

Panasonic TOUGHBOOK Case Study

Distribution/Retail

| Client | Miyako Fishery Cooperative Union

| Business | Local wholesale market

| Product | TOUGHBOOK FZ-M1, TOUGHBOOK FZ-G1

Achieving digitized transactions, while also aiming to increase in value as a fish market. Prompt delivery of quality fresh fish to a wider range of areas by reducing operational staying time.

The City of Miyako is located in the center of the coastal area of Iwate Prefecture. It has a long and proud history as a flourishing fishing region since olden times. The Miyako Fishery Cooperative Union ("Miyako FCU") operates a market here that links producers with consumers. After experiencing severe damage from Great East Japan Earthquake and tsunami on March 11, 2011, the market introduced a support system to digitize operations, including auctions and bid tendering, in 2017, timed with an expansion of the fish market. As operational devices, the rugged 10.1-inch tablet TOUGHBOOK FZ-G1 and the rugged 7-inch tablet TOUGHBOOK FZ-M1 have been distributed to employees of Miyako FCU and buyers who use the fish market, respectively.



(Top) Employees of the fish market select and measure fish being received. Receipts for producers are issued via a mobile printer held on the waist.

(Bottom) Employees of the fishery cooperative union prepare to receive goods based on delivery information provided by producers.



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Background to introduction

Making durability play an active role in the harsh environment of a fishing port, along with portability for easy carrying. Only one high-performance tablet supporting operations at new fish market.

Prior to introducing the Operational Support System to the Miyako Fish Market, all transaction records were managed using handwritten paper documents. A carbon form known as a hamacho was used, with all transaction information added in a series on the same sheet of paper. However, this led to duplications over a series of operations in preparing documents such as entries, confirmations and management, resulting in concerns about poor operational efficiency. To solve this problem, they started working on the introduction of a system that would be most suitable for a new market. Mr. Furesawa of SJC Co., Ltd. ("SJC"), who planned and implemented the system, recalls as follows:

"In introducing the system, our only real choice was TOUGHBOOK. Despite being indoors, auctioning and bid tendering operations are conducted within the market itself, yet with a lot of water nearby. Also, we actually handle fish by hand during measurements. In addition, early in the morning when landing and auctioning are being conducted, the temperature can fall below -5°C , meaning that water resistance plus cold resistance was imperative. We also placed a high priority on shock resistance to enable the device to operate without any problem even in the case that it is dropped during the busy auction period."

In addition to overall durability, they highly evaluate performance as a tablet.

"During an auction, when a sense of speed is a must, it is important to have a device that can be quickly operated and provide accurate responses.

Why TOUGHBOOK FZ-G1 and FZ-M1 were chosen

Point 1

Water-resistant design for secure use in a market where there is a lot of water

Point 2

Shock-resistant design to prevent interrupted operations owing to dropping, etc. at a busy site

Point 3

Processing capability of high-performance CPU to support the speed of an auction

In this sense, one of the most attractive features of TOUGHPAD FZ-G1 was its high CPU performance and rapid processing speed. In terms of this specification, this device exceeded all other tablets.”

One of the keys for device selection was the fact that the product is a tablet type with intuitive operations so that people who were used to working with paper would be able to proceed with operations without too much undue stress. Miyako FCU and SJC started testing in 2016 and after nearly two years, they completed an Operational Support System. In 2017, along with the extension of the fish market, they simultaneously introduced TOUGHPAD FZ-G1 and FZ-M1, thereby launching the Operational Support System.

Introduction benefits

Reduces operational hours and costs with digitized transaction operations. Just one young employee can now handle auctioning and bid tendering.

The Miyako Fish Market has provided its employees with a TOUGHPAD FZ-G1, while also granting buyers at the market the use of a TOUGHPAD FZ-M1 as a utility device for the Operational Support System since 2017. The introduction of the system has been able to improve conventional operational flows involving abundant duplicated tasks and achieved efficiency improvements.

Firstly, a producer arrives at the port of the fish market on a fishing boat. Selections and measurements of received fish are conducted. Conventionally, all results of such measurements were recorded manually on carbon forms. Immediately after selections and measurements of all fish were completed, a sheet of paper was issued on which measurement results were copied as a “receipt.” Since the introduction of the new system, simply by inputting the producer, fishing method, fish type and measurement results into the TOUGHPAD FZ-G1, they can output a receipt from a mobile printer and hand it to the producer on the spot.

Next are the actual transactions of auctioning and bid tendering. Fish types of a small catch go to auction, while those of a large catch are put up for bid tendering. Auctioning and bid tendering are conducted by utilizing measurement data inputted at the time of a receipt and utilized as a sales stub. Employees at the market input results of auctions in a TOUGHPAD FZ-G1, while listening to calls from the

auctioneer. When buyers tender a bid, they use a TOUGHPAD FZ-M1. The status of bid tendering can be inquired about at the bid tendering room in real-time. A successful bid tender can be checked on the large monitor as well as on the at-hand TOUGHPAD FZ-M1 that each buyer has.

When all auctioning and bid tendering were completed, fish market employees in charge of computation traditionally entered the same information into a PC while checking the handwritten forms, and separately created and output computer-processed “sales notices,” “itemized invoices” and “measurement slips,” which were duly given to relevant buyers. Now, all transaction information is digitized and saved at the same time with entries of auction results and decisions of successful tenderers, thereby eliminating such tasks. The results of auctions and bid tenders are output as “sales notices” and “measurement slips” are issued after measurements using a truck scale during the delivery of goods. Each transaction is completed when an “itemized invoice” is issued to the producer. With handwritten operations, such tasks were repeated twice or even three times. Digitization eliminates the hassle involved in preparing forms and achieves drastic efficiency improvements. One of the biggest advantages of this is that shipments to Tsukiji in Tokyo and other far-away destinations that were shipped the following day can now be dispatched the same day. This means that specialty products can now be sent to more distant areas in a fresh condition.

The advantage of digitization is also reflected in “accuracy.” Under the old system, there were many chances for human error. With digitization, accuracy has been improved. In addition to preventing incorrect recording during auctions, a system to improve accuracy has been set up using audio recording with a built-in microphone on TOUGHPAD FZ-G1 and video recording with a wearable camera worn by the auctioneer. The uploaded audio data can also be checked from a computer in the office of the fish market. When any inquiries are made, they can be double-checked with the TOUGHPAD FZ-G1 and a computer in the office.

Buyers who initially showed some reluctance to digitization now appear to appreciate the advantages.

“There are no more cases where we cannot bid successfully owing to mistakes with tender amount entries or confirmations at the time of totalization. In addition, during the bid tendering process, we sometimes had to rush to the posting location in the center of the market to

be on time for a deadline. Now, we can tender a bid anywhere in the market, so older tenderers do not fall behind their younger and more agile counterparts. I believe digitization has very much improved accuracy and fairness in all transactions.”

Future outlook of using TOUGHPAD

Sanitation control system scheduled for implementation while using TOUGHPAD. Steadily supporting next-generation fish markets.

With a favorable response to the system, Miyako FCU has proactively started studying the possibility of implementing a plan to add a sanitation control system to the Operational Support System. This is an effort to centrally manage sanitary control conditions of the entire market on the server by inputting sanitation control operations conducted by employees on individual tablets. With conventional sanitation control, people in charge manually record operations on paper and submit them to administration agencies and the Miyako FCU. With digitization, control and submission of such information become smoother. The Miyako Fish Market is the first fish market to be certified as an “Excellent Sanitation Quality Control Market” by the Japan Fisheries Association, and is also certified as a market that conforms to “HACCP Compliance Guiding Principles” for sanitary control at fish markets for products produced in Iwate Prefecture. Mr. Osawa says that with such accomplishments in pride of place, they are aiming to further improve reliability as a fish market, going forward. “To improve the fishery industry, IT implementation has been promoted among producers and buyers. In the position of a fish market, the manner in which we can improve the environment to make such parties feel safe and secure in transactions is very important. With TOUGHPAD, we plan to improve the value of the fish market and support fisheries of the future.”

In a situation where responses to marine environments and aquatic resources are an urgent issue, a new transaction style for the fishery industry has been created through IT implementation.



Product: TOUGHPAD FZ-M1, TOUGHPAD FZ-G1

Benefit 1

Reduces employee operational costs to one-fifth thanks to digitized transaction operations

Benefit 2

Fresh fish can now be shipped to more areas by reducing operational hours

Benefit 3

Environment to actively work beyond generations and positions, as a direct result of improving the fairness of transactions