



## 50<sup>th</sup> ATM Anniversary – Fact Sheet

1. The world's first automated cash dispenser -- later known as an Automated Teller Machine -- was inaugurated at the Enfield branch of Barclays Bank in London on 27<sup>th</sup> June, 1967. This device was invented by John Shepherd-Barron and his team at De La Rue Instruments Ltd.

Looking back 50 years later, we can see that this machine was a beacon of hope heralding a fundamental shift in banking. Today, there are over three million ATMs worldwide as well as more than 200 different kinds of transaction possible on these highly interconnected terminals.



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2. At the time of its invention, the ATM was an unproven device which people didn't even know they needed, far less would come to rely on. It has subsequently revolutionised society and helped bring about the 24/7 self-service culture we know today with its convenient access to financial services beyond banking hours, such as cash withdrawals, balance enquiries and a growing range of value-added services. The ATM certainly changed the way we think and behave, both as individuals and as a society, and put us in control of our cash for the first time.

Over time, we see that self-service devices like the ATM laid the groundwork for today's range of digital retail financial services. New services and technology, such as biometric and anti-fraud solutions, are continuously contributing to the on-going innovation of the ATM, where security is far stronger than it is on laptops and cell phones.

For most of its 50 year timespan, the ATM has stayed at the cutting-edge of innovation and public interface, providing a reliable and secure set of services whilst building the trust of consumers.

3. Two other independent machines were also deployed in 1967<sup>1</sup>. One in Uppsala, Sweden, designed by Asea-Metior (today ABB) at the behest of the Swedish savings banks. This machine was called Bankomat. A second device was engineered by Chubb for the Westminster Bank (today RBS Group) in London.
4. The year 1969 saw the arrival of other independent manufacturers notably Speytec (later to be part of Detroit-based Burroughs) in the UK, Omron-Tateishi in Japan, and Docutel and Diebold in the USA. The trend continued during the early-to-mid 1970s to include IBM, which in 1973 entered the market deploying an online machine which followed specifications by Lloyds Bank<sup>2</sup> and later NCR.
5. The history of automated cash dispensing has been a long and complex one involving multiple actors. The technology, in short, evolved through different team efforts. Part of that story is the contributions made by engineers at Chubb, IBM, NCR, Diebold, Omron-Tateishi, Burroughs, Docutel and other companies working alongside bankers, regulators, telephone companies, etc. which transformed automated cash dispensing into the ATM. These unsung heroes helped to bring about the breakthrough.
6. The ATM has enabled significant cost reductions, by moving branch staff to value-added activities, and introduced electronic means to identify customers (i.e the PIN). In addition, ATMs have given customers unparalleled access to their banked cash and other added-value services in locations away from the branch, closer to where they live, work and shop. The great convenience was that this was all possible outside of normal banking hours.
7. Later, the ATM went online when machines were connected in expanding inter-bank networks (which reached 200 in number in the USA alone), while card associations like Visa and MasterCard created international card networks for debit and credit card use. This meant ATMs could be used both at inter-bank and at cross-border level.
8. The uptake of cash dispensers really took off during the 1980s and 1990s. NCR, Diebold and Nixdorf (today Wincor Nixdorf<sup>3</sup>) became the world's leading manufacturers. Other major vendors today include GRG Banking, China's biggest ATM manufacturer, Hyosung and Fujitsu.

This period also saw the advent of non-bank operators, also known as Independent ATM Deployers (or IADs), focused on operating ATMs at numerous retail outlets.

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<sup>1</sup> In the patent record, the roots of the modern ATM is attributed to Luther Simjian's Bankmatic, which is described in the US002930296 patent of 1960 and cited as "prior art device" by all subsequent submissions. The Bankmatic was a depositaccepting machine which produced a photograph as a receipt. One of these devices was put to the test in the lobby of a branch of Citibank in New York in 1961, a kind of night safe device. A second early development took place in Tokyo, Japan. Little is known of the Japanese device. In any case neither Simjian's nor the Japanese technology ever took off.

<sup>2</sup> Note: The claim to the first online cash dispenser is challenged by the Swedish Bankomat and Japanese Omron-Tateishi. <sup>3</sup> The merger of Diebold and Wincor-Nixdorf has been announced to create Diebold Nixdorf.

9. The ATM Industry Association was founded in 1997 to oversee the global interests of the vast industry spawned by the invention of the ATM. Today, it has grown to over 5,500 members in 65 countries.
10. By the end of 2014, there were over 3 million ATMs worldwide, deployed across most countries and in places as far afield as Antarctica, Easter Island, near Ayers Rock (Uluru) in central Australia, in the Forbidden City in Beijing, China, at the Grand Canyon in America, in Nagqu in Tibet at an altitude of over 14,000 feet and in remote parts of Fiji and Papua New Guinea, to mention but a few “extreme ATMs”.
11. The annual growth of ATMs continues at a rapid pace with well-known London-based research group, Retail Banking Research, calculating that there’s a new ATM added to the global installed base *virtually every three minutes*.
12. The resilience and importance of the ATM in modern times has been demonstrated by the banking crisis in Cyprus (2013) and Greece (2015), and the central role they play in disaster response operations in places like Turkey and Nepal.
13. A recent study by the ATM Industry Association estimated an average year-on-year increase in the use of cash worldwide over the 2009-2013 period to be 8.9%, compared to anemic economic growth rates below 3% p.a. Currency Research estimates there are about 360 billion circulating banknotes in the world. Around 150 billion banknotes are printed each year and this amount is thought to be around 40% of the volume which is circulating.
14. So important has the ATM become to our daily lives, for delivering access to our cash at all hours, among many other services, that it’s now almost impossible to imagine a world without ATMs.

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### **Additional Reading**

Martin Campbell Kelly obituary of John Sheppard-Barron for The Guardian (May 23, 2010)

<http://www.theguardian.com/business/2010/may/23/john-shepherd-barron-obituary>

Oxford Dictionary of National Biography entry for John Adrian Shepherd-Barron (1925–2010) [Index

Number 101102503] <http://www.oxforddnb.com/index/101102503/John-Shepherd-Barron>

Cash Box: The Invention and Globalization of the ATM, by Tom Harper and Bernardo Batiz-Lazo (2013)

<http://www.amazon.com/Cash-Box-The-Invention-Globalization/dp/1935497626>

Smithsonian Magazine history of the ATM by Linda Rodriguez McRobbie (January 2015)

<http://www.smithsonianmag.com/history/atm-dead-long-live-atm-180953838/?noist=&preview=&page=1>

“A Brief History of the ATM: An Object Lesson”, The Atlantic (March, 2015)

<http://www.theatlantic.com/technology/archive/2015/03/a-brief-history-of-the-atm/388547/>

*ATMIA Global Cash Demand Study* by Mike Lee (2015) <https://www.atmia.com/news/atmia-publishes-new-global-cash-demand-study/2632/>

\*\*Detailed studies on the invention of the ATM (free to download versions): Emergence and

Evolution of Proprietary ATM Networks in the UK, 1967-2000

<https://ideas.repec.org/p/pramprapa/3689.html>

Evidence of the Patent Record on the Development of Cash Dispensing Technology

<https://ideas.repec.org/p/pramprapa/9461.html>