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BIG DATA
EDITION

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**MIOTSUKUSHI
ANALYTICS CO. LTD.**

**BRIDGING BUSINESS AND
DATA SCIENCE**

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TIS INTEC Group

BRIDGING BUSINESS AND DATA SCIENCE

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PROCESS FOR OUR CLIENTS

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MIOTSUKUSHI ANALYTICS CO. LTD.

Back in the day, business innovation and entrepreneurship were driven by two wheels, grit and intuition. Decisions were a gamble, more often than not. Fast forward to today, digital technologies have permeated personal and professional lives, brimming the online space with valuable customer data and touchpoints. Unsurprisingly, the business world has a new kingmaker—data. The uncontrolled explosion of data has, in turn, paved the way for a plethora of data analytics systems, and more importantly, it has lent a second life to artificial intelligence (AI). Now, systems built on big data, AI, and machine learning simplify life by enabling business leaders to predict the future, tackle problems in their bud, and wow their customers.

While there are a plethora of analytics solutions available in the market that boasts of cutting-edge prediction engines and deep learning algorithms, problems persist. They take into account a superficial understanding of the business. And a majority of them are limited to business intelligence and two-dimensional analysis. Companies investing in these solutions lament that the insights they derive have not made any tangible impact on business performance and customer satisfaction. They merely report the analytics project results, not own them. The Achilles heel for companies investing in data analytics is that they don't have the resources with sufficient knowledge of analytics. And their analytics partners, though bring data science expertise, lack the understanding of business processes and overall mission and vision of the company. Anxious, companies find it fitting to abandon their ambitious projects that are now a sinking ship and find the shortest path to a lifeboat.

“We turn the tide into a driving force for such organizations by skillfully manipulating the sails of AI, machine learning, and big data in their favor,” says Wataru Ihara, Founder, Representative Director, President and CEO of Miotsukushi Analytics Co. Ltd. The advanced analytics consulting and engineering services firm Miotsukushi is here to guide companies to sail through even the strongest currents. This attribute reflects in the name of the company too. “Miotsukushi means sea route sign erected in shallow water where there is a risk of running aground. The sign indicates safe routes to ships,” Ihara adds. With Miotsukushi’s advanced analytics services, organizations can solve the severe problems niggling at their feet: low data quality, unactionable results, and the lack of clear recommendations for the future course of action.

Being at the intersection of AI, data mining, statistics, and system optimization, Miotsukushi exceeds clients’ expectations, by offering potential alternatives with regards to the achievement of their goals, in the event where an initial hypothesis in an analytics project is rejected. Miotsukushi offers value-added consulting services that combine manual data analysis and MioCompass, a SaaS solution based on the best practices.

As opposed to merely conveying the analytics results, Miotsukushi takes the complete ownership of the data analytics project. “We can foresee the lack of data, bring in additional data from new sources, pivot the initial usage of data, and reengineer business process for our clients. This enables clients to make profit,” says Ihara.

Miotsukushi delivers positive results consistently because of its impressive talent pool. Ihara is a leading authority on data mining for business applications in Japan. He has a proven track record of participating in joint research with several commercial firms in collaboration with various government agencies cutting across trade, technology, communication, and sports divisions. Previously, Ihara (as an individual business) and Miotsukushi Analytics have delivered more than 1,000 analytics projects to globally-operated major companies. He also has experience in aiding gaming clients and other digital service-based firms (including a communications company) in developing KPI targets and playing an active role in building IT infrastructure. With a team of professionals, researchers, and educators specialized in statistics, mathematical optimization and AI, Ihara currently leads Miotsukushi to offer advanced analytics (what he defines as level 3 and level 4 analytics) that doesn’t end at business goals definition and data gathering and enrichment. The company has proven experience in multivariate analysis, data warehouse mining tools, hypothesis formulation, decision automation, system construction, and AI infrastructure development, and educational support.

With this, the company delivers granular insights for several business scenarios such as: wherein my marketing and sales funnel do most prospective customers drop out? What is the total cost of acquiring a customer? How can I efficiently segment my customer base? Which department or business function should I prioritize for automation? How do I measure the customer experience and in what ways can I update the existing engagement strategies accordingly?



THE PURVEYOR OF QUALITY INSIGHTS

At the outset of client engagement, team Miotsukushi interviews individuals from across the organizational hierarchy to understand the business processes, vision, mission, problems, and goals. The team then evaluates whether the existing KGIs/KPIs align with the goals and whether there is adequate data for existing and new KGI/KPIs to be added. The focus is also on comprehending how the insights will be brought into play to understand the desired action expected from the target audience and the frequency of the analysis process.

Miotsukushi’s experts bring their knowledge and experience in working with multivariate analysis to build a 360-degree view of their target audience across all touchpoints in an omnichannel manner. The multi-dimensional analysis links different pieces of data, including latent factors (i.e. independent variables) within the existing data, from various sources backed by a contextual relevance. In the absence of pre-existing hypotheses, it forms suggestions based on existing data. The basic statistics aids in identifying factors that affect KGI/KPIs. With all this analysis, Miotsukushi conducts proof of concept of

future projections, recommendations, automatic responses and classification that can contribute to sales growth and cost reduction.

Miotsukushi uses leading data warehouse mining tools to discover hidden patterns in data. For example, the average customer spends, age,

gender, and region of the high-value customers, and so on. Based on these insights, companies can develop custom algorithms and predictive models to improve their customer engagement. Miotsukushi can also build automated predictive models to drive defined KGIs/KPIs. It can feed new data to the machine learning models consistently to keep clients’ business processes a step ahead of the challenges. During this process, team Miotsukushi keeps an eye on the known and unknown biases and defines a timeline for project completion. The decision automation enabled by Miotsukushi helps businesses tackle scalability challenges by analyzing a large amount of data of different types.

Using a complete advanced analytics systems framework, the company guides clients to set up AI, big

data, and machine learning processes and operate them in a harmonious, efficient, and controlled manner. “We can also build analytics infrastructure that can be easily integrated with your system architecture and business processes. With our IT services, we simplify data integration, control, and replacement of legacy technologies,” says Ihara. The AI technical infrastructure stack comprises solutions built for very different workloads, data size, compute and memory requirements, SLAs, and the type of industry.

What’s more, Miotsukushi designs UI/UX and business processes for better use of forecast results and recommendations. Weekly and monthly reports guide clients to improve KGI/KPI and workflow changes for favourable outcomes.

At a time when companies are striving to respond quickly to the evolving customer demands, Miotsukushi has developed an educational program to keep its talent up to speed with the latest industry and technology developments. Miotsukushi consistently trains its data analysts and data scientists on a wide range of topics spanning business, technology, and market developments to bridge the gap between business and data science.

MARKET-ORIENTED SAAS-BASED BIG DATA PLATFORM

Apart from its services, Miotsukushi has created a niche for itself in the analytics technology domain with its MioCompass, a state-of-the-art SaaS solution. The solution is market-oriented, that means, it is based on the vast experience of the analytics best practices of the in-house team. MioCompass uses proprietary patented technology to predict user behaviour and suggest specific ways to get the desired results. Whether it is sales, marketing, or user engagement, companies using MioCompass can uncover the reasons that are influencing customers and make informed decisions to drive their

behavior for maximum engagement carefully. As companies know what their customers are expecting from them, they are in a better position to meet those requirements and drive customer satisfaction. “MioCompass predicts potential paid users using machine learning algorithms with app log data,” says Ihara. It also uses the potential user list for one-to-one ad targeting. As a result, the paid user rates, on an average, improved by 2.6X, average revenue per paid user improved by 1.8X, and revenue increased by 5.2X.

In a particular case study, Miotsukushi helped a major entertainment company tackle the problem of customer churn in the global market by bringing in operational improvements using data analytics. Miotsukushi analyzed the factors that lead to user attrition on mobile apps. It discovered that attrition rates in a particular country were high among users who had performed evolution on their cards. Based on this finding, Miotsukushi set up a hypothesis for the factors leading to user attrition in another country. Using the suggestions made by Miotsukushi, the client implemented a new specification where users’ level could be maintained in spite of evolution. The implementation of appropriate countermeasures led to a marked reduction in the clients’ user attrition rates.

Miotsukushi continues to navigate more companies away from the treacherous waters of business competition and unforeseen market developments, helping them not only to survive but thrive. In this journey, Miotsukushi has formed a capital alliance with Bandai Namco Entertainment Inc., Japan’s largest entertainment company, and TIS INTEC Group, a major IT service company. The aim is to emerge as the one-stop-shop for advanced analytics and IT for building AI infrastructure. Ihara continues to lead the company from the front, doubling down on its expertise in statistics, AI, and machine learning prowess. **ACO**