

Apple a decade behind Japan mobile payment curve

September 14 2014, by Karyn Poupee



Sony's prototype model of a smart card with a NFC chip (R) which has a LCD display enabling users to check the account balance, electronic coupon and other electronic information and a wrist watch shaped device, seen in Tokyo, on July 17, 2014

Apple's proud announcement that its new iPhone could be used to buy goods in a single swipe left customers non-plussed in Japan, where mobile contactless payments have been normal fare for a decade.

A type of Near Field Communication (NFC) chip, known in Japan as FeliCa, was introduced to the Japanese mobile market in June 2004 and has been implanted in almost all phones sold in the country since.

The iPhone has been one of the few chip-less exceptions—something that will change when the new models hit Japanese shelves on September 19.

Ten years ago the charismatic Takeshi Natsuno, who was then multimedia services director of Japanese mobile operator NTT Docomo, extolled the benefits of swapping cash for cell phones.

"When I leave my house in the morning all I take with me is my phone, which lets me do everything—pay, take public transport—simply by swiping a special reader in shops, stations or airports," he said at the time.

FeliCa was conceived by Sony way back in 1989 and first used in the Hong Kong underground railway system in 1997—in a card known as Octopus—inspiring cities around the world to use similar technology in their own contactless transport cards.

Japan adopted an electronic payment system for trains in 2001, starting with the JR East network, which serves the Tokyo region.

The transport cards' success led to the integration of contactless chips into Japanese mobile phones and lifestyles with the creation of a group of apps known as the "mobile wallet" by NTT Docomo in 2004.

Thousands of readers are now installed in convenience stores, on vending machines, in office buildings and at stations and airports in Japan.



Apple CEO Tim Cook shows off the new iPhone 6 and the Apple Watch at the Flint Center for the Performing Arts in Cupertino, California, on September 9, 2014

Contactless payments are a normal part of everyday life for many Japanese people, said Michael Au, president of the South Asia and Japan branch of digital security firm Gemalto.

"Japan has the most developed contactless infrastructure in the world and customers are already familiar with using their mobiles for contactless services," he said.

Sony, which said it has delivered more than 530 million FeliCa chips for cards and 245 million for mobile phones, is now responsible for making around a hundred various services based on the technology compatible with each other.

'Galapagos syndrome'

NFC was approved as a standard in 2003, as the fruit of cooperation between Sony and Dutch company Philips Semiconductors (now known as NXP Semiconductors).

"NFC has not reached the level of popularity or integration into current systems that FeliCa has in Japan. FeliCa paints a picture of NFC's goal and how to get there," says a site providing information about NFC.

The huge success at home that has not translated into sales abroad is a common theme in Japan, where companies have tended to focus on the large home market and its particularly fussy consumers.

This has led to a phenomenon dubbed the "Galapagos Syndrome". Like the distinct evolution Charles Darwin catalogued on the remote Galapagos Islands, technology in Japan has a tendency to develop without reference to other parts of the planet and is then incompatible with foreign market standards.

The most well-known example of this is the [mobile phone](#), where Japan was initially streets ahead and had polyphonal, full-colour flip-top mobile phones in the late 1990s.

These units were Internet-capable as far back as 1999.

But the technology ossified and Japan was a relative late-comer to the smartphone market.

This "Galapagos-ization" has also been remarked in the video game, car and audio markets, with products such as the MiniDisc, compact cars and manga-inspired games all failing to make the same headway overseas as in Japan.

Natsuno, who is now a professor at Keio University in Tokyo, says Japan should have looked into overseas expansion of its cutting edge contactless payments system much sooner.

The fact that "we didn't extend this concept to the rest of the world" means that now Japan "can't do anything" about Apple's bragging over their innovative iPhone 6 with an NFC chip, he said.

© 2014 AFP

Citation: Apple a decade behind Japan mobile payment curve (2014, September 14) retrieved 26 April 2024 from <https://phys.org/news/2014-09-apple-decade-japan-mobile-payment.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.