

Radical Innovation Is Collaborative, Disruptive, and Sustainable

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We live in an age where technology and data capabilities are advancing at an unparalleled rate—faster than at any other time in human history—and presenting huge opportunities across every industry. This is sometimes called the ‘4th Industrial Revolution’: Traditional industries are being transformed through technology, and everyone and everything are becoming digitally connected.

In terms specifically of financial services, this digital shift is the most significant transformation since the introduction of plastic credit cards. The pace of change is expected to accelerate over the next five years as it becomes possible for people to perform financial transactions using any device and through any channel.

As a leading global technology company in the payments and commerce industry, MasterCard is considering new solutions to improve financial services and looking for ways to innovate faster than ever before. The company has a vision of a world beyond cash; the digital revolution can ensure that every consumer will have access to a digitally enabled account.

Innovation surrounds us

Rapid technological change provides a constant wave of new experiences and opportunities across all aspects of society. These advances, coupled with the ever-growing number of connected devices, drive higher

expectations from consumers, banks, and merchants alike. The result is a continued push for improvement.

By 2020, there will be an estimated 50 billion connected devices,¹ fueling the ability to provide transformative benefits to companies of all sizes as well as benefits to consumers looking for increasingly personalized products and experiences that make their lives easier.

Innovation is no longer viewed as ‘nice’ but not essential. Nearly 75% of US private company executives today say that innovation is as important to the success of their companies as effective operations.² Those who invest in innovation will position themselves to effectively meet evolving consumer and industry needs and defend themselves against the risk of being left behind (see Chapter 6 for an example of a company that invested in innovation and successfully leveraged itself into a global enterprise).

Looking at the future with a fresh perspective

To leverage the company’s rich history of innovation, MasterCard Labs was established in 2010 as a way to invest its resources in innovation. MasterCard currently serves 2.3 billion cardholders and is connected to 40 million merchants in 210 countries. It works with 150 currencies across a worldwide network of partners within the financial community.

The company’s Chief Executive Officer, Ajay Banga, recognized the opportunity to look at the future with a fresh perspective through the MasterCard Labs. The aim of the Labs is to help to create new products, to identify problems and determine solutions, and to foster a more innovative culture. Together, these perspectives have enabled customers and partners to innovate more effectively.

The workforce in MasterCard Labs often includes people who may not have had direct experience in the industry. That is an intentional configuration. The company benefits from bringing in smart, creative, passionate people who provide unique insights into new ways for MasterCard to evolve, unencumbered by traditional concerns or expectations.

Innovation without execution is mere ideation

Real innovation—disruptive, radical innovation—occurs when innovators *take risks, try lots of things, and fail smart*.

The ‘fail smart’ mantra is a key part of the MasterCard Labs culture. One of the company’s roles is to go ‘beyond the payment’ by identifying and developing solutions that expand the company’s presence in the commerce space. No one wakes up excited about making a payment. Payments are one part of much richer consumer

experiences that address needs before, during, and after a transaction.

Countless examples illustrate instances where going beyond the payment helps drive a better payment experience for both the consumer and the retailer. The *Pay at Table* solution, launched initially in partnership with the United Kingdom (UK) restaurant chain wagamama, is one such example. wagamama came to MasterCard with specific issues that, if resolved, would improve the customer's experience. They wanted to improve the dining experience for every one of their customers by removing friction from the ordering and payment process. Speeding up that process would not only allow wagamama to make their customers happier, but would also allow them to boost revenue by turning over the tables faster, thus allowing for more customers. The *Pay at Table* application, now live across the UK, is an example of an approach to improving the customer's entire experience that also has the effect of simplifying the payment.

Delivering value for only the consumer or only the retailer will mean that the solution will not take off at scale—such a model is not going to resonate. The most successful innovations are of almost equal value to both parties. They create great experiences for consumers and merchants alike.

This approach highlights the importance of partnering to find insights that stimulate innovation. The more stakeholders who have a voice, the more relevant and 'real world' the innovations will be. Good ideas can come from everywhere and from anyone: business units, employees as individuals, customers, partners, universities, start-ups, developers, and more.

MasterCard's appetite for innovation is driven by the need to

provide better service for its customers in ways that make their lives simpler or more convenient. In building for that future, the innovators at the company are not afraid to fail—but failing should be a quick process, before significant investment has been made in the failed innovation. Furthermore, that failure should provide a learning experience, so that the next innovative effort is stronger and will not repeat the mistakes made. That is truly failing smart.

Repeatable innovation

Innovation is not the result of luck. It rarely comes out of unfocused ideation. It requires structure and it needs to be continuous. It needs to be encouraged, developed, supported, and rewarded—and then the process needs to be repeated all over again.

Although structure and process might seem strange for innovation, MasterCard Labs views that discipline as critical to ensuring quick iteration and a clear path to scaling any ideas that show potential.

The Lab's innovation programmes are extensive and straightforward. They combine the best-in-class methodologies, efficient structures, and proven techniques—and they guide the innovation journey. They are also an effective way to leverage one of the company's greatest assets—its people—to generate new innovations.

Examples of these programmes include the Innovation Express, Involve, and IdeaBox; each is described below.

- **Innovation Express.** This is a two-day round-the-clock innovation competition designed to go from problem to solution in less than 48 hours.

Cross-functional teams start with a very specific problem statement and compete to come up with a fresh, credible solution to the challenge. They then turn that solution into a prototype, business plan, video demonstration, and go-to-market plan. Each team pitches to a select group of skeptical judges—representing the voice of the customer—who pick the winning solution.

- **Involve.** Involve is a high-profile company-wide competition where teams of MasterCard employees identify truly unique solutions to win the chance to see their solutions brought to market as an actual MasterCard product. Teams work together outside of their day jobs to develop transformative product ideas with the potential for commercial success. Throughout the competition, teams are required to go through specific qualifiers where they present their prototypes, business cases, and go-to-market solutions. This serves to narrow the field, before the most innovative and commercially viable solutions are selected to pitch and demonstrate their products to the entire company. Products are then voted on by all MasterCard employees before determining the ultimate winner, which is then launched as a real MasterCard product.
- **IdeaBox.** One of the newest additions to MasterCard's innovation efforts, IdeaBox, was inspired by Adobe's Kickbox ideation and pilot-testing kit and adapted to fit MasterCard's culture. IdeaBox is focused on innovating at the individual level and cultivating new innovators within the company. It is also

designed to solicit the kind of employee ideas that could potentially grow into a start-up venture within the company. Individuals or teams (almost all participants partner up because the time commitment is so large) with promising ideas receive awards at increasing levels of difficulty to develop their idea further. The goal is to present the concept to the MasterCard Innovation Council. Finally, the projects that win the council's approval receive the ultimate prize: The idea is accepted for incubation, with MasterCard committing to adopt the idea and put appropriate resources and funding behind it to bring it to market.

These programmes are not just for show; they deliver tangible results. They have created many innovative products or enhancements to existing products that are now being marketed by MasterCard.

Any device is a commerce device

MasterCard is an example of an organization that embraces the opportunities around the Internet of Things and is working towards a future where any device could be enabled for commerce. In this future, consumers can engage and transact from any device that is part of their daily lives—including their phones, watches, televisions, cars, refrigerators, or even washing machines.

Through its Labs, MasterCard is collaborating with other companies to connect everyday appliances so consumers can use the Internet of Things to perform chores and free up time. Both MasterCard and its collaborators are parties to improving their customers' experience so both brands are seen in a more positive

light. In other words, this collaboration is to their mutual benefit:

- **Connected Fridge.** MasterCard has partnered with Samsung to offer Groceries by MasterCard, allowing consumers to order weekly shopping directly from their kitchen. This is the first shopping application integrated directly into a fridge and will come preloaded in Samsung's Family Hub refrigerator. At launch, it supports buying groceries via FreshDirect and Shoprite. Consumers may never run out of milk again.
- **Connected Washing Machine.** MasterCard has partnered with Whirlpool to develop a digital solution to a real-world problem: how to displace the large amount of cash and coins used by consumers to pay to do their laundry in coin-operated machines. The mobile app Clothespin allows consumers to pay for their laundry cycles directly from their phones. This also solves Whirlpool's challenge of collecting a large number of coins across multiple locations.
- **Connected Vending Machine.** Over the course of a weekend, the Labs development team took a vending machine prototype and connected it to the digital payments platform MasterPass. The result is that consumers can securely order and pay for any vending machine item directly from a phone, tablet, or even smartwatch. This is not a small problem: There are almost 30 million vending machines operating worldwide today; the majority accept coins but not electronic payments, so the vending machine company must

collect the coins and repair the machines when the coins jam.

The importance of partnerships

Innovations such as Clothespin and Groceries have one vital thing in common: They were created through partnerships.

There is no monopoly on innovation. Actively partnering with a number of external players, with the aim of exploring and developing future commerce solutions, is a fertile pursuit and can lead to innovative products and processes that benefit both partners.

For example, MasterCard's *Labs as a Service* group was launched to create innovation partnerships with key customers. Applying a consulting approach, this team works with partners to solve their own innovation challenges, collaborating with each client to design and build fully customized solutions that have been tailored to their specific needs. These partnerships extend from traditional financial institutions to leading players in sports and entertainment.

One method used to encourage innovation partnerships employed by the *Labs as a Service* team is the use of the LaunchPad programme, which is run in collaboration with MasterCard customers. Joint teams combining business, technical, and design skills with product goals use rapid prototyping and feedback to generate new solutions quickly.

Another asset used by MasterCard is seen in its *Start Path* group, which was established as a way to support start-ups that are building the next generation of commerce solutions today. By providing a blend of customized operational support and direct access across the company and to MasterCard's customers, MasterCard collaborates with these start-ups to help them scale

successfully. This approach has been used with over 90 start-ups that cover a diverse range of solutions, including logistics, authentication, data, wearables, and even artificial intelligence.

To augment its support of start-ups, the company has made a small number of strategic investments in some of these start-ups. The goal here is not merely to provide funding but, more importantly, to add strategic value to the start-up. One example that shows that security and convenience in commerce can be part of the same experience is seen in the investment made in the Canadian start-up Nymi. Nymi has developed proprietary technology that uses an individual's unique cardiac signature as a method of authentication, delivered via a consumer wearable. MasterCard committed to helping Nymi bring its technology to the real world by embedding an NFC chip within their wearable and completing the world's first biometrically authenticated wearable contactless payment.

Partnering from within

Working with external partners is only half of the innovation equation. Engaging across the entire MasterCard organization is equally critical. Building a culture of innovation is a central part of the MasterCard Labs mandate. The question is how to enable employees to help shape the future of their business.

In one example of innovative thinking that is encouraged in a particular company and has spill-over effects, MasterCard has seen a 10-fold increase in the number of patents that have been filed by its own employees since 2010.

Doing well by doing good

It is important to recognize that diversity is also essential to achieving

radical innovation. To be truly diverse, a company's partners must reflect diversity at all levels, including different cultures, ages, genders, skill sets, experiences, backgrounds, and geographies. To ensure fresh thinking, MasterCard regularly changes the composition of its project teams; it also relies on virtual teams, so that innovators are not restricted to regions that happen to be the location of the company headquarters. This diversity avoids the situation where everybody thinks along broadly similar lines, coming up with the same ideas and making the same mistakes.

With support from the Bill & Melinda Gates Foundation, the Lab for Financial Inclusion—launched by MasterCard in 2015 in Nairobi, Kenya—makes good use of diverse resources. The goal was to find a way to solve for the needs of a region populated by millions of individuals who are missing out on the technological revolution in financial services and who have no way to access everyday financial services.

The Lab is generating financial inclusion solutions and fast-tracking the best ideas from concept through prototype, pilot, and eventually commercialization. Ultimately, individuals trapped in a cash economy will have practical, cost-effective financial tools to open up a world of inclusion and help them build better, brighter futures.

Another solution to problems confronted in places without financial services is called MasterCard Aid. The Labs team was tasked with evaluating the existing aid distribution process of non-governmental organizations, and identified an opportunity and a need for eliminating paper vouchers. These vouchers are used like cash and can easily be stolen or lost; moreover, it is often difficult to accurately track the flow of goods from merchants who

receive them. Over the course of a week, the Labs team, along with a number of MasterCard experts, developed the *MasterCard Aid* prototype, a points-based mobile as point-of-sale solution accompanied by a physical MasterCard.

Both of these examples demonstrate the importance of solving the everyday needs of those who have to get by on just \$2 to \$3 per day. This is not just about helping displace cash with digital payments, this is also about making people's lives better and safer.

Cool doesn't cut it

Innovation must be tangible and evident in the real world. Real, sustainable innovation cannot reside merely in ideas of the next great thing but instead must be anchored in real-world business value that solves real-world problems. Another saying in Labs is 'cool doesn't cut it'. It is not just about thinking about the next great thing, but about anchoring that thinking on the true business value they bring by solving our own problems or needs. Real and sustainable innovation is happening—everyday, everywhere.

Suggestions for effective innovation

MasterCard's journey has allowed the company to develop a set of suggestions for ways an organization can innovate effectively. These suggestions are relevant not only to MasterCard but to any entity that wants to stay relevant in the innovation sphere.

First, it is vital to innovate from within the organization and to include a talent pool to bring in fresh perspectives and new skills unencumbered by traditional approaches. Second, it is essential to encourage experimentation instead of shying away from it. This includes enabling

employees to not fear failure but accept it, learn from it, and work to find a better solution. Third, to ensure that innovation is not limited to thinking alone, it is important to reward the execution of novel ideas. Taking a concept and bringing it to life in the real world is what makes innovation more than fancy thinking. And finally, an organization must be willing to actively seek out external players that can provide resources that complement and accelerate its innovation path.

Notes

- 1 Evans, 2011.
- 2 PwC, 2012.

References

- Evans, D. 2011. 'The Internet of Things: How the Next Evolution of the Internet Is Changing Everything'. Cisco Internet Business Solutions Group White Paper. Available at http://www.cisco.com/c/dam/en_us/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf.
- PwC (PricewaterhouseCoopers). 2012. Innovation Imperative: Keeping your Company Relevant'. *gyb*. Available at <https://www.pwc.com/gx/en/consulting-services/innovation/assets/pwc-gyb-innovation-imperative-keeping-your-company-relevant.pdf>.