

The Guide to Emerging Technology and Payments

What IT and Business Leaders need to know

By Tech Research Asia



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A Tech Research Asia Report commissioned by Ezidebit

Introduction & Executive Summary

We've come a long way from cash and cheques and in a relatively short time. The world of payments both in Australia and globally has fundamentally changed and will continue to evolve quickly. Technology is the culprit as it has been in so many areas of life. Think analogue transactions to digital ones and then consider they are happening every micro-second of every day.

And now there are waves of emerging technology – some of this will come under the umbrella of 'FinTech' – generating new change and opportunity. Are you ready and can your organisation adapt? This Tech Research Asia (TRA) report offers an overview of the new technology and provides a guide for IT and business leaders. It also includes:

- An explanation of current payment market trends.
- A brief overview of top eight emerging technologies and why they are important for all organisations.
- A checklist of strategy questions to ask of your own organisation's approach to payments

Key points:

- Analogue payments continue to decline in the Australian market, replaced by digital transactions. Cheques are down over 50% and ATM cash withdrawals are down 17% since 2011 while every other payment type is increasing. But it's not just the payments tech of the past few years' Australian business and IT leaders need to consider. There is a surge of new technology hitting the market that will impact how you engage with customers via payments.

- Blockchain, smart contracts, integrated mobile wallets, security risks, cognitive services, chatbots, VR, and real time payments will have an impact on Australian organisations and their payments approach by the end of 2017. The magnitude of change is uncertain and the intensity of each technology's impact will differ. However, there is no denying things are evolving quickly.
- For the most part, customers are the ones driving change. They are embracing emerging technology and establishing new expectations for service delivery. Indeed, while many organisations have focused on being 'customer centric' with mobile, social, and online channels, they'll need to once again up their efforts with the new wave of emerging technology. There is no doubt customers are in the driver's seat when it comes to deciding what the level of expectation should be when they transact with your business.

Recommendations:

- Get a multi-stakeholder team (not just IT people) together to explore the opportunities that emerging technology and payments offers you.
- Ensure that whatever you do is customer centric and has a strong security and privacy component. Failure to consider these three areas will result in sub-optimal outcomes, regardless of how good your technology implementation is.
- Use the checklist in this document to kick-start some new or revitalised thinking about emerging technology and payments. Also, talk to payments providers that have experience in this area and can help guide you to a more innovative, adaptive and secure future.

Payments and Emerging Technology Today and Tomorrow

Today's world of payments is already filled with opportunity. Tomorrow's emerging technology is only going to make things more exciting. You've probably heard that before in one form or another. But hopefully you aren't completely jaded by all the hype the IT industry throws up. Because while there are always some who broadcast a lot of distracting white noise when it comes to technology, and payments, there are many grains of truth to the premise that the current batch of emerging technologies will herald significant change.

Already the move from cash and cheques to various forms of digital payments has welcomed in disruption, not just to the way incumbent financial service providers operate, but also the way many organisations in other industries engage their customers. Secure online purchasing along with contactless credit and debit cards, and smartphone NFC payments are just a handful of the big influences.

Market data also tells us that the number of EFTPOS machines in the Australian market will soon break through the one million mark (if they haven't already) with over 2 billion transactions a year. That's another digital signature that continues to make its mark. Indeed, Australian Payments Clearing Association (APCA) research also highlights that analogue payment types – aka cash and cheques – are the only two types of payments that are expected to decline (but not disappear!) to 2018.

TRA's own research on payments in the Australian market undertaken at the end of 2015 echoes these clear trends. Put simply, as a collective, Australian organisations continue to support multiple payment types as long as they are digital, done at same or lower cost per transaction, and offer better customer loyalty with greater insight.

This is highlighted by the fact almost a quarter of the 250 Australian business and IT leaders we spoke to told us they will support mobile wallets like Apple Pay, Android Pay, Samsung, Pay and Amazon Pay. They are doing this for three reasons: 1) customer demand is high; 2) they want to be known for innovation; and 3) the fees are perceived to be lower.

The mobile wallet example is one of technology that is already here today – actually in some countries it's been around for almost a decade but in Australia less than 15% currently support them – that is changing the payments landscape.

Most importantly, it is as much changing and being changed by customer behaviour and expectations, not simply by the decree of market incumbents. The question we pose to every organisational leader that has any need for payments functionality, is are you delighting your customers and treating payments strategically? There aren't many valid excuses not to lead from the front in this area. Because the opportunity is there to capture more insights on your customers, give them a great – or at least very efficient – experience to secure loyalty, and to potentially simultaneously reduce your per transaction costs. Win, win, win as they say.

The Emerging Tech Imperative

Yet, all this is effectively technology and customer expectations of the last 24 months. Yes, you need to have your systems and processes optimised to ensure you meet today's opportunities and challenges – and many organisations have a long way to go in this area. But the issue is, that's the status quo – the things we already expect as customers and arguably as market peers. How about tomorrow or the next five years?

The technology that is on the horizon also signals opportunity and change. (That frequently thrown around term, 'FinTech' is absolutely part of this.) Some of the major trends and technologies that TRA believes will have an impact are introduced below. This isn't meant to be definitive or all-encompassing list, and we purposefully do not go into any great technical detail on any of them. Our intention is to stimulate strategic thinking on your own organisation's current payments circumstances and to encourage further reading or discussion with trusted partners.



1 in 4

Australian organisations expect to support customers paying with mobile wallets in the next 12 months

The Emerging Eight: Technologies impacting on Payments in 2017:

(Note: The below are presented in no particular order. 1 dot indicates a minor impact, 5 dots a major impact.)

- **Blockchain transactions:** The distributed ledger technology that underpins the crypto currency Bitcoin is taking the financial services industry by storm. Considerable amounts of time and money are being ploughed into seeing how blockchain technology can work for transactions. In our view, it will courier in many new ways of doing things and the benefits will flow through to organisations of all types. However, we also need to keep in mind that with any new technology like this, there will be hiccups.
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- **Smart contracts:** Also based on blockchain technology, smart contracts allow organisations to pre-determine, for example, when funds should be released based on a certain criteria being met. It has the potential to change the way that business leaders of all types set up their payment processes and establish their agreements with suppliers and customers.
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- **Chat bots and virtual assistants:** It is very likely that at one point or another you've already interacted with a chat bot or virtual assistant. They are also now in every major operating system along with one or two very popular home devices (such as Amazon's Echo with Alexa). Many organisations are investing heavily in chat bots and virtual assistants to help with customer communications along with enhancing professional services with cognitive capabilities. One area that will influence payments is when consumers are able to process a transaction by interacting with a chat bot or verbally telling a concierge assistant (again, like Alexa) to buy something for you. This will increasingly be streamlined and tied

to digital or biometric identity, instead of the current transaction approval processes.



- **The Cyber Stuff:** Although most of the other developments in this list are positive for the market, we expect far more information security risks, attacks, and breaches to happen. Some will become public, most won't. However, the pace and ease at which malignant actors can access and deploy rentable or cheap attack tools and services will be greater than our ability to defend against them. Customer payments data will be a sought-after resource by these actors, and thus significant attention will need to be placed on protecting it. And then, of course, we need to add the human fallibility cause of incidents into the mix.



- **Cognitive Analytics Services:** Through the availability of API-driven services, artificial intelligence is now available in many forms to all organisations as a service. The performance of these cognitive services is improving rapidly to the point they are now feasible production-level tools for generating insights and content. TRA expects many organisations to plug their payments and other customer data into these services to try and uncover historical insights along with establishing real time data feeds for automated analytics that can trigger actions. While this may be 'small data' for some organisations, for others it will be big data analysis that leverages large unstructured data sets along with payments information.



- **Integrated Mobile Wallets:** Australians are yet to really experience choice when it comes to mobile wallets. A late comer to the game, most users are limited to one mobile wallet that they can use at selected locations. In future, we expect Australian consumers to have multiple mobile wallets that all them to pay for anything, anytime, anywhere This will also include mobile wallets tied to wearable devices. The user will

choose the wallet for the time that suits them best.



- **Comparison sites:** Already a mainstay in some areas of financial services, travel, and accommodation comparison sites to some degree have given customers greater insight and power over their decisions. In our view it is likely these sites will grow further and as a result will impact the payment platforms that are used. I.e. the more popular sites may only allow particular payment providers to be used, or they might even offer comparison site approaches to choosing the provider.



- **Real time payments:** Australia's new National Payments Platform (NPP) is meant to usher in a world of real time payments and ways of identifying users. The speed at which payments can be processed and thus funds become available to both consumers and businesses will be a welcome development. The NPP is meant to be operational in 2017.



- **Virtual Reality:** Also known as VR, this technology is quickly becoming a staple consumer item and is priced for mass market penetration. Many organisations are also producing content targeted to these platforms. Will consumers be able to pay for items while using VR? We expect this to be an affirmative answer. For example, a user in a virtual gaming world buying extra credits to power up a character. Or a virtual spectator at a major sporting event accessing an exclusive interview with the player of the match. They won't want to have to exit the VR platform to pay for things. So TRA expects payments to be built into VR functionality, just as it was into websites and mobile apps.



The Payments and Emerging Technology Checklist

We offer the following list of questions to help you establish your emerging technology and payments strategy, or to give an existing one a health check. It is not meant to replace your robust due diligence on any service, technology, or provider. But it should give business and IT leaders in all industries some food for thought. Your strategy should be unique and we encourage a frank and honest of audit of where you are today, and where you want to be in future.

About your circumstances:

- Is your current payments platform giving you the freedom to adapt and innovate at the best economics?
- Could you optimise your current payments systems and processes performance?
- When was the last time you undertook an independently verified audit of your technology strategy and the role that payments play?
- Can you easily articulate the way technology, including payments, helps your organisation achieve its purpose? Can you do this for a person completely unfamiliar with your organisation and industry?
- How much choice do your customers currently have with payments and how does this affect their satisfaction?
- Are your systems automated and integrated so you have full visibility of what is happening and an ability to react quickly?

About emerging technologies:

- Do you have multi-stakeholder discovery and understanding of emerging technology?
- Are you in front or behind your peers when it comes to emerging technology and why?
- How robust is your evaluation process for emerging technologies?
- Do you know what blockchain is and have you looked at what it can do?
- Do you know what smart contracts are and how they might be deployed in your organisation?
- Have you experimented with how VR might help your organisation?
- What are your plans for cognitive services? Do you have a mature strategy in place and the right capabilities to use them with big or small data?
- Have you or other business leaders personally tried developing a chat bot?
- What is the impact of the NPP going to be on your organisation?
- Is mobile at the core of your organisation, including for customer payments?
- Could you improve what you do today or create great new experiences (and business) with emerging technologies?

About your customers:

- Have you undertaken extensive research and analysis on how payments inform your customers' experience?
- When was the last time you spoke with them face to face and directly asked them what they'd like or how you could serve them better?
- Is your payments data available for real time and historical analysis?
- Is being customer centric a core principle of the organisation, or just lip service?
- Does your leadership understand what is happening with payments technology? Do your front line staff and everyone else in between?
- Have you considered the role that payments processes and technology plays in your customer's journey? What can you do to improve?

About Security

- How good is your security when it comes to payments? Seriously, how good is it really?
- What is the risk of not improving your security as soon as is practically possible?
- Do you follow security best practice such as the ASD top four practices to mitigate risks?
- Are all your own and provider security certifications up to date? Are they paper certificates or put into real action?
- Are you including your security people at the very start of, and throughout any discussions about emerging technology and payments?
- Are you including your privacy officer at the very start of, and throughout any discussions about emerging technology and payments?

- What will emerging technology do to your compliance regime? Are you sufficiently engaged with the appropriate authorities?
- How robust is your security incident response strategy if something happens with your emerging technology and payments environment?
- Are you getting regular audits of your security posture? Are you also auditing your auditors?
- Is security considered an inhibitor in your organisational culture or an enabler? What are you doing to make it the latter?

About people and providers

- Do you have the right people in place to drive your emerging technology and payments plans? Or do you need to recruit?
- Have you considered how some emerging technology might impact current head count and responsibilities in your organisation?
- Are you providers giving you access to skills you don't have internally? Could they help more?

About tomorrow

- Is your organisation going to be a leader, follower, or observer when it comes to emerging technology and payments? What are the reasons you have for this answer and do they stack up to external review?

Methodology

Ezidebit commissioned TRA to undertake a quantitative survey of 250 Australian organisations at the end of 2015, and 100 organisations at the start of April 2016. Respondents had to be responsible for, or have intimate knowledge of the technology used in their organisation and have more than 20 employees. The sample of responses were distributed across the country. For further information on the methodology used, please contact Tech Research Asia.

This report was commissioned by Ezidebit. For more information on Ezidebit and its offerings, please visit: www.ezidebit.com

About Tech Research Asia

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