BANKING AND REGULATORY RESPONSES TO FINTECH REVISITED— BUILDING THE SUSTAINABLE FINANCIAL SERVICE 'ECOSYSTEMS' OF TOMORROW

MARK FENWICK* and ERIK P M VERMEULEN**

Over the last decade, FinTech—broadly defined as the use of new technologies to compete in the marketplace of financial institutions and intermediaries—has disrupted the financial services sector. Here, we revisit the question of how banks and regulators can best respond to this disruption. We argue that incumbent financial service providers can learn useful lessons from the experience of the most innovative *companies* in the world and their efforts to navigate the new realities of doing business in a networked age.

One of the striking features of successful large businesses with an established track record for sustained high performance has been their capacity to reinvent themselves as what we characterise as innovation 'ecosystems'. A key element of an 'ecosystem' style organisation has been the implementation of effective corporate venturing strategies that feed dynamic, technology-driven innovation (what has been termed borrowing "the Start-Up Genie's Magic").

Here, we identify seven corporate venturing strategies adopted by the most innovative companies in the world and argue that incumbent banks and other financial service providers could utilise similar strategies in responding to FinTech. A crucial element of these strategies is a recognition of the value of co-creation, namely an inclusive, collaborative partnering between incumbents and non-traditional market players. To implement this objective effectively, incumbents need to absorb the energy, skills, and resources of the most dynamic start-ups. We argue that some banks are already moving in this direction and that this trend towards the 'unbundling' of incumbents is likely to continue.

We conclude with a brief discussion of the implications of such an account for regulators and regulatory design, more generally. In order to establish an environment for successful and sustainable 'ecosystems', regulators need to become active participants in these more open forms of business organisation. We characterise this regulatory approach as 'community-driven' regulatory design and identify some key issues with such a regulatory strategy.

I. INTRODUCTION

Over the last decade, FinTech—broadly understood as the use of new technology and innovation to compete in the marketplace of financial institutions and

Professor of International Business Law, Faculty of Law, Kyushu University, Fukuoka, Japan.

^{***} Professor of Business & Financial Law, Tilburg Law School, Tilburg Law & Economics Center, Tilburg, The Netherlands.

intermediaries—has disrupted the financial services sector. Such disruption is occurring in at least three different ways.

First, emerging technologies have allowed incumbent financial service providers to offer a range of new services that remove intermediaries and administrative layers to make transactions more effective and less prone to error.² In this way, financial services are 'decentralised' and made flatter. Most obviously, there is the growth of mobile banking that allows customers to perform diverse transactions online.³ Networked access to financial services facilitates quicker access to all manner of transactions from checking financial status, making payments, to withdrawing and transferring funds.

'Behind the scenes' activities of financial institutions are similarly transformed. In part, this involves the use of Big Data to deliver a more efficient service, but it also allows firms to use technology to manage legal risk more effectively.⁴ The fallout from the 2008 financial crisis resulted in vast swaths of new banking regulation.⁵ One consequence has been the increased use of technology to help banks comply with the new regulatory requirements and associated legal risk.⁶

Second, FinTech has facilitated the emergence of start-ups and other 'non-financial' companies that offer an alternative source of financial services. In particular, 'app-based' companies are emerging everywhere.⁷ These start-ups challenge and disrupt incumbents, such as traditional banks, by supporting a wide range of financial services, including marketplace lending platforms, equity crowd-funding platforms, insurance services, algorithm-driven 'Robo-advisors' offering

See Susanne Chishti & Janos Barberis, The FINTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries (Chichester: Wiley, 2016); Brett King, Bank 4.0: Banking Everywhere, Never at a Bank (Chichester: Wiley, 2018); Jonathan McMillan, The End of Banking: Money, Credit, and the Digital Revolution (Zurich: Zero/One Economics, 2014); Paolo Sironi, FinTech Innovation: From Robo-Advisors to Goal Based Investing and Gamification (Chichester: Wiley, 2016) [Paolo Sironi, Fintech Innovation].

On 'disintermediation', see James Haycock & Shane Richmond, Bye Bye Banks?: How Retail Banks are Being Displaced, Diminished and Disintermediated by Tech Start-ups—and What They Can Do to Survive (London: Wunderkammer, 2015).

³ See Sankar Krishnan, The Power of Mobile Banking: How to Profit from the Revolution in Retail Financial Services (Hoboken: Wiley, 2014).

On recent developments in Big Data in banking, see Carlos Fernandez Naveira et al, Smarter analytics for banks, online: McKinsey & Company https://www.mckinsey.com/industries/financial-services/our-insights/smarter-analytics-for-banks.

See International Bar Association's Task Force on the Financial Crisis, *A survey of current regulatory trends*, online: International Bar Association https://www.ibanet.org/Article/NewDetail.aspx?ArticleUid=2C72F588-7222-47C9-83E4-7DB0A0A8BF1C [International Bar Association]; Andrea Sironi, "The Evolution of Banking Regulation Since the Financial Crisis: A Critical Assessment" (2018) 103 BAFFI CAREFIN Centre, online: Social Science Research Network https://ssrn.com/abstract=3304672 [Andrea Sironi, "The Evolution of Banking Regulation"].

See Douglas W Arner *et al*, "Fintech and Regtech: Enabling Innovation While Preserving Financial Stability" (2017) 18 Georgetown Journal of International Affairs 47; Luca Enriques, "Financial Supervisors and RegTech: Four Roles and Four Challenges" (2017) Revue Trimestrielle de Droit Financier 53, online: Social Science Research Network https://ssrn.com/abstract=3087292; Dirk A Zetzsche *et al*, "The Future of Data-Driven Finance and RegTech: Lessons from EU Big Bang II" (2019) 35 European Banking Institute Working Paper Series, online: Social Science Research Network https://ssrn.com/abstract=3359399.

For an overview of such apps, see Anya Pratskevich, New! 2019 Financial Apps Report, online: Liftoff https://liftoff.io/blog/finance-apps-2019/>.

smarter, more personalised financial advice, and blockchain-based crypto-currency and payment systems.⁸

Large tech companies are similarly moving into the sector. Tech companies (Chinese tech companies, in particular, provide a good illustration of this trend) show how quickly these businesses can expand into new areas. Think of ridesharing companies that become FinTech companies that become insurance companies that become healthcare companies (Uber). Similar moves into financial services have been made by Amazon, Apple, Facebook, Google, Microsoft, Samsung, and Tencent, to give some high profile (and obvious) examples. The life cycle of companies is becoming shorter, and the expansion of these companies into new sectors has become a necessity. From this perspective, the challenge for incumbent banks posed by the digital transformation can seem particularly urgent. Whereas industries were somewhat closed in the 20th century, dominated by large corporate organisations, digital technologies have made market-entry and expansion into new sectors much easier. The fact that banks are disrupted by 'TechFin' (companies that started in a different industry, but (often accidentally) expanded to the financial sector) is just one example of the fast-changing competitive landscape.

Finally, FinTech leverages technology to improve the quality of and access to financial services for individuals or social groups that have traditionally been excluded from such opportunities, particularly in emerging economies. Driving this change is the global proliferation of smartphones. Smartphone penetration is expanding quickly around the world, with 6.1 billion smartphones expected to be in use by 2020. Several start-ups are already leveraging that reach and providing access to credit in markets in Africa, South America, and South-East Asia. The range of such services is rapidly expanding. Examples include providing an easier way to maintain land rights data, which can then serve as collateral for accessing credit or verifying identities, which is often a challenging and prohibitive requirement for accessing both financial and non-financial services. The emergence of hugely successful platforms offering multiple services, including financial services

See Paolo Sironi, Fintech Innovation, supra note 1.

For example, on Alibaba's move into financial services, see Zhou Weihuan, Douglas W Arner & Ross Buckley, "Regulation of Digital Financial Services in China: Last Mover Advantage?" (2015) 8 Tsinghua China Law Review 25.

See Geoffrey G Parker, Marshall W Van Alstyne & Sangeet Paul Choudary, Platform Revolution: How Networked Markets are Transforming the Economy and How to Make Them Work for You (New York: W W Norton & Company, 2016); Alex Moazed & Nicholas L Johnson, Modern Monopolies: What It Takes to Dominate the 21st Century Economy (New York: St. Martin's Press, 2016).

On the emergence of TechFin and its regulatory implications, see Dirk A Zetzsche et al, "From FinTech to TechFin: The Regulatory Challenges of Data-Driven Finance" (2017) 6 European Banking Institute Working Paper Series, online: Social Science Research Network https://ssrn.com/abstract=2959925>.

See Sofie Blakstad, FinTech Revolution: Universal Inclusion in the New Financial Ecosystem (Cham: Palgrave Macmillan, 2018); Ross P Buckley & Sarah Webster, "FinTech in Developing Countries: Charting New Customer Journeys" (2016) 44 Journal of Financial Transformation 151; Carol Realini & Karl Mehta, Financial Inclusion at the Bottom of the Pyramid (Victoria: Friesen Press, 2015).

IHS Markit, More than Six Billion Smartphones by 2020, online: IHS Markit https://news.ihsmarkit.com/press-release/technology/more-six-billion-smartphones-2020-ihs-markit-says.

For some real-world applications and case studies, see Green Invest, FinTech, Green Finance & Developing Countries, online: United Nations Environment Program http://unepinquiry.org/wp-content/uploads/2017/06/Fintech_Green_Finance_and_Developing_Countries-input-paper.pdf>.

in Indonesia (GoJek), illustrates the possibilities. The emergence (and success) of such firms shows how economies might employ digital technologies as a means of 'leapfrogging' an earlier (industrial) phase of economic development and 'jump' directly into the digital age. At least, that is what many governments and international organisations now seem to believe.¹⁵

The takeaway of these trends? Despite the uncertainties and risks, incumbents have quickly recognised the potential of FinTech. This claim is borne out by the investment data. Since 2010, more and more investments were made into the FinTech sector. Moreover, even though there is some evidence that deal activity has slowed somewhat, there is little reason to believe that the growth of FinTech is likely to permanently stall or collapse. ¹⁶

Nevertheless, the experience of recent years suggests that incumbent financial institutions are still struggling to leverage the opportunities of new financial technologies and that banks need to revisit their approach to FinTech. There are various general reasons for these difficulties, which we outline in Section II.

We suggest that, in navigating these challenges, incumbent financial service providers can learn useful lessons from the experience of the most innovative *companies* in the world and their efforts to deal with the new realities of doing business in a networked age. One of the striking features of successful large businesses with an established track record for sustained high performance has been their capacity to reinvent themselves as what we call innovation 'ecosystems'. Section III briefly introduces our conception of a business 'ecosystem' that is organised-for-innovation.

A key element of an 'ecosystem' style of organisation is the implementation of effective corporate venturing strategies that feed dynamic, technology-driven innovation. Section IV identifies seven corporate venturing strategies adopted by the most innovative companies and argues that incumbent banks could utilise similar strategies in responding to FinTech. A crucial element of these strategies is a recognition of the value of co-creation, namely an inclusive, collaborative partnering between incumbents and non-traditional market players. To implement this objective effectively, incumbents need to absorb the skills and resources of the most dynamic start-ups. We argue that some banks are already moving in this direction and that this trend towards 'unbundling' of incumbents is likely to continue.

Section V concludes with a brief discussion of the implications of such an account for regulators and regulatory design. In order to establish an environment for successful 'ecosystems', regulators need to become active participants in these 'ecosystems'. We characterise this as 'community-driven' regulatory design and identify some key features of such an approach.

The World Bank, for example, organised a Disrupting Development event on this theme in Bali in October 2018. See World Bank Live, Disrupting Development: Digital Platforms and Innovation, online: World Bank Live https://live.worldbank.org/disrupting-development. See Mahmoud Mohieldin, Leveraging technology to achieve the Sustainable Development Goals, online: Voices, World Bank Blogs https://blogs.worldbank.org/voices/leveraging-technology-achieve-sustainable-development-goals.

On decline in FinTech investments in Q1 and Q2 2019, see Accenture, Global Fintech Fundraising Fell in First Half of 2019, with Decline in China Offsetting Gains in the US and Europe, Accenture Analysis Finds, online: Accenture https://newsroom.accenture-analysis-finds.

II. THE MULTIPLE PRESSURES FACING INCUMBENTS TODAY

Traditional banks and other financial institutions are currently experiencing a series of challenges without precedent in their history. These pressures are not unique to financial services, however, but affect *all* businesses operating in a technology-driven, globally connected economy (a 'networked age'). These pressures make it extremely difficult for any business to achieve sustainable growth over the long term. Here we describe these pressures in general terms, as well as how they specifically impact banks and other financial service providers. In Section III, we will then describe how the most innovative companies have responded to this challenge of doing business in a networked age.

A. Adapting to the Shorter Waves & Faster Pace of Technological Change

The emergence of digital technologies, global networks, social media, and automation has resulted in the radical disruption of existing business models and more competition for all firms. As a result, all businesses are obliged to constantly reexamine their products and services, as well as their organisational structures in order to stay relevant and competitive. New business realities and faster product life cycles mean that all enterprises are obliged to exist in a permanent state of innovation, a task that is not easily accomplished by large, extended and—frequently—cumbersome organisations that are in constant danger of losing the capacity of agile re-invention associated with younger start-ups. Moreover, the world is constantly changing; technology and communications have seen products diversify, consumer tastes diverge, and markets detach from geography, as relationships and businesses have increasingly moved online. Companies that succeed in these new conditions are those that are more creative and have developed new business models and innovation skills. In a networked age, companies need to be agile, inclusive, and flexible in order to retain relevance.

All of these pressures apply to banks. Post-2008, banks found themselves confronted with an unprecedented combination of challenges: (1) developing more 'customer-friendly services' to attract more customers and deepen relationships with existing customers; (2) rethinking their distribution models and internal organisation; (3) managing new regulatory, capital, and security risks; (4) rebuilding trust with all stakeholders, especially customers; and (5) responding to new competition from challenger banks and new entrants to the market. Crucially, all of these challenges involve engagement with disruptive new technologies, either directly or indirectly. Technology both facilitates the delivery of better performance and is a key infrastructure for managing costs and risks.

See Kevin Kelly, The Inevitable: Understanding the 12 Technological Forces That Will Shape Our Future (New York: Penguin, 2017); Alec Ross, The Industries of the Future (New York: Simon & Schuster, 2017).

See Mark Fenwick & Erik P M Vermeulen, "The New Firm: Staying Relevant, Unique & Competitive" (2015) 16 EBOR 595 [Fenwick, "The New Firm"].

For an overview, see PwC, Retail Banking 2020: Evolution or Revolution?, online: PwC https://www.pwc.com/gx/en/banking-capital-markets/banking-2020/assets/pwc-retail-banking-2020-evolution-or-revolution.pdf at 3.

Consider how technology has become the primary driver of change in banking. As banking increasingly switches to online platforms and cash 'disappears', traditional branch-based banking is gradually being displaced by direct banking. When most banking operations are done online, technological performance becomes vital. As a consequence, many issues facing banks are now, ultimately, IT problems (for example, customer authentication, fraud checking systems, payment processing, basic account infrastructure, and KYC assessments). Finally, in an age of online banking, image and branding matter more than location and place in distinguishing different providers. ²⁰ In short, every bank is now obliged to reinvent itself as a tech company and a (social) media company, as well as a financial service provider.

B. Overcoming Anti-Corporate Sentiment & Re-Building Trust

The background of this need for constant innovation is one of diminishing public trust and heightened scepticism about the activities and underlying values of large organisations, especially companies.²¹ Public confidence in the corporate world is at an all-time low, as scandals involving household brands have become a routine feature of everyday life. Corporate executives and managers are widely regarded as being motivated by greed and possessing an arrogant disregard for the harmful consequences of their actions on both society and the environment.

Increased public concern regarding the environment and the impact of global climate change has compelled many businesses to modify their daily operations and to take a more socially responsible attitude. Some have chosen to explore alterations to their supply chain to ensure that production becomes more efficient and environmentally responsible. Large organisations around the world increasingly acknowledge the importance of consumer support for businesses that take environmental stewardship seriously. A growing number of customers—and this is particularly true amongst millennials—are choosing brands that offer transparency in their production practices over those more traditional firms that withhold such information.

Such public scepticism extends to financial institutions, particularly post-2008. Traditional banks do notoriously badly on customer satisfaction surveys. More interesting, perhaps, are relative levels of trust in tech companies and banks. According to a 2018 survey of Bain & Company, for example, 54 per cent of respondents globally said that they would trust a technology company—Apple, Amazon, PayPal,

On the 'attention economy', more generally, see Tim Wu, The Attention Merchants: The Epic Scramble to Get Inside Our Heads (New York: Vintage, 2016).

See Joel Bakan, The Corporation: The Pathological Pursuit of Profit and Power (New York: Free Press, 2004); Mark Fenwick, Joseph A McCahery & Erik P M Vermeulen, "The Future of Capitalism: 'Un-Corporating' Corporate Governance" in Susan Watson, ed. The Changing Landscape of Corporate Law (New Zealand: University of Canterbury Press, 2017) at 63.

See Peer Zumbansen, "The new embeddedness of the corporation: Corporate Social Responsibility in the Knowledge Society' in Cynthia Williams & Peer Zumbansen, eds. *The Embedded Firm: Corporate Governance, Labor, and Finance Capitalism* (Cambridge: Cambridge University Press, 2011) at 119.

For a review of research showing millennial preferences for socially responsible brands, see Ryan Rudominer, Corporate Social Responsibility Matters: Ignore Millennials at Your Peril, online: Georgetown University Center for Social Impact Communication http://csic.georgetown.edu/magazine/corporate-social-responsibility-matters-ignore-millennials-peril/.

or Google—with their money more than banks.²⁴ This indicates a willingness to migrate to such companies in the event that tech companies enter the financial services market. Unsurprisingly, the findings were even starker in the case of younger respondents. In the US, nearly 80 per cent of survey respondents between the ages of 18 and 34 would be willing to bank with an established technology company that they already use for other services. With more and more technology companies moving into the financial services sector, banks are under increasing pressure to improve the customer experience and restore confidence and trust.

C. Attracting and Retaining the Best (Millennial) Talent

This scepticism towards corporations makes it much harder for older, larger firms to attract and retain the kind of talent necessary for delivering innovation. In this context, it is particularly important to consider the shifting role and expectations of workers—*ie* the various stakeholders—connected to a firm, and the type of corporate culture that is most likely to attract and retain the 'best' and most innovative and creative people. The point to be emphasised here is that individuals are no longer satisfied with the prospect of a lifetime spent as an anonymous cog in a corporate machine. Instead, individuals are looking to maximise their potential by building capacities and a sense of personal identity that revolves around doing something that is personally meaningful and that they care about passionately.

An opportunity for personal growth, and not necessarily job security, is the primary expectation of an increasing number of individuals. Since job security cannot be guaranteed anymore in this fast-changing world, the rationale behind this change in mindset is clear. The result is that everyone must now be considered an 'entrepreneur' in some sense. This is not to say that people are generally better off founding their own company and building their own business. What it means is that happiness and a sense of fulfilment cannot be automatically and passively derived from a long-term relationship with an employer, as was predominantly the case in the past. People themselves are actively and independently responsible for creating a unique identity and success within the 'walls' of a large traditional firm.

Millennials are attracted to this way of thinking about the relationship between work, individual expression, and personal identity. As such, the creeping mistrust of the corporate organisation (aimed towards 'shareholder value maximisation', which is often present in large, established organisations) makes it harder to attract them to either work with or consume the products of such firms.

In a financial services context, alternative service providers appear to be particularly attractive for millennials. ²⁶ Banks have failed to cater to three-generational

²⁴ See Gerard du Toit et al, In Search of Customers Who Love Their Bank, online: Bain & Company https://www.bain.com/insights/in-search-of-customers-who-love-their-bank-nps-cx-banking/>.

See Steve West, "Meeting Millennial Expectations In These Four Areas of Technology" Forbes (28 June 2018), online: Forbes https://www.forbes.com/sites/forbestechcouncil/2018/06/28/meeting-millennial-expectations-in-these-four-areas-of-technology/#3e7c9b244ffc>.

See Harvard Business School Digital Initiative, Why Millennials Flock to FinTech for Personal Investing, online: Harvard Business School https://digital.hbs.edu/fintech-digital-currencies/millennials-flock-fintech-personal-investing/; Envisionit, FinTech and Millennials Just Make Sense Together, online: Envisionit https://envisionitagency.com/blog/2018/08/fintech-and-millennials/>.

characteristics of millennials, namely the perception that banks are, first, not to be trusted; second, profit-driven corporate machines disengaged from the needs and values of ordinary people; and, finally, bureaucratic organisations associated with the values of an older, more selfish version of capitalism. The expectation of a more diverse, thoughtful, and transparent workplace means that if traditional financial institutions do not satisfy these needs, millennial talent moves to new providers that will.

Re-engineering human capital is now seen as a key challenge for banks. "It is time to manage talent like you manage capital."²⁷ This means a new emphasis on re-skilling, meaningful performance management systems, more inclusive hiring practices, a greater emphasis on diversity, more agile management structures, and flexible teams. The result? A better performing and more motivated workforce.

Of course, the broader context for any discussion of employee issues is the coming automation revolution in which, it is estimated that up to 50% of jobs will be done by machines (the so-called 'disappearance of work'). Managing the transition to a 'low' or 'post-work' society will inevitably have an impact on a bank's relationship with both employees and customers, and managing the uncertainties of this new economic and social order is going to be crucial to their long-term survival. As artificial intelligence becomes even more sophisticated and use cases expand, such pressures are only set to continue. ²⁹

D. Navigating New Legal Risk

Another environmental pressure of doing business in a networked age is managing legal risk. The regulatory environment in which all companies operate is also changing rapidly. Moreover, regulation often struggles to keep pace with technological change (the so-called 'pacing problem').³⁰ Finally, there is an increase in normative uncertainty and complexity created by legal globalisation and the expansion in transnational legal risk.³¹

Dana Maor, A strategic blueprint for making the most of banking talent, online: McKinsey & Company https://www.mckinsey.com/industries/financial-services/our-insights/banking-matters/a-strategic-blueprint-for-making-the-most-of-banking-talent.

See Thomas A Kochan & Lee Dyer, Shaping the Future of Work: A Handbook for Action and a New Social Contract (Cambridge: MITxPress, 2017); Martin Ford, Rise of the Robots: Technology and the Threat of a Jobless Future (New York: Basic Books, 2016); Jacob Morgan, The Future of Work: Attract New Talent, Build Better Leaders, and Create a Competitive Organization (Hoboken: Wiley, 2014); David F Noble, Forces of Production: A Social History of Industrial Automation (New Brunswick: Transaction Publishers, 2011).

²⁹ See Darrell M West, *The Future of Work: Robots, AI and Automation* (Washington, DC: Brookings Institution Press, 2018).

Anna Butenko & Pierre Larouche, "Regulation for Innovativeness or Regulation of Innovation?" (2015)
7 Law, Innovation and Technology 52 ("The 'pacing problem' commonly refers to the situation when technology develops faster than the corresponding regulation, the latter hopelessly falling behind. The metaphor of 'the hare and the tortoise' is often conjured up. As summed up by Marchant and Wallach, 'at the rapid rate of change, emerging technologies leave behind traditional governmental regulatory models and approaches which are plodding along slower today than ever before.'").

See Mark Fenwick, "The Multiple Uncertainties of the Corporate Criminal Law" in Mark Fenwick & Stefan Wrbka, eds. Legal Certainty in a Contemporary Context: Private and Criminal Law Perspectives (Singapore: Springer, 2016) at 147.

Consider as an example of expanding legal risk the increased extra-territorial application of many regulatory offences in fields such as environmental law, labour law, or health and safety law.³² The effect of this expanding legal risk (or 'netwidening') is to greatly increase compliance costs for any business, but, particularly, any organisation that operates in multiple countries.

Regulatory compliance is often identified by bankers as a major concern.³³ Although banks have been quite effective in reducing costs post-2008, many of these ef?ciency gains have been spent on meeting increased compliance costs. Estimates put the governance, risk, and compliance costs at around 15% to 20% of the total running costs of a bank, post-financial crisis.³⁴ A Financial Times investigation into compliance costs revealed the extent of the expansion in compliance.³⁵ In 2013, JPMorgan added 4,000 employees to its compliance team and spent an additional \$1 billion on controls. Citigroup reported that of the \$3.4 billion in costs that they had saved in the past year through greater efficiency, 59 per cent of that was then being consumed by new compliance spending. HSBC expanded its compliance department from 2,000 to 5,000 in 2013 alone, and it currently employs 7,000.

Moreover, compliance is increasingly a technological problem as it involves extracting and analysing vast amounts of data and monitoring employee and customer behaviour. Banks have struggled to devise a robust and ef?cient approach to compliance using their legacy systems. Typically, the data is in multiple bank systems and can be hard to extract. Legacy software code may not work well with automated, algorithm-based data aggregation, making internal compliance efforts ineffective or expensive. RegTech is increasingly developing technologies to meet regulatory and compliance requirements. There are several areas of compliance and reporting where technology can have a significant benefit, such as risk data aggregation, modelling, and real-time transaction monitoring. Machine learning, artificial intelligence, and biometrics have also proven particularly promising in tackling compliance challenges.³⁶

E. Managing Organisational Complexity

Further complicating the task of meeting these challenges are the size and complexity of many incumbent organisations. Indeed, managing organisational complexity becomes another key priority. The danger of this situation, however, is that in responding to organisational complexity, many firms end up—albeit unintentionally—feeding a potentially damaging corporate attitude that is harmful to their long-term prospects of success.

³² Ibid.

³³ See Jason Heinrich, Sean O'Neill & Neal Goldman, Cutting through the Complexity of Compliance, online: Bain & Company https://www.bain.com/insights/cutting-through-the-complexity-of-compliance/ [Heinrich, O'Neill & Goldman].

³⁴ See Matthias Memminger, Mike Baxter & Edmund Lin, Banking RegTechs to the Rescue?, online: Bain & Company https://www.bain.com/insights/banking-regtechs-to-the-rescue/.

Laura Noonan, "Banks face pushback over surging compliance and regulatory costs" Financial Times (28 May 2015), online: Financial Times https://www.ft.com/content/e1323e18-0478-11e5-95ad-00144feabdc0#axzz3jN2kPKMc.

For a list of companies operating in these fields, see Deloitte, RegTech Universe 2020, online: Deloitte https://www2.deloitte.com/lu/en/pages/technology/articles/regtech-companies-compliance.html.

Large corporations generally have two responses to the issues with their organisational size and complexity. First, established firms often decide to break up into two or more separate companies to become more agile and innovative. Second, such corporations may attempt to adopt the tried and tested practices and characteristics of a 'leaner' start-up. This approach often manifests itself by introducing open workspaces or training sessions by serial entrepreneurs. The question, however, is whether these initiatives contribute to transforming the corporate culture from a culture of bureaucracy to one more focused on innovation and entrepreneurship. Such reorganisations, restructurings, and training sessions are often not sufficient to overcome the corporate attitude culture. For instance, training sessions by serial entrepreneurs do not necessarily resonate with people that opt to work for a multinational or large company. Such employees may not necessarily have a 'founders-mindset', and such motivational efforts can be met with indifference or scepticism.³⁷

Large banks are confronted with similar organisational challenges. Returning to the issue of compliance and legal risk, organisational complexity, rather than individual 'rogue' employees, often lies at the heart of compliance failures. Regulatory breaches are often the result of breakdowns in structural systems, such as inadequate coordination, outdated or inflexible processes and procedures, and decision-making mechanisms that fail to assign responsibility. Finally, the existence of multiple 'competing' systems, often the legacy of incomplete integration after mergers or acquisitions, can make coherent risk management difficult. Combined with new legal risk, managing organisational complexity has become an urgent challenge.

The management of IT systems becomes an increasingly significant drain on bank resources. However, much of the costs are concerned with maintaining legacy systems, rather than investing in innovation. It is estimated that banks spend roughly 60% of their IT budgets on maintaining older systems and only around 15% investing in innovation.³⁹

III. SUSTAINABLE 'ECOSYSTEMS'

In other work, we have developed the argument that the most innovative companies in the world have responded to the unprecedented pressures and challenges of doing business in a networked age by reinventing themselves as 'ecosystems'. ⁴⁰ The closed, hierarchical, modern company—which has dominated the global economy for the last 200 plus years—is facing an existential threat. We are living through the beginning of the end of the corporation, at least companies understood as closed, hierarchical systems that operate as proceduralised bureaucracies. New ways of

³⁷ See Jay W Lorsch & Emily McTague, "Culture Is Not the Culprit" Harvard Business Review (April 2016), online: Harvard Business Review https://hbr.org/2016/04/culture-is-not-the-culprit.

Heinrich, O'Neill & Goldman, supra note 33.

³⁹ Thomas Olsen et al, New Bank Strategies Require New Operating Models, online: Bain & Company https://www.bain.com/insights/new-bank-strategies-require-new-operating-models/>.

See Fenwick, "The New Firm", supra note 18; Mark Fenwick & Erik P M Vermeulen, "The End of the Corporation" (2019) 482 European Corporate Governance Institute – Law Working Paper, online: Social Science Research Network https://ssrn.com/abstract=3472601; Mark Fenwick, Joseph A McCahery & Erik P M Vermeulen, "The End of 'Corporate' Governance: Hello 'Platform' Governance" (2019) 20 European Business Organization Law Review 171.

organising business have developed, and understanding the distinctive features of these emerging business forms and thinking about how to design a regulatory environment to facilitate these new ways of operating a business have become crucial tasks for all businesses, as well as business regulators.

One effect of the emergence and global dissemination of networked digital technologies, therefore, is a transformation in how businesses structure themselves. We should not think in terms of traditional corporate structures anymore. Company boundaries have become more porous. Traditional corporate organisations with their fixed roles, static procedures, closed departments, and hierarchical relationships between different groups of stakeholders are all changing as companies adapt to a new operating environment.

To make sense of this change in how firms organise themselves in a networked age, we have proposed the concept of the business 'ecosystem' as a description of this nascent organisational form. ⁴¹ In brief, such 'ecosystems' combine the following features:

- Leveraging the unique characteristics of software technologies (eg low marginal costs) to deliver a powerful experience to end-users.
- Adopting a flatter, fluid, and more inclusive style of organisation built around networks of unbundled, high-performance, creative teams in which job roles and functions are evolving continually in response to the evolving business needs of the firm.
- Embracing a more open, transparent approach to communication and information management that relies on new computer-mediated communications, such as social media.
- Implementing a new style of digital leadership that focuses on creating an environment that facilitates creativity rather than an exclusive focus on supervising compliance or managing legal risk.
- Utilising open collaboration with multiple 'external' partners to feed the requirement of constantly innovating.

Together, these features distinguish an 'ecosystem' from business organisations in a 'pre-digital' world. In an age of hyper-competitive technology-driven markets, every company needs to consider reinventing itself as an 'ecosystem' to meet the pressures outlined in the previous section. If it does not, younger and more agile competitors better attuned to the realities of the digital world will replace it.

The environmental pressures facing incumbent companies and financial institutions are similar, and solutions are intimately connected to digital technologies, at least in some way. How, then, should large financial service providers respond to the above-discussed challenges and utilise FinTech to solve the legacy issues inherent to

The concept of an 'ecosystem' described here is based on the empirical study of the most successful technology firms today. As such, it represents an 'ideal type' or composite of how a business needs to organise its operations and governance in a networked age. References to specific companies in the following are not meant as blanket endorsements of those companies, but an acknowledgment that on the specific point cited that company has identified an interesting approach. In this respect, we hope to move beyond the 'all or nothing' attitude that currently characterizes discussion of the most successful tech-firms.

their history, size, and complexity? How might financial service incumbents transform into innovation 'ecosystems' capable of flourishing in today's new economic and social environment?

IV. CORPORATE VENTURING: LEARNING LESSONS FROM THE "MOST INNOVATIVE COMPANIES IN THE WORLD"

To find answers to these questions, we suggest here that all large institutions, including banks, can learn useful lessons from the most innovative companies in the world. A distinguishing feature of those firms with an established track record for sustained, technology-driven innovation is the implementation of effective corporate venturing strategies. Such strategies are a powerful way to boost the capacity for innovation of an organisation. Our starting point, therefore, is the hypothesis that the most innovative companies in the world are likely to be most effective in their implementation of corporate venturing and that every firm—including financial service providers—can learn some useful lessons from their experience.

In our research, we therefore conducted a review of best practices in corporate venturing. Based on this review, we identified seven strategies associated with best practices in corporate venturing. In the following, we describe these strategies and show how *all* business—including financial services providers—can accelerate their innovation efforts by capturing—or borrowing—some of these strategies.

A. Investing Directly in Start-ups

The first strategy is that large and established corporations establish an 'internal'—but independent—corporate venturing capital unit that invests directly from the companies' own balance sheet (*ie* it is usually a direct subsidiary of the parent company). These units are usually set up for strategic reasons. From a purely operational standpoint, adequately defining what constitutes 'strategic returns' presents its own set of challenges. How should corporations go about measuring or quantifying such strategic returns?

Corporations have increasingly designed and introduced special metrics to measure and demonstrate strategic success. These metrics vary from deal tracking dashboards and scorecards tailored to each investment to looking at the number of successful interactions between start-up companies and the corporation. Here it should be noted that the most successful corporate venture capital units also focus on financial returns. They understand that financial and strategic returns are not necessarily inconsistent and mutually exclusive with one another. Pursuing financial returns like traditional venture capital investors is a powerful way to attract more deal flow and identify new investment opportunities.

The potential of making direct corporate venture capital investments in seeking competitively advantageous innovations (while capitalising on the firm's ability to provide a broad range of other strategic benefits from industry partnerships, distribution opportunities, and product development insights) explains the continuing growth of the number of corporate venture capital units and investments over the last five years (see Fig. 1). A closer look at the corporate venture capital activities also

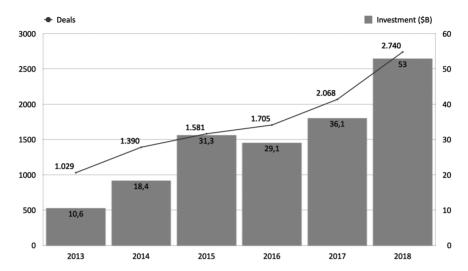


Fig. 1. Global Corporate Venture Capital Activity 2013-2018.

Source: Data from CBInsights. 42

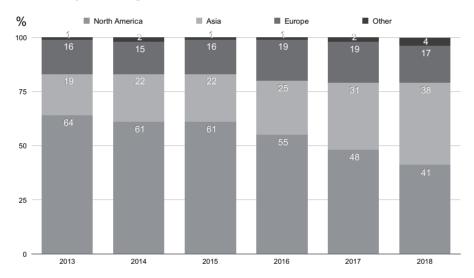


Fig. 2. Annual Global Corporate Venture Capital Activity by Continent 2013-2018.

Source: Data from CBInsights. 43

shows that corporate venture capital investments are no longer predominantly made in the United States (see Fig. 2).

What is interesting, however, is that the most active corporate venture capital units are often affiliated with relatively young, listed corporations, which are usually still run and managed by executives who have the 'start-up life' embedded in their DNA. Does this mean that older corporations do not or should not engage in corporate

⁴² CBInsights, online: CBInsights <www.cbinsights.com>.

⁴³ CBInsights, online: CBInsights < www.cbinsights.com>.

venture capital initiatives? The answer is 'no'. However, we find that corporations that lack the expertise in the start-up 'ecosystem' have found indirect ways to invest in start-ups, *ie* through independent and separately managed third-party venture capital funds.

B. Investing Indirectly in Start-ups

Investing in an independent and separately managed venture capital fund is an option that many larger and established corporations have followed to success. There are some clear and important advantages to this 'indirect investment approach'. First, the mission and scope of these venture capital funds can be made clearer, making it easier to assess results objectively. Second, and perhaps more importantly, becoming an investor in a venture capital fund mitigates the fear of many start-ups that accepting direct investments from a corporation brings about the risk of 'negative signalling' should the corporation decide not to support the investment in the future.

However, there is more. A corporation that is relatively new to the world of startups can learn by investing in an independent and separately managed fund, or a fund of funds (depending on its risk-appetite), thereby allowing the corporation to indirectly invest in start-ups (and gain access to the deal flow data generated by the venture capital fund).

Here it is also noteworthy that the indirect investment approach often leads to direct interactions with start-up companies and their founders. At the request of venture capital fund managers, the large enterprises can, and sometimes do, participate in the due diligence processes of potential investment targets, offering technical and marketing advice to start-ups and assisting them in the development of new technologies. Moreover, there is always the possibility that the large corporation will be the eventual home for start-ups at the time of exit as well, through a trade sale of a portfolio company that proves to be strategically interesting.

Although there are some important differences between the first two strategies, particularly in terms of the relationship and interactions between the corporation and the networks of start-ups, the question is whether the large corporate's role as a direct or indirect investor will have a profound impact on the corporate attitude that often prevails in more mature enterprises. We acknowledge that this is a difficult question to answer and an under-researched theme. ⁴⁴ Our research shows that the most innovative corporations do employ different strategies that go much further than merely providing capital. Understanding *how* they go further—*ie* the additional strategies they employ—and *why* they do this—*ie* the underlying rationale or goal of adopting these other strategies—is crucial to the argument we want to develop here.

C. Partnering with Incubators and Accelerators

The first additional strategy we find in the more innovative firms is the mobilisation of incubator and accelerator programmes in order to assist a start-up in developing its

Joachim von Heimburg, Driving Innovation by Corporate Venturing: How to Master Governance and Culture Challenges, online: Innovation Management https://innovationmanagement.se/2013/01/07/driving-innovation-by-corporate-venturing-how-to-master-governance-and-culture-challenges/.

nascent business capacities. This entails building partnerships between different combinations of large and mature corporations, incubator-accelerator service providers, and start-ups. The proliferation of corporate-sponsored programmes of this kind shows the value that large firms see in this type of start-up capacity-building programme. For example, Techstars has over 50 corporate partners, including Amazon, and regularly sets up corporate-sponsored accelerators. ⁴⁵

Consider how these different types of programmes can add value to a scaling firm. Incubators typically provide a very young company with some of the basic skills necessary to survive, by—for example—offering temporary office space, business skills training, and access to financing and professional networks. In this way, an incubator aims to nurture a business through the early start-up phase of the corporate life cycle. An accelerator, on the other hand, assists companies through the later phase of 'adolescence' and helps prepare them to enter 'adulthood', *ie* by developing institutional capacities, a clear company vision, and sound strategies for the future. Seed accelerator programmes, for example, provide pre-seed investment (in exchange for equity), and the focus is usually on business model innovation. A second-stage business accelerator is slightly different, in that the emphasis is on rapid growth, and addressing organisational, operational, and strategic issues facing a maturing business. It can be understood as a holistic advisory service, similar to more traditional management consulting practices, but better tailored to assist smaller and medium-sized firms.

Whereas a key element of the traditional conception of corporate venturing was that the corporate invests—indirectly or directly—in an 'external' start-up, this partnering between corporate, start-up, and incubator-accelerators begins to problematise any simple or clear distinction between internal and external. Indeed, the advantages of incubator and accelerator programmes are that they allow large corporations to work alongside start-ups and their founders.

Understanding the strategic possibilities of more fluid boundaries between the different stakeholders is a crucial step, as it opens up a range of additional possibilities. In particular, it allows employees of large corporations to collaborate in a more personal and less formal environment (as would be created when the corporation operates as an indirect or direct investor). These collaborations could help change innovation processes within large corporations, thereby gradually dismantling the corporate attitude and reducing its negative effects.

D. Creating an Environment for Serendipity

In their corporate venturing practices, the most innovative corporations now acknowledge the benefits of fluid boundaries as an important strategy for maximising opportunities for mutual learning. Building new relationships with incubators and accelerators is one way of achieving this goal, but it can also be supplemented by other, perhaps simpler, measures that create multiple opportunities for serendipity, *ie* happenstance encounters that can add value to either the corporation, the start-up, or—ideally—both.

⁴⁵ Serge Salager, The Rise of the Corporate Accelerator, online: Medium https://medium.com/techstars/the-rise-of-the-corporate-accelerator-466ac91f8a57>.

An important example of this strategy is the creation of co-working spaces—open architecture—that afford start-up-founder-employees the opportunity to mix with corporate employees. By putting actors together in this way, the boundaries between corporate and start-up can be blurred and new opportunities for such positive encounters created. 46

This fits with the idea that in an innovation-driven economy, every individual is now an entrepreneur. As 'entrepreneurs', employees feel more comfortable in an environment that not only gives them more control over their jobs, but also enhances their identity and facilitates their being part of a bigger community. By working 'cheek-by-jowl' with start-up founders, employees appear to be better able to identify 'out-of-the-box' solutions to particular business problems.

'Innovative problem-solving' strategies and activities help ward off the emergence of a corporate attitude. Unsurprisingly, co-working spaces attract more and more media attention. Are Recognising that 'place' has an important role to play in forming and transforming corporate culture, more and more corporations appear to embrace the open architecture of the co-working space, which is per definition more conducive to the kind of happenstance interactions and collaborations that foster innovation. Here it should be noted that when more corporates 'invade' co-working spaces, the same corporate attitude could very well take root in such open environments. The effects of co-working spaces may be uncertain, but it appears to be evident that the best way to solve the corporate attitude issue is from within the organisation.

E. 'Acquiring' & Retaining Founder-Entrepreneurs

Interestingly, the most innovative corporations, when they acquire control over a start-up that they may or may not have funded through corporate venturing capital, will seek to preserve that start-up's unique identity and not seek to assimilate it into the parent company. This approach is in marked contrast to conventional mergers and acquisitions practice in which absorbing (and integrating) a start-up into the structures, practices, and culture of the acquiring company is seen as a normal (and important) strategy.

Crucial in this task of preserving the distinct identity of a start-up is acknowledging the importance of retaining the founders. Since the founders provided the 'know-how', inspiration and vision that led to the start-up's success, keeping them in place go a long way in preserving a start-up's identity and enhancing prospects of further growth and success. However, this can be difficult, as it is often the case that founders do not wish to work for the acquiring corporate, and an increase in corporate control is likely to trigger the swift departure of the founders and other key employees. The generally negative image of large corporations, as well as the practices and processes associated with the corporate attitude, make large corporations an unattractive base for many founders, particularly those that have enjoyed one or more successes in building companies. Creating another new company—becoming a serial

Gretchen Spreitzer, Peter Bacevice & Lyndon Garrett, "Why People Thrive in Coworking Spaces" Harvard Business Review (September 2015), online: Harvard Business Review https://hbr.org/2015/05/why-people-thrive-in-coworking-spaces.

On 12 July 2016, the Wall Street Journal reported that the number of co-working spaces in the United States alone increased from approximately 250 in 2010 to nearly 3,000 in 2015.

entrepreneur—or becoming an angel or venture capital investor and mentoring other entrepreneurs can often seem a much more attractive and meaningful option than staying with 'their' company once it has been integrated into a corporate environment.

How then do the most innovative corporations ensure that founders are retained? What strategies can large corporations employ to incentivise 'founders' to embrace the acquisition and remain with the corporate?

The best corporations recognise the importance of allowing a start-up to preserve its own identity, while also allowing them to become part of a larger 'ecosystem' where growth potential and strategic possibilities are greater than if that start-up was to remain independent. In this way, the start-up is not absorbed into a corporate, but is integrated into an open 'ecosystem' that allows it: (1) to preserve its own identity, whilst (2) enjoying the benefits of being associated with a larger firm (*ie* growing faster, exploiting synergies with other departments or businesses within the 'ecosystem') and (3) opening the possibility of the start-up influencing the culture and practices of the acquiring parent firm. This kind of model can be very attractive to founders interested in ensuring that 'their' company has the identity it deserves while having a transformative influence on a much bigger, well-established firm.

The most effective companies have been able to retain the founders of the start-ups they acquire. Take the example of Amazon and Zappos. Amazon acquired Zappos, an online shoe retailer in 2009 for about \$847 million, its largest acquisition at the time. Both companies have a reputation for innovative—possibly controversial—organisational approaches that drive employees hard. Zappos had earlier instituted a system of 'holacracy' that scrapped management positions and left it to employees to independently decide how to get the work done. This organisational principle was not for everyone, and the company itself admitted that 15-20% of employees left the company, dissatisfied with the 'flatter' operating environment.

Furthermore, Zappos instituted a 'pay-to-quit' policy in which they offered all employees \$1000 to quit. The logic of 'The Offer' seems clear. If an employee is not 100% committed to the firm and its 'flat' culture, then the company would rather 'pay now than pay later'. The interesting thing about the Zappos example is that after its acquisition, Amazon did not seek to change Zappos' internal organisational culture. Quite the contrary, aspects of Zappos became part of the much larger Amazon 'ecosystem', in the sense that the 'pay to quit principle' was adopted elsewhere within the Amazon group. Instead of Amazon assimilating Zappos, the Zappos way of working was retained, assessed, and—ultimately—integrated into Amazon's own culture and practice. In turn, this flatter, more open style of relationship makes it more likely that the founders will stay, other talents will be attracted, and that—in consequence—the start-up maximises its chances of long-term growth.

By way of a second example, take Facebook. The social network company has spent over \$30 billion on acquisitions, including \$19 billion on WhatsApp. ⁵⁰ Much

⁴⁸ Ben Parr, "Here's Why Amazon Bought Zappos" Mashable (22 July 2009), online: Mashable https://mashable.com/2009/07/22/amazon-bought-zappos/>.

⁴⁹ Brian J Robertson, Holacracy: The New Management System for a Rapidly Changing World (New York: Henry Holt and Company, 2015).

Mark E Haskins, "Facebook's Acquisition of WhatsApp: The Rise of Intangibles (A)" (2017) Darden Case No. UVA-C-2382, online: Social Science Research Network https://ssrn.com/abstract=2974098>.

of WhatsApp's success—evidenced by a user base of over 600 million users in its first five years of operations (which is even faster than Facebook's growth) was attributed to its privacy policies. WhatsApp co-founder Jan Koum, for instance, has spoken of the "goal of knowing as little about you [the user] as possible." Such a hard-line stance has commercial implications, not least because it makes monetising data via targeted advertising more difficult.

Concerns were expressed that the acquisition by Facebook might lead to a change in this policy. However, privacy policies were initially not changed, Koum stayed on as CEO, and he was subsequently invited to join the Board of Directors of Facebook. Similar stories could be told about Facebook's acquisition of Instagram. What is interesting in this respect is that as soon as Facebook announced the integration of WhatsApp and Instagram, the founders of the respective companies announced their departure from Facebook.

F. Turning 'Employees' into 'Entrepreneurs'

The next strategy in innovative corporate venturing is for the corporation to create its own 'in-house' incubator that aims to unlock the entrepreneurialism of its employees, *ie* an incubator that seeks to turn corporate employees into entrepreneurs using corporate venturing 'success stories' as a source of inspiration and a model.

Consider the example of Google and its 'Area 120' project. This project affords employees within Google the opportunity to become entrepreneurs. 20% of an employee's time can be set aside to pursue a business idea, for which they can receive money and other types of support associated with incubators. With such a project, Google shows that they understand that they do not simply have 'employees', but potential entrepreneurs that can and should be stimulated and 'nudged' into action.

Again, this adds another dimension to the corporate 'ecosystem' in which 'employees' are enabled to become more entrepreneurial. An obvious benefit of such a scheme is that it functions as a way to keep employees who are passionate about a new project and play with the idea of becoming a founder themselves within Google. This in-house incubator programme will also be attractive to millennials contemplating working for corporate Google or its parent company Alphabet. Within the corporate 'ecosystem', all employees have the opportunity to be more entrepreneurial and - ideally - become entrepreneurs. If successful, such a model has the potential to add value to the parent company, but it also communicates to all stakeholders (and the world-at-large) something about the culture and values of that corporation.

G. Introducing an Entrepreneurial & 'Corporate Venturing' Culture

The seventh strategy is, without a doubt, the most important. Some companies in our sample have transformed 'corporate venturing' into the main driver of their firm culture. These companies have found ways to resist the emergence of a destructive corporate attitude, as described above.

⁵¹ Sheera Frenkel & Cade Metz, "WhatsApp Co-Founder Leaving Facebook Amid User Data Disputes" *The New York Times* (30 April 2018), online: The New York Times https://www.nytimes.com/2018/04/30/technology/whatsapp-facebook-jan-koum.html>.

An interesting example of this strategy is Netflix.⁵² In 2009, its founder Reed Hastings pointed out that too many corporations have 'nice-sounding' value statements, such as integrity, communication, respect, and excellence. However, he understood that these 'values' are often not what is really valued within a corporation and, all too often, are just empty window dressing. For instance, everyone knows that in the event of a commercial setback, the corporation will be restructured, and jobs will be sacrificed. This will undoubtedly have a corrosive effect on a firm's commitment to such values: "If the corporation does not take care of me, then why should I care for the company."⁵³ In a 124-page slide deck, Reed Hastings (and Netflix) outlined that the dynamic of this employer-employee relationship needs to be changed. Corporate scandals have eroded the reputation of large corporations. They are no longer seen as a 'better' option than a younger start-up.

Moreover, the quality of the working experience and environment now matters so much more. Of particular importance are opportunities for learning and capacity-building. As was stated in the slide deck: "The actual company values, as opposed to the nice-sounding values, are shown by who gets rewarded, promoted, or let go." 54

On this type of account, Netflix has realised that it becomes imperative to roll back the corporate attitude by hiring and promoting people who demonstrate nine behaviour traits, namely, Judgment (make wise decisions, think strategically); Communication (listen, be concise and articulate in speech and writing, treat people with respect); Impact (focus on great results, rather than on process); Curiosity (learn rapidly and eagerly); Innovation (discover practical solutions to hard problems); Courage (make tough decisions without agonising); Passion (inspire others with your thirst for excellence); Honesty (non-political, admit mistakes); and Selflessness (seek what is best for Netflix).

This forward-thinking approach to culture helps to attract talented people as it offers them a much greater degree of freedom and responsibility. Indeed, the opportunities afforded by such freedom and responsibility can make corporations attractive (again). In the absence of this type of culture, the best young talent will leave. Inside Netflix, it is all about context, not control. The result is that every Netflix employee is treated as an individual entrepreneur, rather than as an employee.

Arguably, Reed Hastings focused on building the right kind of internal culture first. However, an important part of the seventh strategy also involves the corporation 'giving back' to society or the local community in order to improve that community. In the context of corporate venturing, this may mean the corporation supporting 'local' start-ups that operate in diverse sectors of the economy, possibly unrelated to the corporation's main business. Again, this kind of interest in community-building is found amongst the most innovative corporations. For instance, Salesforce has

See Patty McCord, "How Netflix Reinvented HR" Harvard Business Review (January-February 2014), online: Harvard Business Review https://hbr.org/2014/01/how-netflix-reinvented-hr.

⁵³ See Jacqueline A-M Coyle-Shapiro & Ian Kessler, "Reciprocity through the lens of the psychological contract: Employee and employer perspectives" (2002) 11 European Journal of Work and Organizational Psychology 1.

Reed Hastings, "Culture", online: SlideShare https://www.slideshare.net/reed2001/culture-1798664/7-The_actual_company_valuesas_opposed.

integrated a 'giving back' policy into its business model. This involved offering grants to support the communities "where their employees live and work." 55

H. The Goal? The 'Unbundling' of the Firm and Developing a Sustainable 'Ecosystem'

Too often, the focus of the corporate venturing debate has been on *corporate venture capital*, *ie* investments made by corporates in order to acquire a minority equity stake in a smaller third-party start-up. If we look at the most innovative companies in the world, however, we can see that this strategy alone is not enough for large corporations to survive in an operating environment where the pace of innovation is constantly accelerating. The world's most innovative companies go beyond this type of corporate venturing model. They realise that their future will not only be determined by developments in technology, but rather by the structure and organisation of the firm and the capacity of the firm to meet the business and design challenges associated with assembling the products or services of the future. Indeed, the goal of each of the discussed strategies involves a corporation adopting practices that creates an 'ecosystem' conducive to open, partnering-for-innovation, and co-creation.

The crucial point here is that the corporation adopts strategies that contribute to the 'unbundling' of the organisation or, at least, a blurring of the boundaries between the corporation and the outside world. For instance, as we have seen, the fifth strategy allows acquired start-ups to retain their own identity, but—most importantly—the acquiring firm is open to the possibility of learning *from* such start-ups. The most effective forms of partnering and co-creation occur when the boundaries between the different partners become more fluid in this way.

When multiple start-ups are acquired, the model of the firm as a hierarchical organisation with a clear, singular culture, purpose, and practice is transformed into an open, flatter, and more fluid system with diverse goals. The key thought here is that this new-style business is not characterised by a stable, settled organisation in which activities are coordinated and controlled by managers who derive their authority from their place within a hierarchical order. Nor is the focus on short-term financial returns. Rather, the new-style business is a constantly evolving (and autonomous) environment that has multiple interacting stakeholders with distinct identities—including employees, acquired start-ups, and communities—all of whom are working in fluid teams and are open and entrepreneurial.

There are multiple benefits associated with this more open and inclusive style of organisation. Crucially, the entrepreneurial employee, the young firm looking to scale, as well as the large corporation supporting such efforts, stand to benefit from such open and inclusive relationships. All stakeholders are able to extract value from this new way of operating. The key point in this context is that corporate venturing provides an opportunity to build the capacities of a start-up, but also to absorb a start-up within the boundaries of the larger 'ecosystem' of the corporation and to allow the best aspects of such start-ups to influence the corporation.

⁵⁵ See Salesforce, "Giving Back", online: Salesforce https://www.salesforce.com/company/careers/culture/giving-back/.

The aim of such a corporate venturing 'ecosystem' is not 'assimilation' in the sense that a start-up is expected to lose its identity and be passively assimilated into a larger, fixed corporate identity. Quite the contrary. The aim of this open and inclusive style of partnering is a more fluid and dynamic relationship in which opportunities for mutual learning are emphasised. It is in this sense that we can talk (as was done in the Financial Times) of a large corporation borrowing the "Start-up Genie's Magic". This is in contrast with an earlier style of corporate venturing in which distance and assimilation were emphasised, or learning was conceptualised as largely one-way (*ie from* corporate *to* start-up).

In this way, we can see how corporate venturing—*ie* putting in place operational principles and practices that aim at creating an open, inclusive and fluid 'ecosystem'—can help to resist the proliferation of a corporate attitude and offer larger, established firms with the best opportunity of meeting the complex business challenges of a networked age.

The above strategies can be just as effective in the case of banks and other financial institutions as they develop new responses to the challenge of FinTech. Banks already seem to be engaged in some of the above strategies and examples can be found everywhere.⁵⁷ For example, many banks have already established partnerships with FinTech companies, such as JPMorgan Chase partnering with OnDeck to offer fast approval and funding of small business loans. Another FinTech company, Prime Revenue, offers supply chain finance through a cloud-enabled platform to banks, including Barclays. Perhaps, as importantly, incumbent banks are increasingly investing in FinTech start-ups, and many banks see FinTech partnering as a crucial competency that they need to develop.⁵⁸ Other examples would include banks relying on external vendors for core banking and product systems, such as business process outsourcing or data analytics. Finally, a shift to more open IT models means they no longer have complete end-to-end control of data.

This trend has led some commentators to speak of a "great new era of Fintech partnerships" between incumbents and start-ups. ⁵⁹ According to this line of thinking, banks need to become consumers of FinTech because they do not have the resources or capacities to focus on and tackle these problems by themselves. On the other hand, FinTech start-ups are often focusing on a very specific problem and solution. This creates a potential win-win in which larger banks benefit from the new products and services developed by a start-up.

Nevertheless, for such partnering-for-innovation to work effectively, incumbent banks need to re-evaluate existing practices. For instance, they need to strengthen their mechanisms for assessing their current internal capabilities, develop robust systems for assessing potential partners, devise mutually acceptable financial

Richard Newton, "How to borrow some of the start-up genie's magic" *Financial Times* (28 July 2015), online: Financial Times https://www.ft.com/content/6b5e4ba6-ffcc-11e4-bc30-00144feabdc0>.

For example, they seem to understand intuitively the power of co-working spaces; many smaller banks, for instance, have already turned their branches into co-working spaces. See Tanaya Macheel, Banks are turning branches into coworking spaces, online: Tearsheet https://tearsheet.co/modern-banking-experience/banks-are-turning-branches-into-coworking-spaces/.

⁵⁸ CBInsights, Where Top US Banks Are Betting On FinTech, online: CBInsights https://www.cbinsights.com/research/fintech-investments-top-us-banks/>.

Kevin Tweddle, "'Doomed'? Fintech partnerships are vital" American Banker (10 July 2018), online: American Banker https://www.americanbanker.com/opinion/doomed-fintech-partnerships-are-vital>.

arrangements, and ensure adequate testing capabilities for deploying new technologies (both, initially, on a small, experimental scale and later, when full-scaled implementation is planned, on a larger scale).

This is not always easy for incumbents, and there are many sceptical voices about the feasibility of such a strategy. ⁶⁰ The huge cultural differences between incumbents and start-ups lead some to conclude that, as things stand, it is difficult for incumbent banks to follow the corporate venturing strategies outlined above. Banks are not ready to evolve into the kind of open 'ecosystems' that characterise the world's most innovative companies. As Louise Beaumont put it:

Retaining relevance to increasingly savvy consumers whose attitudes and expectations have been shaped by the world's biggest tech brands is a huge undertaking for banks. Under GAFA's (Google, Apple, Facebook, Amazon) influence, people have come to expect services that function perfectly, are available on-demand and are increasingly personalised. Banks can't simply "FinTech" their way out of the seismic shifts the industry is now feeling.⁶¹

Stated bluntly, the challenges of the external environment are too great, the expectations of consumers are too high, and the banks do not—as things stand—have the internal capacities or resources to operationalise this new partnering-for-innovation and 'ecosystem' style organisation.

However, such scepticism seems to push against the tide of history. More partnering, rather than less, would seem to be inevitable, given the trend towards the 'unbundling' of banking. Of course, this raises challenges for incumbent banks that have become accustomed to working within their internal departments and settled procedures. Such partnering in an open 'ecosystem' means giving up some control, but the benefits in terms of co-creation seem to justify this trade-off. Moreover, it is hard to see a better alternative and preserving the status quo would appear to be in no one's interests.

V. REGULATORY IMPLICATIONS

A crucial difference between financial service providers and other businesses is the regulatory environment in which they now operate. The level of regulation is much higher for banks, particularly post-2008. This difference complicates efforts to borrow some of the FinTech 'genie's magic'.

Post-2008, the regulatory environment for financial service providers has been dominated by two considerations.⁶² First, ensuring greater consumer protection, particularly for retail clients, investors, and depositors (the micro-prudential aspect of

See Louise Beaumont, "Banks can't partner themselves into digital relevancy" American Banker (26 June 2018), online: American Banker https://www.americanbanker.com/opinion/banks-cant-partner-themselves-into-digital-relevancy; Ron Shevlin, "Bank/Fintech Partnerships Will Be A Huge Disappointment In 2019" Forbes (7 January 2019), online: Forbes .

⁶¹ Ibid.

⁶² See International Bar Association, supra note 5; Andrea Sironi, "The Evolution of Banking Regulation", supra note 5.

regulation) and second, ensuring financial stability by minimising systemic risk (the macro-prudential aspect of regulation). The 2008 Financial Crisis exposed shortcomings across both of these dimensions, and these failures triggered a major process of regulatory reform and the imposition of stricter regulatory requirements.

Moreover, an important legacy of 2008 was a shift in regulatory perceptions of innovation. Before 2008, financial innovations were perceived in positive terms, and this resulted in a 'light touch' approach to the regulation of innovations in financial services. Since the crisis came to be blamed, in large part, on such experimentation (so-called 'financial weapons of mass destruction'), the regulatory trend has shifted in the opposite direction, and innovation has come to be seen more negatively by regulators keen to avoid any repetition of the disruption and chaos of 2008-9.

The timing of the emergence of FinTech has, therefore, proven enormously challenging for regulators.⁶³ Regulators have been placed in the difficult position of having to balance the post-2008 regulatory objectives of consumer protection and managing systemic risk with the promotion of innovation. From the perspective of regulators, it is easy to conclude that FinTech creates both micro- and macro-prudential risks or, at least, uncertainties.

However, as memories of the financial crisis fade, the relationship between banks and regulators has shifted to a new stage. As discussed above, most financial institutions already engage in the proactive management of regulatory risk through expanded compliance departments. Banks have better integrated the two post-crisis objectives of regulation into their daily operations, and, in consequence, the regulatory agenda has shifted. New regulatory approaches are now possible.

One promising option—seemingly preferred by the FinTech companies themselves—is for the government to give much greater weight to those actors that are driving technological innovation and its dissemination, namely the technology companies, in designing the regulatory framework. Stated slightly differently, the technology companies believe that in order to make the 'venturing' strategy work, regulators need to become key players in the open 'ecosystems' described above. However, is this a sensible strategy? Or is it a case of 'putting the animals in charge of the zoo'?

There is something to the idea that governments should 'outsource' to companies the task of designing regulatory policies suitable for a digital age.⁶⁴ Disruption has become one of the main issues for any business. Markets are changing fast. New competitors enter the stage all the time. Business models must constantly change. As a result, companies have to take emerging tech very seriously to remain relevant. The effect of such pressures is that technology companies have greater access to information about the impact of technology. Companies are better equipped than states to take a leading role.

Moreover, new digital technologies empower the customers and employees of such companies in new ways. The voice of these stakeholders must be taken into

⁶³ See Dirk A Zetzsche et al, "Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation" (2017) 23 Fordham Journal of Corporate and Financial Law 31.

See Wulf A Kaal & Erik P M Vermeulen, "How to Regulate Disruptive Innovation—From Facts to Data" (2017) 57 Jurimetrics: The Journal of Law, Science, and Technology 169; Daniel Malan, The law can't keep up with new tech. Here's how to close the gap, online: World Economic Forum https://www.weforum.org/agenda/2018/06/law-too-slow-for-new-tech-how-keep-up/>.

account for such companies to survive. For instance, in many cases, employees no longer see themselves as 'cogs' in a corporate machine, but as active stakeholders. In the context of the 'Gig Economy', such 'employees' have become entrepreneurs themselves and will speak up or 'exit' when they do not support a company's policies or actions. Advocates of 'outsourcing' see such stakeholders as an important check on how technology companies behave and how they would approach the issue of designing a regulatory framework.

However, what is perhaps even more important is that the consumers of tech products and services have become much more critical, at least compared to an earlier industrial phase of capitalism. In technology-driven markets, consumers are not 'just consumers' anymore. They have become an important stakeholder in the 'ecosystem' of the firm and its governance. This functions as a constraint on the behaviour of larger firms. It is becoming more dangerous for them to abuse their market power, as such abuse will risk user migration to rivals and, in the mediumlong term, damage to the brand and a decline in a firm's fortunes. Such risks are particularly acute for firms that operate a 'platform' as a key part of its business model (think Amazon, Airbnb, Facebook, or Uber) because platforms are dependent on the "network effects" created by having as many users as possible.

Of course, there are risks. Even if tech companies have good intentions, they may have difficulties proposing effective regulatory schemes because their interests are not well-aligned inside the company. A recent example is Google's failed attempt to set up an ethics council to examine developments in artificial intelligence. ⁶⁸

So, what is the role of government in a Digital Age? If the complete delegation of policymaking and regulating to private companies would lead to the 'capturing' of policies and regulations by established tech companies, what would be a better alternative? The government still has an essential role to play. However, a bureaucratled approach to policymaking has had its time. A new, more dynamic, and responsive approach has to be implemented.

We would argue that one of the key elements in meeting this challenge is the co-creation and co-production of regulatory schemes. Here we do not refer to (rather traditional) consultation models in which the market is invited to respond to and provide input to policy and regulatory proposals. Nor are we referring to so-called 'sandboxes' in which innovation is tested by a small number of actors in a tightly controlled environment.⁶⁹

⁶⁵ See Sarah Kessler, Gigged: The End of the Job and the Future of Work (New York: St. Martin's Press, 2018).

See Mark Fenwick & Erik PM Vermeulen, "A Sustainable Platform Economy & the Future of Corporate Governance" (2019) 441 European Corporate Governance Institute - Law Working Paper, online: Social Science Research Network https://ssrn.com/abstract=3331508>.

⁶⁷ See Nirmala Reddy, "How To Harness The Power Of Network Effects" Forbes (2 January 2018), online: Forbes https://www.forbes.com/sites/forbescoachescouncil/2018/01/02/how-to-harness-the-power-of-network-effects/#2b41823462e8.

Sam Levin, "Google scraps AI Ethics council after backlash: 'Back to the drawing board'" The Guardian (5 April 2019), online: The Guardian https://www.theguardian.com/technology/2019/apr/04/google-ai-ethics-council-backlash.

⁶⁹ See Mark Fenwick, Wulf A Kaal & Erik P M Vermeulen, "Regulation Tomorrow: What Happens When Technology Is Faster than the Law" (2017) 6 American University Business Law Review 561.

Instead, it is time for a shift in direction, which is in line with the corporate venturing strategies that are described here. We must introduce 'ecosystem thinking' into regulation, and companies, banks, start-ups, and governments must work in partnership with all the stakeholders in tech-companies to ensure that important interests are protected while facilitating innovation. There is already some evidence of such a shift. Regulators acknowledge their informational disadvantages and are participating in more events—training courses or hackathons. Moreover, regulators are building new collaborative relationships with actors in the private sector to understand and develop technologies. There is greater outsourcing of legal work and cooperation with public-private partnering to develop new technologies, such as blockchain.

This is the essence of innovative policymaking or regulating. Governments must set 'smart' boundaries for the amount of risk they are willing to take that agree with regulated entities. However, within these boundaries, they must allow and encourage freedom and innovation. This does not mean that within these boundaries, a new 'Wild West' is allowed to emerge. Rather, 'within' the boundaries, it is all about building and maintaining trust amongst all participants via constant dialogue and openness. In this respect, trust must be earned from all the stakeholders that are involved and affected by new technology.

As such, 'community-driven' regulatory design is a radicalised form of policy experimentation. The crucial factor here is the changing context. In the context of the Digital Transformation and the new pressures it has created, there is a new degree of openness and visibility both within society in general and within the emerging 'ecosystems'. The check on regulatory capture is the new visibility and openness that digital technologies have created and the dependency that open 'ecosystems' have on remaining committed to the values of a digital culture. If the check on power is visibility, transparency, and the demand for authenticity, then the key is those infrastructures that facilitate speech, particularly social media. When any large institution exercises power, its actions expose the values of the powerful. The effect of the Digital Revolution is to create new visibility.

The government is a key stakeholder and can establish the rules of the 'trust game', and rules that relate to transparency, disclosure, and open dialogue with the market. However, this means that everyone in the government needs to embrace 'going digital'. Regulators need to think more about the meaning of technologies, what they can do for us, and how they can help us to build a better future. Doing nothing or restricting innovation are worse options. This often means rejecting and replacing old, formalised ways of doing things, such as hierarchies, legacy processes, and settled/fixed procedures. Instead, 'Going Digital' will lead to looser connections and relationships, and more flexible forms of operation. As such, regulators have to 'relearn' what it means to interact, transact, and become visible in a digital environment. They must build their own 'brand', and government officials must learn how to think more like entrepreneurs. Being creative and innovative in this way will ensure that 'going digital' creates more opportunities than it eliminates for everyone.