



A DISRUPTIVE E-MARKETPLACE FOR INNOVATION

Most innovation today relies on digitization. But technologies are moving so fast that buyers don't always know what is available — and how to piece multiple components together to solve their business problems. What if these technologies could be discovered through an e-marketplace that packages the best components for the job?

Digital is central to innovation today. But most companies struggle to keep up with the pace of change. It's particularly difficult for companies to know what latest pieces of technology could be utilized to solve their business problems. For example, a small Internet of Things (IoT) sensor built by one company could have a wide variety of use cases, from traffic and equipment management to home, office, or public space management. Meanwhile, someone tasked with building one of these use cases — say, a smart office solution — faces a bewildering array of technologies to choose from.

An online marketplace can help, as it combines multiple innovative technologies as prepackaged solutions. In this case, an executive wanting to build a smart office could search for the particular term and be presented with a menu of technologies that can be pieced together to meet applicable requirements.

B2B e-marketplaces have existed for more than two decades, and packaged technology solutions are their latest offerings. Ford, General Motors, and DaimlerChrysler had set up Covisint in 2000 as an information exchange platform between manufacturers and suppliers. Much later, it evolved

into a cloud-based IoT platform for rapid development and deployment of connected solutions. Covisint now offers services such as identity management, user authentication, and governance to ensure security for IoT applications.

A disruptive online marketplace combines multiple digital technologies as prepackaged solutions

Such B2B marketplaces are catching on. According to market research firm Forrester, 63% of online business transactions in the U.S. took place through e-marketplaces in 2020. COVID-19 has rapidly accelerated this trend, and Forrester expects it to continue.¹

Infosys has already implemented this approach for its own technology solutions (Figure 1). The initiative started as a code store for internal usage to help architects and developers find reusable software “blocks” or new services. It then evolved into a lab for prototypes and pilots, but then it quickly included a commercial and contractual layer

that enables clients to access the best of Infosys' latest technology. It has become a one-stop shop for sales teams to easily reach out for services, solutions, and sales collateral all in one place.

Companies are increasingly following this trend. For instance, Bosch utilizes its artificial IoT (AIoT) platform to create e-marketplaces.

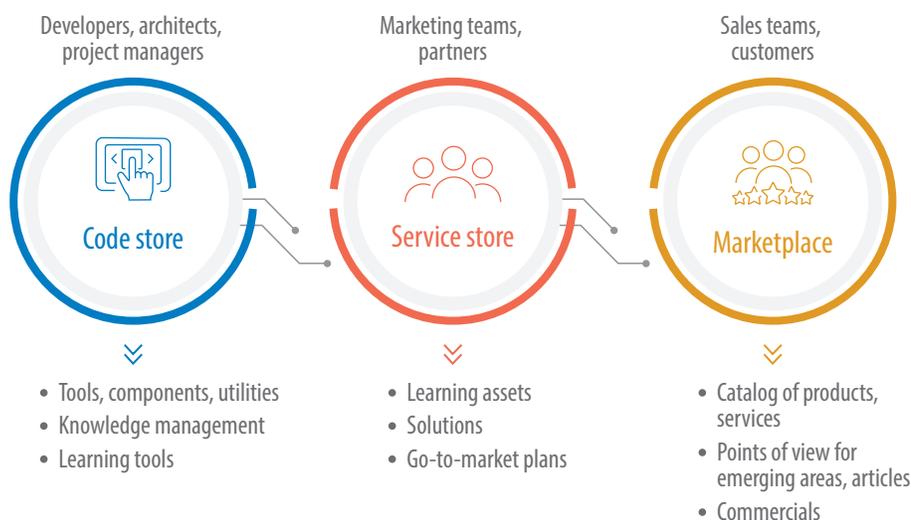
Building a marketplace

A traditional e-marketplace brings buyers and sellers together on an online platform. It allows buyers to discover discrete products and enter into commercial agreements with the vendor. Broadly, a solutions marketplace is a step ahead of a traditional e-marketplace. It has the additional benefit of packaging discrete technologies into bundles that work together to solve business requirements.

So, for instance, the user would search for a “smart factory” solution instead of mobility, IoT, analytics, automation, and artificial intelligence individually. The front end provides the experience of selecting a set of technologies for a given business requirement — a simple webpage or an immersive environment using mixed reality. A true disruptive marketplace is where new types of transactions take place.²

In a top-down, customer-oriented approach, the journey of setting a new marketplace starts with the identification of prominent themes as initial solutions. These themes are innovative topics that are the need of the hour. Target customers look for such solutions. After the solutions are decided, the most suitable discrete technologies are chosen and built, with quality checks from the code store. New ideas that have commercial value are also a source for solutions in a bottom-up approach, originating from architects and developers, with no specific customer in mind initially.

Figure 1. The e-marketplace life cycle



Source: Infosys

After meeting its basic quality requirements, a solution is promoted to the service store. Following that, the solution is evaluated under two broad sets of metrics — deployment and engineering metrics — before reaching the marketplace.

Deployment metrics evaluate a solution on parameters such as how many customers use it, in how many projects it has been used, and whether it is listed in any other marketplace. Engineering metrics include architectural compliance, code coverage, test case coverage, readiness for migration to cloud, maintainability, and security rating. There are tools to provide ratings for each of these parameters.

Commercials or price points for each solution can be kept outside the marketplace until the solution becomes a stable offering and has scaled up to a large customer base. By providing the business perspective for each solution, sales and development teams can independently take solutions to the market. For example, the sales team need not depend on the development team to understand a solution and explain it, run a demo, or share documentation about the features.

Onboarding of partners

Not all solutions in the marketplace are entirely developed by their owners. Vendors usually provide software, hardware, or services under a legal contract. At times, marketplace owners collaborate with vendors to establish a partnership.

Solutions and components from such partners undergo due diligence to ensure quality. The deployment and engineering metrics are evaluated before such decisions are made. Eventually, the marketplace becomes an additional channel for partners to take their offerings to the market. Intellectual property rights and other legal, security requirements

are decided during the integration of each solution.

Marketplace partnerships

Co-creation of solutions is critical for innovation with digital technologies. Architecture and emerging capabilities help build a market-leading solution that can withstand disruption and industry change. Leading investors and venture capitalists understand these relationships, and they build portfolios of capabilities and solutions, driving profitability and scalability. Such investors are natural facilitators, with the potential for market power that can position a partnership for growth and collective impact on a wide net of industry challenges, with the combination of intellectual property. They provide a global, cross-industry, macro perspective. They mitigate the risk of obsolescence by listening to the voices of the market to keep the solutions updated.

Telstra Ventures is such a partner for the Infosys marketplace. This is how Telstra Ventures positions itself on its website.

“Our global sphere of knowledge drives our investment thesis across all industries. We serve on the boards on some of the most innovative technology companies in the world. We see global trends as they are emerging. We combine this knowledge with data, lots of data, to know where the world is heading during the next seven-to-ten-years.”

Telstra Ventures can use the Infosys marketplace to bring portfolios of companies together for greater value and impact. By consolidating portfolios in a common e-solutions marketplace, the company derives greater value and impact, with data as the core enabler of global scalability and industry change. Multiple marketplaces can communicate with each other to amplify their overall

impact and complement each other to fill gaps, if any, in their individual technology solutions offerings.

Marketplace users

Traditionally, marketplace participants are referred to as buyers, sellers, or brokers. Stakeholders on the technology side are referred to as users, power users, or admins. So, what happens when we blend both the supply and demand? That’s where an e-marketplace emerges.

With advancements in emerging technologies and next-generation solutions, the roles of stakeholders have evolved with the rise of open innovation and modular ecosystems. Consumers and creators within or around organizations can now build operational processes and commercial frameworks within these constructs, thereby increasing collaboration and providing both structure in engaging parties and broader organizational value chain agility.

For instance, LEGO’s IDEAS is an online co-creation platform that has democratized innovation. Anyone can submit a new idea for a toy and vote for others’ submissions. When an idea gets a minimum number of votes, internal design and marketing teams evaluate it for manufacturing feasibility. The creator of an approved design gets 1% of the net sales as a royalty.³

The curation driven by creators also ensures that the e-marketplace is ever-evolving, bringing diversity and amplification of replicable and reusable assets to the forefront. The different types of assets are engineering, business-driven, and for knowledge management and learning. Users can achieve greater results for their businesses and scale up the value for the community. There is a many-to-many effect, where the efforts of an individual benefit many others.

Recommendations

The success of a marketplace largely depends on quality control, network effect, and economic incentives (see Figure 2). Quality control is established by the team developing a solution. However, the network effect extends beyond the marketplace to the ecosystem in which it operates. It is a competitive differentiator, which in turn drives economic incentives.

Network effects occur when the value offered by a marketplace to an end customer increases with the rise in the number of users, sellers, partners, and developers.^{4,5} As the solutions get commoditized and copied by other competitors, the network becomes a unique advantage. Apple's App Store is an example of where developers and users came together on a platform. The growth in the number of participants on the supply and demand sides acts as a differentiator for Apple when compared to its competitors.⁶

An e-marketplace can create value for organizations and ecosystems beyond the propositions of products, traditional point-to-point technologies, and bespoke vendors. Based on observations and collective intelligence

on market-leading behaviors, our recommendations for the next growth agendas in large organizations are:

- Leverage multimedia and data streams with an algorithm that dynamically maps solutions to bundles of technologies. New solutions can be identified with each unique bundle, based on user choices and market inputs, to position the right solution to each problem. Such a mapping enables industry solutions to emerge using demonstrable packages of proven technologies.

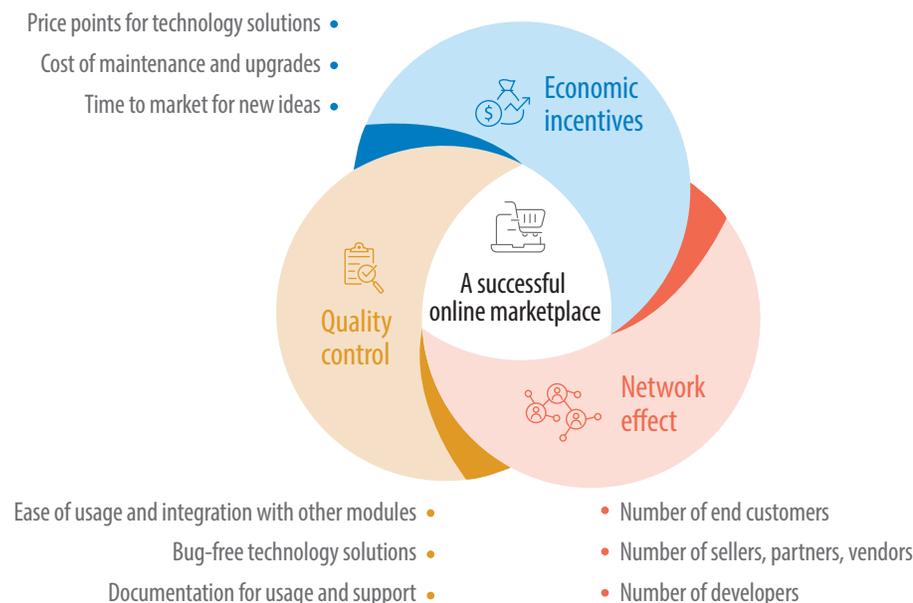
The network effect of an e-marketplace extends to the ecosystem in which it operates. It is a competitive differentiator that cannot be easily replicated

- Discover futuristic "North Star" innovations with commercial and operational processes that encourage uptake and utilization. Digital technologies evolve constantly, and so do their business applications. The potential for new

bundles of hardware, software, and services that are reusable on the e-marketplace benefits both the users and the providers of the solutions. Discovery happens when customers do not have clarity on what they are looking for. This discovery is a key ingredient in the shift from a product-based business to a marketplace. New ways to create value are discovered by either existing customers or new users.⁷

- Co-create intellectual properties with a range of service and technology partners. The amplification of scale and impact for innovation enables consumers and providers to progress beyond existing technologies. These beneficiaries then benefit with a "many to one" relationship of an ecosystem working together to minimize organizational and cross-relational dependencies across their value chains. For instance, Ericsson realized that the IoT marketplace is fragmented and that its potential can be unlocked only through collaboration or partnership with a platform-based approach. Two projects for asset tracking and digital quality control were funded for co-creation by Ericsson along with General Electric's business units.⁸

Figure 2. The trinity for successful e-marketplaces



Source: Infosys Knowledge Institute

An e-marketplace can aid businesses and ecosystems in creating value beyond the propositions of products, traditional point-to-point technologies, and bespoke vendors

An e-marketplace will be a key channel for taking technologies to the market. As individual technologies mature, their packaging for impactful business solutions will evolve. e-marketplaces will fill the gap between demand and supply for faster, more affordable, and effective digital transformation.

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