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Foreword

Finance and Insurance are two areas that are likely to be around for a long time. People always need finance in the same way people always like to have insurance. Unfortunate events do take place and the financial and insurance systems in place can act as a safeguard to these events. Whether it's your house being damaged, car stolen or having credit card fraud, these industries are, believe it or not, there to protect you.

Countries, businesses, local communities, and individuals are being introduced to new ways of handling finances and insurance. Cashless societies, custom insurance agreements, and getting approved for a new business bank account in minutes from your phone are all ways technology is innovating the financial and insurance sectors.

In this report we're going to be exploring with you how technology is being used in the financial and insurance sectors, the considerations and benefits, and the world we're going to be when this technology is readily available.

You'll be seeing stats on what people think about the use of technology in the financial and insurance sectors, compiled with the generous contributions of survey respondents. We're going to look at how Al is being used in banking, why small businesses are going to be affected by fintech, where technologies are being put together in the investment world, ways fintech is coming into the lives of people in all age groups, and finally what the next steps are.

As part of The Al Journal's vision and the role it plays for the Al and emerging tech communities, we're here to give you a democratised view and get your voice heard. Somewhere you can learn without feeling the pressure of not knowing a certain topic. A platform and community to learn from in an easily digestible format, at

Methodology

This report is based on an online survey of Al experts and practitioners, and business leaders in both tech and non-tech organisations, carried out by The Al Journal during April 2021. Further input was sought from survey respondents and other members of the Al community in compiling this report.

your pace. Whether from the people in the trenches who have hands on experience shared through opinion pieces, live and free events, or reports like this.

What we always aim to avoid in these reports is feeding you buzzwords without any real life case studies, examples, or wider consideration points to do with culture, your team, and your customer. What's the point in learning the technical terms that are behind technologies being used in the finance and insurance world without knowing where to apply them?

At The Al Journal, we want to create a positive future with you for Al and emerging technologies; be a voice for the community through our open source platform; and to enable businesses to make informed decisions that can add greater value to their team and customers.

It's The Al Journal's vision to deliver on the above while hosting cross-industry engagement, leading new discussions, facilitating business and team recognition, making introductions to successful partnerships, and creating world-changing ideas.

I want to give a personal thank you to everyone who took the time to help us shape this report, those who provided their exceptional feedback, and to you for reading this and being a part of The Al Journal's journey – thank you!



The AI Journal

Tom Allen, Founder, The Al Journal

Banking on Al: how fintech is shaking up financial services

Jargon often has the opposite of its intended effect - confusing rather than clarifying. Many people are intimidated by the buzzwords fintech and insuretech. They sound abstruse and esoteric.

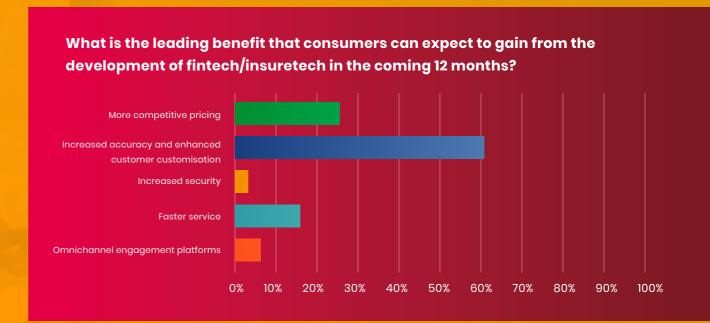
But, at the risk of sounding condescending, they are both a simple case of two word stems being clamped together. Fintech is the behind-the-scenes technology that facilitates financial services, often with the aim of cutting admin, slashing bureaucracy, streamlining processes and reducing costs for consumers and business customers. Insuretech does the same for insurance. That's it, in a nutshell.

On that basis, fintech has been around longer than we usually imagine. It's the back-end processes that for decades

have powered ATMs, handled debit card transactions or run credit rating checks.

But in recent years, fintech has become a coinage that's entered the business, and increasingly, the consumer lexicons and its usage has become more specific.

Today it refers to software and algorithm-driven software and innovation that aims to usurp traditional methods used to deliver financial services. It can enable you to invest money using your mobile phone, approve a loan in a few clicks, manage an investment portfolio or tailor an insurance policy to the nth degree. PayPal, established in 1998, is one of, if not THE, best-known fintech. In the UK, there are the likes of banking brands Monzo and Starling Bank.



Big business

And it's catching the eye of major investors In 2019, startups attracted around \$43,5bn in funding and JP Morgan alone invested \$25m in fintech disruptors.

With a growing awareness of fintech, consumers are also more knowledgeable about its applications. This is a point backed by Ernst & Young's most recent Global Fintech Adoption Index. Published in 2019, the consultancy group quizzed more than 27,000 consumers in 27 markets across the globe and found that uptake has surged from 16% in 2015 to 64% in 2019.

According to EY, Chinese consumers are the biggest adopters, used by 87% of the adult population. The UK is also ahead of many other counties, with 71% uptake, comparing favourably to the US (46%).

In September last year, the number of
Open Banking customers passed the two
million mark, up from around a million in
January. Open Banking is the use of open
APIs that let third-party developers to build
applications around the services of banks
and other financial organisations

From a consumer standpoint, banking is arguably the best known application of fintech. But there are plenty of others.

For instance, Hastee allows employees to get access to up to half of their monthly salary ahead of payday, which they can then pay back once they've got the money in the bank. Currencycloud enables crossborder payments and is used by Visa and Starling Bank. It raised \$80m in funding in January last year.

Meanwhile, in the arena of lending, fintech is driving big change - refining, optimising and streamlining risk assessment, fast-tracking approval processes and making borrowing available more readily to both consumers and businesses.

Insuretech

Technology is also shaking up the insurance sector with insuretech, which covers everything from quotes to policy management tailored to specific needs as opposed to a limited number of box ticks. Of all the financial services, insurance has been historically slow to embrace technology.

But that's changing. New players include Bought By Many; Shift Technology, which uses an Al-native Software as a Service (SaaS) solution to help insurers combat fraud while automating claims; and UKbased Cuuva, which insures cars for as long as a driver needs it - be it for an hour or for several days.

In 2020, insuretech funding reached a record high of \$7.1bn across 377 deals, according to the Willis Towers Watson/CB Insights Quarterly Insurtech Briefing. This marked a 12% increase in funding and a 20% increase in deals compared with 2019.

Consequently, today, many traditional insurers are joining up with fintech startups to further automate and innovate.

Business to business

While consumers might use fintech to optimise their finances or to invest in the markets, more businesses are using it as a form of AI to power their payments, manage e-commerce or to streamline accounting.

Startups have embraced the Cloud, such as OpenFin, which supplies financial services firms with a range of desktop applications that sit atop clunky legacy systems for use by employees.

Then there are the more business-orientated SaaS platforms, CRM software such as Salesforce and accounting software such as Sage, which can help businesses Know Your Customer (KYC).

Where tradition and innovation converge

Even if the spirit of fintechs is at odds with the less nimble operations of established players - after all, it was conceived to shake up the establishment - the larger financial institutions are forging links with their challengers.

Thought Machine, formed in 2014 in London by a quartet of ex-Google staff, spent two years developing its Vault banking platform and has since formed partnerships with big players including Lloyds Banking Group, which bought a 10% stake for £11m.

Government recognition

The UK government is also sitting up and taking notice. Recently, it announced plans to help fintechs scale up and "ensure the UK remains at the cutting edge of digitalising finance"

Plans include an FCA-backed regulatory 'scale box'; and a Centre for Finance, Innovation and Technology to boost growth. Speaking at Fintech Week, chancellor Rishi Sunak said: "Our vision is for a more open, greener, and more technologically advanced financial services sector. The UK is already known for being at the forefront of innovation, but we need to go further."

Challenges ahead

However, it's not all rosy in outlook. Lack of awareness and understanding is the main obstacle fintechs must overcome. It's the reason many consumers would rather use a traditional financial institution over an upstart startup. According to EY, trust is the number one reason many consumers steer clear. Another is that fintechs are more attractive to Millennials and Generation X than they are to the over-55s.

while the rise of fintechs seems unstoppable, if they are to realise their true potential, they must not only continue to innovate, but must target all demographics and age groups, refute perceptions of opaqueness, foster transparency and engender trust.

The focus of this report is to provide further clarification - each section will explain how different customer types can be catered to by companies adopting fintech strategies, from entrepreneurs and SMEs, financial directors at large companies, to young personal investors and their older counterparts investing for their pensions and life insurance.

Small businesses and the big impact of fintech

Those digital disruptors in the guise of fintech providers are becoming increasingly invested in the owners of small-to-medium sized business enterprises (SMEs), and the feeling's increasingly mutual.

Historically neglected and under-served by traditional financial services providers, SMEs and entrepreneurs are being offered innovation by fintechs where it was previously lacking.

The evolution of fintech has brought about seismic change to how companies receive capital and loans, with lenders deploying an array of tools to create bespoke solutions, such as real-time loan spend data that enables borrowers to see through the smoke and mirrors of credit; and systems that allow quick lending authorisation.

Then there are online Mobile Point of Sale (mPOS) payment machines that can handle transactions; and accounting software that automates bookkeeping and paper-work for payroll, minimising the need for an entrepreneur to focus on balancing books and instead freeing them up to focus on running their business.

There is also demand among SMEs for providers to increase efficiencies and lower costs, to access 24/7 services or to help them automatically navigate the regulatory landscapes of auditing and tax, or business liability insurance.

London-based iwoca, which stands for 'instant working capital', is a case in point. It gives small businesses fast and flexible access to capital, cutting out upfront fees, interminable form-filling and the long-term commitments typically standard with business credit.



In a similar vein, Tide is a banking fintech platform for small businesses who want to minimise the administration of dealing with larger banks. It has created a suite of tools to help SMEs manage their banking and new customers can get set up using their smartphone to scan an ID before being sent a Mastercard for business transactions.

SME take-up

According to Ernst & Young, around a quarter of digitally active SMEs across the globe use a fintech provider across a minimum of four categories - banking and payments, financial management, financing and insurance.

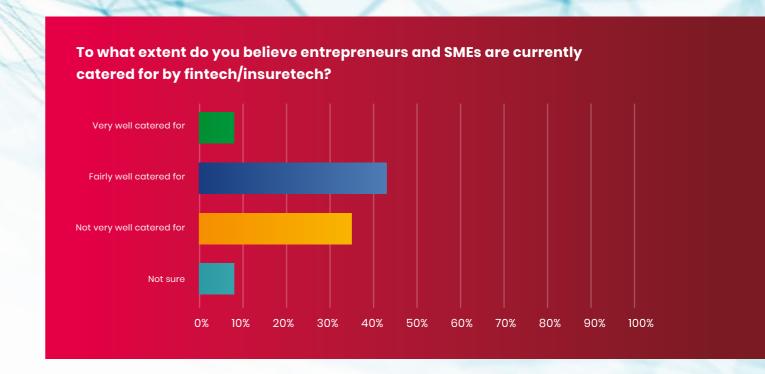
For its latest (2019) <u>Global Fintech Adoption</u> <u>Index</u>, Ernst & Young interviewed 1,000 SMEs in five countries - the UK, the US, China, Mexico and South Africa. The research found that across those markets there was an average adoption of a quarter of SMEs, a high rate for nascent new tech.

In the UK, 18% of SMEs said they have adopted fintech across those four categories. In the US that figure was 23%, but China's SMEs are clearly the most emphatic adopters, with a huge 61% of companies employing the tech.

Why wouldn't you?

There are myriad reasons for SMEs to use fintech, but according to EY, the main one is the range of features and functionality. This is followed by availability of services around the clock, ease of use, and rates and fees.

Meanwhile, the most popular requirement among SMEs is the need for banking and payment services, followed by financial management, financing and insurance.



Stronger ties

Looking ahead, as businesses continue to emerge from lockdown malaise, there's a positive byproduct from the pandemic for both fintechs and entrepreneurs.

The fact that many struggling SMEs ended up signing up to government lending schemes to keep afloat has helped cement relationships between banks and SME business owners.

The Coronavirus Business Interruption Loan Scheme might be coming to an end, but it resulted in billions of pounds being lent to SMEs via fintechs including Starling Bank, which puts them in good stead for future relationships. The logical outcome is that the demand for automated, streamlined financial services and insurance will only increase.

Meanwhile, SMEs and entrepreneurs will inevitably shift towards banks, other lenders and fintech partners to develop digital tools

that support an increased emphasis on remote working.

However, there are some potential hurdles for SME fintech uptake, most notably the sharing of data with a third-party. But, so long as business owners are convinced there's a value exchange (i.e. their data leads to better rates or offers), then 89% of adopters said they would be willing to share such information.

For fintech providers looking to attract more SME clients, there's a key point to consider - many entrepreneurs have historically been ignored by traditional banks. By tailoring services to the needs of smaller businesses, fintechs can become their go-to provider.

There's also a telling parallel between the trajectories of businesses, who have had to adapt and move online, and those of the fintechs, whose raison d'etre is to develop intuitive online services. Together, both will drive one another's growth.



Fintech and the fledgling investor

Given the breakneck rise of global fintech - global investments reached \$137.5bn in 2019, according to KPMG Pulse - there's clearly a compelling case for personal investors to put their money in fintech stocks. But the fintechs themselves are using Al and machine learning to revolutionise personal investment management for individuals.

Rise of the robo-advisors

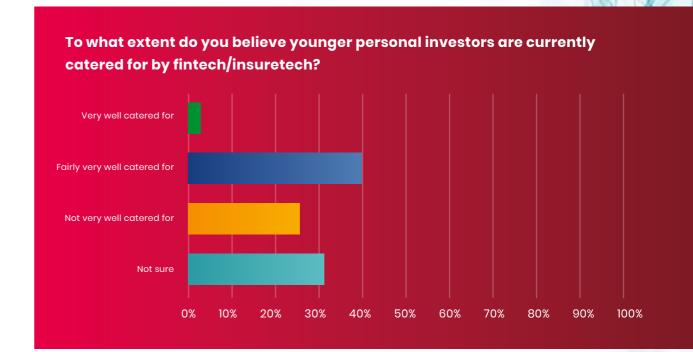
Fintechs have been disrupting wealth management and the advisor industry, enabling users to navigate the labyrinthine financial landscape.

In its crudest form, technology-enabled investment harks back to the advent of the

internet, when online trading became an option. Today, it's a far more sophisticated beast, and that's largely thanks to the rise of the so-called robo-advisor.

Robo-advisors are digital platforms that automate financial planning using algorithms that require little to zero human interaction. After collecting information and requirements from a prospective investor, it uses that data to tailor an investment portfolio, then continuing to monitor and optimise it as the markets shift.

The main advantage of a robo-advisor is to cut out the human advisor, reducing labour cost and charging a flat fee. This means that investors of all levels can get on board. Where human advisors are



generally not interested in investors with less than \$100,000 in assets, robo-advisors can be deployed by someone with as little as \$5,000. Robo-advisors also don't need to lead a life outside work, so are able to service customers around the clock.

For the younger, greener consumer, there are various kinds of fintech tools to help grow their money. For instance, Chip is an automated savings app that links to a user's current account. It works out how much they can afford to save and then transfers that amount to a Chip savings account hosted by Barclays.

For beginners looking to dip their toe deeper into investments, one such provider is Betterment (the world's first robo-advisor that was founded way back in 2008). It uses algorithms to recommend an investment portfolio and then automates the process. As a platform, it's clearly designed to cut through the clutter via an intuitive and easy-to-use interface, educational resources, tax-loss harvesting, as well as checking and savings account options.

Then there are innovative companies such as PrimaryBid which can notify users when an alluring tech company goes public on the stock market, allowing them to access new share issues from European listed companies at the same discount as institutional investors get.

Demand for automated fintech is particularly pronounced among younger investors, with those under 40 preferring to do business with companies that use online collaboration and digital tools.

Social conscience

But there's a burgeoning area within fintech investment that is more pointedly designed for and targeted at younger, more ESG (Environmental, Social & Corporate Governance) inclined investors.

While older investors might place relatively less importance on sustainability, younger people are more driven by these ethical considerations.

Consequently, a growing number of fintechs are creating apps that can help young investors of varying experience invest in sustainable companies, such as a web-based tool launched recently by UnifyImpact. It maps hundreds of millions of environmentally and socially-

responsible data points with climate action, human rights and public health to help its users coordinate their investments with their values.

Bristol-based Tumelo was founded on the premise of a socially conscious investment app that lets users select a portfolio aligned to their ethical priorities, from climate change to diversity and inclusion.

Even the established fintechs are making inroads. The aforementioned Betterment announced in 2020 that it was adding to its socially responsible credentials, with climate impact and social impact portfolios.

Generation next

But while fintechs continue to develop products for investors with at least a modicum of investment nous, there's a growing segment that has become manifest in the fintechs which are targeting children and teens with the likes of debit card and smart money apps.

According to data from <u>Crunchbase</u>, the past five years have seen investors plough \$535m into 89 deals with fintech startups that offer savings platforms for children, young people and parents.

Of that figure, \$344m was raised in 2020, including Greenlight Financial, which advises parents on how to educate their children to save with its app and debit card products. The company achieved a valuation of \$1.2bn after finalising a \$215m Series C funding last September.

Looking ahead, clearly fintech companies must sow the seeds for future generations of investor if they are to continue to reap the rewards. And that's why many are going back to basics: teaching families and their children about the complexities of financial management.

How fintech must counter the technophobia of older investors

The fintech industry is built on the notion of disruption - upsetting the status quo and challenging accepted norms and traditional institutions. Business doesn't get more old-school than organisations that have historically operated in the financial services sector, although many today are making moves to prove otherwise.

That conservatism doesn't just apply to established banks, but to many of their customers, particularly the over-55s, who are often distrustful, even suspicious, of the new-fangled.

Limited appeal among older investors

Plus it doesn't help when fintech companies largely target millennials and generation X, for whom (according to Ernst & Young) take up of fintech is at 48% (for 25-35-year-olds) and 41% (for 41-56-year-olds) respectively. Among the 55-64 age bracket, just 22% are now using fintech.

But there are signs that things are changing. A recently published <u>FT Special Report</u> on Luxembourg as a financial centre revealed that the pandemic (and the resulting cessation of physical interaction) has led previously technology-



seek advice from robo-advisors.

As greater numbers of older investors embrace fintech to meet their investment and pension planning needs, it's patently good news for fintech companies: not just because they will be reaping more business, but because the algorithms they use to inform the robo-advisors will improve as more people from across the age spectrum use them.

Reaching out

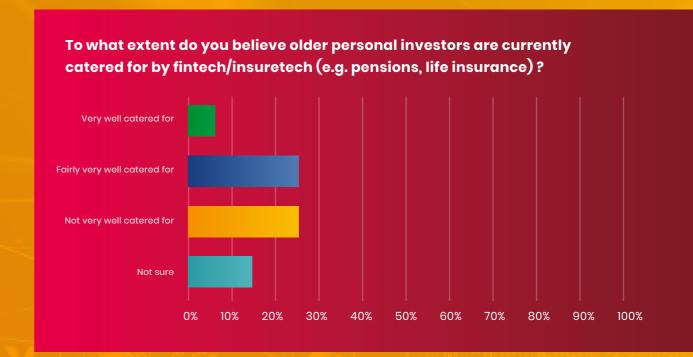
As fintechs' saturation in the younger end of the market grows, providers will need to seek out older consumers. It's a realisation that has led to the creation of apps aimed specifically at baby boomers.

that handles probate and estate settlement, while more generally, there is a plethora of investors.

averse clients to turn to their smartphones to Nutmeg is one of many aimed at making wealth manager that can be used with as from ISAs to pensions. When a user registers, they are asked what they are saving for and how much risk they are willing to take. They are then presented with a portfolio that they

> algorithms, the fact that Nutmeg uses actual people is something of an antidote to their concerns. Coupled with this, Nutmeg's userfriendly interface and the ease by which with no exit penalty fee makes it compelling for the more tentative user.

Another example is Exo, a Madrid-based startup that employs an Al-powered roboadvisor to serve customers. Backed by asset management firm ETS, Exo was built specifically to serve personal investors. A user informs the app of their financial situation. the level of risk they are comfortable with



and their investment preferences. It then creates a portfolio of exchange traded account holder.

Image problem

fintechs must evolve their appeal if they are going to appeal more to older users, not necessarily just through the services they offer, but in the way they present

According to The Financial Health Network products and services, messaging should be inclusive and fees and costs should be transparent. Prospective users should be able to test out products, information should be shared around fraud protection and data security and navigation signposts

who are estimated to hold more than of the over 55s, they must design and market their products and services, while security, so they resonate with the older



How insuretech is shaking up old-school insurance

As a subcategory of financial services, insurance is arguably more unpopular than retail banking. That's hardly surprising given that, from a customer service perspective, insurance is something of an off-kilter transaction - you pay a sizable premium in exchange for a service you hope you will never have to use. This image problem is exacerbated by ubiquitous tales of insurers not paying out when it is time to make a claim.

The insurance sector has long been due an overhaul, and this is where the disruptive force of insuretech comes in - one of fintech's most upwardly mobile

subcategories. Accordingly, last year, insuretech in the UK alone attracted £262m in investment, a growth of 60% on 2019, according to Tech Nation.

What exactly is insuretech?

Put simply, insuretech refers to technological innovations that seek to make insurance cheaper to buy and more efficient to use. In a similar vein to fintech, the large, established institutions have been dipping their toes into insuretech, but it's the disruptors who are genuinely looking to shake up the status quo, diving into and exploiting those areas that traditionalists have little imperative to explore.

Examples are price comparison sites (one of the earliest forms of insuretech that was eventually snapped up by the insurers it initially sought to disrupt), claims software, customisable policies or even smart tech-enabled dynamic policies whose premiums can fluctuate depending on changing circumstances.

The latter, for instance, could use someone's fitness tracker or smartwatch to monitor fitness levels, thus reducing the premium of a life insurance policy; or track a GPS system that records the location of a car and assesses risk levels accordingly.

Most consumers tend to shop around for their insurance needs and perhaps end up buying their contents insurance with one provider, their car insurance with someone else and their pet insurance with yet another underwriter. Managing all these different policies, with their varying renewal dates and payment terms can be complex.

This has led to the increase in apps that pull everything together.

More prosaically, insuretechs are developing AI that uses machine learning to act as an insurance broker, eliminating the need for a human intermediary and therefore offering more cost-effective and impartial advice.

Risky business

But there are some obstacles in the way of insuretech's continued evolution.

Insurance companies are averse to risk. Understandably so, as at the crux of the industry is the role of the actuary, whose job it is to analyse and measure the probability and risk of future events. So it's little wonder that there's a reluctance among the traditional players to welcome the disruption that insuretech brings.

Insurance is heavily regulated, a minefield of legality and labyrinthine jurisdiction,



which means the idea of shaking it up can be anothema. And why would they, when their old-school business models are working perfectly fine?

There's an understandable nervousness and unwillingness to work with startups, who themselves need to work with the bigger firms in order to underwrite risk.

While it seems like a catch-22 situation, there is growing, if cautious, interest from insurance companies, who can see the benefits of insurance with a friendlier face, innovative solutions and a competitive edge through differentiation. As that tentativeness dissipates, the growth of insuretech will gather even more momentum.

Some UK insuretech players

There are numerous insuretechs operating in the UK Here are some of the ones that stand out:

Zego offers commercial and professional customer a mobile app through which they can access flexible policies.

Bought by Many is a pet insurance service designed on the back of 40,000 customer reviews that uses search and social data to sell insurance and offers customers form-free claims.

Marshmallow is a car insurance provider that uses a pricing algorithm to keep prices low for policyholders born overseas.

Hometree protects consumers with home policies that cover heating, plumbing and electrical issues.

By Miles is as it sounds - car insurance that charges an annual fee for a parked car and then bills on top of that based on mileage.

On the business-to-business side, there's **Instanda**, which supplies brokers and insurers SaaS to quickly build, launch, distribute and monitor the duties of insurance products

Superscript supplies SMEs with bespoke, subscription-based commercial insurance coverage for an array of risks.

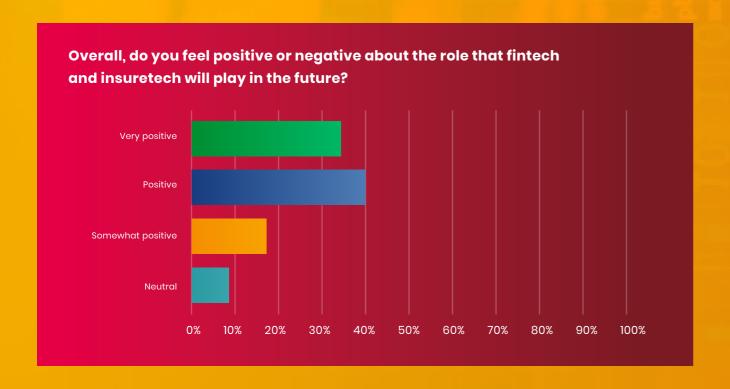


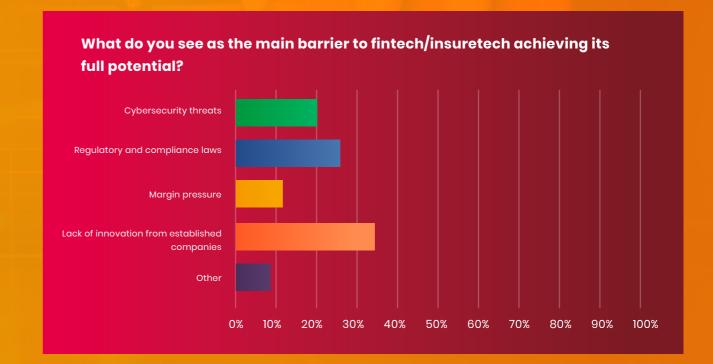
What next for fintech and insuretech?

We've underscored clear evidence that insuretech and fintech will both remain very exciting frontiers for new technology in the coming years. With increased popularity and blooming customer bases, a host of new questions will emerge about how these spaces can adapt to their existing competitive climates, how they can address the uncertainties looming over disruptive tech overall and how the insurance and financial industry can ensure it remains ethical and safe terrain going forward.

To elaborate further on some of these key future considerations, we should all ask ourselves:

Will fintech be able to bridge the trust barrier keeping older customers away from some of its innovative new platforms? What strategies will fintech adopt to show their new products are secure to this more risk-averse customer segment? Will more fintech platforms designed in the future have an older customer base at heart from the development stage?





With the increase in adopters, how can fintech and insuretech platforms ensure busier servers and copious amounts of private information are kept secure in a time of increased cyber security risks? Can emergent platforms pivot to being open and transparent with customers quickly enough so growth doesn't lose momentum?

Despite uptake of fintech tools by SMEs already standing at around 25% globally, how can this industry continue building their market share among small businesses? With the likelihood that SME data is increasingly handed to third parties how can fintech start-ups make sure small businesses are getting value for money in this area?

How will traditional financial services respond to the innovation already on offer by fintech start-ups? Will it lead to greater collaboration with new platforms or taking an independent route?

What other services currently not offered by traditional banks will fintech services and entrepreneurs be able to take advantage of?

With ESG-concerned investment platforms now on the rise with younger generations, is it just a matter of time before older investors who are used to traditional platforms also move to these? How do these platforms attract older customers whose sustainability values might be harder to change?

How will fintech platforms geared towards the investors of tomorrow adhere to principles of financial responsibility and duty of care when offering their products? How will regulation respond to address the surging popularity of fintech platforms? How will industry players and regulators ensure a repeat of the 2008 financial crash doesn't occur in a new form?

with GPS-enabled risk assessments and health monitoring technology already present in the insuretech industry, how does the sector continue to grow and innovate while simultaneously respecting privacy and data usage concerns of customers? How will the future role of an insurance actuary change in a digitalised insurance climate?

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Tom Allen, Founder

- tom.allen@aijourn.com
- https://twitter.com/TheAlJournall
- in https://www.linkedin.com/company/the-ai-journal