

Unlock Value, Drive Efficiencies



**Self-Service Cash Recycling in the Middle East:
A Comprehensive Guide**



DieboldNixdorf.com

Executive Takeaways



Despite the growing use of digital payments, cash will remain an important payment method in the Middle East.



The self-service channel is becoming more important, due to increasing consumer demand, the desire for social distancing and the need to optimize operational efficiency.



FIs are under pressure to make their operations as efficient as possible.

Cash recycling can help drive efficiencies. Globally, cash recycling is becoming more widely used, particularly in countries where it hasn't been as prevalent.



By utilizing cash recycling, FIs can provide consumers with an enhanced user experience.



Across the Middle East, different countries and organizations are at different steps of the automation journey. But overall, we see an increase in cash deposits, laying the foundation for a business case for cash recycling.



With cash representing up to 50% of the total cost of ownership (TCO) of a self-service device, deploying cash recyclers is a proven method of gaining efficiencies and reducing cash-related operating costs.

“We see cash recycling as the next big thing in financial self-service technologies across the region in order to achieve operational efficiencies and solid drive towards cash-light societies by reducing cash replenishment, cash movements, and the need to use fresh banknotes into the ATM network to great levels.”

—**Habib Hanna** | Managing Director Middle East, Diebold Nixdorf

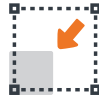


The Value of Cash Recycling



Efficiency

Reduce costs by limiting CIT visits, while at the same time improving your consumers' self-service experiences and improving conditions for your employees.



Flexibility

Allow your consumers, especially small- and medium-business owners (SMBs), to deposit cash when it is convenient for them, regardless of your branch's operating hours.



Speed

Help consumers avoid long lines at the teller by migrating more transactions—like cash depositing—to the self-service channel.



Personalization

Free your staff from cash handling tasks so they have the time to build a strong relationship with your consumers and increase the opportunity for up-selling.



Continuity

Make your services available to consumers, even when your branch is closed, so they're not inconvenienced.



Availability

Avoid out-of-service events and the accompanying frustration caused by the need for sweeps or replenishment of the ATM by keeping up a steady cashflow.



Sustainability

Drive positive social and environmental impacts through financial inclusion and green operations.



“Central banks must work to preserve cash as a societal good for a small percentage of the citizens and as a contingency in cases of natural disaster or crisis”.

—Currency Research, The cash industry in transition, 2019

Effective Cash Management: A Global Trend on the Fast Track

Technology is irrevocably impacting the way we bank. While COVID-19 is shaping consumers' interest in contactless transactions, the desire for cash has not diminished significantly. After an initial decrease of cash usage during the pandemic, we see worldwide that the trend is reversing and that the amount of cash being circulated through the ATM is going up in aggregate. That means cash is a mainstay as a form of payment around the globe.

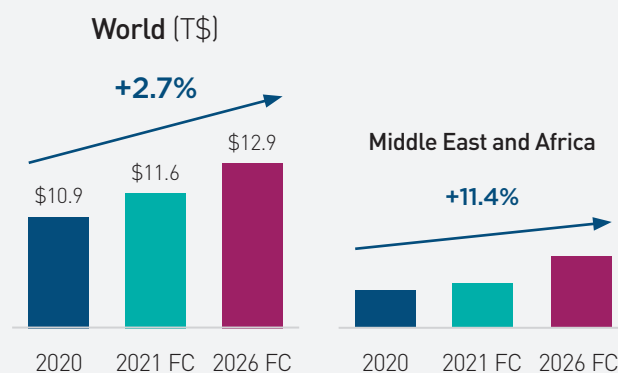
The way people bank is changing—but cash will remain an attractive means of payment into the future, particularly in times of crisis. Cash access suits peoples “anytime, anywhere” needs and ultimately gives people the freedom to choose how they want to pay.

On the other hand, consumers across all generations have ever-increasing expectations for on-demand, digital-first services. The key is conserving cash and developing digital with solutions that grow with your consumers and are as efficient as possible. The self-service channel sits at the intersection of physical and digital financial channels; it remains a critical on- and off-ramp for cash in circulation. Consumers and self-service devices are evolving in tandem, and FIs are the ones that must keep up.

You've got to be adaptable, ready and agile.

Value of cash withdrawals expected to remain resilient

Forecasting globally cash withdrawals, in value, at a CAGR of 2.7% from 2020–2026 FC



Source: RBR 2021, Global ATM Market and Forecasts to 2026
Note: Value of cash withdrawals is trillion of US\$ globally.

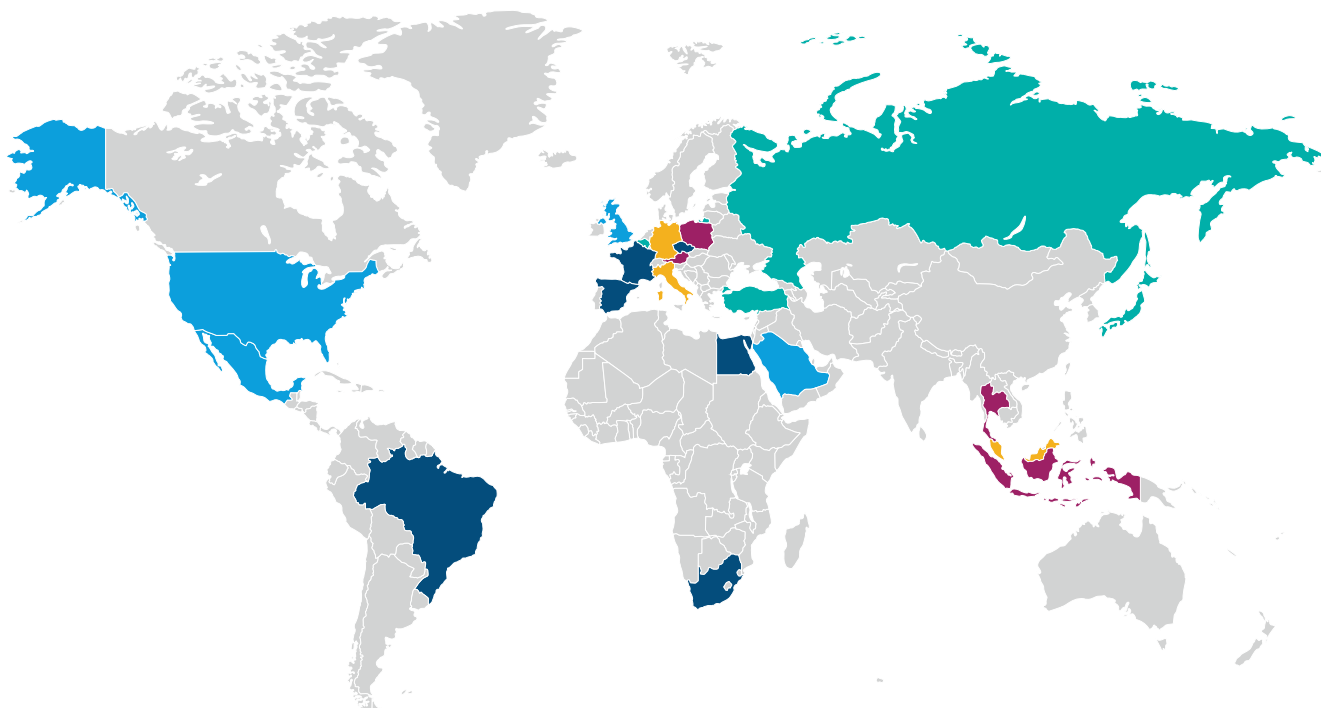
The challenges central banks face and their subsequent goals depend on the status quo they encounter in their countries:

- In **Egypt**, with the government launch of the Sustainable Development Strategy (SDS): Egypt's Vision 2030, financial inclusion has become a national priority.
- In **Saudi Arabia** about 28% of the population was unbanked in 2018, most of them women (56%), low-income groups, less educated individuals, people outside the labor force and those living in remote and rural areas.¹

The Cash Automation Journey in the Middle East

Proportion of ATMs with cash recycling in use / activated

A global sample set - Focus shifts further towards cash recycling



Emerging Recycling Regions include for example:

- <5%** | Mexico, UK, USA, Saudi Arabia
- 5-15%** | Brazil, Czechia, Egypt, France, South Africa, Spain
- 16-27%** | Austria, Indonesia, Poland, Thailand

Mature Recycling Regions include for example:

- 28-40%** | Germany, Italy, Malaysia
- >45%** | Russia, Turkey, Japan

45% of ATMs installed use automated deposit facilities, not all are using cash recycling function actively. Automated deposit transactions are growing in most markets.

Recycling ATMs deliver savings for banks by reducing CIT visits and other operational costs.

The technology is now taking off in markets where it has previously been overlooked, such as in the Americas. Even where the functionality is not immediately utilized, banks are purchasing these machines to allow them the flexibility of switching on the recycling function at a later date when the business case is established.

Source: RBR 2021, Global ATM Market and Forecasts to 2026, *63 countries surveyed

“Despite the growth of cashless payments, cash remains a necessity for many. ATMs serve as a cost-effective method of increasing customers’ access to cash compared to opening bank branches, encouraging ATM deployment in underbanked areas”.

—Rowan Berridge, RBR Press release May 2021



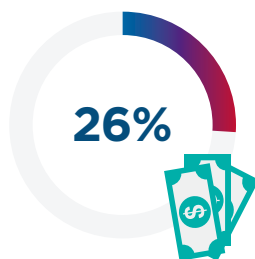
Learn more about the aspects how your ATM fleet contributes to a more sustainable future.

[Get the Guide](#)

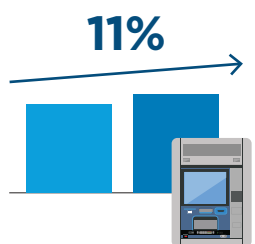
Cash Recycling Solutions

Cash-recycling technology, previously perceived by many FIs to be too expensive or complex to implement, is proving to be a viable option for banks across the world. Recycling ATMs have been shown to reduce CIT costs and many banks now rank recycling as a basic functional requirement when selecting new deposit terminals. Even with a ratio of 70:30 of deposits to withdrawals (and vice-versa 30:70) cash recycling can be a useful tool for a branch to improve operational efficiency.

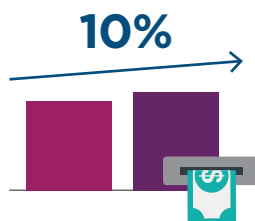
Globally, over two thirds of deposit terminals are expected to recycle notes by 2024 and the technology is now taking off in markets where it had previously been overlooked, such as in the Americas. Even where the functionality is not immediately utilized, banks are purchasing these machines so they have the flexibility to switch on the recycling function at a later date when the business case is established.² With our future-ready DN Series™ this step is easier than ever: All that is required is a software update to go from cash-in/cash-out today to cash recycling tomorrow. This means not only protecting your investment but also extending the lifecycle of scalable and modular solutions designed for upgrades instead of replacements.



Approximately 26% of ATMs with automated deposit capabilities recycle the deposited notes already.



The installed base in the MEA region will grow by 11% absolute, from end-2021 to 2026.



Annual value of cash withdrawal is forecast to grow at an average of 10% between 2021 and 2026.

Source: RBR 2021, Global ATM Market and Forecasts to 2026 – Region Middle East & Africa

Trending Now

The cash automation journey in the Middle East

It is now estimated that some form of social distancing will be needed for some time, leading consumers to continue to use self-service devices as much as possible.

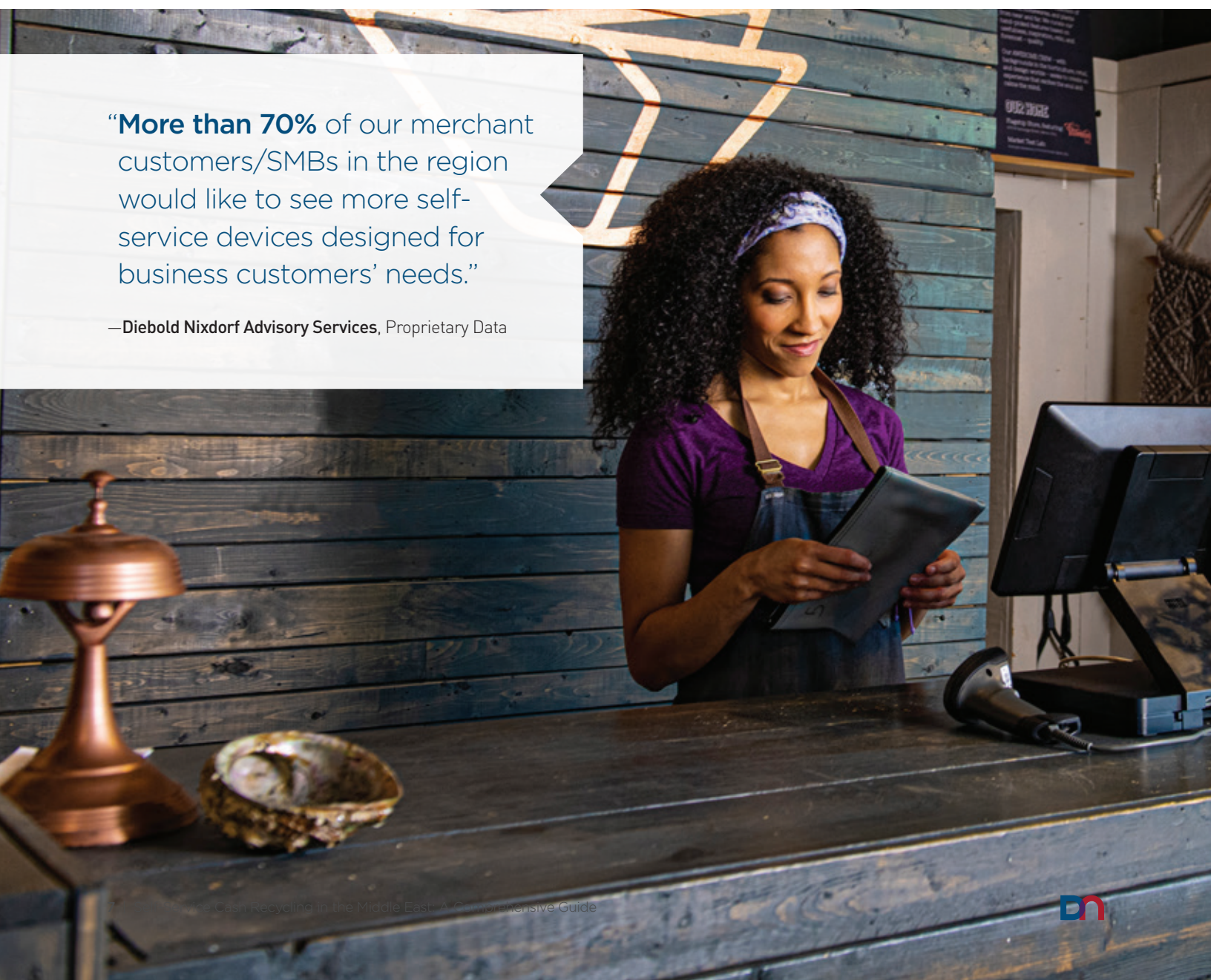
The situation in the Middle East varies greatly across the different states. Overall, though, cash still plays an essential role, and the growth of ATMs is still much stronger than elsewhere. Card payments are gaining momentum, and the COVID-19 pandemic established payment via card even further. However, most unbanked individuals continue to rely on cash.³

While in Egypt the financial inclusion of the unbanked is a key objective for the central bank, in Saudi Arabia many banks have already migrated a large number of transactions to their ATMs.

Transaction migration to self-service makes cash services 24/7 available without the limitation of business hours, and frees up staff to spend more time for relationship building and increasing consumer retention. Plus, self-service transactions are significantly cheaper than a cash transaction at the teller. This is even more important as the ratio of withdrawals to deposits narrows and CIT costs grow, presenting increased opportunities for cost savings.

“More than 70% of our merchant customers/SMBs in the region would like to see more self-service devices designed for business customers’ needs.”

—Diebold Nixdorf Advisory Services, Proprietary Data





Learn more about the Merchant Automation Journey to support your SMB customers and drive efficiencies.

[Get the Guide](#)



The Ideal SMB Journey is a WIN-WIN Situation

SMB



INCREASE
Flexibility



DECREASE
Time for visiting the branch and conduct routine cash transactions

FI



INCREASE
Customer Service



DECREASE
Costs for cash handling

In many countries, SMBs account for about 70% of all cash-in transactions within the branch. And the reality of cash payments is that they require physical activity, for both the SMB and the FI.

Automating the cash journey wherever possible becomes absolutely critical. This is where smart self-service cash recycling solutions can help: SMBs can deposit larger bundles more easily through self-service, providing cash that can be immediately recirculated (i.e. recycled) through the ATM to use for cash-out transactions. The more the SMB segment is migrated to self-service, the more it helps reduce cash-related costs by creating a closed-loop recycling environment that automatically moves money through the system. It has the

added benefit of prolonging CIT intervals drastically, so in terms of sustainability remarkable CO2 emissions can be saved.

Cash has always been the preferred method for small-value payments due to its speed and convenience. Financial inclusion, coupled with strong cash usage, continues to drive ATM growth in a number of MEA countries, according to RBR. But now there is a real alternative: digital payments are gaining momentum. Additionally, more and more consumers prefer to use the self-service channel as their primary touchpoint with their FI and this number is expected to keep growing.

Spotlight on Saudi Arabia

Cash is typically used for all kinds of transactions in Saudi Arabia. The total volume of cash in use represents nearly 60% of the country's GDP, while cash payments account for 38% of all transactions. The government aims to achieve an e-payment target of 70% by 2030.⁴

The number and proportion of ATMs which accept banknote deposits increased and comprised 18% of the ATMs at end-2020. The number of cash-recycling ATMs actively in use has also increased, accounted for 3% of the ATMs.⁵

Although deposit accepting ATMs are on the rise, there remains a delta of app. 30% between the number of withdrawals vs. deposits at the ATM.⁶

Spotlight on Egypt

Cash accounts for a share of 74.7% and remains the preferred method of payment. It's generally favored for low-value day-to-day transactions. However, government initiatives and the pandemic have boosted uptake of non-cash payment methods.⁷

The growth of cash withdrawals has been driven by increases in ATM coverage and improvements in the Egyptian economy, boosting Egyptian consumer spending.⁸

The number of ATMs with deposit facilities has been growing every year, 35% of the ATM installed base currently has automated deposit facilities. Deployment of cash-recycling deposit ATMs is also on the increase and accounted for 5% of ATMs at end-2020.⁹

The number of deposit-accepting ATMs is increasing tremendously, but there remains a delta of approximately 55% between the number of withdrawals vs. deposits at the ATM.¹⁰

The Power of Change with Cash Automation

Automating the cash journey wherever possible becomes absolutely critical:

Financial inclusion measures are a key driver of ATM growth. ATMs can be a tool to bring financial services to new customers—a trend that's playing out in markets across the Middle East and Africa.

Global Spotlight



Garanti Bank—Turkey

Garanti Bank started with the implementation of cash recycling ATM systems in its branches in 2015 and has now fully transformed its ATM fleet to cash recycling. The decision to move towards recycling made sense due to their average deposit-to-recycling rate of 97%. Through the new technology, the bank's average number of ATM visits for cash replenishment decreased by 50%.

Garanti, as a leading digital bank, sees modern technology as a tool for providing optimum service across all channels. In this respect, the bank also built a strong bridge between mobile and the ATM, including cash withdrawals and deposits with QR.

“As Turkey’s innovation leader, Garanti Bank believes in the benefits of recycling technology. We transformed our network with recycling ATMs in order to reduce costs while improving customer experience and availability.”

—**Burçin Bıkmaz**, Director, Garanti Bank



Creating Value for You and Your Consumers

The Benefits of Cash Recycling

Enhancing Customer Experience

The biggest lever for reducing cash management costs is the automation of cash deposit transactions, which should be a key target in your automation strategy. This can be achieved by introducing cash recycling technology. In a cash recycling scenario, your own consumers are replenishing your ATMs for free. Especially in an environment where the CIT needs to be called whenever the safe is opened, the savings potential is enormous—in operational costs and CO2 footprint.

Consumer Benefits

- **Convenient:** Consumers are asking for more ways to bank, along with 24x7 availability. Even without COVID-19, the channel is expected to grow more than 50%. Self-service deposit technology allows SMBs to deposit earnings outside of regular branch hours, alleviating frustrations and eliminating the need to take time out of their business hours to visit the branch.
- **Easy to Use:** No deposit slip or envelope required, screen flows walk consumers through the transaction.
- **Fast Transactions:** Avoid lobby or drive-up queues; fewer CIT visits result in higher availability, prevent frustration and create ease of use.
- **Instant Verification:** View images of checks and cash on screen, and access faster deposit availability.
- **Detailed Receipts:** Include images of the checks and itemized list of cash deposited.
- **All-in-One Multi-Functional:** Offers 80%+ of all transaction-based bank services in one system.

Bank Staff/ Employee Benefits

- **Enhanced Employee Experience:** Creates a less stressful environment where you can more easily interact with consumers.
- **Reduced Cash Handling:** Less time is spent on managing and counting cash and processing checks.
- **Increased Sales and Referral Opportunities:** Fewer manual cash handling activities means your staff has more time to focus on sales activities and identify how they can help consumers with their financial needs.



Driving Operational Efficiency

Implementing self-service options and migrating transaction from teller to self-service is an important first step in automating processes. But to truly maximize your ROI, the real answer lies in end-to-end optimization of cash processes, something Diebold Nixdorf has helped FIs with for many years. Automation is a dependable way to drive down costs.

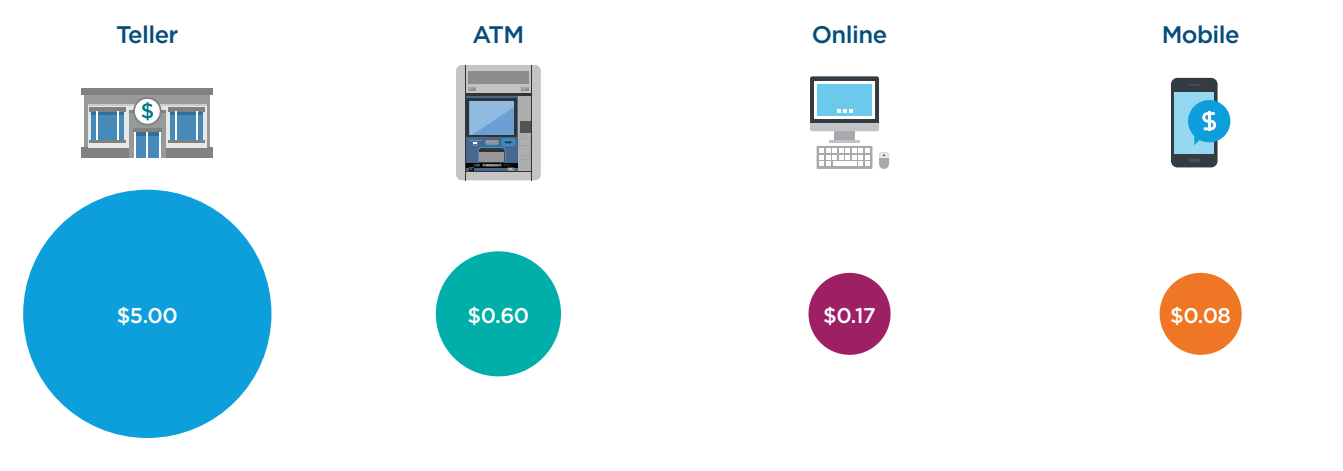
Are you taking full advantage of cost optimization capabilities within your self-service fleet?

Are you still thinking about how useful cash recycling can be for your consumers and your institution? Or have you already been using the functionality for some time and would like to know how to exploit all the possibilities? Here are real-world examples, calculated with local figures, that explore how you can reduce CIT stops and lower your TCO, get even more out of the configuration of your devices and optimize the business case of cash recycling with your current infrastructure.

Financial Institution Benefits

- **Enhanced Customer Experience:** Provides a more inviting and welcoming experience so consumers can bank when, how and where they want on their time
- **Improved Customer Satisfaction:** Reduces wait times for transactions and creates a more technological and advanced feel to the branch and FI
- **Strengthened Consumer Relationships:** Creates more opportunities to deepen relationships with consumers when they do enter the branch
- **Increased Branch Efficiency:** Much lower transaction cost compared to a teller transaction
- **Business Continuity:** What happens if you need to close branch lobbies? This may have already happened to your network during COVID or other natural disasters. This is now the number one driving force pushing FIs who historically have not invested in deposit automation to do so ASAP.

Average Cost per Transaction

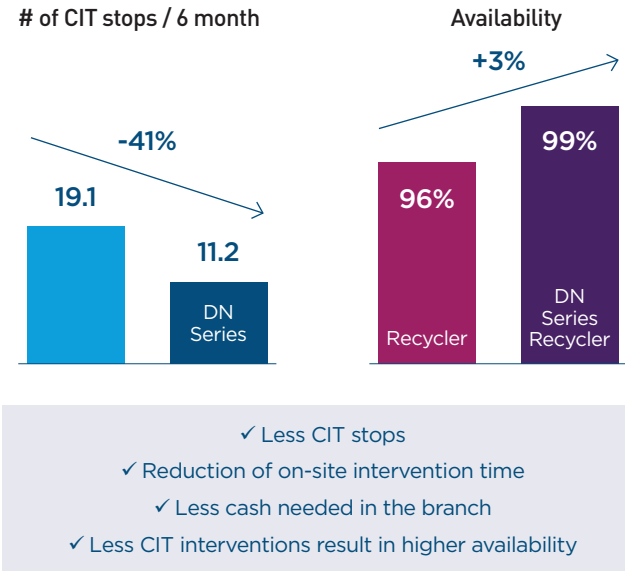


Source: Diebold Nixdorf Proprietary Data



Are you taking full advantage of cost optimization capabilities within your self-service fleet?

1. The Power of a DN Single Tower Recycler



~41-50% lower TCO due to reduced CIT stops

More efficient technology in the “head” of the RM4H leads to a significantly reduced number of interventions to remove jams. The remaining interventions are considerably simplified and shortened: instead of nine, only three steps are necessary to access the note paths in the head module.

- The average number of interventions per system is reduced by more than 40%
- The average “out of service” time per intervention is additionally reduced by half

These reductions increase uptime and availability of the system, and drive a positive environmental impact.

Optimized note paths

Retract recycling

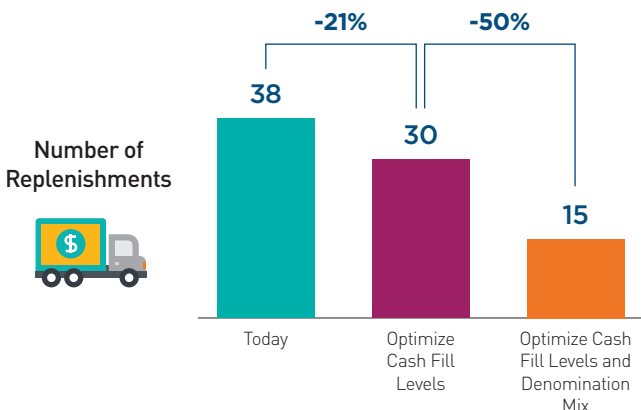
Larger all in box

Intelligent cassettes

In-branch recycling

Constructional prep

2. Cassette Optimization to Tap Into the Full Potential



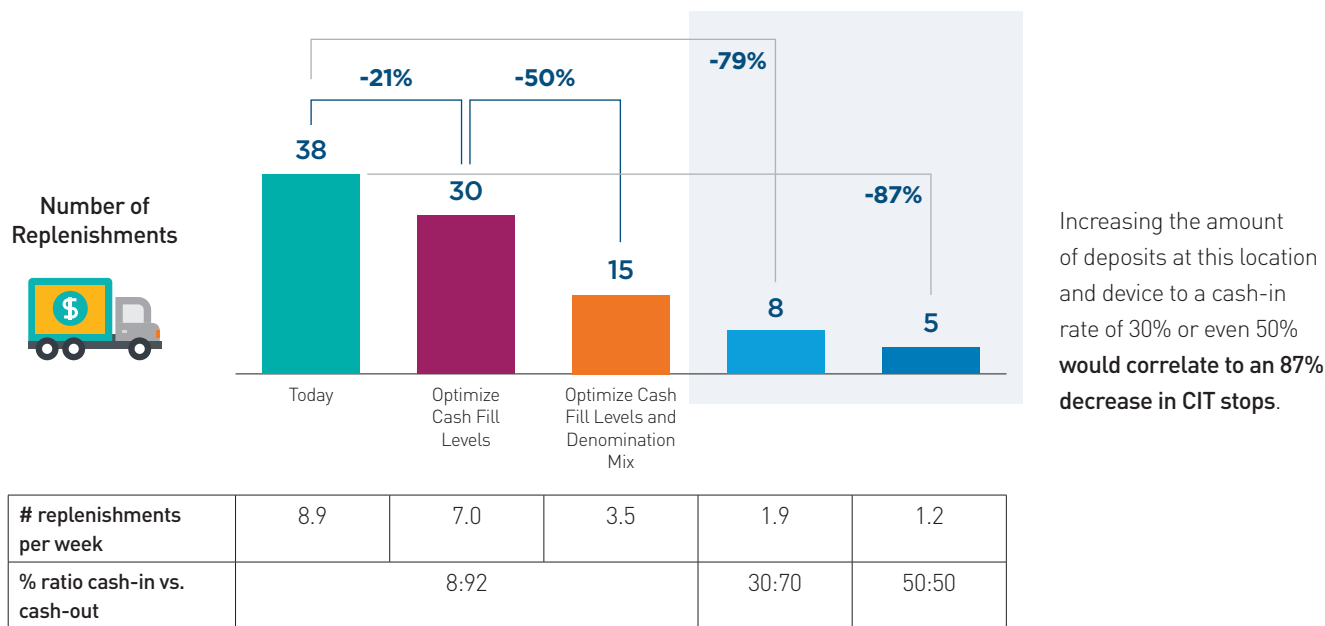
| | | | |
|------------------------------|------|-----|-----|
| # replenishments per week | 8.9 | 7.0 | 3.5 |
| % ratio cash-in vs. cash-out | 8:92 | | |

A closer look at your cassette configuration can help you tap into the full potential of your CRS system. Depending on the location and usage of the system, an optimized configuration can reduce the number of needed replenishments tremendously.

For example, due to high cash-out transaction volumes (8:92%) at this system, most cassettes can be filled up during a single CIT visit, which would immediately decrease the number of replenishments by 21%.

In this regional customer example, the number of low denomination banknotes was also extremely low, yet a whole cassette was reserved for those bills. If the mixture of denominations offered during dispense transactions was optimized, it would be possible to use the full capacity of the cassettes. That change could result in half as many replenishments per week.

3. Use SMB Deposits to Leverage Recycling



4. Benefits of New Technology



Convenient access to cash is critical to consumers. It's the primary reason people use ATMs. And, ATMs drive more digital engagement and customer satisfaction per interaction than any other physical channel. With the cost of cash representing up to 50% of the total annual cost of ATM network ownership, you need to find the right balance between maintaining cash availability while optimizing logistics and idle cash costs, meeting security requirements and controlling risks. Cash planning is most effective when you consider it end-to-end. DN Cash Related Services features a team of specialists who optimize cash management for FIs around the world.

The data-driven service is powered by a unique and patented machine learning algorithm. The outcome is a process optimization that reduces overall cost of cash, meets security and compliance requirements and delivers a compelling customer experience.

Learn more about Cash Management at Diebold Nixdorf.

Future Gazing: The Outlook for the Middle East

According to the British Research and Consulting firm RBR's study, Global ATM Market and Forecasts to 2026, markets with low numbers of ATMs compared to population are forecast to see high growth over the next five years. Many of these countries are in Asia Pacific and Middle East & Africa.

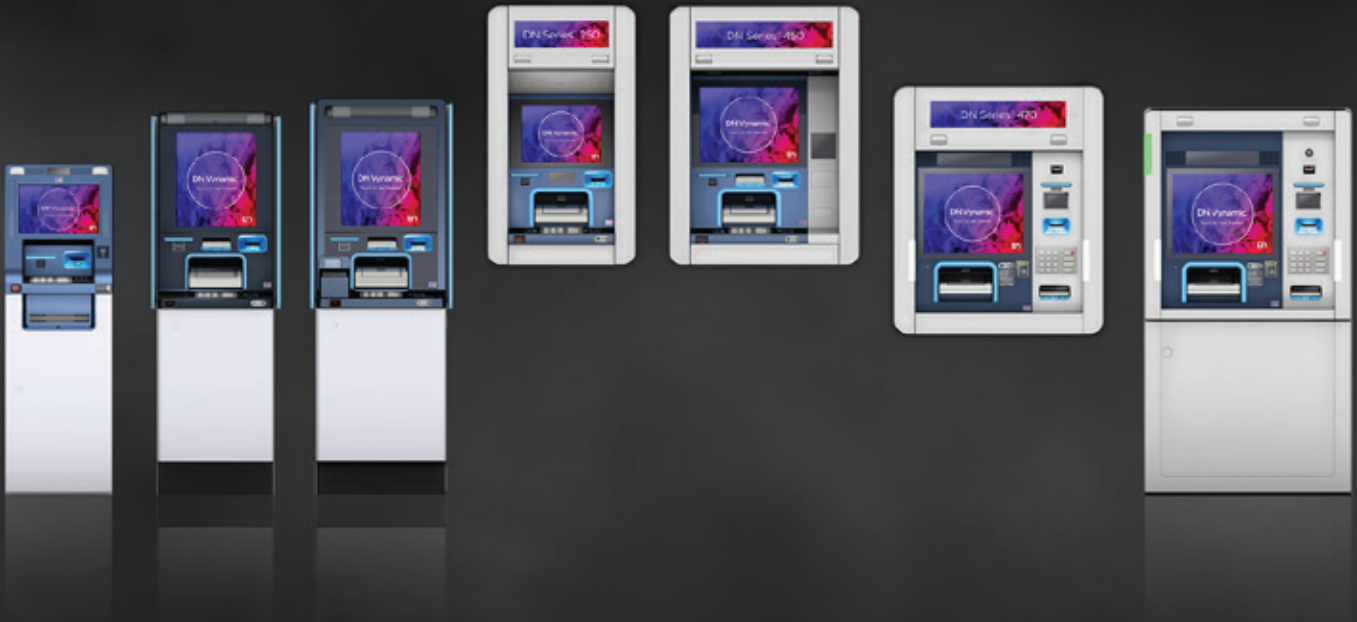
Additionally, cash demand remains high across many markets. Even as banked populations grow, many societies remain cash-heavy: In Egypt, where pensions and government salaries have begun to be distributed onto payment cards, demand for ATMs remains high, with cash expected to be the main consumer payment method over the next five years.¹¹

Transaction automation and branch transformation initiatives in recent years have led to the increased global deployment of ATMs with automated deposit functionality. Today, 11% of all ATMs in Middle East & Africa offer automated deposit functionality. Despite a slightly global decrease, the Middle East & Africa region is predicted to grow at an average of 2% per year.¹²



Why Diebold Nixdorf?

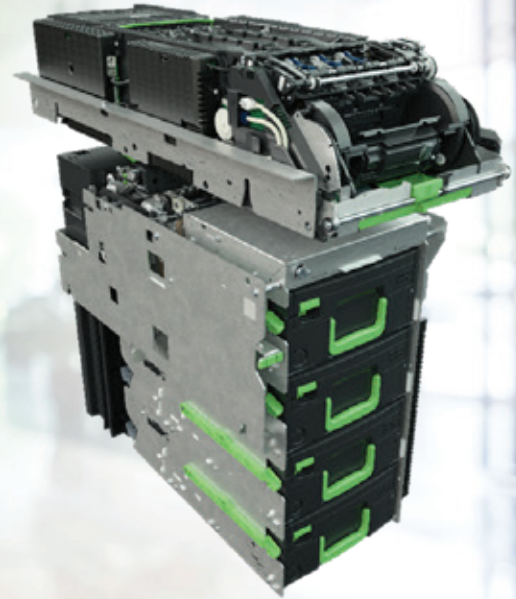
- Industry-leading processing speed of **10 notes per second**
- Large bundle capacity of **up to 300 notes** – especially helpful for SMB owners
- High dispenser capacity of **2,400 notes per cassette**
- Largest all-in cassette with capability of holding **up to 4,000 notes**
- **Five** intelligent, interchangeable cassettes across Diebold Nixdorf products
- **More responsive** to market needs thanks to self-owned IP
- **Low power consumption**
- **Combine** with DN Vynamic™ software suite:
 - One-to-one marketing
 - Intelligent reporting and remote live control
 - AI-based cash flow optimization
 - Cardless interactions
 - Prestaging
 - SME deposits
 - Security
- **Easily manage** through DN AllConnect Services™



How can DN help with the Cash Automation Journey?

With 20 years of experience in designing cash recycling technology, the DN Series RM4H recycling module is designed to meet today's needs and tomorrow's vision.

Our future-ready platform enables your organization to start using the ATM as a cash dispenser and later update to cash recycling with a simple software update. Enhance the self-service experience with DN Series' modern design, and enable faster and easier certification with common hardware components and platform software. A fourth-generation cash recycling engine, the RM4H offers more availability, due to the simplified note path, and ensures you're prepared for future cash automation needs with new high-capacity, all-in cassettes and flexible multipurpose bins.



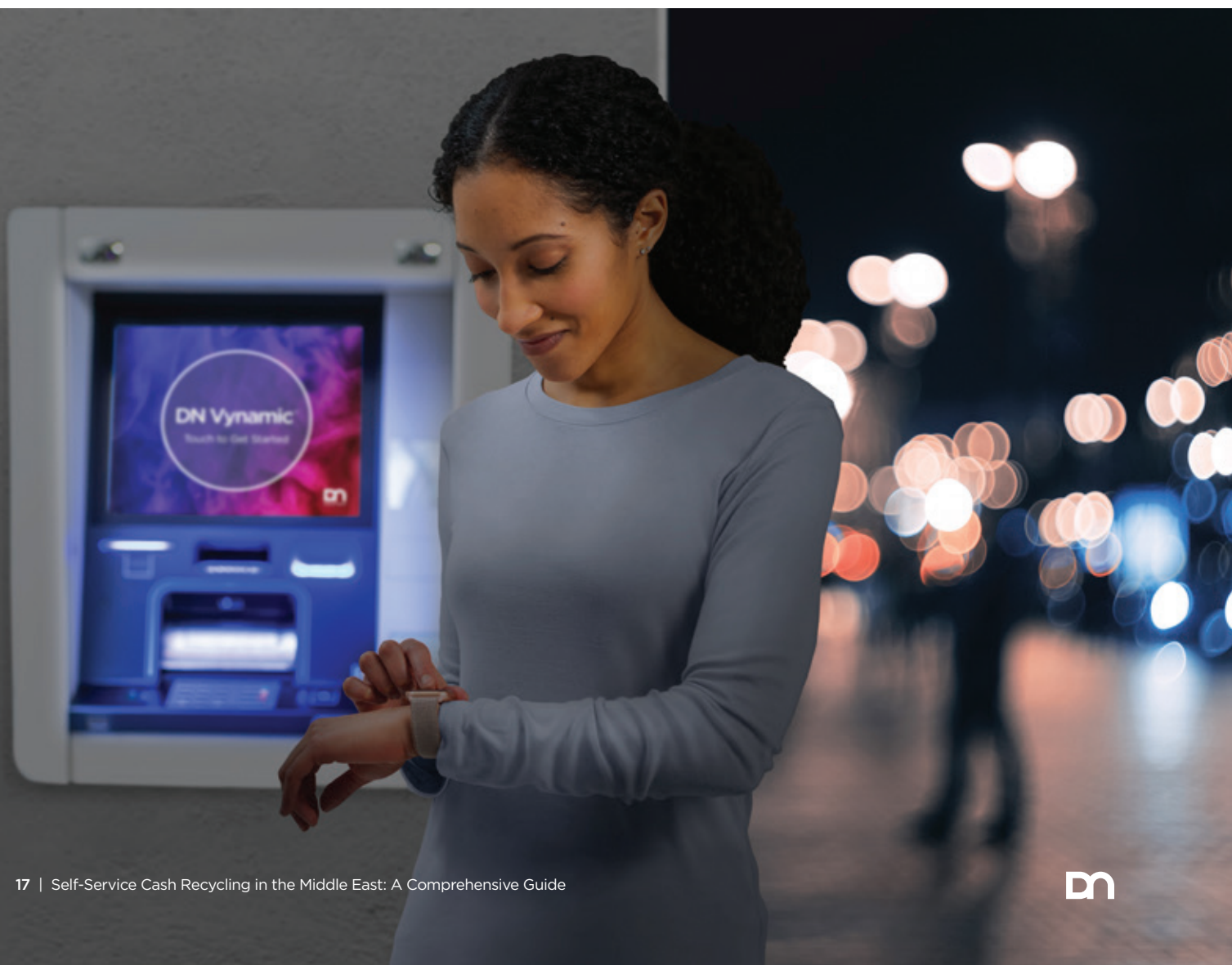
Convenient access to cash is critical to consumers. It's the primary reason people use ATMs. And, ATMs drive more digital engagement and customer satisfaction per interaction than any other physical channel. DN helps FIs around the globe to manage their self-service channels with a holistic view and all needed details. With the cost of cash representing up to 50% of the total annual cost of ATM network ownership, you need to find the right balance between maintaining cash availability without having too much cash in your branch and self-service systems, while optimizing logistics and idle cash costs, meeting security requirements and controlling risks. Cash replenishment and

pick-up processes can be tremendously optimized to help reduce the TCO of the self-service system—which is why cash planning is not effective when you take a silo approach. DN Cash Related Services features a team of specialists who optimize cash management for FIs around the world. They have local expertise and leverage both global best practice and intelligence gained from our worldwide footprint. It's a data-driven service that's powered by a unique and patented machine learning algorithm. The outcome is a process optimization that reduces overall cost of cash, meets security and compliance requirements and delivers a compelling customer experience.

Whether you need future-proof self-service systems, a supportive services partner or end-to-end management of your ecosystem, **let's discuss how we can consult and support you on your strategic priorities.**

Appendix

- ¹ Financial Inclusion in Saudi Arabia. Reaching the financially excluded”, King Khalid Foundation: Policy Design & Advocacy Program, 2018
- ² RBR 2019, Deposit Automation and Recycling
- ³ RBR Bulletin March 2021
- ⁴ An expat guide to banking in Saudi Arabia | Expatica
- ⁵ RBR 2021, Global ATM Market and Forecasts to 2026
- ⁶ DN project analysis
- ⁷ GlobalData, Egypt Cards & Payments: Opportunities & Risks to 2024
- ⁸ RBR 2021, Global ATM Market and Forecasts to 2026
- ⁹ RBR 2021, Global ATM Market and Forecasts to 2026
- ¹⁰ DN project analysis
- ¹¹ RBR press release, August 19th, 2020
- ¹² RBR 2021, Global ATM Market and Forecasts to 2026





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