



PARADIGMTM
technology

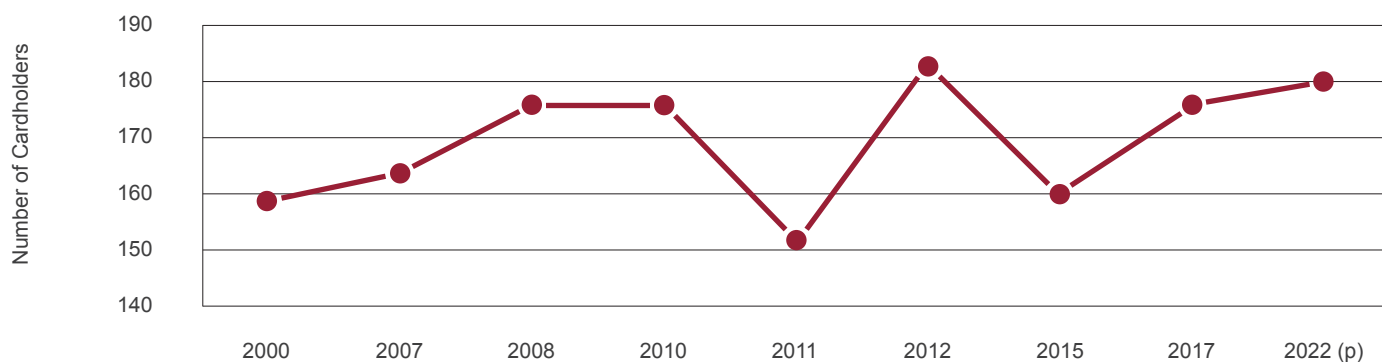
Information Management in Banking

CONSUMER TENDENCIES IN BANKING

It has become 'the norm' to understand technology irrespective of our field of work. We are living in a tech-savvy consumer's market that is growing exponentially, touching every industry, and leading people to aggressively explore their online strategies (food, electronics, clothing, education, etc.). An online strategy is incomplete without a strong framework for payment methods on the backend. Just as people have adapted to cashless transactions over the years, it's imperative that financial institutions understand the various payment methods in depth and build payment gateways conducive to consumers' buying habits.

Credit cards are an essential part of this strategy. The number of global credit card users has always been rising – it is predicted to be around 191 million by 2022¹.

Total Number of Cardholders (In Millions)

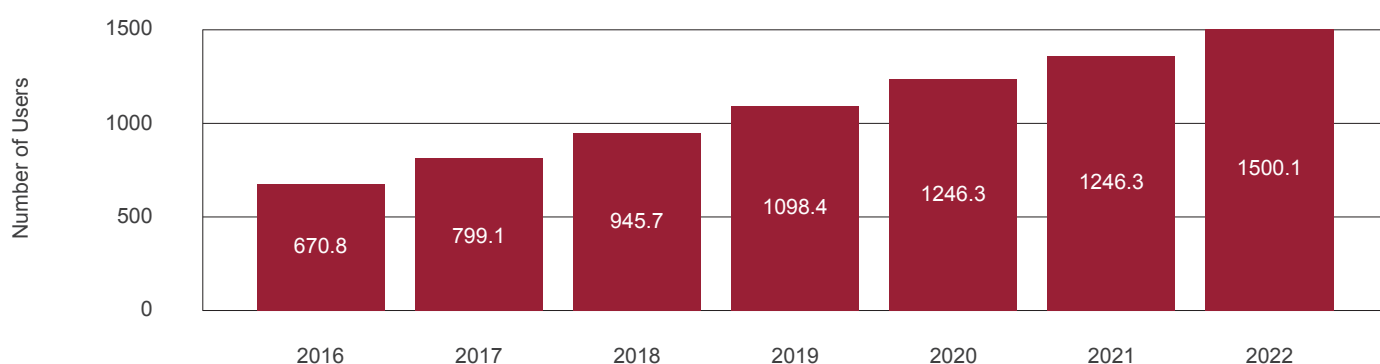


¹ Peter, Bianca. "Number of Credit Cards and Credit Card Holders." *WalletHub*. 2020.

We also need to understand the role of mobile banking and its impact on the mindset of consumers. It is forecasted that mobile banking will reach two billion users in 2020². Since consumers have begun to trust mobile apps for bank account management, credit cards, and expenditures, their confidence and expertise in alternative payment method exploration also grows. Such a knowledgeable demographic would only continue to demand better payment products and services.

Payment options such as mobile apps and wallets are slowly replacing the physical credit card due to their ease of use. The mobile wallet market size is forecasted to hit \$250 billion by 2024³. Many online merchants are keen on pushing their own wallets to consumers in a bid to offer financial perks and build customer loyalty.

Global Increase of Mobile Wallet Users Over Time³



Millennials are one of the biggest adopters of this mode of purchase (35%) and are quite proficient in knowing the most valuable payment product, taking to social media to spread the word quickly (88% of millennials get news from Facebook)⁴.

ONLINE RETAIL GROWTH & THE FUTURE OF BANKING

Many industries have begun to see online presence as a critical part of their revenue stream. Retail businesses be they clothing, flowers, furniture, necessities, or luxury items, have all built a strong online portfolio either directly or through partner channels. Their customers love a rich product experience and, most importantly, an easy check out and payment process. Twelve percent (12%) of customers abandon their shopping carts due to fewer payment options or a declined card⁵.

Financial institutions feel the burden to help these businesses with advanced authentication and simplified payment processing. Many cases have sprung up in the last few years, including instant loans, payment conversion into EMIs, new payment gateways, refund handling, and more.

² "Mobile Banking Users to Reach 2 Billion by 2020, Representing More than 1 in 3 of Global Adult Population." *Juniper Research*. 2018.

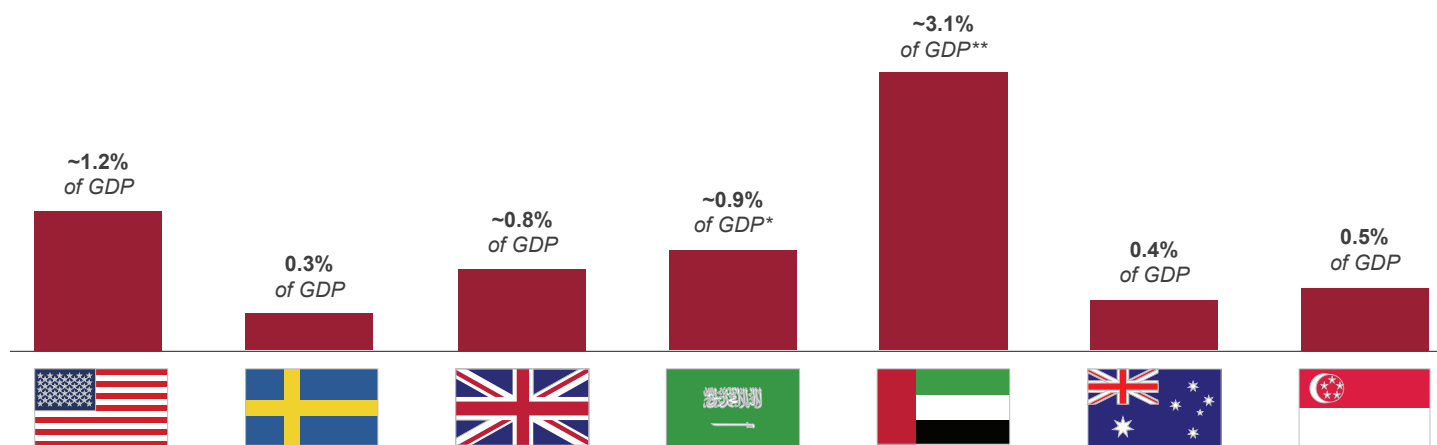
³ "The Number of Mobile Wallet Users Grows by 140 Million per Year." *Fintech News*. 2019.

⁴ "How Millennials Use and Control Social Media." *American Press Institute*. 2015.

⁵ Baymard Institute

Now, international ecommerce players sell their products across borders, adding to payment gateway challenges. Sixteen percent (16%) of merchants complain about the link between third-party payment service providers and local banks⁶. A cashless economy is expected to rule and is estimated to contribute to the growth of GDP across many nations.

Potential Economic Benefits of a Move to Cashless⁷



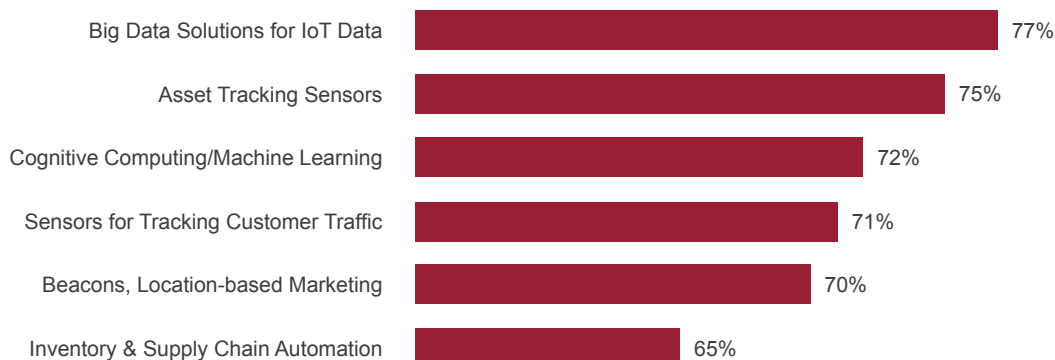
*1.3% of non-oil GDP

**Based on Dubai

Even though electronic payments incur charges, retailers continue to process card payments, as they drive business forward. For instance, UK retailers spent £170 million on £1 billion transactions⁸. Businesses are driven by the revenue from ecommerce lay and continue to invest despite current banking challenges.

Many retailers are heavily researching technologies that can fuel growth and improve customer experience. The success of their research investments depends heavily on the ability of financial institutions to support them. It's imperative for payment channels to innovate to keep up with businesses and consumers.

Percentage of Retailers Planning to Invest in AI & IoT Technologies by 2021



⁶ Marchetti, Juan. "Addressing E-Payment Challenges in Global E-Commerce." *World Economic Forum*. 2018.

⁷ Massi, Markus, et al. "How Cashless Payments Help Economies Grow." *Boston Consulting Group*. 2019.

⁸ Willis, Smith. "5 Must Have E-Commerce Strategies That Will Shape 2019." *Smart Insights*. 2019.

TECHNOLOGIES TO FUEL THE BANKING EXPERIENCE

Artificial Intelligence & Machine Learning

Banks need to learn patterns and build and train models in order to leverage the power of artificial intelligence (AI) to automate many mundane tasks, like teller functions, and critical processes, like fraud detection. Structured data is critical to achieving a predictable set of activities and harnessing the power of AI in decision making. Customers look for suggestions and recommendations so they can understand and act fast in choosing the right products. For example, recent eating habits can trigger a recommendation of appropriate restaurants that earn more rewards on the credit card. It's forecasted that banking spend on AI will reach \$79 billion by 2022, second to the retail industry⁹. At one leading bank, 70% of 75,000 targeted card holders redeemed rewards based on recommendation by AI¹⁰.

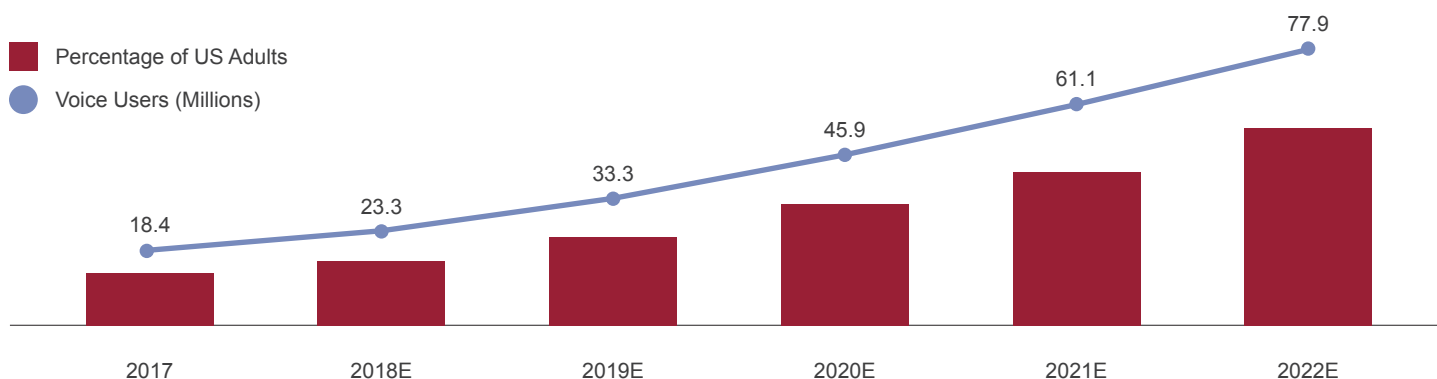
Data Analytics

In our fast-paced world, understanding consumer preferences goes a long way in building a customer-centric business operation. It only becomes natural to build products based on data emphasizing consumer demographics – this is what establishes an emotional connect with a customer. An organized set of data is critical to build this relationship.

Voice Enabled Automated Commerce

Driven by natural language processing (NLP), the next generation will be driven primarily by voice enabled assistants versus manually logging into an app or website to perform day-to-day banking. It may provide an enhanced experience, ease of transacting, and faster service. It would certainly feel personal to hear some of our preferences rather than read a message. It's estimated that voice enabled transactions by US adults alone could grow to 31% by 2022¹¹.

Forecast: US Voice Payments Adoption¹²



ROLE OF PIM IN BANKING

The future needs data to be organized and readily accessible to cater to business needs and build a seamless user experience. Whether credit cards, wallets, loans, direct pay, split pay, or more, financial institutions will have to strategize and build new products at a faster pace in order to meet specific customers' needs. Customers are open to exploring products that would reap additional benefits.

⁹ "Worldwide Semiannual Artificial Intelligence Systems Guide." IDC. 2019.

¹⁰ Queen, Karen Haywood. "Artificial Intelligence: How AI is Changing Credit Cards." *CreditCards.com*. 2019.

¹¹ Oleksiuk, Anna. "The Rise of Voice Payment Technology in Banking." *Intellias*. 2019.

¹² Van Dyke, Dan. "Soon Nearly a Third of US Consumers Will Regularly Make Payments with Their Voice." *Business Insider*. 2017.

To build such products and take them to market quickly, an expansive tool that can collate the relevant attributes from multiple sources, check quality, and export is required. Recently, Paradigm Technology helped one of the leading US banks implement a Product Information Management (PIM) solution to drive their credit card products and deliver a phenomenal reduction in time-to-market, delivering almost **\$3.8 million** in savings.

Client Challenge

Prior to engaging with Paradigm, it took **18 months** to deliver a new credit card to market. Causing factors included: Seventy-five (75) different product offerings, scattered and duplicated across a variety of disparate systems; an outdated infrastructure and extensive testing timelines across multiple parties; and a lack of data synchronization between business users from various departments.

Solution & Results

Paradigm worked with the bank to implement a PIM solution which established a central repository and single trusted view of product information, unifying business user experiences and improving the efficiency of collaborating teams. The bank's 18-month delivery process was reduced to **only 5 months**.



70% reduction in
time-to-market



~50% reduction in
redundancy



38,000 man hours
reduced



~\$3.8 million
in savings

PARADIGM'S PRESENCE IN THIS SPACE

The Paradigm team has vast experience in product information management (PIM), data and analytics, artificial intelligence (AI), and machine learning (ML) as mentioned here.

Our work in data management and analytics focuses on unifying data in one place for a holistic view of company, product, and/or customer data. We believe the correct approach to data and analytics enables organizations to uncover important business trends and opportunities, understand and improve the customer experience, and make reliable decisions, quickly.

We've enabled our clients to see 75% overall efficiency increases, up to 60% resource time savings, and 25% improvements in data.

Our work in digital product engineering focuses on edge computing, mobile web, AI, and ML to translate business vision and strategy into an executable digital strategy and operating model. Paradigm's product development, user experience, digital architecture and intelligent automation practices enable operational excellence and efficiency and enhanced customer experience platforms.

We've enabled our clients to see 75% faster product introduction, 35% reduction in total cost of ownership, and 18% increase in cross- and up-sell success.

SUMMARY

Banking experience is almost always built upon trust – as consumers have begun to increasingly trust mobile apps for bank account management, credit cards, and expenditures, their confidence continues to grow, allowing them to seek new and improved banking experiences. As retail companies acquire technologies to fuel said banking experiences, it will be imperative they understand what will continue to drive trust. Looking forward, this will most likely include:

- Engagement with the online community
- Predictability of customer needs
- Safety of customer data
- Provision of a 'single stop' for all customer financial transactions

By focusing on earning the trust of the end customer, organizations must identify processes and tools that can address and improve these drivers, and therefore create organizational success and continued consumer engagement.

ABOUT THE AUTHOR

Malik Azeez, Director of Project Information Management, has over 16 years of IT experience architecting, planning, building, and managing offshore teams and budgets, developing and implementing various solutions for enterprise organizations worldwide. Mr. Azeez has led many PIM implementations in a variety of capacities from solutions architecture to performing hands-on lead development.

An award-winning end-to-end professional services organization, Paradigm Technology is a leader in digital and business transformation, working for 25 years with the Fortune 500. We partner with clients to understand and solve business problems through innovative, value-driven solutions and strategies. Our team leverages years of experience and leading-edge technologies to deliver intelligent insights to answer the hard questions to grow revenues, reduce costs and avoid risk. We focus on delivering and communicating measurable value and impact above all else - that's the Power of Paradigm.



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