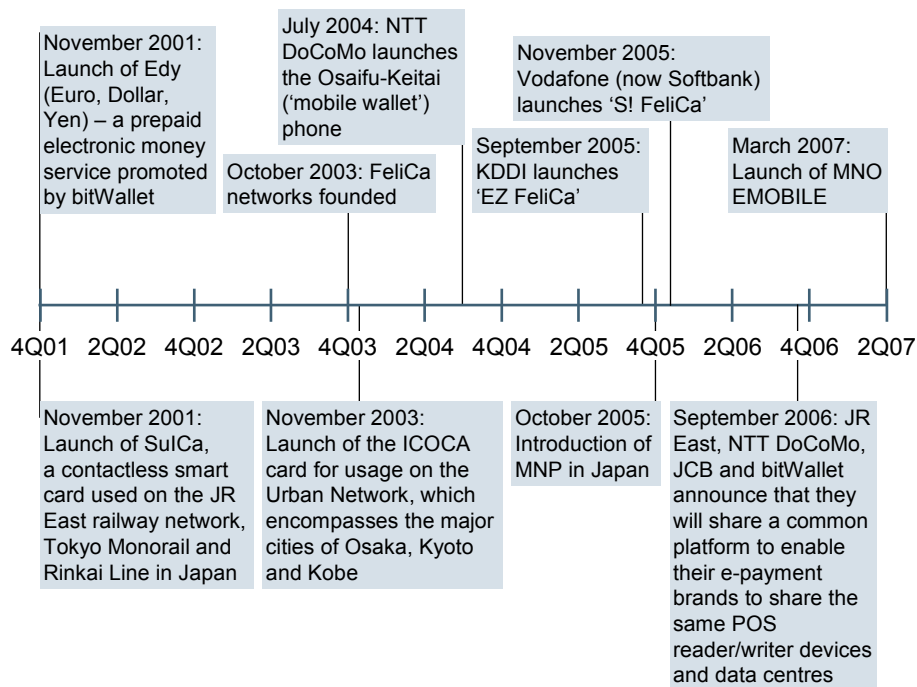


Table 1.1: SWOT analysis of mobile NFC [Source: Analysys Mason, 2008]

Strengths	Opportunities
<ul style="list-style-type: none"> • Mobile devices provide the electronic capabilities (including battery, processing power and memory) to support NFC applications • The high penetration of mobile devices in developed markets offers vast economies of scale for NFC deployment (in 2006, Analysys Research forecasted that 1.1 billion mobile phones would be sold worldwide in 2007)² • Mobile devices are one of a small number of personal items that users always carry around with them 	<ul style="list-style-type: none"> • NFC can significantly extend the range of applications that can be offered via mobile devices, and thereby presents significant revenue opportunities for stakeholders, as well as benefits such as a reduction in cash handling and card issuing costs • NFC is compatible with contactless card standards, so can employ infrastructure deployed for other contactless services • NFC infrastructure is already in place as a result of the deployment of contactless cards and readers for payment and transportation ticketing. This should enable wider take-up of NFC-based services • Subscribers to 'mobile wallet' applications may be less likely to switch service provider because of the perceived difficulties of transferring multiple applications • Services based on NFC may provide co-branding and cross-marketing opportunities between stakeholders
Weaknesses	Threats
<ul style="list-style-type: none"> • The chip price (at USD3–5 per handset) is prohibitively expensive for MNOs. Suppliers believe that they are unable to reduce the price to a more favourable level in the absence of sizeable orders, and no MNO has committed to a large order to date • The cost of upgrading to an NFC-enabled mobile phone may be prohibitive for consumers unless it is subsidised • Consumers are concerned about the security of mobile-device-based transactions • Mobile phones may be at greater risk of being stolen if they are NFC-enabled • Adding more hardware and software to the mobile handset will place further demands on the form factor • NFC functionality may reduce mobile phone battery life 	<ul style="list-style-type: none"> • Trials indicate strong consumer demand for NFC despite security concerns, but the success of a commercial launch remains uncertain • The business case for MNOs is unclear • Mutually beneficial business models have yet to be established between MNOs and major application owners (such as financial service providers and transport companies). Key issues still have to be resolved, including share of costs and revenue, and ownership of the customer • Several handset manufacturers (such as Motorola, Nokia and Samsung) support NFC, but have yet to ship large volumes of NFC-compatible handsets

² See Suo-Saunders, Y., *Evolution of Mobile Handsets to 2011 and Beyond: market analysis and forecasts*, Analysys Research (Cambridge, 2006).

Figure 2.1: Key events in the development of mobile proximity payments in Japan, 4Q 2001–2Q 2007 [Source: Analysys Mason, 2008]



NTT DoCoMo's Osaifu-Keitai is arguably the world's most successful implementation of contactless technologies as an enabler of mobile payment and ticketing to date in terms of end-user adoption. NTT DoCoMo had 28.5 million Osaifu-Keitai subscribers at the end of March 2008, which represented 53% of its total subscriber base. The service comprises a range of payment and ticketing applications, including:

- online shopping
- in-store shopping
- financial services (such as cash withdrawals and credit card payments)
- membership and loyalty cards
- keys and ID cards
- transportation (for example, train tickets and airport check-in)
- event ticketing (such as for cinema screenings).