

Fukui Shell Nucleus Factory 福井製核所

Vouchsafing Authenticity of Pearls with Unique
Traceable Identification
獨一識別資訊 保障珍珠價值



“ Our solution has further enhanced the existing beauty value of Fukui Shell products with new values that have been created for each and every pearl through global GS1 standards enabling visibility across the whole spectrum from unique identification to track and trace, authentication and standardization.

我們的方案進一步為福井製核所產品原有的美增值。通過 GS1 的全球標準，提升了每一顆珍珠在整個供應鏈裡的透明度，讓持份者可以逐一識別、追蹤及追溯、認證以及達到標準化。”

- Mr. David Wong, Project Director
項目總監王偉傑先生

GS1 standards used 應用的 GS1 標準

- Serialised Global Trade Item Number (SGTIN) 全球貿易貨品編碼序號
- Electronic Product Code Gen2 (EPC Gen2) 產品電子代碼第二代
- Electronic Product Code Information Services (EPCIS) 產品電子代碼訊息服務

Solution(s) applied 推行方案

- ezTRACK™ 縱橫網™



Challenge

Each pearl is valued based on FIVE visible qualities: lustre, size, colour, shape and spots. However, to the untrained eyes, pearls may look similar. In reality, as with all products of nature, no one pearl is ever the same.

Pearl prices may differ as well depending on their origins. However, the lack of an effective means of including such crucial information on provenance may open to abuses by salespersons misrepresenting the products to the customers. For example, a customer might unsuspectingly purchase Chinese freshwater pearls as Japanese Akoya pearls.

Additionally, the pearl nuclei supply industry has to face another major issue: the demand for presumably higher quality at a cheaper price, bleaching or whitening agents and even illegal materials are used by the unethical manufacturers and suppliers. The result is devastating due to the yield of low-quality pearls as well as easily-cracked pearls upon drilling. Pearl cultivators are in great need for information on the origin of their pearl nuclei but often to no avail.



“In a nutshell, the problems revolve around two key areas – identification and traceability from pearl nuclei to pearl jewelry products. We have been looking around for a global solution that will effectively put an end to these malpractices in the market. To this end, Fukui Shell is committed to safeguarding the interests of our clients and the ultimate consumers against frauds and counterfeiting, and ensuring our products are of high quality and value.” pledges David Wong, Project Director of Fukui Shell Nucleus Factory.

福井製核所項目總監王俊傑先生承諾：「簡而言之，問題主要出在兩方面——從珍珠核到珍珠珠寶製品整個供應鏈的產品識別與可追溯性。我們一直尋求一套環球方案，杜絕市場裡的不法手法。福井製核所致力維護客戶以及最終消費者的權益，確保他們不會買到劣品和贗品，並保證旗下產品均屬優質和物有所值。」

Solution

“Fukui Shell came up with a strategy of ingenious seamless perfection by employing the latest GS1 global standards and solutions with the traditional pearl nucleus (the seed). The resulting technology is called Metakaku, which embeds a uniquely serialized EPC Gen2 Radio Frequency Identification (RFID) chip into each pearl nucleus.” This simple implantation gives each seed a unique lifetime identifier that carries all the way down the value and supply chain and on to the consumers as a pearl jewelry product.

The worldwide standardised EPCIS (ezTRACK™) infrastructure provides each pearl with literally a pedigree, a detailed history of genuine information captured at every stage of the manufacturing and supply process – from pearl nucleus factory to pearl

挑戰

每顆珍珠的價值，可從五個可見的素質來衡量：光澤、大小、顏色、形狀和斑點。可是對未經訓練的人來說，每顆珍珠看上去都大同小異。實際上，珍珠就如同任何天然產品，沒有兩顆是完全相同的。

珍珠價格亦可能受原產地影響。可是，若沒有工具記載像原產地等重要訊息，立心不良的銷售員就有機可乘，或會故意誤導買家。例如，客人會不以為然地買了可冒充為日本海水珍珠的中國淡水珍珠。

此外，珍珠核供應商還面臨另一重大問題：害群之馬把看似高質的珍珠以廉價出售，令下游業者以為物超所值。那其實是為了漂白或美白劑，甚至其他非法物質。這些劣質珍珠令下游業者損失慘重，在養殖時珍珠亦容易破裂。珍珠養殖場渴望取得珍珠核的來源訊息，但求助無門。

解決方案

福井製核所的策略把傳統的養殖珍珠種子結合最新的GS1全球標準及方案應用得恰到好處。其創新技術——Metakaku——均內嵌產品電子代碼第二代無線射頻識別晶片，記錄了珍珠種子的產品電子代碼序號。它將作為種子在整個價值鏈及供應鏈上獨一無二的終生識別代碼，直到成為珍珠珠寶製品送交消費者手中。

全球標準化的產品電子代碼訊息服務（縱橫網™）基建等同為每顆珍珠建立系譜，它在生產和供應鏈的每一個階段積累真實而詳細的資訊——由珍珠核工廠到珍珠養殖場、珍珠商人、寶石實驗室、珠寶店到最後珍藏這件珠寶的幸運兒。系統保證在任何時候都能查詢數據和資訊，以進行產品認證。

farm, pearl dealer, gemological lab, jewelry store and to the lucky owner of the treasured pearl jewelry with the full assurance of all the data and information for authentication upon enquiry at any time.

The EPCIS global standard enables, for instance, pearl farms to enquire about nucleus genuine information, on the one hand, and provide directly cultivation information such as plantation and harvesting, on the other. Likewise, pearl dealers can enquire pearl cultivation information and in turn upload stock-in and stock-out details while jewelry stores can scan and retrieve the pearl information and enter in stock details and inventory information.

All the information, genuine and crucial, is systematically recorded in the repository along the way for later recall in response to query about the product. Along with the physical grading, each pearl has truly taken on an identity uniquely its own as never before.

Benefits

The benefits are immense and immediate for commercial customers and consumers alike. They assign each pearl with a unique traceable “ID number”; provide provenance of each pearl; raise confidence level with trusted information; and protect clients from buying counterfeited pearl products. Furthermore, they encourage industrial standardization; connect industry with clients without physical barriers; improve supply chain and inventory management; and create new business opportunities using information and communication technologies.

“Beauty is in the eye of the beholder. When it comes to pearls, beauty is not just a matter of personal opinion but the indisputable priority in value consideration. Our solution has further enhanced the existing beauty value of Fukui Shell products with new values that have been created for each and every pearl through global GS1 standards enabling visibility across the whole spectrum from unique identification to track and trace, authentication and standardisation,” asserts Wong.

“Indeed, there's more to it than meets the eye. All of our products now come with embedded detailed information on such important specifics as origin, farm, cultivation date, lustre, size, colour, shape, spots. With traceable identity, their authenticity, quality and value are vouchsafed. This is a major breakthrough Fukui Shell has always been looking for to win and boost the confidence and loyalty of our customers.”

舉一個例，產品電子代碼訊息服務全球標準能確保珍珠養殖場能查考珍珠核的真實資訊，另一邊廂，養殖場亦能向其他持份者直接提供養殖資訊，例如播種和收成的訊息。同樣道理，珍珠商人可查詢珍珠養殖資訊，並繼而上載入貨和出貨資料，而珠寶店則能掃描並擷取珍珠資訊，再輸入存貨詳情和倉存資訊。

在整個流程中，所有這些真實而重要的資訊均有系統地紀錄在數據庫，以便日後查詢。除了實物評級，每顆珍珠均可說擁有了獨一無二的身世，實為前所未見。

效益

不論對市場買家還是消費者來說，這項措施均是深富效益，並且立竿見影。系統為每顆珍珠編配了獨一無二、可追溯的「身份編號」，能為每顆珍珠提供來源地，並以可靠的資訊提升持份者信心，以及保障客戶不至買到贗品。此外，它亦鼓勵業界落實標準化，並能連結業界與客戶，不受地域疆界所限。它亦改善了供應鏈和倉存管理，並通過資訊和通訊科技創造新商機。

「雖然說各花入各眼，但說到珍珠，那並不純粹講求個人的審美觀，同時亦要考慮它無可置疑的價值。我們的方案進一步為福井產品原有的美增值。通過GS1的全球標準，提升了每一顆珍珠在整個供應鏈裡的透明度，讓持份者可以逐一識別、追蹤及追溯、認證以及達到標準化。」王先生重申。

「事實上，你得到的遠多於肉眼所見。我們所有產品均附有詳盡資訊，包括等來源地、養殖場、養殖日期、光澤、大小、顏色、形狀和斑點等重要細項。賦以可追溯的身份後，珍珠的真偽、品質和價值均得到保證。這是福井一直追求的一項重大突破，希望能贏取並提升顧客的信心和忠誠。」

About the company 公司簡介

Fukui Shell Nucleus Factory is a Hong Kong-based company specialised in manufacturing and supplying pearl nuclei and pearl farming operation tools to pearl farms around the world. It has a global market share reaching some 30% in pearl nuclei supply, with a clientele comprising some of the world's largest top pearl cultivators. 福井製核所是香港一家專門製造和供應珍珠核及珍珠養殖工具的公司，產品外銷世界各地的珍珠養殖場。其珍珠核的全球市場佔有率達30%，幾家世界最大型的珍珠養殖場都是它的客戶。

V-MODA

Connecting to consumers via a mobile app 利用流動應用程式連接消費者



Background 背景

The US-based V-MODA is a lifestyle headphone brand that has been providing music lovers worldwide with a high-end audio experience since 2006. In its commitment to maintain a high level of product quality, V-MODA uses only classic materials including steel, aircraft-grade aluminum, zinc and Kevlar to produce military-grade test standard headphones.

V-MODA成立於2006年，是以生活品質為重的耳機品牌，讓音樂愛好者能體驗優質的音樂享受。為履行對顧客的產品質量承諾，V-MODA只採用第一流的原料，如以鋼、鋅、飛機用鋁和既輕且高強度的纖維來生產達軍事級測試標準的耳機。

Challenges 挑戰

When V-MODA, which specialises in bolie audio products, first entered the Asian market, counterfeiting and parallel imports issues were serious. In fact, the company received complaints from distributors and loyal customers over the issue, along with a large number of fake products “returned” to them, imposing a severe strain on its customer service.

V-MODA在開展亞洲市場時，發現假貨及水貨問題嚴重，招致不少分銷商和忠實顧客投訴，並把大量假貨「退回」公司，客戶服務部飽受壓力。

“By adopting the Value+ solution, we now have better control of our product price and sales channel, as well as improve our customer relation management.”

「採納Value+產品驗證方案有助公司有效地管理產品的市場價格及銷售渠道，提升顧客對品牌的信心，進一步維護V-MODA在耳機市場上品牌價值。」

Mr. Gavin Luk,
Executive VP – APAC, V-MODA
V-MODA亞太區行政副總裁陸正則先生





Solutions 解決方案

To address the challenge proactively, a V-MODA APAC team commenced a project to adopt GS1 Serialised Global Trade Item Number (SGTIN) and Value+ solution for all the company's headphone products earmarked for retail in Asia. Two labels with QR codes printed on them were affixed to each product and serve different purposes. One of the labels is attached to the packaging, on which the QR code is being used to encode the SGTIN. The SGTIN becomes the serial number of that particular product. Using such a code, consumers can access extensive information via the V-MODA website about the product, from the point of its labeling to its packing, pick-up, distribution and delivery to the retail outlet. Just by simply scanning the QR code with a smartphone prior to purchase, customers can download the information from the website, connected to GS1 ezTRACK and BarcodePlus.

After the purchase is made, consumers can use their smartphone to scan the QR code found in the user manual where a unique verification code is added for authentication and warranty registration purposes. Once the product is registered, consumers can directly access V-MODA's Warranty Registration System.

為積極應對上述挑戰，V-MODA亞太區團隊啟動了採用GS1國際貨品編碼序號(SGTIN)和Value+產品驗證方案的項目，應用於公司於亞洲零售的所有耳機產品。V-MODA於產品標籤印上QR碼，以達到不同的營運目的。其中一款產品追蹤標籤貼於產品包裝盒上，用以記錄SGTIN，SGTIN成為該產品的獨有序號。有了這個序號，消費者可於購買產品前，以智能手機掃描QR碼，通過V-MODA網頁連接往GS1 Hong Kong的「縱橫網」及BarcodePlus平台，查詢有關產品由標籤、包裝、分銷到銷售店鋪等延伸資訊。

購買產品後，消費者更可掃描於盒內用戶手冊上的QR碼，利用其編配的獨一無二驗證碼辨識產品的真偽和進行保修登記。一經登記，消費者便可直接查閱V-MODA的保修登記系統。



Key benefits 效益



Through Value+ solution, V-MODA has gained not only **better control of its product prices and sales channels**, but also ways to improve its customer relation management through strengthening consumer loyalty.

透過這套產品驗證方案，V-MODA不但有效地管理產品的市場價格及銷售渠道，更提升了顧客忠誠度，鞏固了顧客關係。

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