

SECTOR BRIEFING

number **06**

DBS Asian Insights
DBS Group Research • June 2014

Asian Gamechangers

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How Singapore is Going Digital



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Asian Gamechangers

Sink or Swim

Business Impact of Digital Technology

Executive Summary

The new age of digital technology is set to revolutionise how businesses operate, in a manner and at a speed that is unprecedented. The democratisation of technology also means that now, millions of people are able to develop apps that have the potential to reach billions of people. And as costs are driven down, the proliferation of digital devices and platforms will empower individuals and businesses across the world.

Asian economies are seeing huge leaps in internet and smartphone penetration, and are on the brink of the true disruption that will be engendered by the digital age. Asia, excluding Japan, will have one billion smartphone users by 2015. This would more than provide the requisite critical mass and momentum to accelerate the digitisation of its economies.

The first wave of digitisation is well underway, with smartphone penetration empowering consumers by allowing constant access to the internet and apps, and allowing them to buy and sell products and services with the touch of a screen. The second wave of disruption – that of big data analytics – has just begun and will have far-reaching implications over the next few years. Businesses can predict the next purchase by a consumer by leveraging on developments in big data analytics. The Internet of Things is the third wave of the digital disruption. We are not quite there yet, but when in full swing, this may be the most disruptive wave of all. Everyday items from refrigerators to car components will be connected to the internet and will have the ability to automatically transfer data over a network without human interaction.

No sector will remain untouched by the digital revolution, but the timing and impact may depend on a few key considerations. Businesses that offer virtual products, such as banks and insurance companies, are more likely to face a challenge from digital players than businesses that manufacture physical products. Burgeoning online retail may lead to higher demand for warehouses and logistics services, and lead to a decline in demand for retail and office space. Some sectors, such as healthcare and education, have a lot to gain from digitisation but the process may take longer because they require more complex digital solutions, and also because they are such highly-regulated sectors.

Production and additional research by:
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Sink or Swim

If there is a singular instance one could point to that gives complete credence to Schumpeter's famous idea of creative destruction, digital technology is it. Companies that have found themselves on the wrong side of this technological shift have been made painfully aware of its disruptive power. At its most unforgiving, successful business models that have guided companies through many economic cycles get upended, leaving their traditional competitive advantages looking like vulnerabilities and liabilities.

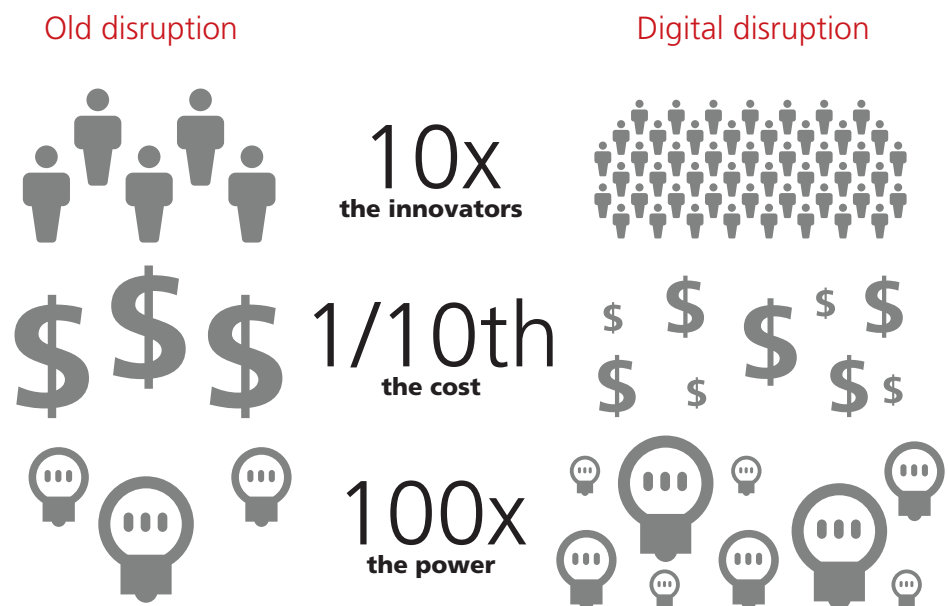
One example is Borders. The second largest retail book chain in the US operated 525 stores when it filed for bankruptcy in 2011. The brick-and-mortar bookshop was disrupted by Amazon which managed to capture readers online with the help of its e-reader, Kindle, leaving Borders to struggle with the high cost of its retail network. Decades-old magazines like Newsweek and Reader's Digest have had to file for bankruptcy as their advertising dollars get displaced by more targeted and cost effective online media alternatives, despite their brand recognition and sizeable circulation reach.

This current age of digital innovation is able to deliver the same impact in about 15 years

Unprecedented Impact

The impact of digital on a market is much greater than previous technologies, and the market swings are much more acute. According to McKinsey estimates, it took about 80 years for the steam engine to contribute to more than one percentage point of global GDP growth. Electricity halved that by 40 years and traditional information and communications technology took over 20 years. This current age of digital innovation

1 Traditional disruption versus digital disruption



Source: Forrester Research 2011

is able to deliver the same impact in about 15 years: a remarkable achievement indeed.

Hence as far as technological change goes, it is not just a mere difference in degree but in kind.

Evolution of innovation

Traditionally, technological innovation has been the preserve of scientists and engineers working in laboratories and research and development centres. Such specialised skills sets and the technological infrastructure and processes used for research have also meant that the cost of innovation has been kept prohibitively high.

Mobile apps

While we previously had a few scientists innovating in labs, now millions of people are able to work on developing apps. And the outcome has been explosive. There are over one million apps in Apple's App store and Google Play, with 25,000 to 30,000 apps being added every month. Many of these apps enable consumers to access products and services 24/7. These millions of app-developers did not previously have the platform (now provided by the likes of Google and Apple) and the reach to billions of people earlier (now provided by smartphones). It also costs much less as there is no need for physical infrastructure.

Disruptive Impacts of Digitisation

The impact and implications of the digital revolution for companies are protean, but three salient developments stand out:

1

Speed, access and opportunity for consumers

Consumers are now able to access a wide variety of services on a single platform. Apps provide personalised service with a click, even when one is mobile and internet speeds are not great. This was unimaginable not so long ago when people had to wait for websites to appear on their desktop screens. The GrabTaxi app in Singapore, for example, is enabling users to call a taxi to their present location with just a click. Social media is also enabling the broadcast of solutions to a large audience rapidly. Consumers now have more opportunities to gather and process information and voice opinions.

2

New business intelligence

Businesses are leveraging existing and new sources of information to generate insights in ways which were not previously possible. These insights can be used to micro-target customers, predict behaviour, or come up with disruptive solutions. For example, Alipay in China has a lot of transaction data about its customers on its e-commerce platform, which it reuses in making lending decisions without assessing customer assets. Companies can also buy massive amounts of data from new sources, such as social media companies.

3 Digital over physical infrastructure

Many companies are likely to see substantial cost savings by spending less on physical infrastructure and using more digitisation. An example will be retailers shifting focus from branch expansion to an online presence, and passing on the cost savings to consumers.

The Asian Context

With the current depth of digital penetration in Asia, its economies and markets are primed for the transformative and disruptive impact of this technology. We can take a leaf from the experience of how digital technology disrupted traditional media in the US.

US print media advertising revenue started dipping from 2006 onward and had plunged more than 60% by 2012. If online and new media were responsible for this, as conventional wisdom dictates, then this could only happen with a sufficient number of users. In 2006, US internet penetration had reached approximately 68% or about 210 million internet users.

Role of internet penetration

Where digital penetration is deep and its adoption widespread, we see a corresponding impact on the market. For example, in India, where internet connectivity is still patchy and shallow, online shopping accounted for less than 1% of total retail sales in 2013. On the other hand, China, with 260 million smartphone users, now has the second largest online revenue figures in the world, after the US. According to iResearch, online retail accounts for about 8% of China's retail sales and is expected to reach 10% in 2015. This is higher than the 5%-6% of retail sales that online accounts for in the US.

Smartphone users

As it stands, Asia, excluding Japan, will have 1 billion smartphone users by 2015. This would more than provide the requisite critical mass and momentum to accelerate the digitisation of its economies. China had over 260 million smartphone users by the end of 2013, and that number will likely rise to 625 million users in 2015. India has 120 million smartphone users and, by 2015, will reach 240 million, displacing the US as having the second highest number of smartphone users. Indonesia will also see the number of smartphone users swell to 125 million.

Key Drivers of Digitisation

We see four particular developments/trends in the digital space that will continue to augment the transformative and disruptive impact of digital technology:

1

Smartphones are driving access to the internet and apps

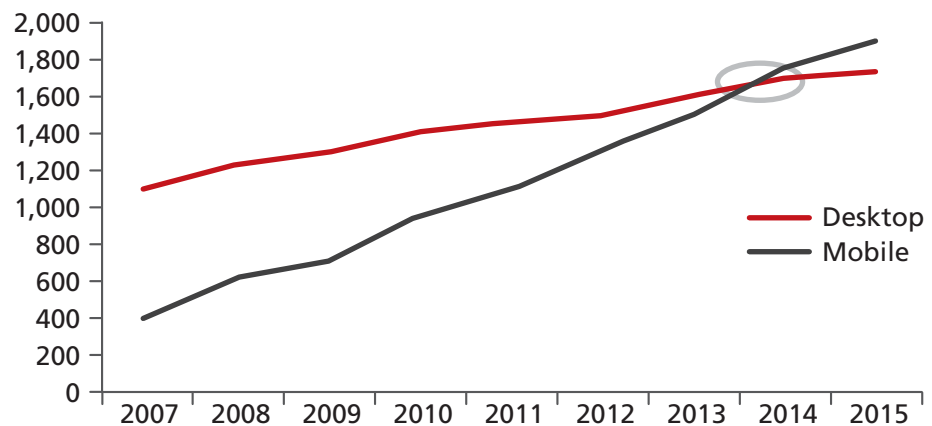
According to comScore, in 2014, as many people accessed the internet from mobile

phones as from their desktops. Most importantly, consumers are now able to access a wide variety of products and services on a single platform, which can be kept in their pockets all the time.

2

Number of global users

millions



Source: comScore

2

Social media is redefining marketing campaigns

Ubiquitous social networking and user-generated content is garnering more interest than sponsored content. This is reflected in the rising popularity of YouTube, Facebook and Twitter. Facebook had over 1.2 billion users in 2013, interconnected through 120 billion friendships. One single company has access to the personal data of 17% of the global population. Many companies are using social media platforms to broadcast their marketing messages in a subtle manner.

For example, using the Facebook Connect functionality, visitors can post newsfeed stories, photos, events and articles onto Facebook – for all their friends to see – without leaving the company’s app or website. Another example would be businesses parsing tweets using a technique called “sentiment analysis” to judge customer response to their marketing campaigns. Social media companies allow individuals to join for free, but access to users’ aggregated data on social media comes at a cost.

3

Big Data is powering the prediction of consumer behaviour

The ability to collect, store and analyse massive data to drive business insights is disrupting existing business models. Amazon has data on our shopping preferences, Google on our browsing habits, social media companies on our personal space, telcos on our location

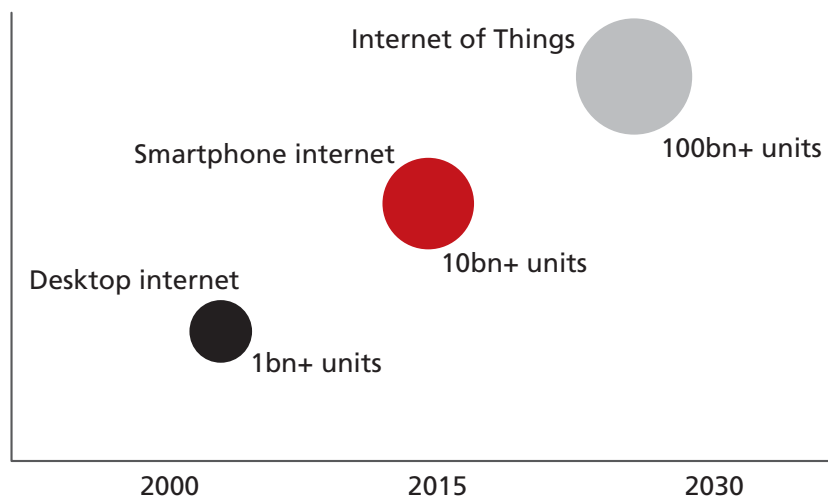
and TV providers on our viewing preferences. Businesses can predict the next purchase by a consumer by leveraging on developments in big data analytics. This was not possible without cloud computing, which has enabled on-demand, real-time access to computing power and unlimited storage.

4

The Internet of Things is leading to multiple devices working for us

Declining hardware costs due to rising smartphone volumes is paving the way for the automation of homes, offices and factories. The Internet of Things involves the embedding of chips, sensors and communication modules into everyday objects, which will generate massive data that were never captured in the past.

3 Declining hardware costs pave the way for the Internet of Things



Everyday items from refrigerators to car components will be connected to the internet and will have the ability to automatically transfer data over a network without human interaction. ❌

The Sea of Digital Disruption

Digital technologies are affecting our lives in three waves. We have already experienced the first wave through the use of apps and social media. The second wave of big data analytics has just started and will have big implications over the next couple of years. The third wave of the Internet of Things is still a couple of years away, but it will take the digital revolution to new heights.

Wave I: Consumer Empowerment

Rising smartphone penetration means that more people are becoming part of the digital economy. Apps downloaded on smartphones have user information stored in them which make it possible for people to be both buyers and sellers, and also to retrieve product information instantaneously. The interactivity of apps and their ability to function under mobile conditions is leading to the birth of new business models. This is further helped by the popularity of social media, which is allowing people to group themselves by their schools, colleges, age, hobbies, professions, etc.

App users become buyers and sellers

P2P car sharing

An example is peer-to-peer car sharing. This approach eliminates the need to maintain a separate vehicle fleet, by using underutilised vehicles in a community, and allowing car owners to earn a return on their idling assets. With the proliferation of smartphones and mobile broadband, peer-to-peer car sharing can be done through smartphone apps while also allowing tracking of the hired vehicle. Peer-to-peer car sharing companies such as RelayRides and Getaround are already operational in the US. According to a study done by Alix Partners, for every car that enters car sharing programmes, 32 car purchases would be foregone.

The potential impact on sectors such as automotive manufacturing can be substantial. However, the car sharing universe is still relatively small – in January 2013, there were only a little over a million users and 15,000 cars active in the US. The scale-up in car sharing is likely to make it more attractive for members of such services, with a wider range of vehicle and geographical regions. As a result, Alix Partners expect a loss of 1.2 million units in car sales by 2021.

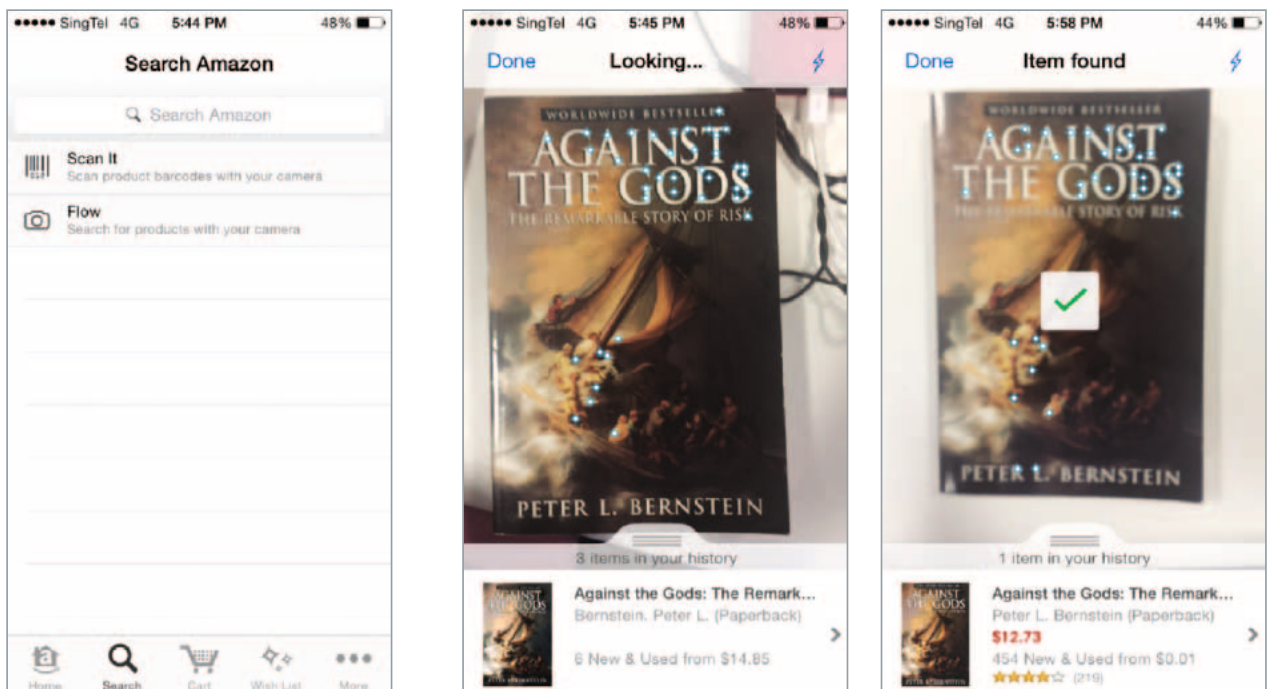
Consumers retrieve product details instantaneously

Augmented reality

First, it was Flow, an app that allowed users to scan a product's barcode with a smartphone camera in order to find it on Amazon's website. Now, comes augmented reality. This lets users take pictures of products such as a book or a calculator to find it on Amazon.com and purchase it. Yes it works, with a reasonable success rate! We tried it. The original Flow was a separate app from the main shopping app, but now searching and purchasing online have become integrated.

The evolution of this trend will revolutionise consumer shopping experiences, and may disrupt traditional retailers. Consumers can now compare instantaneously online when shopping, just with a smartphone. This will pose a challenge to traditional retailers in competing on price and product availability. To differentiate themselves and compete for their share of a consumer's wallet, brick-and-mortar retailers will need to increase experiential shopping, loyalty programmes and omni-channel retailing.

4 **Amazon's augmented reality search function**



Source: DBS Bank, Amazon

Consumers to find more convenience in the digital world

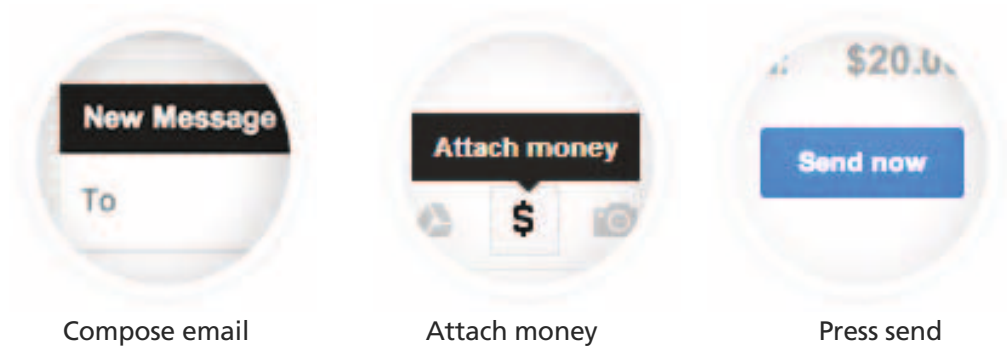
P2P money transfer

Peer-to-peer money transfer without the involvement of a bank is one such disruptive technology. Google, for example, has integrated Google Wallet with Gmail, so that users can quickly and securely send money to friends and family directly within Gmail. Money can be sent for free (from a linked bank account) or for a small fee (from a credit card). Currently the service is only available in the US.

Mobile payment

Google Wallet is a mobile payment app that allows its users to store debit cards, credit cards, loyalty cards, and gift cards among other things, as well as redeem sales promotions on their mobile phone. Google Wallet also uses near field communication (NFC) to allow users to make secure payments by simply tapping their phones.

5 Google allows its Gmail users in the US to attach cash to an email



Source: Google

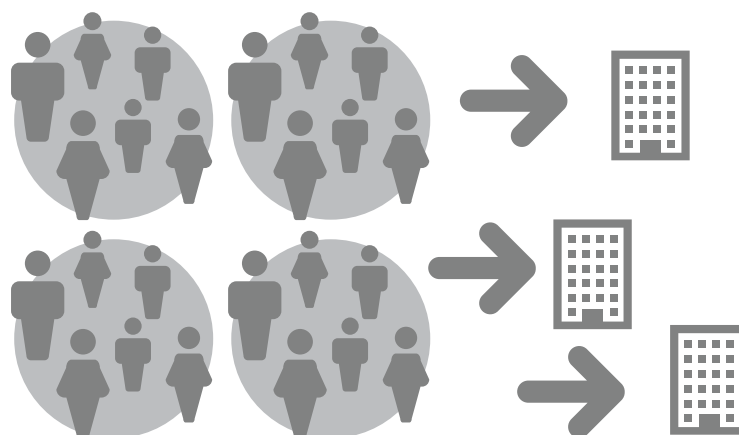
Businesses retrieve data from social media and also advertise indirectly

Assessing insurance needs

This can be seen in the use of social media to buy insurance and avail group discounts. UK startup BoughtByMany invites groups of people with specific insurance needs – such as pug owners, diabetic travellers or young drivers – to club together and then negotiates better policies on their behalf. Typically, 90% of their traffic is driven through Facebook, through which customers can join the group they are interested in. These Facebook groups also allow for an indirect form of advertising, as users who join can invite their friends to join too.

BoughtByMany has around 18,000 members in about 180 interest groups. Overall, the average discount negotiated has been around 18.6%. The attraction for insurance companies is the lower cost of acquisition relative to other channels they may use.

6 BoughtByMany aggregates insurance buyers into unique groups using Facebook to retrieve their data



Source: BoughtByMany

Wave II: Data Analytics to Generate New Insights

All the information and data sets arising out of apps and social media are being pulled together to generate insights and more efficacious analysis, even allowing businesses to predict the next purchase that a consumer will make. The following examples illustrate the use of data analytics and how it can disrupt existing business models.

Telcos can help to optimise insurance pricing using telematics

In insurance company State Farm's In-Drive programme, the insurer offers up to a 50% discount to drivers who use a wireless device, in this case sold by Verizon, to monitor their annual mileage, braking, acceleration, and other driving habits. With this kind of information, insurance companies can analyse data to improve their understanding of risks and price their products appropriately. This approach also encourages drivers to change their behaviour.

7 Insurance premium based on real-time monitoring of driving habits



Source: Liberty Mutual

Rise of data aggregators in the insurance sector

Google acquired a UK auto-insurance aggregator in 2011 and launched its own comparison site in 2012, where customers can retrieve car insurance quotes from 131 providers. With its existing search and mapping capabilities, Google can retrieve vast amounts of data about individuals, their cars and their homes. For example, an Android smartphone can be used to monitor distance, speed and driving habits of users. Given

that Google will have aggregate data of users from multiple insurance providers, this can potentially generate even more insights about insurance pricing.

E-commerce players bypass banks and use analytics for lending money

Alipay processed US\$519 billion worth of digital payments in 2013. Alipay is a three-in-one product, comprising a savings bank, wire service and investment house. Most importantly, all three services can be availed through a mobile phone. Load cash into your Alipay app and you can buy things online or at a retail brick-and-mortar shop, wire money, invest in stocks, and earn a healthy interest on your balance. The lending arm of Alipay uses information instead of assets to be sure of its loans. It collects data from all the buying and selling on its e-commerce website; and the more trusted someone is to deliver the right goods on time, the more likely they are to stay in business and to repay their debt. Alipay's long history of customer rating records and its sophisticated data mining enable it to control bad loan risk. At the end of 2013, Alipay's loan book had grown to US\$2 billion, with only 2% of the loans underperforming, according to the company.

Alipay's long history of customer rating records and its sophisticated data mining enable it to control bad loan risk

Personal financial management is the next frontier in banking

It's about helping customers save more by managing their expenses, choosing the right way to pay for the things they purchase, and avoiding fees. Launched by Bank 3.0 author Brett King in 2013, Moven offers a unique banking alternative in the US; giving users the ability to manage bank and card accounts within its app so that users can see their complete financial health. Moven is not a bank but provides a unique customer experience interface in partnership with a traditional bank, CBW Bank in Kansas. When customers pay at the cash register using their contactless MasterCard PayPass sticker on the back of their phones, they get real-time feedback on how the purchase impacts their financial health right on their phone's screen.

Customers get real-time feedback on how the purchase impacts their financial health right on their phone's screen

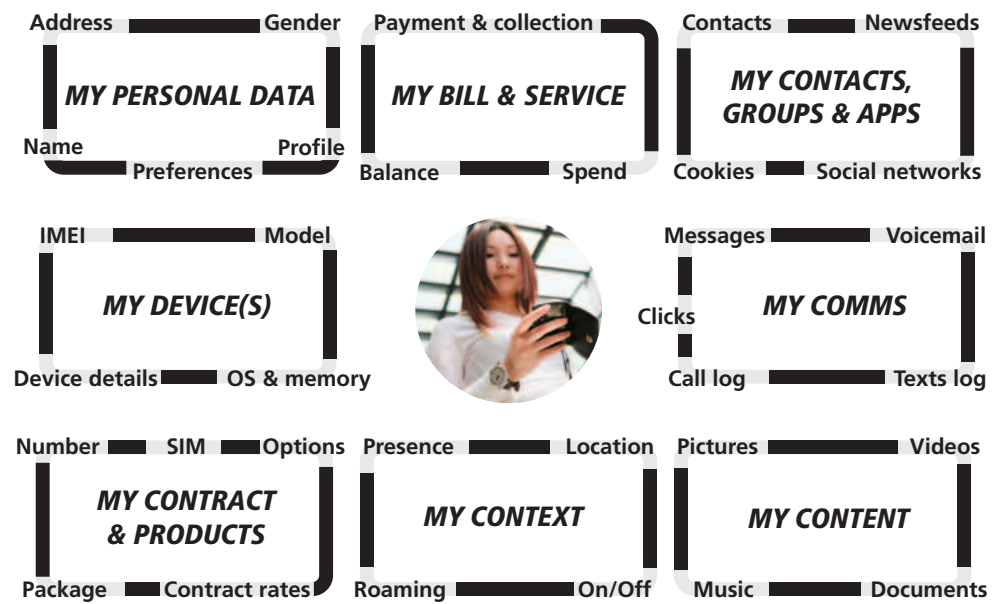
One of the tools analyses spending behaviour and provide visual cues (green, yellow and red indicators) to let customers know how they are doing compared to past behaviour. Another tool charts a customer's spending over a month to allow the customer to understand his or her spending patterns. Despite having been closed to the broader public, Moven has grown to 5,000 registered users and has helped manage over US\$300 million in customer spending. Over 100,000 people have signed up for invites to join the service.

Integrated telcos to monetise data by predicting consumer behaviour

Telcos have access to a lot of information, like the kind of programming customers watch and subscribe to, when they watch, as well as the location, and movement data of subscribers, which, if mined and analysed, can help to build context. Understanding

context can infer intent: will this customer like this brand; make a trip out of town soon; buy tickets to a specific sporting event; take public transport versus a car trip? Add to this knowledge of a customer’s social media network usage, and telcos can build a near 360-degree picture of him or her and predict future behaviour.

8 Telcos have a 360-degree view of their customers



Source: Telco 2.0 Customer Data and Privacy Report

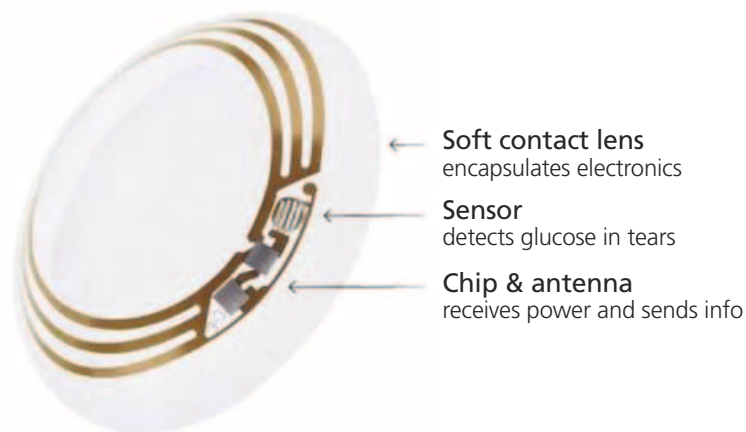
So, instead of every TV viewer seeing the same advertisement at the same time, opt-in participants would see tailored advertisements that best match their profiles. Imagine a customer who follows, on Facebook, a certain celebrity who recently launched a new fragrance. And the customer is also determined to be a fashion-forward consumer, based on Internet Protocol television (IPTV) viewing. The analytics platform will predict when this customer is going shopping at a local mall, and will offer a promotion on the celebrity’s fragrance at a cosmetics store in the mall. Looking ahead, there is a possibility that telcos may be able to sell customer intelligence and information to enterprises directly with opt-out clauses in place. Singapore’s SingTel and StarHub have already set up big-data analytics arms and are actively exploring how best to monetise this trend.

Monitor data remotely through apps which can be aggregated to generate insights

Google’s smart contact lens for diabetic patients reads glucose levels from tears, and could render painful pinpricks obsolete. Google is also testing the lens’ ability to synchronise wirelessly with a mobile device. There is a lot more work left to do before the product

can be released for general usage, in five years, at the least. Google is developing apps that would make the measurements available to the wearers and their respective doctors. Some useful insights into the control of diabetes may be gleaned when aggregate data from multiple users becomes available along with location, temperature, environment and other factors.

9 **An example of a smart contact lens from Google**



Source: Google

Wave III: The Internet of Things Will Take Digital Revolution to New Heights

The huge volumes in smartphone production have resulted in a big drop in component costs: Bluetooth chips now cost less than US\$1, sensors such as gyroscopes are around the US\$1 mark, and application processors cost around US\$2. These sensors can generate a lot of data which can be transmitted and processed for decision making. The key challenge here would be if the price of sensors and other devices decline so much that they can be embedded into everyday objects, like refrigerators and car components, and create the Internet of Things, so as to generate insights that are useful for a company's marketing and operations. Some key applications of the Internet of Things may be as follows.

Device penetration could rise up to 1000% with machine-to-machine technology

Rising device penetration due to M2M communications

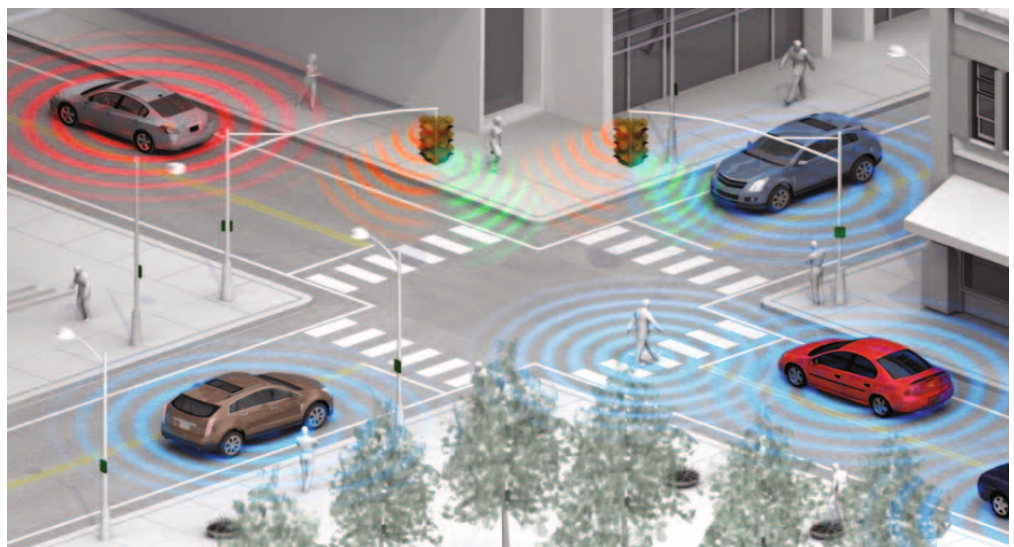
Machine-to-machine (M2M) technology may provide telcos with a new source of revenue as the penetration rates of mobile communication services reach saturation point. Verizon believes that device penetration could rise up to 1000%. This will happen as wireless

connectivity is embedded in vending machines, animal traps, cameras, picture frames, utility meters, etc. However, the majority of devices and applications may use existing connectivity without generating extra revenue. For example, looking at the connected/digital home: the thermostat hooks into your home Wi-Fi network, while the fitness tracker connects to your smartphone via Bluetooth.

Driverless cars are an interesting concept being tested now

Insofar as machines are able to talk to each other, the automated, driverless car is perhaps the most ambitious and conjures up futuristic visions of "The Jetsons". The autonomous car will simultaneously communicate with all the other vehicles, traffic signals, overhead signs, and toll booths around it, while using real-time updates on road conditions and traffic patterns to constantly evaluate its surroundings and adapt to any unpredictable activity. We may be just 12-18 months away from semi-autonomous cars while fully autonomous cars could take over five years.

10 Vehicle-to-vehicle communication



Source: Motortrend.com

We may be just 12-18 months away from semi-autonomous cars

Pioneered by Google, driverless cars are already being tested on open roads. According to the Financial Times, Google is looking to introduce driverless car for public use by 2017. The IHS Automotive report purports that self-driving vehicles completely independent from human controls will be available by 2035, while the Institute of Electrical and Electronics Engineers estimates that 75% of all vehicles will be autonomous by 2040.

However, many legal and insurance implications remain unresolved as only four US states have enacted laws addressing driverless cars so far. Driverless vehicles are expected to

reduce the number of traffic accidents by a factor of ten while reducing the US vehicle fleet by more than tenfold. Further, transport industry segments such as trucking may well be completely overhauled with driverless vehicles making them safer, more efficient and faster.

Autonomous trucks are saving costs in the mining sector

Rio Tinto operates over 60 autonomously operating dump trucks (out of a total fleet of over 300) in its Australian iron ore operations. Unlike driverless cars on public roads, mining companies are able to control the environment around these autonomous vehicles, allowing early adoption. These trucks are not remote-operated by a controller with a joystick; they are fully autonomous and connected via the internet to each other, to the control system, and to other machines in the mines, such as excavators. The trucks react to the motion of other pieces of equipment and adjust to the constantly changing layout of the mine as ore and waste get removed. Despite the higher initial cost, autonomous trucks offer mining firms significant cost savings over labour with lower potential for accidents and disruptions. Further, with mining moving to ever more remote locations, autonomous equipment offers traditionally on-site employees, such as equipment operators, the ability to remotely operate mining equipment. ❌

Impact on Various Sectors

All these developments and business applications come together to give us a rough sense as to which sectors are more exposed to the transformative/disruptive impact of digital technologies, and where they are headed.

13 Roadmap of digital technology's impact on sectors

Already feeling impact	Will see impact in the next three-to-five years	Will see impact in the longer term	Likely to benefit from cost savings
<p>Media</p> <p>Retail</p> <p>Telecom</p>	<p>Insurance</p> <p>Banking</p> <p>Transport</p> <p>Real estate</p>	<p>Education</p> <p>Healthcare</p>	<p>Mining</p> <p>Manufacturing</p>

Five Key Considerations

While no sector is untouched by the digital revolution, the timing and the impact will vary across sectors. We looked at various disruptions to come up with five key considerations that will determine the timing and impact of the disruption.

1 The extent to which products need to be delivered physically

Insurance, banking, and mobile operators offer virtual rather than physical products. Businesses in these sectors are focused on processing and servicing and are likely to see their business models challenged by digital players. On the other hand, mining and manufacturing companies offer physical products and their business models are unlikely to face a similar challenge.

2 Effect of deepening internet usage on customer demand

We see significant change in demand patterns across real estate and transport, and rising demand in the healthcare and education sectors due to the use of digital solutions. With more online shopping, logistics supply chains need to be streamlined and products will be shipped directly from warehouses to consumers. We anticipate higher demand for warehouse space around transport hubs. On the other hand, there could be lower demand for retail and office space unless they reinvent themselves. With the growth in the online economy, demand for business travel could shrink although demand for leisure travel could rise with more personal time. With remote healthcare monitoring, there will

be early detection of diseases and treatment can be provided to more people. Similarly, online education can lower costs and open the market to a much bigger number of people.

3 Maturity of the digital solution vis-a-vis industry needs

We believe that mobile or smartphone based solutions will see faster adoption. Internet of Things based solutions, on the other hand, which require numerous sensors and software applications, will take a couple of years for mass adoption. The healthcare and education sectors should see a significant impact; however, the more complicated digital infrastructure requirement means that digital solutions in these sectors will take more time to mature.

4 Niche versus mass market appeal will play a big role

Many mass market businesses could be commoditised by data aggregators which will let consumers compare and choose their vendors. Digital technologies will also enable businesses to micro-target their customer base. For example, luxury brands could benefit from more targeted marketing and from driving improvement in the supply chain.

5 Regulatory barriers may benefit incumbents

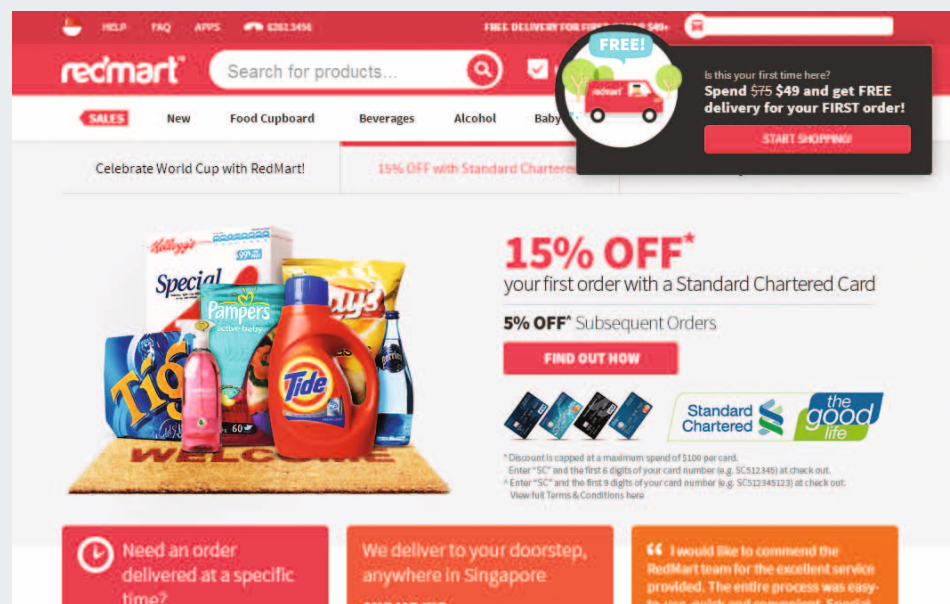
Incumbents in highly regulated sectors will get more time for adoption. The healthcare and education sectors are highly regulated and customers are also slow to adopt new solutions given their life-long implications. In fact, they may reap significant cost savings from the use of digital infrastructure.

How Singapore is Going Digital

Online grocery stores are popping up on Singapore's shores

We are already experiencing it, but probably not on a widespread scale on a revenue basis. The main supermarket players are NTUC Fairprice, Cold Storage (along with Giant), and Sheng Siong. Traditionally, market shares were dominated by outlet presence and location, and entry barriers were relatively high. With higher internet penetration, rising rents and consumers' pursuit of convenience, online grocery retailers are surfacing. Barriers to entry, predominantly due to availability of retail space, are abolished. We now have redmart.com, click-it-grocery.com, groxers.com, orderonline.sg, and others.

11 Redmart.com – grocery retailer with no retail space



Source: Redmart.com, DBS Bank

Traditional retailers are also moving online, toward omni-retailing channels

Traditional retailers are also not sitting on their laurels. NTUC Fairprice and Cold Storage have entered the fray, and are leveraging on their existing distribution network. Revenue contribution from online sales is still small for traditional retailers, but this could grow. The challenge for brick-and-mortar grocery retailers is to retain customer loyalty,

increase experiential shopping on premises and offer fresh, perishable groceries, which may currently be limited by efficient distribution and consumers' shopping habits.

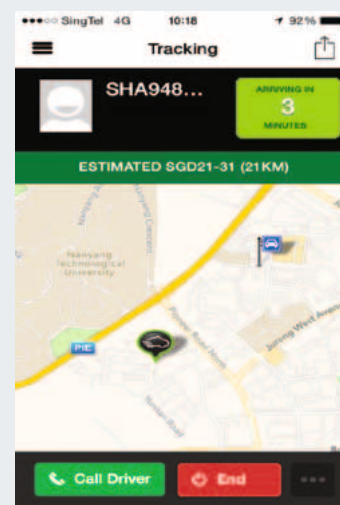
Regulations to allow insurance aggregator in Singapore

In February 2013 in the Financial Advisory Industry Review (FAIR), it was recommended that the regulator should work with the insurance industry to develop a web aggregator that allows consumers to easily compare pricing, benefits and other features offered by different service providers. In an addenda statement to Singapore President Tony Tan Keng Yam's address to Parliament on May 23, 2014, the government confirmed the introduction of such a web aggregator. This development will likely increase transparency and promote competition between insurance service providers. However, whether the system will succeed has yet to be seen, as customisations of policies can make it difficult to compare products other than the most basic features.

Hailing taxis set to be revolutionised with the help of apps

An example is the GrabTaxi app with 10,000 registered drivers, giving access to almost as many taxis as are operated by Singapore's largest taxi company. When a booking is made by a commuter using the app, the phone shows in real-time a list of cabs being offered the job. Once a match is made, the commuter's and the driver's phone numbers are immediately made available to each other so that they can communicate about any unexpected issues. Dialling can be done from within the app. GrabTaxi's app uses Google Maps to constantly track the locations of its drivers, so that it knows exactly which drivers are in the vicinity of the customer.

12 Grabtaxi app



Source: thenextweb.com

Singapore's postal company sets its sights on becoming a pan-Asian e-commerce player

SingPost has acquired various companies in Asia across the transport, warehouse and logistics segments, in order to expand its Asian footprint and capabilities. While FedEx and DHL may have a bigger Asian footprint, SingPost is positioning itself as the low-cost carrier of the e-commerce world as buyers do not typically want to pay a premium price for shipping.

SingTel is focusing on three key areas in the digital space

Mobile advertising, mobile video and big data analytics are the key areas of SingTel's digital focus. Already, SingTel has spent around S\$1 billion in acquiring mobile advertising related companies. In the 2014 financial year, SingTel's Group Digital Life secured S\$169 million in revenue, the majority of which came from mobile advertising, with an EBIT loss of S\$217 million.

Digital players are embracing telcos as a payment solution to target people without credit cards

There is an untapped market of consumers without credit cards and those who trust telecom service providers more than e-commerce companies. SingTel announced in August 2013 that it has introduced a direct carrier billing system for customers on Google Play. This will see purchases made on the Android app store charged directly to their monthly mobile bill or prepaid account. Optus and SingTel's regional associates should see this being rolled out progressively over time.

People can open a savings bank account through an app

The Dash Easy app allows its users to open a new savings bank account with Standard Chartered by using their smartphones to upload photographs of required documents. Dash Easy is, in fact, the integration of SingTel's existing mobile wallet app with a bank account. Even without linking to a bank account, SingTel's mobile wallet app can be used for retail payments of up to S\$999 – limited by the need for proprietary NFC terminals – and money transfer to people in close proximity. The challenge here is the lack of a universal standard across the mobile payment spectrum. This means a user would need a bunch of apps on his or her phone in order to live a truly cashless lifestyle.

Telcos have re-priced data and plan to charge over-the-top players for preferential access

In September 2013, SingTel doubled its excess usage charges to S\$10.70 per gigabyte. This was followed by two other telcos raising their excess data charges too. Already, 54% of postpaid subscribers are on tiered data plans and, out of these, approximately 17% were paying excess data charges by March 2014. With the launch of LTE-Advanced in the second half of 2014, Singapore telcos also plan to charge over-the-top players for preferential access speeds. ❌

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