



# Making life more convenient

BGF have opened their first unmanned and checkout free convenience store in Seoul, South Korea. It's an innovative attempt to digitally transform bricks-and-mortar retail, while helping the company grow sustainably and at a lower cost. To start shopping, customers simply scan an app or their hand to pass through a gated turnstile that uses Fujitsu PalmSecure technology.

## About the customer

As times change, BGF is changing with them, setting a new standard in the convenience market by responding to evolving domestic consumption habits. BGF stands for "Be Good Friends". This slogan encapsulates the company's vision to be the leading convenience store brand in South Korea. BGF's stores operate under the Anywhere, Anytime principle and are open 365 days a year, 24 hours a day, 7 days a week, stocking over 3,000 products.

## Challenge

BGF wanted to create an unmanned convenience store.

## Solution

- Fujitsu PalmSecure
- Fujitsu AI & Cloud Services



# 1 year

Solution successfully running with no issues

“Fujitsu is very knowledgeable about unmanned stores. With their help it was possible to develop this solution in just one month.”

Eunkwan Lee, BGF retail Innovation Division

## The future of retail: cashless and unmanned convenience stores

The Korean economy is changing, with rising labour costs and statutory minimum wage rises lowering BGF profits and growth, while increasing store operating costs.

“The biggest challenge to the business are the ever increasing labour costs, low birthrate and lack of workers due to our ageing society,” explains Eunkwan Lee, BGF Retail Innovation Division. “Our business relies on labour, and when labour costs rise this inevitably leads to an increase in our operating costs. BGF reviewed various unmanned operation solutions to resolve this difficulty.”

The idea that people can walk into a store, pick what they want to buy and then walk out again – without any interaction with staff or a checkout – and be automatically charged for their purchases was very appealing to BGF. It provides a huge opportunity for innovation and growth but BGF needed a technology partner to help bring this idea to life.

## An AI Powered Solution

Fujitsu helped combine an AI-based customer behaviour recognition and product recognition solution. Registered and authorised users are recognised as they enter and leave the store and charged accordingly.

As Eunkwan Lee explains: “The solution relies on cameras and sensors that track what shoppers remove from the shelves, and what they put back. If someone passes back through the gates with an item, his or her associated account is charged. If a shopper puts an item back on the shelf, we remove it from their virtual cart. Cash registers and checkout lines become superfluous: customers are billed after leaving using a credit card on file.”

## Cooperation, innovation, trust

“We couldn’t do this without Fujitsu,” explains Eunkwan Lee. “Their technology is really advancing the state of data-driven algorithms and machine learning. They helped combine an AI-based customer behaviour recognition and product recognition solution. And Fujitsu’s PalmSecure solution based on palm vein technology means it is secure, hygienic and non-intrusive. That means we can remove lines and checkouts.” The Fujitsu PalmSecure solutions provides a high level of accuracy, is easy to implement and uses a non-intrusive and contactless reader. As veins are internal and have a wealth of differentiating features, attempts to forge an identity are extremely difficult, thereby enabling a high level of security.

The solution was developed quickly, as Eunkwan Lee says: “Fujitsu is very knowledgeable about unmanned stores. With their help it was possible to develop this solution in just one month. During a whole year of operation there have been no noticeable issues with the system.”

Now BGF can now operate stores without resident staff, the solution will be scaled to other BGF stores. Eunkwan Lee adds: “Our goals is to make this service more accessible to our general customers. It is very hard to change the customer experience, however we will continue to trial and test. I think in the future we can build an unmanned store where customers can come in and out without any authentication required.”

Fujitsu and BGF will continue to collaborate to realise this vision, Eunkwan Lee says: “BGF stands for Be Good Friends and I’d like to think of Fujitsu as our good friend.”

## FUJITSU

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