is a one-stop shop for retirement planning, which has consolidated data, account views and associated services for all

retirement needs of its users. More than 35 corporate partners and 10,000 users have registered on the platform within 6 months of launch.



Fig 7: Our partner ecosystem (partners mentioned are for the purpose of illustration only)

Futurance: We have also partnered with IvyCamp this year to launch 'Futurance', a program that helps us identify and work with start-ups possessing cutting edge technologies relevant to our business. This we believe will further open up new opportunities and form an additional element of our platform and ecosystem strategy.

In conclusion

Our journey has evolved significantly over past few years – from using technology just as an enabler, to now using it to re-imagine insurance (Fig 8).

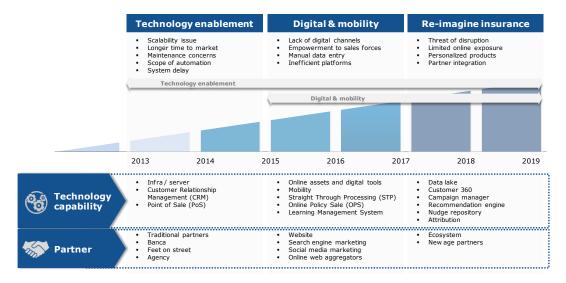


Fig 8: Our technology journey till now

While we have invested significant management bandwidth and resources so far, we are acutely aware of the need to continue investing and treading this path of constant evolution, with technology as a key differentiator. And our future plans aim to do just that – from launch of products and solutions to further simplify and enhance customer experience, to bringing in more transparency to the life insurance sector by de-jargonizing complex products, we have a range of new initiatives in the pipeline.