

Case study

TAY TWO CO.,LTD.

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The ability to quickly and accurately appraise trading cards has increased gross profits!

Sales HQ, Product Planning Dept., TAYS Group, Group chair
Tatsuya Sugisaki

The customer

Country: Japan
Industry: Comprehensive second-hand retail
Stores: 136 (as of Dec. 2022)
Website: <https://www.tay2.co.jp/>

The challenge

Used trading cards are a growing part of the comprehensive second-hand retail industry. However, because accurate appraisal is difficult without an expert and training personnel is hard, many stores miss sales opportunities in both purchasing and resale.

The solution

Developed "TAYS (TAY TWO AI Reader System)" in-house utilizing fi Series scanners, for use at company-owned stores and franchises.



The customer

TAY TWO CO., LTD., with headquarters in west Japan, is a comprehensive second-hand retail business with a total of 136 stores (including franchises, as of Dec. 31, 2022) across Japan. In recent years the company, which handles the buying and selling of many items including books, games, and hobby goods, has capitalized on the remarkably growing used trading card industry through scanning and the "TAYS" in-house system for performing automatic AI appraisals. This has greatly optimized purchasing.

The challenge

In 2022, the sale of new trading cards surpassed 200 billion yen (according to The Japan Toy Association), and it is said that the scale of the used trading card market is even greater. However, even for cards with the same design and model number, they have different distinctions in color and luster, which can affect the purchase price and therefore take a lot of effort to appraise when purchasing used trading cards.

This distinction is called "rarity," and cards in the globally recognized "Yu-Gi-Oh! Official Card Game (OCG)," for example, have a total of 35 rarity categories. Subtle attributes have a big impact of the rarity distinctions, and general store staff without expertise have a hard time telling the difference.

"Our company would traditionally have to search for a model number in the database, and had trouble distinguishing and appraising the differences in rarity from the many listed items. It was very time consuming and stressful, and the accuracy and consistency were impacted," said Tatsuya Sugisaki, the Group chair for the TAYS Group in the Product Planning Department of Sales HQ.

Because the value changes based on the rarity, even for the same design, the difficulty of determining rarity was a common problem in the comprehensive second-hand retail industry.

The solution

Consequently, fi Series scanners were used to scan trading cards, and "TAYS," a system that automatically determines the rarity from that image data through AI, was developed by TAY TWO CO., LTD., and was implemented starting from company-owned stores and franchises.

Trading cards that were entrusted to the store from customers are set into the fi-8170, a trading card type is selected from "Yu-Gi-Oh! OCG," "Pokemon Trading Card Game," and others, and the "Start scan" button is pressed. AI automatically compares the model number and image data with those in the database and displays the results in a list.

If the trading card is damaged, a store worker selects the flaw category on the screen from "Flaw A / Flaw B / Flaw C." The value is automatically

reduced by a predetermined amount, according to the severity of the damage.



Additionally, the JAN code of the displayed card is read with a barcode reader and sent to the register's POS system. Previously, JAN codes were entered manually into the POS, but this task has become unnecessary. After POS registration, the details are output and shown to the customer, who decides whether or not to sell. Only data for the cards whose sale was confirmed remains in the POS. Price tags are then printed on a label printer, and the trading cards are displayed on shelves on the sales floor.

The benefit

- Departure from individualistic work
- Allows anyone to accurately appraise, and improves the work method
- Increases sales by actualization of high level purchasing

The benefit

Thanks to scanners and solution development, anyone can now perform accurate appraisals. Also, sales have increased with the ability for all stores to make high level purchases.

Before this system was introduced, the database was manually searched and compared against the actual cards, which was difficult for new staff to judge and forced experienced staff members to be repeatedly called away from their posts. Now anyone can appraise cards at the same level, and the work method has changed greatly.

“We clearly know the difference in rarity of cards scanned by the fi-8170, but to implement, we needed to customize the scanner's functions for trading cards. With the cooperation of PFU, fine adjustments to the fi-8170 were made. Normally, manufacturers do not collaborate to such a technical degree, so I was surprised at first,” said Mr. Sugisaki.

“The images are also extremely clear. At first I thought we were using the wrong image quality settings, to the point where I checked multiple times,” said the manager, Yoshiki Ueno.

Products and services

- fi-8170
- TAYS (TAY TWO AI Reader System)

Conclusion

By introducing a solution that combines the fi-8170 and “TAYS,” the appraisal of used trading cards was automated. With quick and accurate appraisals that do not rely on humans, sales increased, and the sale of “TAYS” itself to other companies in the same industry has begun and is expected to grow further moving forward.

About Ricoh

Ricoh is [empowering digital workplaces](#) using innovative technologies and services that enable individuals to work smarter from anywhere. With cultivated knowledge and organizational capabilities nurtured over its 85-year history, Ricoh is a leading provider of digital services, information management, and print and imaging solutions designed to support digital transformation and optimize business performance. Headquartered in Tokyo, Ricoh Group has major operations throughout the world and its products and services now reach customers in approximately 200 countries and regions. In the financial year ended March 2022, Ricoh Group had worldwide sales of 1,758 billion yen (approx. 14.5 billion USD).

For further information, please visit www.ricoh.com