TATA CONSULTANCY SERVICES

Building on belief

Building business ecosystems with data marketplaces

Abstract

Data plays a pivotal role in today's digital world. Advances in sensor and collaboration technologies have exponentially increased data's variety, veracity and volume. In tandem, big data technologies have evolved to offer a plethora of products that enable organizations to modernize data estates and generate insights that can be applied to differentiate their brand, products and services. The emerging need for organizations now is to procure data from beyond the enterprise.

That is why traditional models have made way for multi-party ecosystem businesses, with on-premise applications being transformed into modern architecture, services and APIs. This shift calls for a democratized ecosystem governed and controlled efficiently while enabling seamless information exchange across parties.

The rise of ecosystems

In a post-pandemic world, governed by business continuity pressures and a strain on finances and capex, organizations are beginning to rely on collaborations to leverage the core competencies of ecosystem partners. Data exchange and its related technology is at the heart of these new ecosystem business models.

Intelligence is derived from data. Earlier, organizations used to give data access only to those who could analyze and train prediction and optimization models through reports and dashboards. Today, organizations share data with more stakeholders, with appropriate controls, to unlock significant value not only for themselves and their brands but also for the community and their overall socio-economic positioning.

By democratizing data for its stakeholders and equipping them with tools to derive insights, an organization can achieve a truly data-driven culture. However, this involves a fundamental change in how stakeholders share, discover, and access data, and requires appropriate change-management interventions.

For decades, many organizations have been buying data to know their customers better, understand the market, get a view of competitive sales, or glean insights on pricing or promotions. Others have been exchanging data within a closed network of partners and leveraging it for mutual benefit. Today, organizations explore orthogonal data sets, consider open data, and work on data exploration projects with academia and other third parties. This has resulted in exponential value and differentiators for organizations, separating leaders from the pack.

Patterns of data monetization

There are two primary paths to data monetization – indirect and direct. Indirect monetization focuses on leveraging internal data to identify and plug inefficiencies or unlock revenue potential by improving operations, productivity, products and services, and customer relationships. In some cases, internal performance data is fused with external data (open demographics data) to derive value.

Direct monetization, on the other hand, involves creating new revenue streams based on the exchange of data (direct data sale) or its derivatives in the form of enriched data or services (syndicated data business).

Direct data sale involves selling data or information. For example, a pharmacy retailer can sell prescription information to a pharma company for targeted drug marketing. The likes of Google, which share data on consumer search behavior to retailers and ad agencies, have been the benchmark of data monetization.

In syndicated data business, where data is delivered to third-parties in a transformed manner (aggregated with external data along with value-added insights) for use in analytics, or for research in planning activities or product and service development efforts. The client or buyer can sign up to receive a syndicated data feed or preassembled reports from data brokers like AC Nielsen, Thomson Reuters and Bloomberg.

This model is evolving into scenarios where they run in a typical hub-and-spoke model. The primary data provider (along with its ancillaries) becomes the hub, while consumers are the spoke for the network. Bloomberg Enterprise Access Point is an example of such a syndicate. We are also seeing variants of this model, where consumers double as producers and publish data and information.

These paths are not mutually exclusive, and some companies accomplish value by deploying both indirect and direct monetization.

How data realizes ecosystem possibilities across industries

As technological advancement and customer expectations evolve, ecosystems' possibilities – interconnected sets of services in an integrated experience – have emerged across industries, as have platforms that connect offerings from cross-industry players. We examine some trends across various industries which leverage data exchanges to deliver greater value.

Travel, transport, and hospitality

Struggling to recover from the impact of COVID-19 disruptions, the travel and hospitality sector is building ecosystems through data sharing to provide non-traditional services. This collaboration is helping them offer differentiated services targeting new customer segments and revenue streams. The resultant hybrid service models, lying at the intersect of multiple industry segments, leverage the core competencies of each of these segments. For example, hotels are providing meal services to medical support staff enabled by data exchanges with hospitals.

Healthcare

Data exchanges in the health sector have already transformed the ecosystem. Whether it is health service provider directory services in health portals or integrating health insurance service providers

into the ecosystem using standards-based APIs, the sector has benefitted from data democratization and exchanges. The COVID-19 pandemic has opened even more opportunities for collaboration among multiple industry segments. For example, integrating travel history into electronic health records (EHR) will provide much-needed epidemiological inputs to clinicians. Another trend fueled by data exchanges is that of holistic health. Large-scale data exchange on nutrition, physical activity and other day-to-day routines of people creates a mass personalization ecosystem with enormous monetization possibilities.

Banking and financial services

Banks are democratizing their data to third parties and even competitors with stringent privacy controls and consent to create versatile product offerings, deliver hyper-personalized customer experience and tap additional revenue streams.

Insurers are also tapping into an ecosystem built on data exchanges to embed their insurance products into seamless customer journeys and explore monetization options. This helps them generate new leads, lower distribution costs, and improve customer experience.

Retail

The retail ecosystems, which involve vast communities of consumers, retailers and partners, are continuously re-imagining the landscape with newer collaboration engines. This helps them to securely and seamlessly share data and bring about three-fold business benefits — elevate customer experience, accelerate time to market and become an agile and nimble organization. Amazon as a retailer has led the way into being such an ecosystem aggregator. In fact, the retailer ecosystem is transforming itself to include more digital and tech service providers, enabling more orthogonal exchanges in product innovation and supply chain transformation.

Manufacturing

Data democratization is an essential element of the manufacturing industry ecosystem. There is a continuous exchange of inventory, logistics, pricing and shop-floor information amongst the ecosystem players. Today's connected cars and smart manufacturing have taken that information exchange to another level going beyond the partner ecosystem to a much broader universe where the automobile runs on traffic data, weather information, regional demographics, GIS maps, etc. This ecosystem and universal data exchange are opening up monetization opportunities such as enhanced vehicle diagnostics and on-demand services based on consumer behaviour.

Logistics and transportation

The supply chain data, from a range of players in the logistics and transportation ecosystem, are being used to optimize fleet allocation and improve efficiencies in the entire value chain providing indirect monetization benefits. The information exchange is also transforming the industry creating new group of service aggregators in the space (fourth-party logistics providers) giving rise to new business models. This is motivating local and sustainable logistics marketplaces to enable last-mile connectivity by bringing a level-playing field with low-entry barriers for smaller players.

Small and medium industries

Last but not the least, is the data monetization potential in the small and medium (SME) industries. Information exchange solutions can unlock exponential value by leveraging the economies of scale. Globally, the SMEs contribute significantly to job creation, but their survival rate is relatively low. Their difficulty in doing business primarily stems from their inability to access relevant information. Data democratization can trigger business possibilities around product and services marketing, financial disclosures and improve access to cheap credit. Fintechs will have a big monetization potential in this space once this information barrier is addressed.

Conclusion

Ecosystem-based businesses are going to be the new normal and are here to stay. This requires a robust mechanism for sharing data and information, which facilitates monetization across players. With a robust platform, parties can exchange data with superior privacy, trust, ethics and security, enabling direct and indirect monetization. Digital data marketplaces will play an important role to enable new business models that will make data the core business asset.

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Corporate Marketing | Design Services | M | 07 | 21