



DISRUPTIVE FORCES IN DIGITAL PAYMENTS

HOW CAN PAYMENT ORGANIZATIONS BE FUTURE-READY?

Abhisek Bhowmik, Siddhant Anthony Johannes

Context

As customers progress from using cash and physical cards to making transactions over digital platforms, new challenges and opportunities are emerging for the existing players in the payments sphere. While payments providers have taken cognizance of this paradigm shift in business, most are undecided on their strategy. The task of reinventing and repositioning legacy payments systems might seem daunting, but it is not impossible. The chances of emerging on top of this challenge would be determined by an ability to understand the digital revolution and to effectively adapt in time to gain competitive advantage. Payments players need to develop and execute a strategic roadmap to best position themselves for success.

In this article, we will:

- Address the major trends in the digital payments space
- List out the prerequisites and best practices
- Chalk out a roadmap to tap these opportunities to the optimum



Major Trends in Digital Payments

Driving Forces:

While we are aware of the overall move towards digital payments, it is key to isolate and identify the major driving forces behind the transformation. Some of the major trends to have emerged are:

Passive payments-easy checkouts, mobile (NFC, BLE, etc.), wearables, and beyond

Today, merchants are increasingly leaning towards solutions, which make payments processing passive. In other words, they want the payments to happen instantly and invisibly. Behind this evolution is the constant endeavor to make the purchase process fast and frictionless, and thus reduce shopping cart abandonment. Examples of this trend are Visa Checkout, American Express ezeClick, LoopPay, Apple Pay or Apple Watch, etc.

Convergence of offline and online

PoS systems are evolving from mere transactional instruments to context-aware "smart" machines. The PoS system of the



future won't be a dedicated card-reading machine but a software solution capable of being installed in most smart devices, discreetly collecting comprehensive

customer data (both online / offline purchase / search history) and performing real-time Predictive Analytics to provide various customized offers.

Tokenization for security

The real threat of card data breaches and growing traction in mobile payments ((NFC / QR code-based payments) have propelled the need for a future-proof security system. EMVCo and major card networks have released technical standards for payment tokenization solutions, which are poised to become hygiene factors in any payments service, and its adoption will soon become imperative.

Internet of Things

The Internet of Things brings consequences and opportunities for consumer payments and new commerce. We are looking at an ecosystem of devices connected to the 'fog' network, which can connect and transact in real-time. For example, smart devices will sense low stocks in the freezer, ask for permission to order or automatically order the required stuff after checking for the best offers available. We will see use cases where the owner of a smart vending machine can change pricing dynamically from her smartphone based on a prediction engine, which calculates supply and demand of present stock in the specified vending machine. The incorporation of internet capability into more devices, such as the recently announced Apple Watch, will increase the number of payment endpoints that allow payments services companies to earn fees.

Alternate payments: Emergence of cryptocurrency – Ripple, Bitcoin, and more importantly Blockchain

Cryptocurrencies like Ripple, Bitcoin, etc. can be a game changer in money transfer, remittance, and electronic commerce. Despite many incidents of security compromise, fraud, and volatile valuations, they have seen increased acceptance. Not only businesses and merchants, but also payments intermediaries like PayPal have



started making significant forays into the domain of cryptocurrency. This comes as a challenge to the existing payments services providers as cryptocurrencies offer a much cheaper way to make payments. We are also seeing Blockchain (the open ledger protocol of Bitcoin) gaining acceptance in many other areas.

War against paper: P2P, B2B

Peer to Peer (P2P) and Business to Business (B2B) payments use significant amounts of paper today, but it is on the decline. UK-based Paym or US-based Venmo are making P2P payments easier. We are also seeing the emergence of social networks like Facebook in Friend to Friend Payments, which also enable micro-merchants to accept payments. B2B Payments and invoice process digitalization are huge opportunities in the US, which has significant check and paper invoicing, which is slow, manual-effort intensive, and error-prone. We are also seeing the

emergence of various services for Cash Management and Bill Pay (e.g. Bank of America Cash 360 and CashPro services).

Stored value and prepaid

The market for stored value cards (SVC) is growing and evolving very quickly. Retailing, co-branding, and issuing firms are offering refillable, multipurpose cards. These cards have customized features and offer an assortment of the following:

- Direct deposits of payroll checks
- Withdrawal of cash at ATMs
- Payments for retail purchases
- Bill payments
- Money transfers

Various types of cards are heavily marketed to low-income consumers, especially the unbanked or under-banked, who can operate and fill SVCs without having a bank account.

The Changing Ecosystem:

Customer expectations are different, more digital

With the rapid spread and mass adoption of connected devices and the consequent rise to power of e-commerce, customers are becoming increasingly reliant on digital services. Most customers today do research using digital channels and many end up shopping online without going to a physical store. Hence mobile and digital payments have become the core innovation strategy of any payments organization.

Cost of production and time to market have reduced

Legacy banks and payments companies have a huge cost and time disadvantage in their tightly coupled legacy platforms and operational processes. With the emergence of the cloud, startups can now easily build much improved, scalable services at a fraction of the cost and time. This innovation and flexibility is giving competitive advantage to FINTECH startups (e.g. STRIPE) or new digital-only banks (e.g. Ally Bank) who can charge less or provide better rates to customers and address their needs much more quickly.

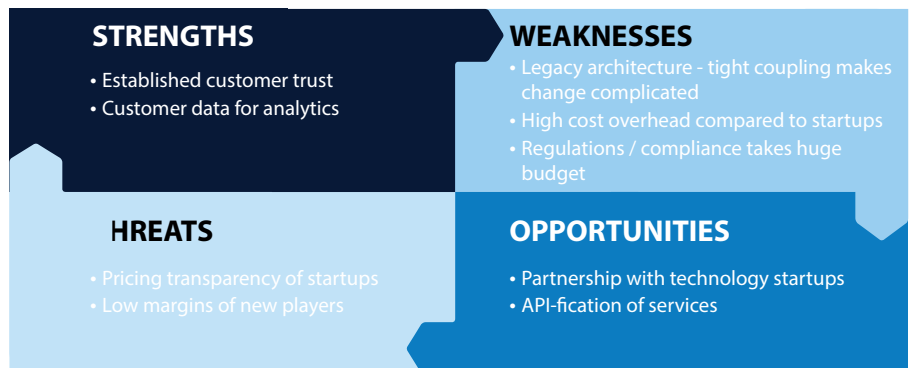
Changes competition, allows companies from other industries to diversify and integrate

Digital transformation is collaboration-centric. We are seeing existing players in other related industries like telecom (Vodafone, O2), retail (Tesco, Sainsbury), and technology (Google, Apple) trying to diversify and build payment processing capability. We are observing the emergence of Payments Banks, API-fication (Plug and Play), and industry collaboration (e.g. CURRENTC, etc.).



Bringing Them Together – SWOT Analysis:

Let's do a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis of banks and incumbent payments players to see how they stand against new entrants into payments, such as startups or companies from other industries. We feel banks and established players have a significant advantage in the form of customer trust, but they lack in innovative service offerings and agility.



Best Practices in Digital Transformation

Prerequisites:

Incumbents must fulfill a few prerequisites in order to succeed or to even have a fair fighting chance in the payments industry:

Move from legacy platforms to flexible IT architecture:

There is a constant need to adapt to changes in technology and customer demands. Incumbents must not treat digital transformation as a one-off change in processes and platforms. Rather, they should compete, innovate, and grow faster by moving from legacy-based silo platforms towards flexible SoA-based infrastructure offering 'Plug and Play' functionality.

Strategic collaborations for knowledge and technology sharing:

Winners understand that partnering with an innovative startup is a smart way of building new capability faster. Firms are also looking at leveraging the experience and knowledge of technology partners and service providers to gain an edge.

Design & Execution:

The need to look at best practices and success stories becomes evident given the number of success stories in digital payments today. With its challenges and constraints, the task of going digital is an especially gargantuan one for traditional payments service providers. However, if its economics and commerce are well understood, the digital phenomenon can be effectively exploited as a means to success:

Easy to use: The applications, especially mobile applications developed by successful payments systems, are easy to use and "hassle-free". These companies have been able to tap into passive payments combined with customer

analytics to provide a friction-free experience to the customer. Examples include Uber and Starbucks Payment Cards.

API-driven: APIs expose the payments services to third party developers and apps, which are also an integral part of the customer's smartphone ecosystem. These further help in making customer experience seamless and multifunctional.

Security: When we talk about customer experience, we tend to discount the security factor. Sometimes, to provide a hassle-free customer experience, we compromise fraud detection and the underlying security framework. Security concerns have been a major reason why customers shy away from adopting instant / mobile payments. Secure systems are needed to change this perception and gain customer confidence. Some of the best practices in payments security are the adoption of the tokenization standard,

biometrics-based authentication, and predictive analytics for detecting fraud in real-time and minimizing false positives /negatives, etc.

A/B Testing strategy, measuring execution progress, and fine-tuning based on results:

Although digital transformation cannot be profitable from Day 1, we should still measure the ROI to decide if the execution strategy needs any minor or major change. Doing pilots and running A/B Testing on results, is a great way to start.

Agile / DevOps solution delivery:

To address the need for quick time to market and continuous product innovation, we should follow next generation solution delivery frameworks like Agile or the DevOps model. Remember, there is no final answer to your problem; only an iterative journey.



Strategy and Roadmap for Digital Payments Transformation

Before You Begin – The Strategy Choice:

Digital transformation is essentially business transformation, and hence articulating the vision and strategy before we start the journey is of paramount importance. This calls for a change in the thought process; going beyond technology adoption and addressing the broader strategy. Before we begin, we need to address the “WH” questions: Why, What, When, etc.

The current state of the payments industry in developed markets can be defined as a ‘Red Ocean’. The Red Ocean market is a

well-defined saturated market where there is intense competition for market share. If the incumbent continues in the same market trying to beat existing demands, it will follow a Red-Ocean strategy of incremental improvements or cost efficiency. For example, Square, or similar credit card rails are in a Red-Ocean game, with huge competition and low margins .

On the other hand, if the payments provider innovates and creates a new demand in the market, leveraging new technological advancements, it enters uncontested territory. This is better known

as the ‘Blue-Ocean strategy’. However, in order to succeed at this strategy, one must innovate to create a new offering that is at least 10x better than the existing products in the market. Without an order of magnitude improvement, one can’t expect mass adoption. It is difficult to create and maintain the monopoly, but is especially required in the payments business where scale and network effect are absolutely required to make profit. We can consider mPesa a successful exponent of the Blue Ocean strategy, given the exponential improvement it made in product design and the resultant huge customer loyalty.

Where to Start:

As discussed earlier, the way to come out ahead in the digital race is to focus on the customer. Successful players have focused their innovations on the user journey and built flexible processes around it.

1

The starting point should be to shortlist the most critical user journeys. The payments provider needs to identify the critical line of business, the one which defines the product.

2

The second step is design, development, and implementation in a micro-managed phased manner. Adoption of methodologies like Agile would be a good fit.

3

The analysis should move from the user journey to products. Companies need to revisit user journeys and apply digital improvements wherever possible. This process will lead to creation of new products and services and better user touchpoints.

Focus Area: The investment focus should be on building future-proof, enterprise-wide, digital infrastructure. This investment can be shared by all digital initiatives at an enterprise level. The infrastructure will include cloud, security, payments services hub, and middleware.

Way Forward – A Roadmap:

The roadmap to success in the digital transformation of payments can be defined at three levels:

Organization level:

At the level of the organization, the change management process, investment objective, and leadership, need to be clearly defined to deliver a clear and well-communicated mandate for the change. Leadership and sponsorship should go hand in hand. Since digitalization is an investment-intensive process, most CXO offices need to be involved. Digital demands lean and agile decision-making, hence full support and regular collaboration of all key stakeholders is absolutely necessary to minimize false starts or misjudged investments.

Technology level:

- Instead of facing a buy or build dilemma, go for a buy and build strategy. Don't try to reinvent the wheel by building everything in-house. Buy the market-leading

solutions and then customize to address your specific needs.

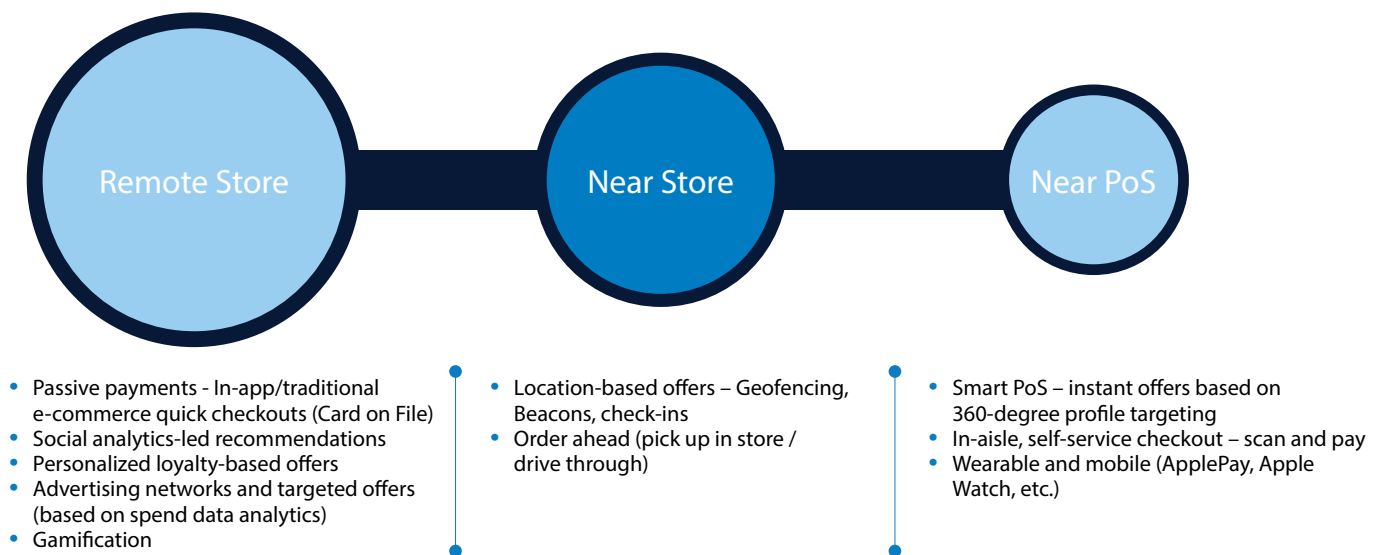
- Expose APIs: Instead of developing all the customer-interfacing mobile and digital payments solutions in-house, look at opening the application programming interfaces (API) to third parties and merchants / retailers. This allows for a greater degree of integration into retail applications and opens up new customer end-points, which will translate into new revenue streams.

Market level:

- Focus on mass adoption: Focus on big wins first. Very often, the most used payments process will be the plain vanilla one. The trick here is to focus on the simple (high-volume) processes first and then graduate to more complex (niche) processes. This

gives the scope for incumbents to aim at mass adoption while attending to simple procedures and systems first.

- Be prepared for cannibalization: As companies launch new digital services, their existing revenue and profit stream from legacy offerings will shrink. This may not be comfortable for the concerned business units, which might put up a resistance. Unfortunately, if incumbent players do not follow creative destruction, they will see a secular defeat to low cost players.
- Look outside and learn: Outsider perspective is important. Look beyond your own industry for key learnings. If you are a bank, look at how media, manufacturing, or fashion companies are addressing digital transformation and see if you can apply some of their best practices.



Mash up of social, local, mobile, personalization, gamification, and payments – designing a customer-oriented digital omni-commerce strategy:

The various technologies available today need synchronous alignment to create a truly digital customer journey. This includes Remote Store (when the customer is at home / office), Near Store (when the customer is near a shopping center), and Near PoS (when the customer is trying to check out) experiences. Payments being at the heart of commerce, providers must tap this opportunity and partner with other new players to create a truly digital customer experience.

Conclusion

In our view, technology is just a part of digital transformation, which needs change to create agile business processes, new profit models, customer-centric culture, and most importantly, leadership vision and support throughout the journey.

About the Authors



Abhisek Bhowmik

Lead Consultant, Cards & Payments Practice, Infosys

Abhisek, a Lead Consultant from Cards & Payments Practice, has around 12 years of consulting experience and has advised some of the top Banks & Payments organizations in their Payments Transformation initiatives. His interests include Payments Services Hub, Risk Management, Digital Convergence, etc. He is a certified Project Management Professional (PMP®), Financial Risk Manager (FRM®), and has passed CFA Level-1 examination.

He can be contacted at abhisek_bhowmik@infosys.com



Siddhant Anthony Johannes

Senior Associate Consultant, Insurance, Cards & Payments Practice, Infosys

Siddhant is a Senior Associate Consultant working in the Cards & Payments Practice of Infosys. He is an MBA and has advised one of the largest issuer & card networks on multiple Technology Transformation & AML-compliance programs.

He can be contacted at SiddhantAnthony_J@infosys.com

For more information, contact askus@infosys.com



© 2018 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.