

# ATM Benchmarking Study 2016 and Industry Report

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# Foreword

The results of the third round of global ATM benchmarking in 2016 reinforce both the central position the ATM occupies in today's omni-channel<sup>1</sup> banking environment and the fact that there is still a long way to go to reach optimisation in operating this powerful self-service technology.

The benefits of investing in benchmarking include gaining new strategic direction, significant cost saving and improved performance. Even today, though, businesses continue to underestimate the power of benchmarking as a tool for continuous improvement. With cost controls still high on the agendas of financial institutions, it's even more important now to use the benchmarking tool for objective measurement of performance.

This report sketches the current global ATM landscape before delving deep into the vast range of metrics our study has developed since its inception. You will also thoroughly enjoy the section on the growing list of Value Adding Services at ATMs.

We set out to provide fresh insights into the performance, cost and profitability structure of ATM estates of participants. A comparison of the results of three separate ATM surveys between 2011 and 2016 shows the evolving trends in our industry across all the most important metrics of ATM operational performance. In particular, this new study reveals that there are several ongoing inconsistencies in the way the ATM industry manages its costs. In fact, there is clearly still considerable scope for improving cost efficiencies across the ATM operational lifecycle.

In an environment of intense competition with "disruptive" technologies in the electronic payments space, in which some banks may even face a threat of disintermediation, and in a time when the costs of compliance and of migrating to new operating systems continue to pose a challenge, cost optimisation in the ATM industry has become nothing less than a competitive necessity.

I'd like to thank Accenture's team for another powerful study giving ATM deployers, whether banks or IADs, a step-by-step approach to increasing the efficiency of their estates. I'd also like to place on record my sincere appreciation for Ron Delnevo's strong support for this third round of benchmarking.

June, 2016



Michael Lee

CEO  
ATMIA

<sup>1</sup> Omni-channel banking: provision of access to financial services across a variety of channels with a consistent interaction

# Executive summary

The ATM channel is still maintaining its central role as a core banking touchpoint with the consumer and has become an integral part of the banking omni-channel experience, not only playing a key role in the broad context of modern banking but also being a major enabler of mission-critical "access to funds" functionality within financial inclusion initiatives. The channel is taking an even more important role as branch network optimisation leads to a reduction in the number of branches while consumers still express a preference for banks with a physical presence<sup>2</sup>.

Following the success of the previous ATM benchmarking exercises and the positive feedback received by participating organisations, ATMIA has decided to undertake a third round of ATM benchmarking and is pursuing a partnership with Accenture, one of the leading advisory and technology services provider to the financial services industry, for the purpose of developing this industry report.

Findings from the third round have confirmed the conclusions from the previous two in terms of the untapped cost efficiency that is still available within the ATM industry and of the evolving role of the ATM in modern banking. The ATM is a channel through which multiple current account-related services are made available to consumers. In addition, the

ATM provides leverage for the provision of customer convenience services that often provide fee-based-revenues to the ATM operator. The wide selection of services made available at the ATM that emerged during the previous study of 2012, and which appeared to be selectively focused during the 2014 study, now appears to have been further focused to a broader but more defined, range of services.

The trend towards introducing cash recycling ATMs is likely to accelerate around the globe as highlighted by ATM Marketplace based on a comprehensive industry survey<sup>3</sup>. The well-established success of this innovation in a number of markets, particularly Asia, justifies a world-wide commitment to its introduction that sometimes necessitates changes in national laws and central bank regulations, as well as innovation by ATM networks. With bank branches seeking cost efficiencies in almost every market, this service will be core to efficient cash management and vital to the smooth and convenient circulation of cash.

The positivity in relation to expanded transaction sets is in stark contrast to negative connotations surrounding the increased number of ATM crime prevention measures that are reportedly being rolled out in many ATM estates. While this is a reflection of the intensity of the battle that the industry is

undertaking against the ever-present threat of criminality, this is having cost implications, with a notable increase in security and fraud-investigation costs registered between 2012 and 2014.

Overall and despite having been introduced as long as 50 years ago, the ATM remains central to the banking industry in what appears to be a complementary role to the more recently introduced electronic payments facility. ATMIA and Accenture believe that the ATM will retain its importance for banks and consumers alike in the foreseeable future and that the untapped potential for cost optimisation, highlighted during the course of the three rounds of benchmarking, will ultimately lead to an evolution of ATM operating models, including further enhancements of the transaction sets available at ATMs.

<sup>2</sup> Bank Branch Transformation – Towards Affordable Customer Service, Ron Delnevo, Retail Banking Forum – Vienna, November 2014

<sup>3</sup> ATM Marketplace, ATM Future Trends 2015

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# [ATMIA Benchmarking context

Following the success of the first two rounds of ATM benchmarking studies, and the feedback received from participating organisations, ATMIA decided to pursue a third benchmarking round. On this occasion 43 ATM operators participated in the exercise, a slightly increased number of participants over the second round. Among these there is a core of 27 participants that have taken part in one of the previous two rounds and, amongst these, there are some of the largest ATM operators globally and players whose ATM business is core to their strategy.

The third round of benchmarking shares the structure of the second round with the addition of few more data-points within the "Transaction Statistics", "Cash Management" and "Fraud, Crime and Dispute" sections. The questionnaire is now deemed to be complete to the point that it is expected to be rolled over without any further modifications into the next rounds of benchmarking.

As in the case of the two previous benchmarking exercises, anonymous data was gathered across the key areas of the ATM value chain, with the purpose of providing participants with renewed insight in the performance, profitability and cost structure of the ATM estates. This is coupled with insights on the evolution of the ATM functionality (e.g. Value Added Services, or VAS) and with added detail on fraud management and prevention.

The value of such insights is particularly important as the ATM installed base keeps growing, while the ATM remains a core banking channel within the context of branch innovation and omni-channel banking, and is also proving a key enabler to financial inclusion initiatives designed to foster social and economic development in many emerging economies.

For the purpose of this analysis, and with the particular objective of releasing the ATMIA ATM benchmarking study 2016 industry report, ATMIA has decided to partner with Accenture, one of the leading strategy, consulting, technology, digital and outsourcing financial services provider.

As on the previous two occasions, the industry report illustrates the general findings from the benchmarking exercise on a "base 100 normalised index" in order to guarantee the confidentiality of the data submitted by the participants and protect sensitive information.

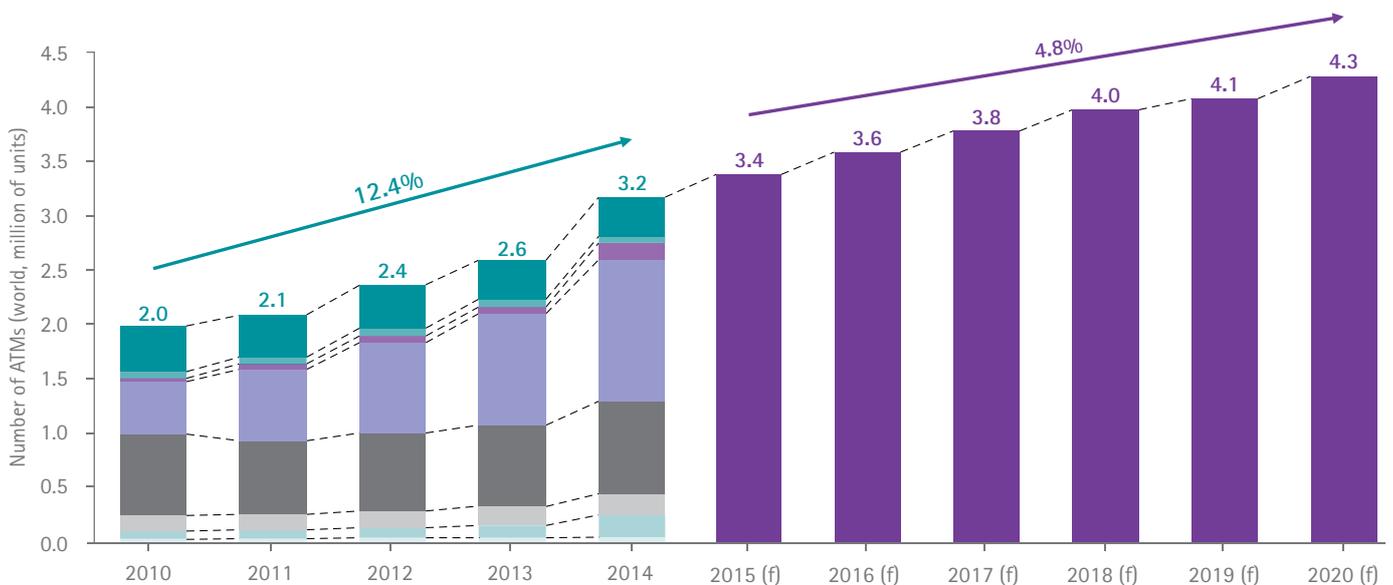
Once again, the underlying philosophy of the exercise is that through cooperation, the ATM industry, together with ATMIA, will be able to provide pointers leading to improved efficiency and performance of ATM businesses.

# Industry landscape

The original concept of ATM appears to have developed rapidly across different countries at the same time out of two initial similar inventions called the Bankomat. "By 1971, manufacturers were mushrooming and building ATMs around the world, including in the UK, U.S. and Japan"<sup>4</sup>. The industry has progressed significantly since those days and, while the ATM is still core to the provision to access to cash, its role within retail banking is evolving rapidly.

The installed base of ATM machines is growing with an estimated 3.2 million units installed in 2014<sup>5</sup>, up by 12.4% compound annual growth rate (CAGR) from the 2.0 million units in operation in 2010. The numbers are projected to grow to over 3.5 million by 2020.

Fig. 1 – Number of ATM (world, millions of units)



Source: World Bank statistical database (<http://data.worldbank.org/indicator/FB.ATM.TOTL.P5>), BIS Red Book ([http://www.bis.org/list/cpmi/tid\\_57/index.htm](http://www.bis.org/list/cpmi/tid_57/index.htm)), ECB (<https://www.ecb.europa.eu/paym/intra/book/html/index.en.html>), RBR ([http://www.rbrlondon.com/about/G20\\_Press\\_Release\\_050116.pdf](http://www.rbrlondon.com/about/G20_Press_Release_050116.pdf)), Accenture analysis



<sup>4</sup> Quote from: <http://www.bloomberg.com/view/articles/2013-03-27/how-the-atm-revolutionized-the-banking-business>

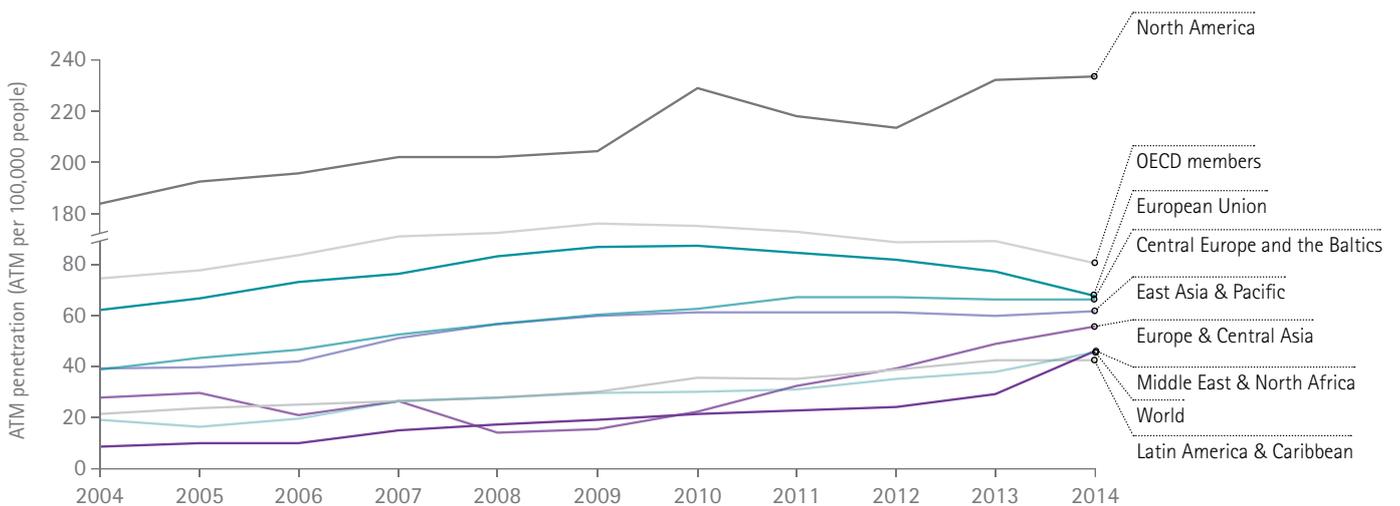
<sup>5</sup> World Bank's statistical portal ([data.worldbank.org/indicator/FB.ATM.TOTL.P5?page=1](http://data.worldbank.org/indicator/FB.ATM.TOTL.P5?page=1)), ECB, BIS, Accenture analysis

Growth happened in all regions with the exception of Europe where the number of installed ATMs shrunk by a 6.0% CAGR between 2010 and 2016. The fastest growing region is the Asia Pacific, with Central Asia growing at a 37.2% CAGR and East Asia and Pacific growing at a 26.2% CAGR over the five-year period. As at the end of 2014, the largest ATM market is China, with 750,770 units, which means that China overtook the US as the largest ATM market in absolute

number of units installed during the year 2014. Nonetheless the ATM penetration in China is still low with 55.03 ATM per 100,000 people (henceforth referred as "ATM / 100k") in 2014, growing rapidly from the 9.62 ATM / 100k of 2006, but far from reaching yet the higher ATM penetration of other countries. North America remains the region with the highest penetration, with 222.27 ATM / 100k at the end of 2014.

ATM penetration increased globally to 43.97 ATM / 100k in 2014, a 52.1% increase from the 28.90 ATM / 100k in 2010. Nonetheless, in Europe, in line with the decrease of installed ATMs, there is a drop in penetration from a peak of 83.42 ATM / 100k in 2010 to 64.78 ATM / 100k respectively in 2014 as illustrated in Fig. 2.

Fig. 2 – ATM penetration by region (ATM / 100,000 people)



Source: World Bank (<http://data.worldbank.org/indicator/FB.ATM.TOTL.P5>)

This dynamic in Europe can be due to a number of reasons, including the consolidation of the banking industry that is continuing in some parts of Europe. This could also be due to some extent to the rapid growth of electronic payments at Point of Sale (POS) vs ATM

withdrawals, hinting at a re-balancing of cash vs. electronic payments usage, potentially driven by phenomena like the growing adoption of e-commerce and electronic payments. *Figs 3 and 4* illustrate the European and global transaction trends at POS and ATM.

Fig. 3 – Value and number of ATM and POS transactions in Europe

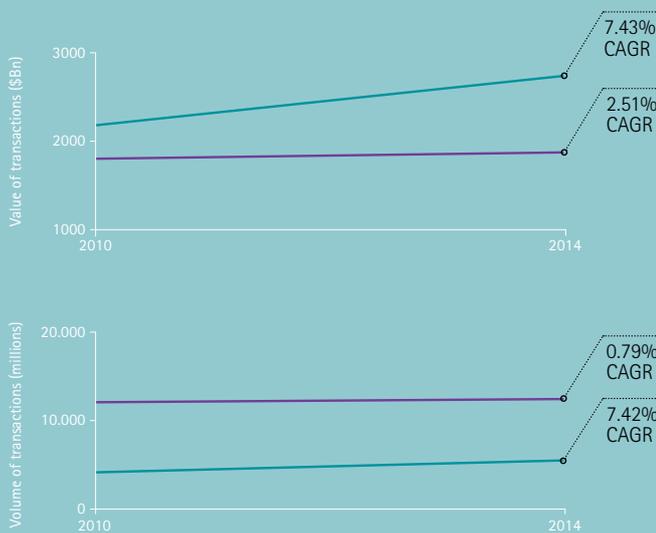


Fig. 4 – Value and number of ATM and POS transactions globally



Source: World Bank database (<http://data.worldbank.org/indicator/FB.ATM.TOTL.P5>), Statista ([www.statista.com](http://www.statista.com)), BIS Red Book ([http://www.bis.org/list/cpmi/tid\\_57/index.htm](http://www.bis.org/list/cpmi/tid_57/index.htm)), ECB (<https://www.ecb.europa.eu/paym/intro/book/html/index.en.html>), Accenture analysis

ATM POS GDP 1.02% 4.38%

Overall, whilst ATMs are central for access to cash purposes and central to the banking experience, in some markets their role has evolved from being a primary banking customer touchpoint to a channel complementary to branch, mobile and internet banking.

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# ATM evolution and branch modernisation

ATMs have evolved significantly from their invention and early developments of nearly 50 years ago. Originally brought in to reduce congestion in branches and to prevent banks from having to extend their opening hours in order to serve a large number of customers, the number and type of services provided at ATMs have expanded significantly.

For example, ATMs in the UK offer consumers the ability to top-up prepaid mobile phones and to make charity donations; in the US, ATMs sell stamps;

MultiCarta in Russia provides customers with internet banking access and credit card application facilities through their ATMs; Leto Bank, another Russian organisation, offers customers express loans through its ATMs; PrivatBank in Ukraine allows Western Union international remittances and currency exchange capabilities; some bank branches in the UK offer ATM cheque and cash deposits, statement printing, direct debits and standing orders management, and credit transfer facilities<sup>6</sup>.

There is still room in many markets for a significant expansion of the transactions offered at ATMs in a self-service perspective. Cash recycling – both notes and coins – is likely to be one increasingly commonplace service offering, as ATMs replace deposit-taking roles previously fulfilled by bank tellers. This is particularly relevant in markets where bank branch networks are being revisited or where bank branch numbers are declining, such as in Europe where in 2013 5,300 bank branches were sold or shut based on Reuters' estimates<sup>7</sup>.

Fig. 5 – Evolution of ATMs and growth of their functionality

	Timeline	Functionalities
Initial developments	Early 1960's	<ul style="list-style-type: none"> <li>• Cash withdrawals (no return of card)</li> </ul>
Basic ATM	1970's to 2000's	<ul style="list-style-type: none"> <li>• Cash withdrawals</li> <li>• Account balance check</li> <li>• Printed receipt</li> <li>• Limited envelope cash deposit</li> </ul>
Multi-functional ATM	2000's to 2010's	<ul style="list-style-type: none"> <li>• Mini-statements</li> <li>• Mobile top-ups</li> <li>• Ticketing</li> <li>• Utilities payments</li> <li>• Mobile and prepaid top-ups</li> <li>• EMV</li> <li>• Cash recycling</li> <li>• General advertising</li> <li>• Money transfers</li> </ul>
ATM in omnichannel user experience	2010's onwards	<ul style="list-style-type: none"> <li>• Targeted marketing and advertising</li> <li>• Information services</li> <li>• Multi-media ATMs</li> <li>• Rapid dispensing capabilities</li> <li>• International remittances</li> <li>• Contactless</li> </ul>

Source: Accenture analysis

<sup>6</sup> ATM Marketplace, "The humble ATM: So much more than a cash machine", 26th January 2016

<sup>7</sup> Reuters – Top European banks close or sell 5,300 branches in 2013, April 11th 2016

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Even where bank branch networks are being expanded, the increase of functionality and the core self-service feature of the ATM proposition is not only enabling ATM operators to seek new types of revenues but also facilitating branch modernisation in pursuit of cost savings and better performance of the retail franchise.

Development of the internet and mobile banking has radically changed the way retail and corporate customers bank today. Despite this, branch banking and the ATM are still core to the overall banking relationship, even if their role has transformed to a choice of confidence and convenience. With the increase of functionality and the evolution of hardware and software, ATMs have become de-facto versatile instruments of customer engagement that are central to the branch re-design into a high-tech, self-service, technology-intensive banking experience that combines efficiency with the value of a personalised, but time efficient, interaction.

Branch re-design is extending the internet self-service experience into a physical banking environment, providing financial institutions with the ability to replace clerical activities and focus branch staff to higher-value customer interaction activities. It is a space and resource optimisation exercise, united with a user experience re-think, by giving to the branch a completely new structure. Enhanced ATMs, multifunction ATMs, deposit taking ATMs and cash recyclers, video teller ATMs are the core building blocks around which to conceptually re-think the customer journey and design a branch with welcoming spaces for customer engagement.

While ATMs are a core enabler for branch redesign, they cannot be taken in isolation for the purpose of modern banking as the underlying analytics enable an omni-channel banking experience by providing a coherent content and engagement across all of the customer's touch points, including the ATM.

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**United Bank for Africa (UBA)** operates across 19 African countries and handles over 2 million transactions per day across multiple channels ranging from over 600 branches, 1700 ATMs, 13,400 POS, internet banking, mobile banking and social media. Through a real-time transaction monitoring platform, UBA is able to proactively manage transaction performance, have a view of customer behaviour and monitor third party hosted switches and integrated applications across all banking channels including multi-functional ATMs<sup>8</sup>.

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**Royal Bank of Canada (RBC)** 's mission is to be the undisputed leader for financial services in Canada and to be the leading wealth management provider globally. RBC's client interaction strategy provides real-time support at the point of the client interaction in a full service face-to-face, an assisted, or in on-line self-service channels including ATMs. The visibility over customer behaviour provides with the ability to act on insights from behavioural patterns. The ability to engage across all channels, including self-service channels like multifunction ATMs<sup>9</sup>.

<sup>8</sup> Source: Inetco Insight, case study: UBA. 13th January 2016

<sup>9</sup> Source: blogs.teradata.com, "RBC: Doubling Success & Earning the Right to be the Client's First Choice" 17th September 2015

# The relevance of ATMs for the purpose of financial inclusion

Access to financial services is one of the key social and economic challenges of modern times. Today there are 2 billion adults worldwide without access to a basic financial services account and, while this figure is still high, it represents significant progress as the number people worldwide with an account "grew by 700 million between 2011 and 2014. 62% of the world's adult population has an account; up from 51% in 2011"<sup>10</sup> based on World Bank statistics. While multiple propositions have been developed to increase financial inclusion, ranging from mobile money solutions and basic banking financial services, to the development of banking agent networks from small retailers, the provision of basic financial services depends on the ability to leverage low cost channels in order to be able to provide affordable basic account and payments services.

In this context, the ATM is proving its value and potential for financial inclusion. "Banking agent transaction costs can beat branch costs by 50 percent [compared to banking branch transactions costs]; automatic teller machine (ATM) transaction costs in high-traffic locations can beat branch costs by as much as 90 percent"<sup>11</sup> based on CGAP's<sup>12</sup> analysis.

There are various financial inclusion initiatives, each of very different nature, whose success and effectiveness ultimately relies on the ability of beneficiaries to access funds either through electronic payment acceptance or through a cash withdrawal.

For example, the government in India aims to have every Indian household with a bank account and an ATM within 15 minutes' walk of every Indian citizen by 2016<sup>13</sup>. Starting from a low penetration of 13 ATM / 100k people, this is a significant ambition that the government has set for itself and, for that purpose, the Reserve Bank of India "decided to merge both the Financial Inclusion Fund and Financial Inclusion Technology Fund into a single Fund – Financial Inclusion Fund (FIF)"<sup>14</sup> to foster the expansion and reach of banking services. "Reserve Bank of India panel has recommended that the ₹2,000 crore Financial Inclusion Fund should be utilised to encourage installation of ATMs"<sup>15</sup> in rural and semi-urban centres. In his 2016-17 budget speech, finance minister Arun Jaitley stated that "To provide better access to financial services, especially in rural areas, we will undertake a massive nationwide rollout of ATMs and micro ATMs in post offices over the next

three years"<sup>16</sup> practically officialising the role of the ATM as a core channel for the provision of banking financial services to the underbanked. As the cost of establishing wide branch networks increases, in particular in rural locations, it is proving challenging, leading to a key barrier to universal access to formal bank accounts. Multi-function ATMs can act as a "mini branch" where customers can conduct the vast majority of transactions as they could in a bank branch.

These are only two of the many case studies available, suggesting the complementary nature of cash access and electronic payments, but is also pointing to the ATM as one of the most important channels, which can be leveraged for the provision of basic financial services to the underserved.

In this context the ability to run a cost effective and sustainable ATM business is critical, not only for the success of the financial services industry, but also for the social good. Based on these premises, the ATMIA ATM benchmarking acquires even more relevance, providing ATM operators with a baseline reference for the improvement of their ATM portfolios' performance.

<sup>10</sup> Source: World Bank, The Global Findex Database (<http://www.worldbank.org/en/programs/globalfindex>);

<sup>11</sup> CGAP Focus Note "Advancing Financial Inclusion through Use of Market Archetypes", April 2013

<sup>12</sup> CGAP (the Consultative Group to Assist the Poor) is a global partnership of 34 leading organisations that seeks to advance financial inclusion

<sup>13</sup> NCR Blogs, "ATMs seen as key to India's financial inclusion revolution", 17th May 2016

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# Key findings from ATMIA's ATM benchmarking 2016

ATMIA, in partnership with selected consultants, collected statistics from 43 ATM operators on global basis. Interestingly, 65% of these are continued participants from the previous two rounds, a figure similar to the one registered between the first and the second round of benchmarking. Of these, 18 participants were from Europe, nine from Asia, five from the Middle East and Africa and 11 from the Americas.

The third round of ATM benchmarking was based on the categories and metrics of the second round, with the addition of some targeted additional data in the Estate Statistics, Transaction Management, ATM Performance Monitoring and Fraud, Crime and Dispute sections.

As on the previous occasion, the purpose of this survey was to provide participants with fresh insights into the performance, cost and profitability structure of their

ATM estates. The value of such insights is especially important as ATMs are core to branch modernisation, within an omni-channel banking concept, and a core access to cash channel in financial inclusion initiatives. With cost controls being kept high on the agendas of all financial institutions, and particularly in times of more precise capital allocation due to tighter compliance requirements, such a capital intensive channel that is also central to customer interaction benefits from an objective view of performance and a way to compare against industry best-practices.

Some of the statistics gathered are included in this report below on a "base 100 normalised index" basis in order to provide an illustration of the general conclusions from the third ATMIA ATM benchmarking round. Some graphs and statistics include most of the sample, but not all of the 43 respondents, since some submissions were not fully completed.

Others, meanwhile, reflect findings from the full sample.

In the same way that the second benchmarking round confirmed the findings from the first benchmarking study, this round re-confirmed the findings from the two previous rounds. As such, the analysis has gone deeper in respect of some of the main topical areas: in particular, for cost performance and the profitability of the channel, the increased functionality of the ATM and in connection with fraud management.

<sup>14</sup> The Times of India, "Rs 2,000 crore fund to push financial inclusion: RBI, 15th October 2015

<sup>15</sup> The Hindu BusinessLine, "Use ₹2,000-cr financial inclusion fund to set up more ATMs, says RBI panel", 15th December 2015

<sup>16</sup> The Times of India, "Rs 2,000 crore fund to push financial inclusion: RBI, 15th October 2015



### Cost and profitability dynamics

Unsurprisingly the analysis of the cost and profitability of the channel has, once again, proved consistent with the findings of the previous studies. The cost per transaction, as illustrated in Fig. 6, highlights no correlation with the number of transactions or the size of the ATM estate. This said, the analysis and the comparison of data across the three benchmarking studies highlights that there are similarities of costs for

organisations from the same region, likely reflecting processing cost similarities on a geographical / supplier basis. This is a working hypothesis that will need to be validated by the participation of larger groups of ATM operators from the same region in subsequent studies.

Cost per replenishment has, for the third time, provided the only correlation with scale to be found in the whole of the

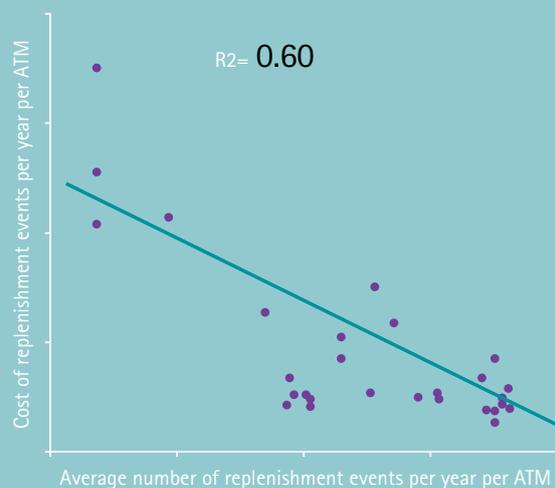
data sample. Fig. 7 provides the graphical illustration of the updated statistics from the third round of benchmarking. In this case, the correlation between the frequency of replenishment and the cost per replenishment per year is a common feature that has been consistently highlighted since the first benchmarking exercise of 2012.

Fig. 6 – Cost per transaction vs. number of transactions



Source: ATMIA ATM Benchmarking Study 2016

Fig. 7 – Cost per replenishment vs. number of replenishments per year



Source: ATMIA ATM Benchmarking Study 2016



The study has, for the second time, included the collection of full costing and full revenue data, with the renewed conclusion that only a small proportion of ATM operators are running their ATM business profitably. Amongst these, "Independent ATM Deployers (IADs)" represent the majority, with the few banks represented proving to be more an exception than the rule. From a banking perspective, the ATM channel is still very much run as a lower cost option to bank tellers. Exacerbating the negative economic performance of the channel are commonly cost and revenue allocation policies that dictate no reverse-interchange recognition from the debit card product line to the ATM in case of on-us transactions. This not only inflates, inappropriately, the profitability of the debit card business but also drags the ATM economic performance into losses.

When looking in depth at the economic performance of the channel, larger financial institutions with large debit card portfolios and large installed ATM estates tend to be amongst the worse-performing ATM operators, in terms of ATM profitability, out of the full sample of all participants.

ATM profitability, as illustrated in Fig. 8, is proving to have significant variance. While the above mentioned cost / revenue allocation policies between debit card and ATM product lines have a part to play in this, there are also a significant number of cost inefficiencies that need to be taken into account. The industry is proving once again to have an untapped potential of cost optimisation, as indicated by the lack of benefit from economies of scale.

Fig. 8 – ATM profitability



Source: ATMIA ATM Benchmarking Study 2016

## Increased ATM functionality

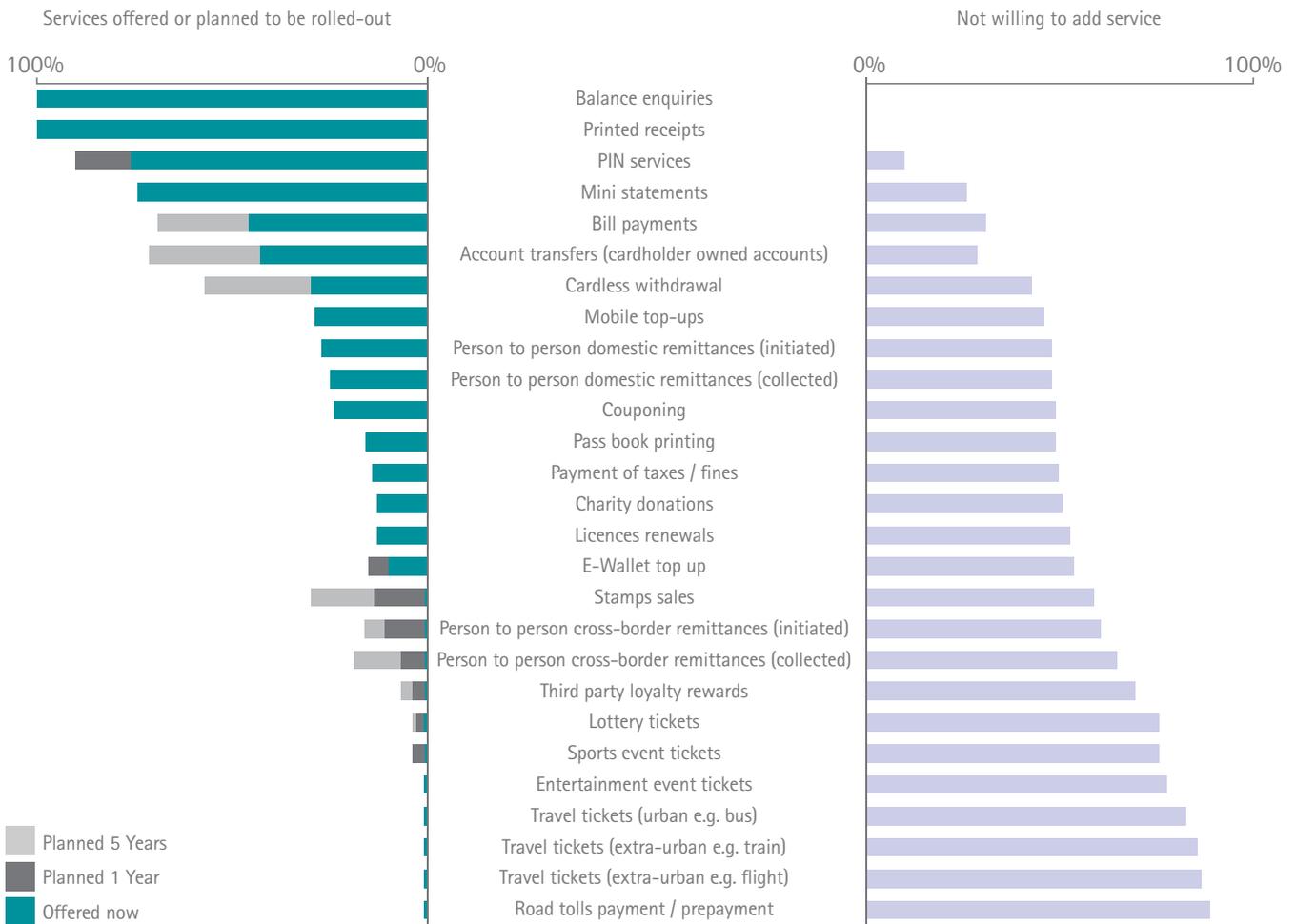
Since the very first benchmarking round, the data collected about the increased functionality of ATMs (otherwise referred as Value Added Services, or VAS) provided evidence of the expanding role of the ATM channel for the provision of services well beyond cash withdrawals or the related "card / transaction-supplementary" services (e.g. balance check or PIN change).

Fig. 9 provides an illustration of the VAS that are currently available or are planned to be made available by participating ATM operators.

The fact that a significant part of the sample participated in both the 2014 and 2016 benchmarking study, and provided the data for this section, enables a meaningful comparison of how the

preferences for VAS have evolved over time. The 2012 benchmarking study registered a broad spread of interest to roll out an array of additional functionality at the ATM, while by 2014 an increased selectivity was apparent concerning which application to make available across the ATM channel.

Fig. 9 – Value Added Services



Source: ATMIA ATM Benchmarking Study 2016



The selectivity is becoming even more evident from the results of the third benchmarking round. The top VAS in the first four positions continue to be core ancillary services to withdrawals and card management-related services. *Fig. 10* provides an illustration on how VAS ranking has evolved during the course of the last two rounds of benchmarking.

Other VAS that appear to gain prominence are either current account services (e.g. account transfers) or a

selected range of services that are related to shifting further services from teller to ATM and increased consumer convenience (e.g. bill payment).

Another observation is related to the distribution of the availability of these services amongst participants on a geographical basis. While six years ago the relevance of available and planned VAS was related to the geographical location of the ATM fleet in question, over the course of the three benchmarking

rounds, the priority given to specific value added services appears to have gained uniformity across geographies.

The range of selected services hints at the fact that there is an increased selectivity of the services available through the ATM and that this selectivity has become more prominent over time, but that VAS available on the ATM fall mainly in two groups: current account services (intended as banking services otherwise available on other channels) and

Fig. 10 – Value Added Services relevance comparison between 2016-14

Value Added Service	2016	2014	Status
Balance enquiries	1	1	≡
Printed receipts	2	2	≡
PIN services	3	3	≡
Mini statements	4	4	≡
Bill payments	5	7	↑
Account transfers (cardholder owned accounts)	6	6	≡
Cardless withdrawal	7	13	↑
Mobile top-ups	8	5	↓
Person to person domestic remittances (initiated)	9	14	↑
Person to person domestic remittances (initiated)	10	15	↑
Couponing	11	12	↑
Pass book printing	12	19	↑
Payment of taxes / fines	13	17	↑
Charity donations	14	10	↓
Licences renewals	15	24	↑
Stamps sales	16	27	↑
E-Wallet top up	17	22	↑
Person to person cross-border remittances (initiated)	18	18	≡
Person to person cross-border remittances (collected)	18	18	≡

Source: ATMIA ATM Benchmarking Study 2016 & 2014

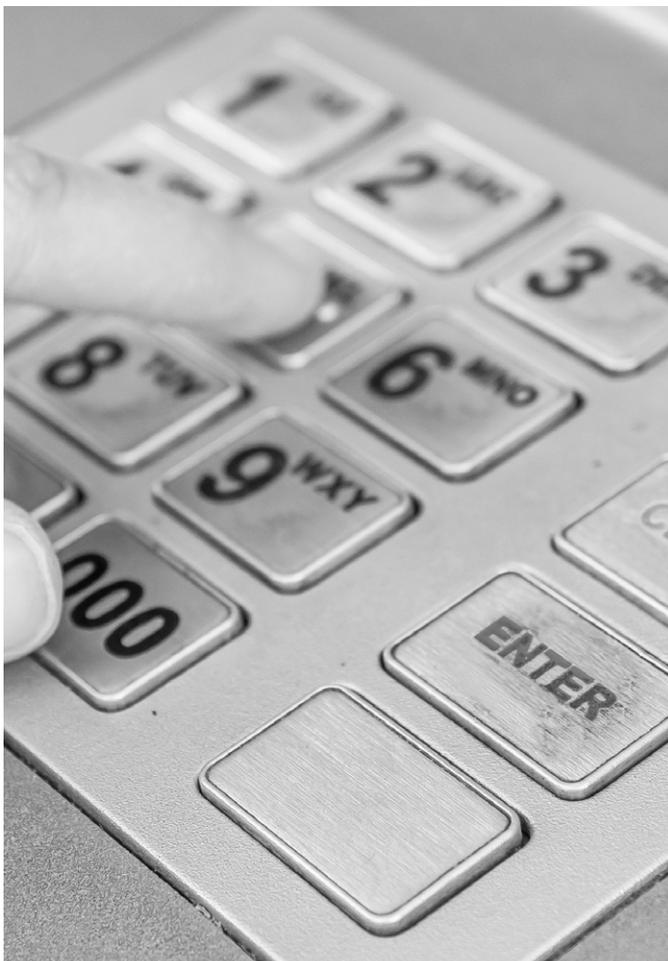
consumer convenience services (intended as fee-bearing services provided on behalf of third parties that may or may not be available at teller).

While today statistics about cash recycling have been collected separately under the Estate Statistics section, it will be interesting to see if cash recycling becomes a significant VAS in the coming years. As bank branches are being redefined, ATMs that provide deposit services and full recycling of notes and

coins will become even more important than they are today. ATMs with this functionality could present a revenue opportunity for ATM operators, whilst also playing a major part in optimising the cost of cash management.

On the basis of this data, the working hypothesis is that ATMs will evolve into more different, for-purpose built range of value propositions that will be targeted to the provision of a defined, and numerically limited, range of

services. These will be focused either to enable further cost efficiency through the provision of current account-centric services or in the development of fees / revenue generating business models based on the provision of third party services to consumers as a convenience driver.



Fraud poses a significant challenge to the industry and increasing investment and effort is required to address it

## ATM crime and fraud management

As the 2014 report highlighted, fraud and crime are having an impact on the industry, not only in terms of losses but also in terms of increased effort from ATM operators in respect of investment of capital and resources aimed at preventing fraud. This is resulting in an increase in fraud prevention measures implemented

throughout estates and an overall increased incidence of the related costs over the total operating costs.

Fig. 11 provides an illustration of the measures reported by participants for the purpose of the third round of benchmarking exercise.

Fig. 11 – Security measures quoted by number of respondents

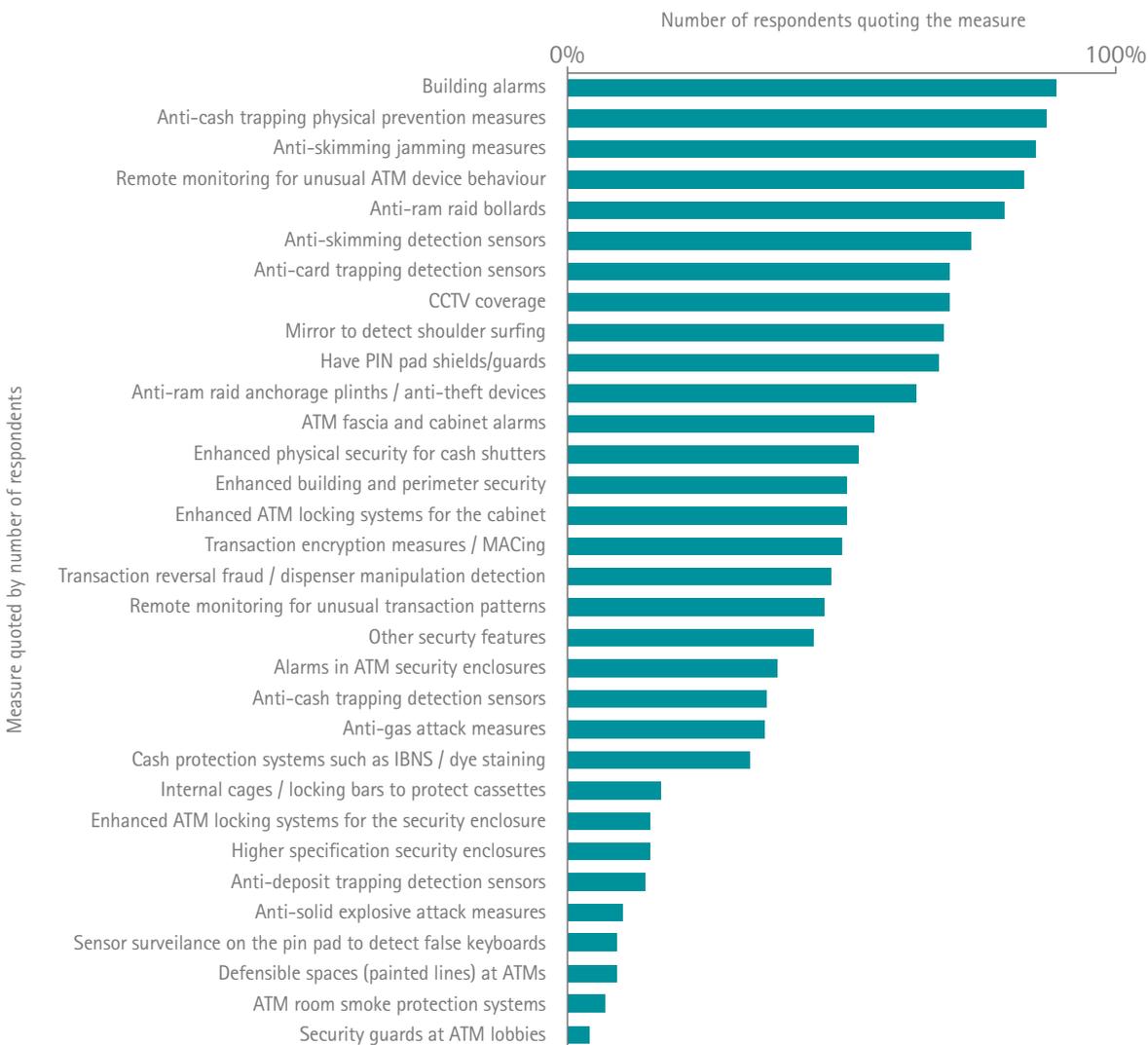


Fig. 12 – Security measures relevance comparison between 2016–14

Fraud prevention measure	2016	2014	Status
Building alarms	1	1	≡
Anti-cash trapping physical prevention measures	2	12	↑
Anti-skimming jamming measures	3	5	↑
Remote monitoring for unusual ATM device behaviour	4	18	↑
Anti-ram raid bollards	5	4	↓
Anti-skimming detection sensors	6	13	↑
Anti-card trapping detection sensors	7	15	↑
CCTV coverage	8	2	↓
Mirror to detect shoulder surfing	9	17	↑
Have PIN pad shields/guards	10	18	↑
Anti-ram raid anchorage plinths / anti-theft devices	11	7	↓
ATM fascia and cabinet alarms	12	11	↓
Enhanced physical security for cash shutters	13	19	↑
Enhanced building and perimeter security	14	16	↑
Enhanced ATM locking systems for the cabinet	15	6	↓
Transaction encryption measures / MACing	16	3	↓
Transaction reversal fraud/dispenser manipulation detection	17	8	↓
Remote monitoring for unusual transaction patterns	18	14	↓
Other security features	19	NEW	
Alarms in ATM security enclosures	20	9	↓
Anti-cash trapping detection sensors	21	26	↑
Anti-gas attack measures	22	NEW	
Cash protection systems such as IBNS / dye staining	23	21	↓
Internal cages/locking bars to protect cassettes	24	22	↓
Enhanced ATM locking systems for the security enclosure	25	10	↓
Higher specification security enclosures	26	20	↓
Anti-deposit trapping detection sensors	27	27	≡
Anti-solid explosive attack measures	28	28	≡
Sensor surveillance on the pin pad to detect false keyboards	29	NEW	
Defensible spaces (painted lines) at ATMs	30	29	↓
ATM room smoke protection systems	31	25	↓
Security guards at ATM lobbies	32	24	↓

The fact that a significant part of the sample participated in the 2014 and 2016 benchmarking, and that they provided the data for this section, enables a meaningful comparison of investment in fraud prevention measures that has been evolving over the course of the last two years.

Comparing the results of the two rounds of benchmarking, there has been a slight increase in the reported number of fraud prevention measures, with a significant change of frequency with which the various security measures are being implemented. Compared to the previous round, during which "Building alarms", "CCTV coverage" and "Transaction encryption measures / MACing" were the top three fraud prevention measures implemented, on this occasion the three most frequently implemented are "Building alarms", "Anti-cash trapping physical prevention measures" and "Anti-skimming jamming measures". Fig. 12 provides an illustration of such changes between the 2014 and 2016 exercises.

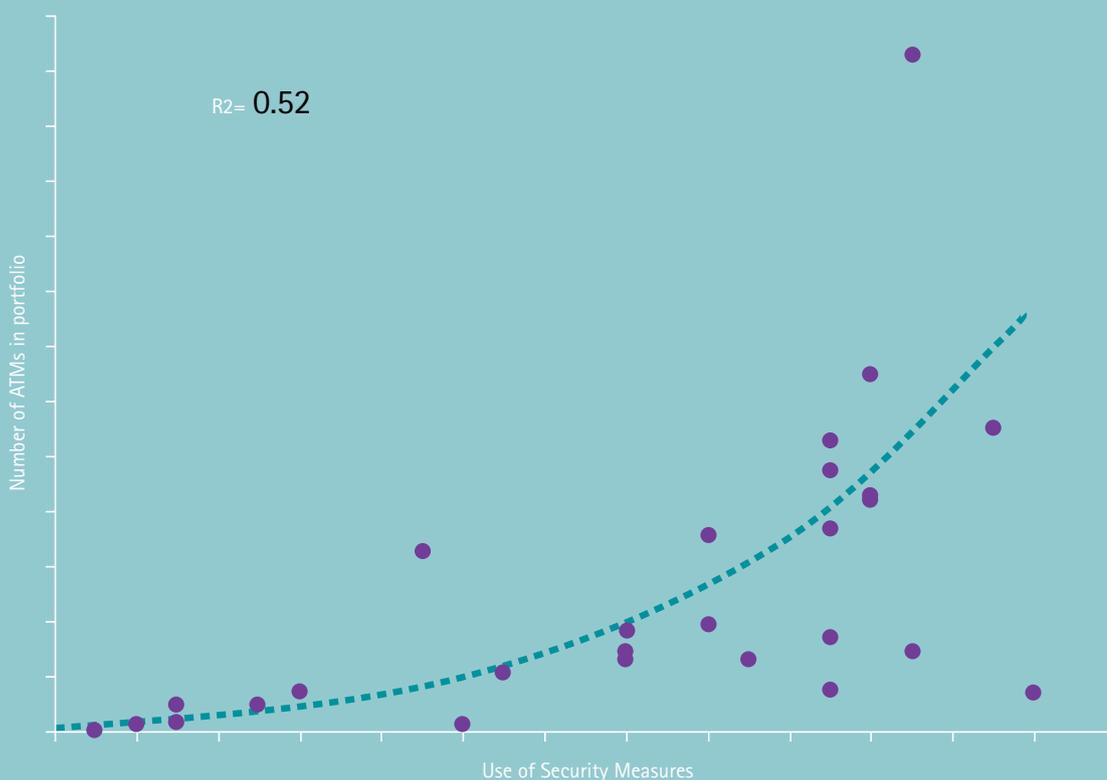
Source: ATMIA ATM Benchmarking Study 2016

When analysing the data, one of the working hypothesis was that the change in the estate characteristics (e.g. ATM locations) of the sample could have been the main driver for such a change but, based on a few targeted interviews, it emerged that there has been a re-focus of investment in fraud prevention measures because of the evolution of the nature of threat faced by the ATM operators.

Further analysis has highlighted a correlation between the number of security measures undertaken by an ATM operator and the size of its portfolio as illustrated by Fig. 13. While no region appears to be safe from ATM crime, there are also interesting geographical patterns, with ATM operators in Europe, North America and Latin America implementing a wider range of number of security measures, regardless of the size of their portfolios.

Between the last two rounds, the data highlighted an increase of fraud investigation costs in the range of 30% to 53% throughout the sample of participants, regardless of their size.

Fig. 13 – Number of security measures by size of ATM estate



Source: ATMIA ATM Benchmarking Study 2016

N.B Quantifiable metrics have been removed to anonymise results

Fraud poses a significant challenge to the industry and increasing investment and effort is required to address it. In general terms, based on these trends, the amount of security measures is expected to keep increasing leading to a question about the sustainability of the investment required

to keep ATMs safe in the medium term, in particular for smaller estates located in areas where ATMs can be more exposed crime.

# Conclusion

After nearly 50 years of existence, the ATM channel is still proving to have retained its central role as a core banking touchpoint with the consumer. While initially this role was held on an exclusive basis, at least for all "vanilla" operations that were moved away from a counter to a self-service channel, nowadays the ATM has become one of the core channels, complementing internet and mobile banking. Its role is not only continuing to be core to the financial services industry but is also evolving into the provision of mission-critical "access to funds" functionalities for financial inclusion initiatives.

Nonetheless, once again on the occasion of the third round of ATM benchmarking undertaken by ATMIA, the channel is proving to have an unexploited potential for cost optimisation and profitability enhancement. The fact that ATMs are still considered in many cases as ancillaries to debit card portfolios and as a sort of necessary evil for the reduction of the overall branch banking operations does not do justice to an industry that has shaped the modern way of banking and that is core to all branch modernisation efforts.

The ATM is a channel through which multiple services are provided to consumers, both in an approach that appears to be pushing a self-service access to an increasing number of current account-related services, but also in terms of leveraging the channel in a more focused manner, for the provision of customer convenience services that often provide fee-based-revenues to the ATM operator. This dynamic is emerging as a working hypothesis for the industry on the basis of the evolution of the value added services that are made available through the channel industry-wide. The selectivity of functionality that emerged during the study of 2014, in contrast with an "all-out" development approach of 2012, is now appearing as a focus of ATM operators on a well-defined range of services.

By contrast, ATM crime prevention measures appear to be proliferating, probably as a reflection of the struggle of the industry against the ongoing and ever more sophisticated attacks to which the channel is subject. The cost of crime prevention has increased during the two years that have passed in between the

two rounds of benchmarking. While these investments are required for the safe-keeping of this core banking channel, the increase of required resources and the increasing variety and complexity of the security measures required to operate an ATM estate to a reasonably secure level will keep increasing the ATM operating costs and may call into question the sustainability of smaller estates.

Overall and despite having been introduced as long as 50 years ago, ATMs are still central to the banking industry in what appears to be a complementary role to the more recently introduced electronic payments facility. ATMIA and Accenture believe that the ATM will still retain its importance for banks and consumers alike in the foreseeable future but also that the untapped potential for cost optimisation and revenue generation will lead, in the medium term, to an evolution of ATM operating models.



## About Accenture

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions – underpinned by the world's largest delivery network – Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With approximately 373,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives.

Visit us at [www.accenture.com](http://www.accenture.com).

## About ATMIA

The ATM Industry Association (ATMIA), founded in 1997, is a global non-profit trade association with over 6,000 members in 66 countries. ATMIA has chapters around the world in the United States, Canada, Europe, India, Latin America, Asia-Pacific, Asia, Africa and the Middle East.

ATMIA has just launched a new international certified eTraining programme for ATM Operators (for both banks and independent ATM deployers). In addition, the association runs an ATMIA Consulting and Training practice as well as a range of industry committees to deal with Government Relations and regulatory monitoring, ATM security, best practices and ATM deployer issues.

ATMIA provides a one-stop online resource for member information with security best practices, industry white papers, articles, research findings, ATM business efficiency best practices, compliance material, Corporate Governance best practices, Glossary of ATM Terms, a Gallery of Technology, online ATM Risk Assessment system, industry calendar and more.

Visit us at [www.atmia.com](http://www.atmia.com).

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