Many of the most interesting engagements I’ve worked on are those that have asked me to step beyond my actuarial training into the brave new world of innovation and start-ups. A client contacts me with a new project, and suddenly I’m learning about telematics in drones, cryptocurrency, renewable energy, autonomous vehicles, the gig economy, wearables, medical robotics, gene editing or nanotechnology. Innovation’s pace has consistently accelerated over the past several decades. It is both mitigating and creating risks in literally every industry. Risk and innovation are now converging, as start-ups in numerous industries are using risk management and financing tools – specifically, captive insurance companies – to improve their viability.

Viability and other start-up paradigms

Given innovation’s dynamic pace, start-ups operate under some common constraints. Product viability is essential in the start-up space. The idea is fairly straightforward: it’s better to have a useful product at launch – even with limited features – than to launch an unusable product. Additional features and functionality are then added quickly after product launch. A common illustration of this minimum viable product (MVP) concept is launching a skateboard, enhancing it to a scooter, then a bicycle, then a motorcycle, then an automobile. In the MVP model, this makes more sense than launching a nonviable wheel. Launching an MVP, then moving fast to offer product enhancements is a strategy straight out of Google’s playbook. How Google Works has a great section on its “ship-and-reiterate” product approach.

Start-ups have several other distinctive characteristics. For example, speed is of the essence. The concepts of speed-to-market and failing fast are opposite sides of the same coin in a world of rapid innovation. Similarly, most start-ups are also capital-constrained early on. Any available or free capital is earmarked for product development and/or marketing.

From an insurance perspective, start-ups often face different risks than their established industry counterparts, creating different insurance coverage needs. There often is no credible insurance data for their unique risks and the traditional insurance industry often shies away from them until data becomes available. This can significantly increase start-ups’ insurance costs at a time when managing expenses are critical. Furthermore, while start-ups have deep technology expertise, they often don’t possess insurance backgrounds, making insurance programme management challenging. These factors can result in start-ups needing access to insurers and insurance professionals experience with innovative insurance programmes.

Insurtech examples

Insurtech companies offer great examples of how forming a captive insurance company can increase start-up viability. Insurtech refers to “the use of technology innovations designed to squeeze out savings and efficiency from the current insurance industry model. The belief driving insurtech companies is that the insurance industry is ripe for innovation and disruption. Insurtech is exploring avenues that large insurance firms have less incentive to exploit, such as offering ultra-customised policies, social insurance, and using new streams of data from internet-enabled devices to dynamically price premiums according to observed behaviour”. Insurtech encompasses everything from usage-based insurance (UBI) and telematics to on-demand insurance products,
web-based claims systems, artificial intelligence (AI) systems for claims, and/or underwriting.

Insurtech technologies offer the potential to reduce claims and/or improve operating results for insurers. However, many of these innovations are not designed for their developers to directly benefit from these results. This is where a captive insurance company can increase viability. By forming a captive, a start-up can have some 'skin in the game' and retain some of the increased profitability created by its technology. Consider an AI system that better predicts trip cancellations based on airline and weather data. This could be used as the basis for an on-demand trip cancellation insurance product. While the product may well need some form of traditional insurance company to issue policies and handle regulatory compliance issues, a captive insurance company owned by the technology developers could assume some of the insurance programme risk (along with some of the operating profits). In time, the start-up may develop the insurance capabilities to reduce the traditional insurer's role, or replace it entirely.

We could make a similar case for many other insurtech solutions, like on-demand auto and drone insurers such as Waymo and Verifly, respectively. There are also numerous large property-management companies that have developed technology to provide insurance to their tenants. While they almost always need a traditional insurance company, especially for apartments and other residential properties, a captive insurance company can retain some of the underwriting profits of this typically-profitable insurance product. Even insurtech products not directly related to issuing insurance policies, such as auto telematics systems or claims AI, could use captives to share in the savings and profitability their products create.

Warranty examples
For non-insurtech start-ups creating new products, warranty insurance can increase viability. Unproven new product reliability can lead to market skittishness and adoption delays for otherwise viable products. Offering a manufacturer's warranty can allay customers' fears and allow a start-up to realise improved growth and profitability. We frequently see this type of coverage in new technology such as solar panels and other renewable-energy solutions. The idea is to warranty the solar panels against performance degradation that exceeds industry expectations.

Another interesting solution is a warranty programme developed by an online network of auto salvage companies specialising in rare and collectible used auto parts. By providing warranties on used auto parts, the network increased its online customers' confidence in the quality of the parts they were purchasing.

“The concepts of speed-to-market and failing fast are opposite sides of the same coin”

It's not surprising that medical technology often finds this strategy valuable. A wide range of medical device and technology firms offer some form of assurance of their products' dependability – be it a warranty programme, product recall or rework insurance, or even a product's liability insurance product. By retaining some or all of the risk in these programmes, a start-up is betting on itself and increasing its healthcare providers' and ultimately its patients' confidence in its product.

Insurance as a secondary revenue stream
Very few start-ups initially focus on offering insurance. But incorporating a captive insurance company into a start-up structure can create an incredibly valuable second revenue stream. Captives have provided a myriad of solutions, ranging from liability insurance to members of the gig economy to transactional cryptocurrency-based cannabis product authenticity insurance, to cyber liability insurance for merchants using e-payment technology similar to Square or Stripe. This type of transactional or 'per click' insurance generates additional start-up revenue and, when well-designed, additional net income.

Why captives?
Why might a start-up's insurance strategy lead to forming and owning a captive? Let's revisit some common start-up challenges which captives simply address better than traditional insurance. For example, because of the underlying differences in regulatory approach, captives are much faster to market than traditional insurers. As a result, a captive can get some insurance products to market in weeks or a few months, whereas a traditional insurer can take over a year to roll out a similar programme. Similarly, the differences in regulatory approaches often render captives more capital-efficient than traditional admitted carriers.

Captives offer another tremendous benefit in their ability to customise insurance coverage forms to meet their insureds' needs. Captive professionals often possess extensive experience with other innovative insurance programmes which they bring to each new programme. Captive insurance companies routinely outsource a number of traditional insurance company functions, e.g. actuarial, claims, accounting, legal, underwriting and policy form development. The captive owner can significantly increase the likelihood of the captive's success by surrounding itself with professionals with relevant innovation experience. Many captive managers also have extensive ties with innovation-minded fronting carriers and reinsurers, often needed by captives. These carriers are familiar with captive programme innovation and willing to provide fronting and reinsurance services.

Conclusion
If one considers insurtech's underlying premise, that “the insurance industry is ripe for innovation and disruption” due to its lack of innovation and its glacial pace of change, it becomes clear that captive insurance is its own form of disruptive innovation. While not tech-driven, captives are certainly disruptive. They have “create(d) a new market and value network and eventually disrupt an existing market and value network, displacing established market leading firms, products and alliances”.

Every year, new captives are formed that replace or complement existing commercial coverage, or provide coverage the traditional market was unable or unwilling to offer at an affordable price. Captives’ disruptive impact is visible in the hospital, nursing home, trucking and other industries, where captives are no longer an alternative insurance market, but the primary market. In this age of widespread disruptive innovation, is it any surprise that start-ups aiming to disrupt are utilising disruptive insurance?