

“Fujitsu has a keen understanding of Korea’s regulations and unique environment, and answered our request with its extensive experience and technological expertise.”

Mr. Kim  
Smart Business Team Head  
Lotte Card Co., Ltd.

Lotte Card develops HandPay Service using the Fujitsu palm vein authentication solution; removing the need for credit card or mobile devices when shopping.

**At a glance**

Country: Korea  
Industry: Finance  
Website: [lottecard.co.kr](http://lottecard.co.kr)

**Challenge**

Lotte Card was looking to introduce a new, safe, user-friendly payment system that revolutionizes how people shop and allows the company to take the lead in the very competitive Korean financial market.

**Solution**

Lotte Card adopted the Fujitsu palm vein authentication solution which allows a user’s biometric information to be read beforehand – enabling users to make payments at stores simply by holding their hand over an authentication device.

**Benefit**

- Enables users to make hands-free purchases
- Creates a new, safe, user-friendly way to shop
- Palm vein authentication is far less susceptible to fraud compared to other biometric methods
- Has enabled Lotte Card to become a leader in the very competitive Korean credit card industry

## Customer

Established in 2002, Lotte Card is a credit-based finance business focusing predominantly on the credit card and instalment payment industries. With total assets reaching over 10.2 trillion KRW (approx. \$9 billion) the company has emerged as a market leader in the rapidly expanding mobile financial services industry.

## Products and services

- Fujitsu non-contact palm vein authentication system



### Fujitsu and Lotte Card create empty-handed shopping

With the Korean government striving to proactively promote the fintech industry, the mobile financial services industry has seen rapid expansion. In line with this, the biometric authentication market saw a two-fold increase between 2012 and 2016, with the industry now worth approximately \$270 billion a year. Wanting to take the lead in this area and gain an edge of its competitors, Lotte Card has set out to provide safe, user-friendly services to credit card users.

### Safe, convenient payment solution driving Korea's financial industry

Adopting the Fujitsu palm vein authentication solution, Lotte Card enables users to make payments at stores simply by holding their hand over an authentication device. Regarding why the company is targeting this area, Mr. Park, Managing Director, Marketing Head Office, Lotte Card, states, "Lotte Group is a corporation that proactively implements the latest technology ahead of our competitors. We may not be Korea's number one company in the credit card market, but we take the initiative when it comes to adopting AI and big data analytics. We aim to become a leading corporation in the financial services industry in Korea, one that utilizes the latest technology."

### The most reliable form of biometric authentication

Palm vein authentication is far less susceptible to fraud compared to fingerprint recognition, as authentication is only given after analyzing special components found within a person's blood vessels. The vast number of veins found in the palm and the complexity of their shapes offer a huge amount of information, resulting in a false identification rate of 0.00008% and an identification failure rate of just 0.01% - making it far more reliable than other methods of biometric authentication. Furthermore, as there is no need to touch the sensor surface of the device itself, there is the added benefit of sanitation.

Wanting to make the process as simple as possible, users first have their palm biometric information scanned and registered at a card center. This information is then converted into encrypted data before being related to the user's individual credit card information. What this means is that when a user wants to make a purchase, they simply enter their mobile phone number into the payment device and place their hand over the scanner. Once verified, payment is complete.

### Hands-free payment revolutionizing shopping

Once Lotte Card's HandPay Service is fully deployed, making purchases while empty-handed will become a reality - eliminating the need to carry purses, wallets or mobile devices, etc. Discussing the contributing factors behind the scheme's success, Mr. Kim highlights the close relationship formed between the two companies, states, "Fujitsu has a keen understanding of Korea's regulations and unique environment, and answered our request with its extensive experience and technological expertise."

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