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How can a company move to the forefront by harnessing data to drive value creation?

Recruit Holdings is Japan's largest staffing firm and a leading marketing media company. It offers permanent and temporary staffing services, executive search and online recruitment services in Japan and through its subsidiaries overseas. It is also a leading provider of a wide range of classified advertisements and value-added services in areas such as travel, real estate, automobiles, dining, beauty and weddings. Recruit set itself two goals: To become the largest staffing agency in the world in terms of number of positions filled by 2020, and the largest global marketing media company by 2030. A key thrust of its strategy is to create new business opportunities by leveraging data analytics, machine learning and artificial intelligence (AI).

THE BROADER ISSUE

Across the board, there is a tremendous growth in the volume of data that companies generate and interface with. This data can allow them to spot customer trends and derive insights to make data-driven, smarter, real-time decisions, which in turn can drive better business performance. Taking this a step further, companies can apply analytics to the data to unlock new sources of economic value, creating a source of competitive advantage. That is easier said than done, however, given the hurdles in the effective use of data. First, the available data is typically unstructured, complex, fragmented and siloed, often with many gaps.

At a glance

- » Recruit successfully transformed its business model from one based on traditional print media to one based entirely online.
- » It went on to launch several new digital platforms that connected SMEs with customers across different business verticals.
- » This placed Recruit at the intersection between growing volumes of real-time online data generated by customer transactions and deep offline data and knowledge residing within its frontline sales team.
- » The company's efforts in applying data analytics, machine learning and artificial intelligence (AI) to achieve data-driven innovation and create superior value provides lessons in using data as a source of competitive advantage.

Second, the adoption of tools needed to process and distill data remains low. Third, as is often the case with new technology undertakings, few companies have the necessary knowledge and skills in domains such as real-time analytics, relational databases and data security. Last, the managerial expertise and bandwidth required for driving breakthrough innovation for the long term is often overstretched because they are focused on achieving short-term deliverables. How can organizations evolve to move the needle toward better data utilization to garner big wins?

With the proliferation of internet penetration and user adoption in the 2000s, Recruit successfully transitioned from being a traditional provider of information via paper/magazines to become the leading online information portal with dedicated websites for diverse business verticals. It operated a business-to-consumer (B2C) model in which it acted as the meeting point for SMEs and users. For example, its job-posting site linked employers and job seekers; its housing information portal connected landlords and tenants; its beauty website helped salons fill empty seats with customers; and so on. Recruit referred to this as the “Ribbon Model” – effectively a two-sided network where the value derived by a given consumer largely depended on the number of SMEs on the other side of the network

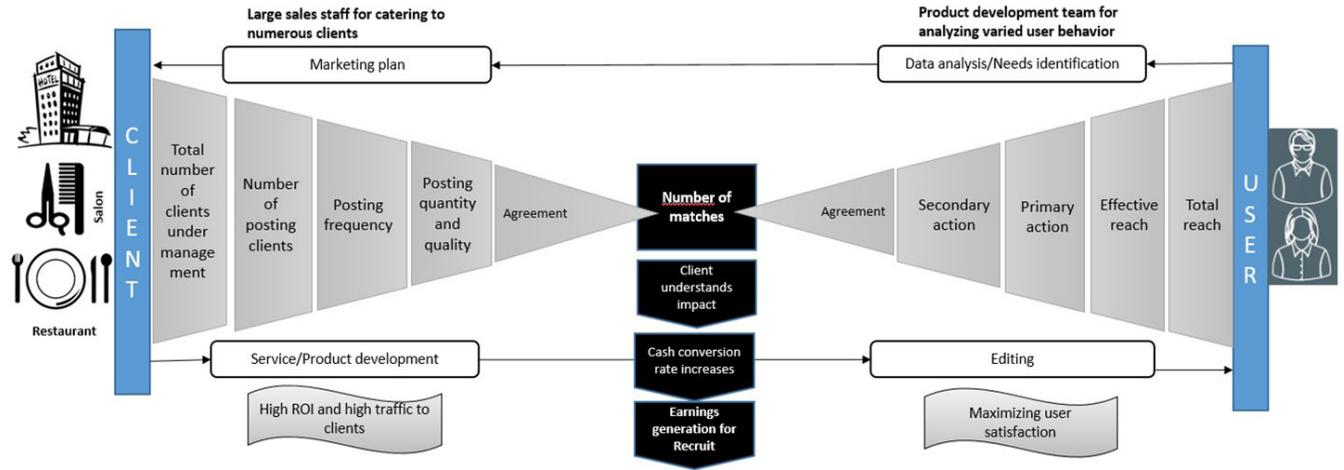


Figure 1: Recruit's Ribbon Business Model

and vice versa (see Figure 1). From the early 2010s, Recruit started enhancing its business model by launching a number of web-based platforms with functionalities that allowed SMEs to digitize several of their key activities, such as point-of-sale (POS) registers, reservations and payments, thereby simplifying their day-to-day operations. These platforms included:

- Salon Board (2012), a cloud-based reservation platform for beauty businesses to streamline their customer management systems and improve operational efficiency.
- AirREGI (2013), a smartphone/tablet-based free POS cash-register app supported by a cloud-based data management system that allowed

businesses to perform everyday tasks such as sales entry, inventory tracking and end-of-day report generation. AirREGI was largely adopted by SMEs looking to buy their first touch-screen POS system or to upgrade their existing cash registers.

- Air SERIES Apps: Building on the success of AirREGI, Recruit launched AirWAIT (November 2014), an app for managing waiting lines so that customers could use their smartphones to queue virtually; AirRESERVE (February 2015), an app for managing bookings; and AirPAYMENT (November 2015), an app for processing payments. The basic AirREGI POS app was free, but the value-added functionalities were chargeable.

The success of these platforms revealed possibilities for stretching a vertical-specific functionality into a cross-vertical functionality. For example, the AirREGI platform was extended from the restaurant to the hospitality and beauty businesses, and AirPAYMENT was introduced to the travel-booking business. This necessitated building a unified technology backbone to avoid information silos. Until then, user data was typically collected and managed exclusively on the respective platforms. Therefore, Recruit consolidated user IDs to create a single cross-service user ID that could be used across platforms to ensure a seamless consumer experience. The goal was to analyze buying patterns, provide targeted information, acquire new users more efficiently, optimize user-capture costs, increase the number of repeat users and allow cross-usage of loyalty points across verticals – ultimately enhancing the strength and overall competitiveness of the platforms. Next

on the cards was the unification of SME client IDs so that client data could be mapped to the user database and vice versa. This could potentially enable it to provide enhanced customer solutions and create new sources of revenue.

HARNESSING THE DATA

Spurred by the above mentioned initiatives, Recruit was ready to build and strengthen its data capabilities to create greater value by leveraging data. Our discussions with Recruit revealed that the first gains were achieved by improving operational efficiency through data management. Three questions were asked: how to utilize the data, how to diagnose problems, and how to act upon them? The data scientists joined sales representatives on field visits and took part in phone calls with call center staff to understand the challenges and bottlenecks before designing appropriate solutions. For example, data

from AirREGI provided visibility on client behavior that allowed Recruit to predict defections from the platform and trigger the customer service team to take action to resolve issues in a timely manner.

The bigger mandate, however, was to apply the latest technological advances in data analytics, machine learning and AI to allow deeper insights that would challenge its current business assumptions. Hence, Recruit decided to invest in technology and talents. It established an AI lab in Silicon Valley and hired Alon Halevy, a former Google research scientist, to lead the breakthrough innovation effort together with the business heads. Halevy's philosophy for developing an AI system hinged on using open source components to expedite the innovation process. However, there was a huge gap between applying the open source core ML algorithms and solving real problems. Much work was still needed to sufficiently understand the features of Recruit's data to be able to make relevant predictions. Halevy advocated physically embedding the data scientists in Recruit's businesses to facilitate a combined goal-setting process and meaningful conversations on outcomes and metrics. He also set about building a broad set of tools that would democratize data analytics to inform decision making at the business level.



As a provider of information services, we have come to represent significant infrastructure within the industries in which we operate. But we cannot rest on our laurels. We recognize the need to cannibalize ourselves. It is extremely difficult to destroy and rebuild a system that we have meticulously built and rewrite the rules of the game.

Masumi Minegishi | President, CEO and Representative Director

The next – and most-critical – endeavor was to generate new ideas on how to use the data beyond existing ways. The challenge was to grasp the real-time data and apply it at the most appropriate moment to create unique customer value propositions and spawn new business opportunities.

DID IT WORK?

By September 2016, over 251,000 businesses had adopted AirREGI – more than any other competitors' system in the industry. Digitization had allowed Recruit to successfully and rapidly change its business model, infrastructure backbone and operational systems and processes.

Recruit's aim is to identify three or four new consumer-oriented businesses by leveraging its unique position as the gateway between deep offline data (collected by its sales team) and broad online data. The company believes that there was immense value at the interface between the two. In our opinion, this combination distinguishes Recruit from players like Google, Facebook, Amazon, etc.

TAKEAWAYS

For businesses, the future is in real-time innovation and the key to the kingdom lies in the technology that will blend offline and online data so that the divide eventually disappears. Data is only as good as the value it delivers, and when it does, it becomes a strategic differentiator for a company. However, it is essential to achieve the right combination of people, processes and technology to extract value from huge volumes of complex data. For that, companies need to:

- Make appropriate and timely decisions to invest in the necessary tools and technology platforms to gain a better view of what is happening both inside and outside the company.
- Integrate data scientists with frontline sales and other functional staff to ensure they understand the business needs and identify future potential.
- Alter operational processes as needed to adapt to the changes that the data-driven insights warrant.
- Treat the company's operational environment as a test bed with freedom to experiment, test, fail fast and learn.
- Be prepared to cannibalize existing products and services to stay relevant in a rapidly digitizing world.



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