Payment platforms to crack the code for India's digital payments

RS Software

.....and how RS Software intends to leverage them for sustainable growth

RS Software Limited | Annual Report 2016-17

Contents

FORWARD-LOOKING STATEMENT

In this annual report, we have disclosed forward-looking information to enable investors to comprehend our prospects and take informed investment decisions. This report and other statements – written and oral – that we periodically make, contain forward-looking statements that set out anticipated results based on the management's plans and assumptions. We have tried wherever possible to identify such statements by using words such as 'anticipates', 'estimates', 'expects', 'projects', 'intends', 'plans', 'believes' and words of similar substance in connection with any discussion on future performance.

We cannot guarantee that these forward-looking statements will be realised, although we believe we have been prudent in assumptions. The achievement of results is subject to risks, uncertainties and even inaccurate assumptions.

Should known or unknown risks or uncertainties materialise, or should underlying assumptions prove inaccurate, actual results could vary materially from those anticipated, estimated or projected.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

Building payments. Changing lives

"Blood, sweat and respect. First two you give, Last one you earn."

- Dwayne Johnson

RS Software is in the middle of transition of its strategy to emerge as a platform and products company embedded deeply in the global digital payments space. We are confident to earn the respect of our investors and all stakeholders.

We have embarked on this journey and we see light at the end of the tunnel. A strategic transformation journey is full of Blood and Sweat... with the commitment of earning Respect in the end.

During the fiscal year 16-17, RS Software delivered two major payment platforms. The then Governor Raghuram Rajan of RBI officially launched the Unified Payment Interface (UPI) on 11th April, 2016; and on 31st August, 2016, Bharat Bill Payment System (BBPS) was soft launched. The BHIM app that runs on the core UPI engine was launched on 30th December, 2016 and has already experienced about 20 million downloads, generating in the month of May 2017, ~9 mn transactions.

This is what is happening outside

01
The world's largest taxi company owns no taxis (Uber).

02
The largest phone companies own no telco infra (Skype and WeChat).

03
The world's most popular media owners create no content (Facebook).

04
The world's largest movie house owns no cinemas (Netflix).

05
The world's biggest software vendors don't write the apps (Apple and Google).

This is how RS Software is transforming inside

01
From legacy to emerging technologies.

02
From status quo to innovation.

03
From profitability to sustainability.

04
From managed services to cutting-edge platforms.

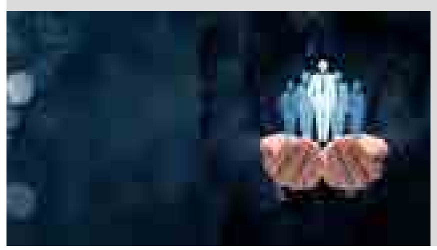
05
From excessive dependence on a large customer to presence across wider customers.

Building payments, changing lives

Raj Jain,
Chairman

The purpose of RS Software is to help enhance the economic circumstances of individuals, communities and countries through the transformative power of electronic payments.

The 'deep moat' for RS Software lies in its domain knowledge of payments, built over 25 years of building electronic payments infrastructure - software applications that execute an electronic payment transaction at a high speed and high volume within the regulatory framework.



Increasingly, merchants are demanding more from their payment providers, seeing processing alone as a commodity service.

Transitioning of payments

Cash continues to be replaced by card and card is incrementally getting replaced by mobile or token and what is coming next is wearables. The combination of artificial intelligence, machine learning, virtual reality and voice activation is bringing life-impacting changes in the areas of payments.

Wide moats keep payment networks safe, but competition rages at the outskirts of the ecosystem. In payments, economic moats remain the strongest at the centre of the ecosystem, where major payment networks like Visa and Mastercard maintain massive networks of banks working on their behalf to add consumers and merchants. The role these companies play in setting standards is becoming more important as payment options proliferate. Card Issuers are competing heavily for spending volume, merchants are taking back control of loyalty and rewards and software is replacing hardware at the point of sale. This leaves issuers like and hardware providers in a difficult position. This transition gives Application Development companies an opportunity to help economies transition to cashless.

Market scenario & opportunity

McKinsey estimates that sales volume at small U.S. merchants will grow much faster than the rest of the market, doubling by 2020 to $2 trillion. A similar trend is expected in markets like India where some estimates indicate presence of almost 50 mn small merchants, with only about 2% digitally enabled today. The growing bargaining power of merchants is a key factor driving change in the payment sector.

The top 15 U.S. merchants now account for more than 20% of retail sales and are using their weight to gain price concessions from suppliers payment companies included. This trend will continue, with negative implications for the companies providing interchangeable products to merchant customers. Simple payment processing services and point-of-sale hardware do not confer an economic moat and companies not contributing much additional value lack competitive advantages. Point-of-sale and increasingly commodified payment processing combine to increase the already intense competition. The only answer lies in providing value-add to merchants and consumers, using the knowledge of payments.

Sellers of all sizes continue to exert pricing pressure on payment providers. Large-merchant margins are already low; McKinsey estimates that medium-size and small merchants generate much higher processing margins than large merchants. However, the consulting firm also expects pricing pressure to continue over the next several years across all segments--a fair assumption, given the changes occurring in the business.

In addition to being more profitable, small-merchant sales volume is set to grow quickly, in part due to the benefits of cheaper technology. The long-tail theory posits that advances in production and distribution methods are making it profitable to serve small niches, allowing small merchants unprecedented growth potential. The opportunity to profitably serve this growing segment is driving an increase in competitive pressures.

Payments increasingly integrated with Customer Engagement, Business Management Software

Somewhat related is the growing importance of integrated payments. In a digital environment, payment functions often do not stand alone. Instead, they are integrated into other aspects of business management systems. Payment software is increasingly required to work with accounting, inventory and customer relationship management systems. More functionality is also required at the point of sale itself, including loyalty, rewards and other forms of marketing. All of this is driving a transition from hardware-centered point-of-sale products to software products. Payment processing is therefore becoming an enterprise software industry.

Increasingly, merchants are demanding more from their payment providers, seeing processing alone as a commodity service. Beginning with large merchants, which typically have long integrated payment functionality with other services, think gas pumps and grocery checkout lines--the move toward greater integration now spans the payment processing industry. Today, competitive pricing, adequate customer service and high levels of data security are merely table stakes in the payment processing industry. The ability to work with various enterprise software applications and quickly adapt software offerings to merchant needs are a key distinguishing feature among firms, most of which offer a combination of proprietary software and tools for use by outside developers. Firms that can integrate payments into larger business management systems and customise their offerings

for different use cases are most likely to increase customer switching costs, though such adaptation is a constant battle. As an example, Vantiv, a major acquirer in US has increased switching costs in comparison to peers via its emphasis on developer and software dealer relationships. Possibly more than 10% of its revenue now comes through its integrated payments business. Its network of developers has resulted in the company's processing technology being embedded in over 1,000 point-of-sale applications and its relationships with independent software vendors lower its cost of distribution and thus its operating expenses--compared with peers. There will be a huge opportunity to connect merchants with individual customers based on individual preferences and spending patterns.

Technology at the base of disruption in payments - Fintech

Changes in consumer behaviour continue to be rapid, disruptive and largely driven by technology influences, such as mobile devices, big data, the cloud, IoT and machine learning. Simultaneously, security breaches are growing and continue to place both consumers and businesses at risk.

While cash and credit cards may never disappear entirely, this convergence of forces is driving one of the most profound shifts to how we pay for goods and services.

The most popular application of AI in financial services — and perhaps the most limited — is the chatbot, a program that converses with customers through text or speech. In financial services, chatbots are usually used to make the first interaction with a customer, answering questions or directing customers to an area of the website. For more complex interactions, the bot hands the conversation over to a human representative.

"There are a lot of chatbots in the industry right now dealing with the easy tasks, reducing complexity by dealing with multiple people at once," said Sumeet Vermani, a global marketing leader working for fintech providers such as Red Box Recorders. Chatbots are about "having a digital one-stop shop for customer communication and interaction. Customers are increasingly wanting a single point in which to communicate with their payments providers, whether it's to transact in a messenger app, learn more about a product or lodge a complaint."

And in the future, chatbots could be even better at up-selling customers than humans, able to parse through large amounts of data to determine the timing a specific product is needed.

While cash and credit cards may never disappear entirely, this convergence of forces is driving one of the most profound shifts to how we pay for goods and services, challenging both financial institutions and retail providers to adjust their strategy for the future of payments. Here are the three leading technologies paving the way.

Contactless payments

Debit and credit cards may never go away, but swiping them just might.

Example: Contactless payments rose 164 percent in the U.K. last year, they doubled in Canada in 2015 and 53 percent of Australians have made a contactless payment. We expect the U.S. to follow suit as more merchants upgrade their point-of-service terminals to accept chip cards and along with them, contactless payments.

Put a finger on authentication

Recognising that security is critical in digital payments, regulators like RBI keep raising the bar for authentication. India took a lead in the enforcement of 2 factor authentication. However all this leads to interferes with making payments frictionless. RBI is fast moving towards making Aadhaar identity as the key authentication factor.

Example: Rather than forcing customers to tap in their usernames and passwords every time they want to make an online transaction, NCR's Digital Insight developed TouchID, which allows customers of financial institutions to log in to their bank accounts with nothing more than their fingertips. In addition to being a uniquely accurate identifier, fingerprints are infinitely more difficult to lose than a password—and much harder to hack, too.

Voice-activated transactions

In emerging markets like India in particular, voice-activated transactions can be a significant boost to adopting digital payments and accelerating financial inclusion.

Example: Customers who use Amazon gadgets can simply ask the virtual assistant Alexa to take care of financial transactions for them. As with fingerprint technology, this innovation saves consumers the hassle of remembering yet another password and going through a tedious login procedure every time they want to make or receive a payment. In the future, especially as voice recognition technology improves, we expect this method of sending and receiving money to gain more traction.

Far from being mutually exclusive goals, efficiency and security are tied tightly together in the world of payments. As we develop the technology to move away from passwords that can be guessed or stolen to more unique identifiers such as voices, fingerprints and sensors that eliminate point-of-service terminals, we also move toward a more secure future. The very things that will make consumers' lives easier will also protect them—a win-win if ever there was one.

Cash is king?

RS Software is focused on enhancing cashlessness, strengthening financial inclusion and increasing consumer convenience. The CEOs of the two largest payment networks in the world say that their largest competitor is cash and not another company. Inspite of the electronic payments industry being in place for over forty years, cash valued in trillions of US dollars and other currencies still represent significant global spend on personal consumer expenditure today.

This clearly indicates the opportunity to move cash transactions to electronic and digital and this is where the opportunity is. There is undoubtedly a secular trend in the growth of digital payments which will continue for several years to come. Global card purchase volume for goods and services alone amounted to ~ $20 trillion in 2016. The six major global payment network; Visa, UnionPay, MasterCard, JCB, Diners Club/Discover and American Express generated 257 billion purchase transactions at merchants in 2016.

RS Software is well positioned to leverage the growth from 257 billion electronic payment transactions to potentially 1 trillion transactions per year!

RS Software has taken the world's largest payment network from a capability of authorising 500 transactions/second to 56,000 transactions/second, which now executes about 50% of the total transactions globally, ~ 120 billion transactions per year. This core competence built over 25 years is the MOAT for the company which not only provides a great competitive advantage, but something that will make it very difficult for competition to penetrate the company's MOAT. The market for digital payments is growing globally and in India.

Globally, India lags in terms of transaction volumes and value of cashless transactions. A recent Kotak Economics Research study reveals that while the gross transaction throughput in India ($1.8 trillion) is comparable to that in other major countries and that the value per transaction ($146) is among its peers, India fares poorly in per capita transaction value ($1,000).

RS Software has taken the world's largest payment network from a capability of authorising 500 transactions/second to 56,000 transactions/second, which now executes about 50% of the total transactions globally.

Nevertheless, the report states that India's transition is "likely to be faster than the current less-cash economies" (such as the UK and Sweden)—if the existing technological advancements are proactively supported.

In this context, the role of regulators in fostering quick adoption assumes great importance. The learning for policymakers is twofold: One, too much regulation on the supply side can be detrimental to the emergence of a level-playing ecosystem and innovation in the payments domain—a case in point being mobile wallets being excluded from the Unified Payments Interface (UPI) so as to allow banks to catch-up to them in terms of services.

Two, there has to be an arm's length distance between the regulator and any entity operating on commercial grounds providing retail payment solutions—be it prepaid payment instrument (PPI) issuers, Bharat Bill Payment System operating units, white label automated teller machines, or Aadhaar Enabled Payment System (AEPS) providers.

For this, two consumer principles should form the bedrock of a fresh consumer-centric architecture. The first principle is to ensure zero friction in the use of various

RS Software on track with its strategy transition

Investing the ₹2 Billion cash reserves to achieve Digital Equity direction

Diversified revenue sources
- Added 20+ US Clients in the last 12 months
- Added new geographies – India and Asia

Vindicates the investments that the company is making in Sales & Marketing

Platforms are the major driver of growth in the digital world

India attracting major investors in this area

RS Software is investing significantly in this area

Our global clients are transitioning from legacy to digital area

RS Software builds for India - UPI, BBPS

100 countries that are at varying stages in building their digital Payments Infrastructure

Initiatives to foster Financial Inclusion

Payments
eWallets, UPI, USSD Transfer, BBPS

Peer to Peer Lending
Funding for individuals and micro enterprises

Microfinance
Funding for small and medium enterprise

eKYC
Aadhaar enabled KYC

Biometric
Credit scoring information, account opening, ATM pin

Digital Identify
Aadhaar linkage to account for credit information

Remittances
Transfer and payments in remote areas

electronic payment methods. Zero implies no hoops and jumps to make even a Re1 transaction, including authentication. The second principle concerns incentives/disincentives and proper awareness of multiple modes of payments to get the desired consumer behaviour–substitution of cash. Incentive schemes such as referral bonus for consumers or cashback schemes for merchants accepting digital payments should be devised so as to align different market participants–merchants, payments companies, banks, etc. Growing awareness of unique selling propositions of each mode among consumers will be the key here.

RS Software and India market

During the fiscal year 16-17 RS Software delivered two major payment platforms. The then governor Raguram Rajan of RBI officially launched the Unified Payment Interface(UPI) in April 2016; and in August 2016, Bharat Bill Payment System (BBPS) had a soft launch. The BHIM app that runs on the core UPI engine was launched in December 2016 and has already had about 20 mn downloads, generating in the month of May,2017 ~9 mn transactions. The company has integrated several banks in India to the core UPI and BBPS platforms, to enable consumer related transactions for merchants, bill payments and P2P. Having built the core digital payment infrastructure in India gives RS Software a significant advantage to leverage the 10X growth in the next 5 years as being forecasted by BCG and Google report on India.

Nevertheless, in India, a one-size-fits-all strategy will not work. It is critical to recognise the diverse perceptions that influence decisions to adopt digital payments and there is a need for customised strategy. What has worked in other parts of the globe will not necessarily work here, but core payment principles are the same in all parts of the world. This is where the unique strength of RS Software comes into play. Keen segmentation of customers needs to be done, based on addressing the universe of Internet and non-Internet users, cardholders and non-card consumers and smartphone as well as feature phone users.

Given the country's vast population, any combination can easily constitute hundreds of millions of consumers. A conical, three-tiered customer-facing architecture can be devised: traditional cards-based networks (POS, online) at the top end; instant real-time 24x7 systems (bank-to-bank account via Internet and non-Internet channels) at the middle; and hybrid systems (wallets, non-app Internet protocols and non-Internet for person-to-person and person-to-merchant payments), at the base of the cone.

Demonetisation, an almost revolutionary action, has become a big bonanza for the digital payments companies in India. All of the digital payments players have benefited in the 3 months since its introduction. PPI wallets, the most available digital payment product for the masses, have gained most handsomely, while the 'new kid on the block' – the UPI payment product - is consistently showing gains in adoption in terms of the value of transactions. Visa reported a gain of 75% growth in volumes of transactions on its payment products in India. But the challenge for the major card payment networks like Visa is that India has the lowest per capita Point of Sale infrastructure – limiting any cardholder's ability to make purchases at physical locations. On the other hand, India has over a billion mobile phones, each of which are a potential payment device. The Ola Money app had a1,500% growth in downloads in about 8 hours after the government's announcement about demonetisation, while Paytm reported users increased its mobile app's usage by nearly 600% in the first few days following the change. The BHIM app, launched only in December 2016 has seen downloads in excess of 20 mn.

The government has set a target for growth to 25 billion digital payment transactions during fiscal 2017-18. MEITY, Govt. of India has been assigned the charter to meet this goal.

The future of payment is undergoing a transformation, as new entrants are enabling the market with new technologies such as QR code, Aadhaar enabled payment system, contactless payment, NFC enabled smartphones, cloud-based PoS and digital wallets.

With the emergence of new payments and small finance banks in India, the road is set ahead for surge in adoption of Bank in a Box solution.

UPI and Blockchain are two big technology revolutions that are projected to have a favourable impact on the expansion of P2P lending business in India.

Strategy implementation and next steps that will reward the company's stakeholders

RS Software's strategy during the fiscal 2016-17 has progressed to provide in-country payment infrastructure, expand from services revenue model to include platforms, products and grow in new markets like India. We continue to make significant investments in building digital assets that are at the core of our competencies to win a disproportionate share of success as we transition. We continue to look at growth acceleration through alliances and partnerships to complement our growth strategy. During the fiscal year 2016-17, RS Software delivered two major payment platforms in India.

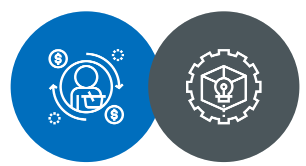
These developments will continue to be strengthened during the fiscal 2017-18 and the company will launch its own payment platforms in emerging markets.

The global industry needs continual enhancement, new build and maintenance of the core infrastructure, with a focus on retail electronic payments.

Digital commerce needs a new revolutionary payment reach to the dual constituency of the merchant and the consumer.

Ecommerce/M commerce, now on the cusp of explosion, is being made possible by technology and the ease of adoption of technology by the millennial generation

RS, which has been working with global leaders for the last 20+ years, has a macro strategy to offer capabilities, both in infrastructure building and digital payments.



RS will take bold rather than timid investment decisions in areas where there is a sufficient probability of gaining market leadership advantages.

Our past track record for taking bold decisions

RS will take bold rather than timid investment decisions in areas where there is a sufficient probability of gaining market leadership advantages.

The emphasis on the long term may result in RS making decisions and weighing tradeoffs differently than some companies.

We have embarked on this journey and we see light at the end of the tunnel. A strategic transformation journey is full of Blood & Sweat… with the commitment of earning Respect in the end. The world and India in particular is today looking at a secular growth trend in the platform economy, where digital payments are at its core and commerce and payments come together to change the everyday life of humanity. RS Software is committed to achieve this vision and execute effectively its strategy and reward its stakeholders. We believe that a fundamental measure of our success will be the shareholder value we create over the long term. This value will be a direct result of our ability to extend and solidify our leadership in being a niche company that has its MOAT in its exclusive focus in the domain area of electronic payments industry.

"We are completely on track in reinventing our company from services to platforms and products"

A 2016-17 review by the RS Software management

Q: Was the management satisfied with the company's performance for 2016-17?

A: The management was satisfied with the performance in 2016-17 for a number of reasons.

Principally, we believe that the transition of the company from a single client business model to a multiple clients business model is on track and in line with expectations.

Two, the company added 20 new clients, all in the Fin-tech space, reinforcing its market positioning and revenues.

Three, the company launched its India strategy following the successful handover of the United Payments Interface coupled with the soft launch of the Bharat Bill Payment System, which will drive financial inclusion in the country and reinforce the company's respect as a platform solutions provider.

Four, the company integrated seven banks in India to the digital core infrastructure run by the National Payments Corporation of India; these banks included the largest banks in India, strengthening the company's respect.

Five, we strengthened our revenues pipeline with the development of digital assets that will be progressively launched, translating into attractive revenues.

Six, we built our proprietary digital payments platform called Payabbhi under Paypermint, which we believe will be the first of its kind in the country (75 per cent subsidiary of the company) and is likely to be launched in the second quarter of 2017-18.

Seven, the company continued to invest in its business through the proactive recruitment of talent.

Through these various initiatives, we believe that during the year under review, we rebuilt our business to address the challenges of a rapidly evolving marketplace.

Q: What are some of the initiatives that provide optimism?

A: The management intends to communicate that the digital assets that it has created have been created with prospects of sustainable revenues, were built in good time and at a low cost. Besides, these assets are relevant to the way the marketplace is evolving. One such asset is the platform Merchant Edge, which provides value-added capacity to merchants from the KYC stage right up to the digital platform. The other platform is called I-Fin Switch, our proprietary switch built using the same technology with which we created the United Payments Interface. When combined with Merchant Edge and the UPI integration switch, this patented UPI payments product focuses on the merchant management platform. Our optimism is derived from the fact that the Finance Minister in his Budget speech indicated that India would need to graduate to 25 billion digital transactions a year. This increase in this throughput would be facilitated by the company's platform.

Principally, we believe that the transition of the company from a single client business model to a multiple clients business model is on track and in line with expectations.

Strategic shift

	Client base	Offerings	Revenues
2015-16	Single dominant client in NA	Services	Dominant revenues from Payments Networks
2016-17	Multiple clients in Americas, Asia, India, Europe	• Products, platforms and services • Digital Payments • In-country Networks	Dominant revenues from Payments Networks & Acquiring
2017-18	Multiple clients in Americas, Asia, India, Europe	• Products, Services, Platforms and Shared Economy • Digital Payments & Commerce In-country networks	Revenues distributed between consumers, issuers, acquirers, merchants, platforms

Q: The company reported a loss during the year under review. Shareholders would be keen to know when the company would be likely to break even?

A: The number of business initiatives that the company took during the last financial year will soon translate into revenues – a combination of license fees and recurring revenues arising out of transactions on our platforms. The company generated 100 per cent of its revenues from services until 2016-17; we expect to generate 50 per cent of our revenues from platforms and products and another 50 per cent from services by 2020; we expect this to increase to 80 per cent by the year 2025. We believe that following the launch of our proprietary platforms and products from 2017-18, we would have embarked on the first year of reinventing our company.

Q: What is the big message that the management wishes to communicate to shareholders?

A: The big message that the management wishes to communicate is that even after having 90 per cent our business written off in the space of one year from the company's largest customer, RS Software is still in business. Even better, the company possesses a strategic clarity of where it is headed, holds attractive cash on its books and nearly 80 per cent of the losses that one sees in the Profit & Loss Account are on account of business investments (frameworks and marketing).

Q: What is the large optimism the management wishes to share with shareholders?

A: The transition to digitisation represents a $ 4 tn global opportunity. We believe that change will accelerate. There will be larger investments going into financial technologies; more than 40 per cent this spending will be allocated to payments, which could well emerge as the most dynamic space within financial technologies.

We believe that digital payments will democratise technology. RS Software has already embarked in this direction and built country-level digital payments infrastructure. We believe that thousands of technology players will build apps on our backbone, which will decisively extend the digital payments revolution to the consumer. We can only state the company is perched at a cusp that could transform its prospects faster than ever.

The transition to digitisation represents a $ 4 tn global opportunity. We believe that change will accelerate. There will be larger investments going into financial technologies

Review of our performance