



INFO6012 Assignment

Digital Strategies of the Australian Banking Industry

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Introduction

The banking sector in Australia is considered to constitute the largest part of the country's financial system, contributing to around \$140 billion to the Australian economy in the 2017 financial year. According to the data provided by the Reserve Bank of Australia, there are 147 authorised deposit-taking institutions (ADI) which in aggregation hold around 55% of the financial assets of Australia. The main types of ADIs include credit unions, banks, and building societies.

Banks could be categorised into four main sub-categories:

1. **Major banks:** The four largest banks in Australia are the Commonwealth Bank of Australia, Westpac Banking Corporation, National Australia Bank (NAB), and ANZ Bank;
2. **Other Domestic Banks:** These include locally-owned banks, such as the Bank of Queensland Limited, and Macquarie Bank Limited;
3. **Foreign Subsidiary banks:** These banks are foreign banks that can undertake banking business through a local subsidiary. Examples of this include HSBC Bank Australia Limited and ING Bank (Australia); and
4. **Foreign Bank Branches:** These are also foreign banks, but are licensed to conduct business through branches, such as Citibank

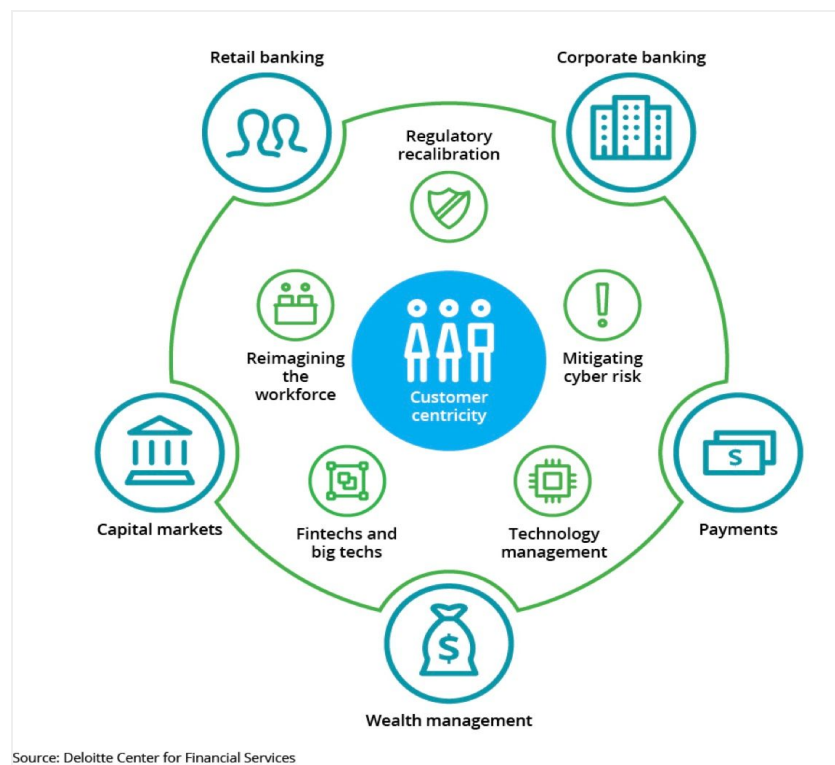
According to a recent survey, a vast majority of the Australian population holds at least one bank account. The following table shows the number of customers of some major banks. These numbers show that major banks such as the Commonwealth Bank of Australia and ANZ have their major presence among Australian audiences. It is estimated that the major banks control around 80% of all occupier home loans. This high market share for the major banks has not always been the same. It is only during recent years that the market saw such high influx of market share.

Customer numbers 2016-2017	Millions (to the nearest million)
Commonwealth Bank of Australia	17
Westpac Bank Corporation	13
National Australian Bank Limited	9
ANZ Bank	8

Source: Major bank's annual reports, ABS

In article by Deloitte ("Banking Industry Outlook", 2018), there are six macro themes that have to be followed by banks for their long-term growth:

1. **Customer centricity:** Banks can only gain long-term sustainable growth if they begin to place more emphasis on customers, rather than focus on the sales and products.
2. **Regularity recalibration:** This involves “modernising regulatory compliance and bringing together disparate silos create for individual compliance goals” (“Banking Industry Outlook”, 2018).
3. **Technology management:** In order for banks for continue growing and gaining sustainable competitive advantage, technology must be managed effectively. At the same time, CIOs must ensure new solutions are integrated to maximise value creation within the bank, while also minimising internal disruption.
4. **Mitigating cyber risk:** The potential for cyber risk continues to increase “with greater interconnectedness” in the banking ecosystem, adoption of new technologies, and continued reliance on legacy infrastructure (“Banking Industry Outlook”, 2018).
5. **Fintech and big techs:** According to Deloitte, fintechs are said to be leaders of innovation in the banking industry by focusing on customer experience. Learning from fintechs could help banking businesses to rethink their competitive benchmarking, thus making them less vulnerable for future threats.
6. **Reimagining the workforce:** Banks are recommended to “rethink their workforce strategy” by increasing automation and diversity within the bank’s labour pool.



The banks who had the first movers advantage in the past according to these macro themes have established their foot in the industry. A similar pattern will be followed in the future.

Competitive Landscape of the Banking Industry

The banking industry in Australia is undergoing rapid changes in areas such as payment systems, digitization, EFT Technology and regulations by government. Because of such changes in the environment, organisations are engaging themselves in continuous strategic planning and trying to adapt to new technologies and strategies. The more competitive the market, the more differentiated products the producer has to offer.

According to the article “Competition in retail banking” by Deloitte, the Global Financial Crisis in 2014 had disrupted financial organisations, including the retail banking sector. This disruption in dynamics has led to a competitive environment in the market. As the competitive environment offers consumers more choices in choosing from a variety of products according to their needs, it has resulted in a lot of positive effects on consumers which in turn affects the reputation of banking organisations.

Positive implications for customers:

1. In comparison to other countries, Australian citizens are well served and are more satisfied by their banking system.
2. The Australian banking system lies within the top 5 banking systems that are considered to be less risky.
3. The Australian banking system provides more product offerings and delivery channels.
4. Some Australian banks provide no-cost and low-cost basic bank accounts.

Due to competition in the market, there are many business models and means which these organizations follow to attract customers. According to Deloitte, these means are price, product features, quality and access to services, branding and innovation. With regards to pricing, prices, including fees and interest rates, tend to be relatively the same between the major banks of Australia. Changes in the rates by one bank will lead to a quick change by other banks. This highlights how competitors closely monitor each other and “suggests competitive pricing”. Since products are mostly matched on price, the large banks compete through the differentiation strategy, such as innovative products or providing greater service quality. Furthermore, with the digital revolution disrupting the relationship between banks and their clients, banks in Australia must actively explore different possibilities with the use of digital technology to strengthen their competitive

position in the market. Features within these technologies will ultimately enhance customer experience and boost efficiency.

Digital Strategies Implemented in the Australian Banking Industry

Commonwealth Bank:

Australia is occupied by four leading banks, out of which the leading bank services provider is the Commonwealth Bank of Australia (“CBA”). CBA, as indicated on their website, specialises in ‘retail, premium, business and institutional banking, funds management, superannuation, insurance, investment and share-broking products and services’. The prime reason for CBA achieving this status is due to its acknowledgement of the importance of technology. CBA lists the use of technology as one of its core pillars of strategy, which can be seen as a digital business strategy as it leverages the use of technology and digital resources to provide significant value increase.

Digital Business Strategy “Technology & Operational Excellence”:

The paraphrased version of the CBA digital business strategy highlights the widening use of IT and digital resources to provide consistent delivery and increased efficiency to maximise the bank’s competitive advantage. The strategy further implicates the utilisation of the bank’s IT resources and its people skills to enhance the systems and the organisational processes. It also focuses on the development team of new and improved lean and proficient processes that will help the organisation to prosper.

Scope:

CBA’s scope with respect to the introduction of digitised solutions has improved drastically over the years. While the focus on the usage of IT has always been on the forefront, one essential element that has improved over the years is the **elimination of information silos** with respect to each business process. The IT solutions being used, primarily focused on digital banking platforms, allow the customers to use these channels for internet banking facilities. However, since these solutions were targeting segments of various services that the bank offers such as personal banking, retail banking and insurance, the data being generated from these solutions was independent and respective to that digital channel. This therefore restricted CBA to focus on product-based marketing strategies (Bennett, 2017). They were also unable to provide a quick and satisfactory response to customer queries as independent bits of data were not fully accessible, hence dissatisfying the customer. Currently, however, CBA has transcended its scope beyond traditional process silos and now collects data from various services and positions and stores it under one platform, known as the ‘**customer decision engine**’. The idea of this engine was to focus on data insights from various services and to use these

insights to provide the best possible customer experience. An application of this system is seen in the call centres of CBA where data from various previous interactions is processed in real time from digitised channels to help the agents in understanding the customers' mindset and the type of response they would expect (Pearce, 2018). This system helps in satisfying the customers and is a good example of bypassing boundaries of information silos across different digitised solutions where all the information is stored under one umbrella.

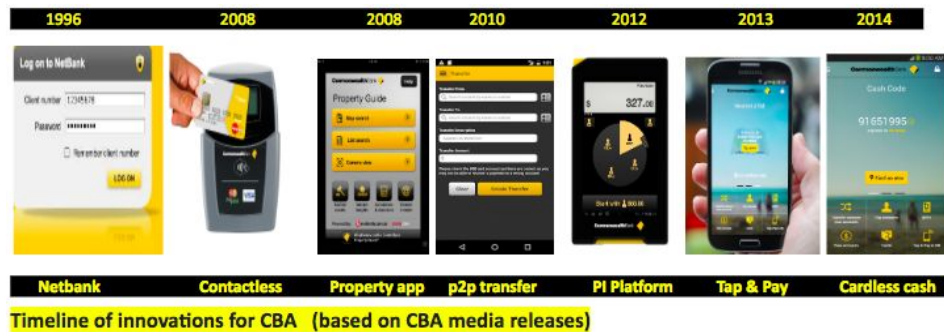
Scale:

One of the main pillars of a successful digital business strategy relates to providing a digital infrastructure that is capable of matching unprecedented customer demand and to never compromise its availability. CBA, to scale its digitised operations, relied on **cloud services** in order to address its growing internal digitised infrastructure. CBA used Amazon's cloud services to customise its own cloud that will help them with increasing storage needs. Another important feature introduced by CBA as a part of its cloud was to allow its customers to store their personal data on CBA's cloud with **unlimited storage**. This included documents and other legal files (Sasdauskas, 2012). Seeing the importance of growing storage options through Microsoft, Google or Dropbox, CBA decided to introduce this option to focus more on customer growth and to enhance their partnerships with its existing customers. Utilising services, to provide and improve partnership opportunities, is again an integral part of the scale of the digital business strategy. Additionally, CBA tried to replicate its partnership commitment with different cloud providers as well by hosting some of its infrastructure projects in private clouds (Winterford, 2010). Hence, inviting private cloud providers to potentially create a partnership with CBA could allow them to add their infrastructure on the providers' facility which would ultimately benefit both the bank and the cloud provider.

Speed:

The speed of digital business strategy is related to rapid developments in the organisational processes. These processes could relate mostly to the speedy product launches, or in more generic terms, new and continuous innovations. It moreover covers the speed of decision making processes (Omar, 2013). CBA, avidly following this approach, has been making **constant innovations** to appease its customers via the digital banking platform. The speed of product launches can be tracked initially to the launching of Australia's first ever NetBanking website that allowed users to make digital transactions with efficiency and 24 hour availability. This approach was later adapted by other banks and was considered one of the essentials in pursuing the digital channels of the banking industry. This was followed by the introduction of **contactless payments** which allowed the users to pay with their credit cards without the need to insert their card in the EFTPOS. After this, the wide market appeal of **mobile apps** was used by CBA to create new apps that focused on providing stock

market guidance, peer to peer mobile payments solutions, and management of business finances. This was followed by a **new POS system** (PI Platform) that provided an efficient way of handling transactions for both the owner and its customer. The latest innovations in the past 3-4 years comprise of **tap-and-pay technology** that allows direct contact between mobile devices and EFTPOS to enable transactions. This involves the introduction of cardless cash payments that allow interaction with ATM's without the need of a card. Each of these product launches are set apart within a frame of a mere year, which shows how successful CBA has been in applying its digital business strategy with speed. In terms of decision making, an example of the '**customer decision engine**' which enlarges a major component of the scope of the digital business strategy, also applies here as it improves the decision making process to satisfy the customers on daily basis.



Sources of Value Creation:

Value capture through traditional business models and strategies relies on tangible and physical resources. However, for the digital business strategy, some additional factors come into play. These focus on **leveraging customer information** in creating a personalised experience. The information sources can be internal or in some cases external. CBA used this approach to utilise the customer's data, providing a personalised experience by combining various apps it developed previously, under one platform which is now known as the **CBA App**. It allows a personalised experience by allowing customers not only to make various transactions, but also to save a history of transactions and provide valuable recommendations and insights. It also helped users to better manage their finances. This personalised experience appeased users as they were able to make all decisions under one platform, which in turn helped CBA to meet its strategic goals related to value creation. Another way of leveraging customer information was via the usage of the **Facebook platform** to enable P2P payments via CBA. This was known as '**Caching through Facebook**' and it utilised customer's information while they surfed Facebook to enable direct payments to other Facebook and CBA users. The information already present on Facebook created additional value for CBA as they utilised this information to enable safe payments without the need to gather additional customer information.

Key Implications and Value Propositions:

The rise of digital resources and channels have allowed businesses to prosper in an upward direction by applying the digital business strategy best suited to their business needs. Each strategy tends to produce some value propositions and if the strategy is implemented successfully, it often delivers expected results for the organisation. As discussed earlier, CBA has implemented various components of the digital strategy and introduced different products, innovations and partnerships that are a part of these components. Having introduced these, it also made some value propositions that would be based as a part of this strategy.

- **Sustainable growth:** CBA believes to achieve unprecedented growth in its business, it needs to utilise its growing digital channels that will eventually help to provide better customer experience.
- **Responsible risk taking:** The ability to take calculated risks that would help the customers develop trust in bank and its policies.
- **Services to small businesses:** Providing services to not only individual entities but also to small businesses that will give them ample new opportunities to grow.
- **Wealth Management:** Helping the customers by providing banking services and consultancy on life betterment decisions such as investment and financial advice, insurance plans and superannuations.

The implications from these propositions were quite vast and successful for CBA, and covers primarily 2 types of value increase; revenue increase over the years and customer satisfaction. In terms of revenue increase, the bank saw an upward trajectory in net profits in the past 8 years, as indicated in CBA's annual financial reports. This ranged from \$4.5 billion onwards to \$9.2 billion, which can be seen below. This success rate shows that CBA's value propositions to its customers, in light of its digital strategies, have been exceeding demand and replicates the fact that usage of digital services makes an ample difference. The second factor, namely customer satisfaction, has also risen from 2010 onwards as according to a survey conducted by Roy Morgan. The satisfaction rate increased overall to 8% , starting from 72% on average to almost 80% in 2017. This statistic clarifies how improved digital services and innovations helped customers in building more trust in CBA.



Figure 1: CBA profit analysis

Westpac Bank:

In the story of two hundred years of chronicle from Westpac, some major innovation nodes can be easily found. In 1981, Westpac became the first major Australian bank to introduce automated teller machines (ATMs). Four years later (1985), Westpac launched the electronic funds transfer at point of sale (EFTPOS) technology, making it the first electronic banking to use debit and credit from cheque or savings accounts through its Handyway and Handybank service globally.

In the last 10 years, the company has significantly increased its investment in digital technology. As reported by Westpac media center in 2010, “paying bills, transferring cash, even paying staff and fixing up GST are all possible anywhere and anytime with the latest update of Westpac Mobile Banking released over the weekend”. This means the business of West Pacific Bank has been brought into the mobile computing era in a true sense. In the same year, Westpac resigned one new IT contract with IBM to improve the IT capabilities and services in the next five years. One year later, based on one pilot program, Westpac bank launched their first real-time payment application for small merchants, named Mobile PayWay. At around the same time, the company unveiled their next generation of mobile banking established on the iPad platform, and also collaborated with MasterCard to develop its Android Mobile Contactless Payment application that had been achieved in 2013 (and matured in 2016). At the end of 2012, Westpac announced that it would formulate the partnership with SAP to establish Australia’s first real-time payment solution for large companies.

In 2013, Westpac group drives digital economy help small business online, who cooperated with MYOB by creating a toolkit to achieve this ambition. Moreover, some departments in the company contributed their

ability in digital strategy. For instance, Westpac General Insurance introduced one new function about online claims and Westpac Online Investing launched the 'Daily Share Tracker that can make their customer easier to track the investment. 2014 can be marked as a continually innovative year for the Westpac. In this year, Westpac boosted their innovation capabilities by introduced a majority of world-class experimentation tools, whilst took initiative push the implantation in cashless payment field.

One of the most remarkable technologies that was launched in the 2015 was the integrated platform application named Westpac Live. The application covered all the advanced technologies available on the market at that period and was compatible with different terminals at the same time. Westpac also established a partnership with QuintessenceLabs to enhance the information security capabilities. After a period of pleasant cooperation, the bank launched a new data warehouse, which was developed by an outsourcing company named Dara Republic. In the same year, Westpac partnered with SwarmFarm Robotics Pty Ltd to develop robotic technology for farmer use. In 2017, Westpac made some progress in the field of education and reduction customer spending by refined management. For example, Westpac bank published an initiative called 'FREE ONLINE MATHS EDUCATION WITH MATHSPACE ESSENTIALS'. The partnership between Mathspace Essentials and Westpac brings all Australians the opportunity to boost their math skills. The company also consistently explored new style of payment such as wearable payment, which was scheduled in PayWear. This year, after undergoing refined management adjustments in the previous year like cutting cross-border transfers expense and canceling ATM fees, Westpac aimed to unveil speech recognition technologies that can be combined with social media platforms to enhance the overall customer experience.

Scope:

From the scope aspect of Westpac's digital strategies, it has largely blurred the boundaries and functions of traditional business. One example is the extent of **ATMs**, which not only has one type of digital infrastructure, but can also be a subversive competitive advantage. It has greatly extended the diversional boundaries and reduced the increase in labor costs caused by the excessive branch network of traditional banking. Moreover, by developing and publishing the Westpac **mobile computing model** and collaborating with multiple banking card institutions, Westpac has established the **platform** business that is possibly attractive for embedding more functions and other businesses. In this platform business, merchants and customers more likely enjoy the one-stop banking service that help Westpac transfer the traditional bank to a modern digital bank.

Scale:

In terms of the scale dimension, Westpac bank has made great efforts to expand the business scale. According to one cashless and mobile payment research conducted in 2015 by their consulting group, Westpac **rapidly**

introduced their new version of mobile computing platform that most probably would help them grasp the opportunities from the mobile banking service. In addition, as they continue to deepen their partnership with a number of technology companies, it has created **network effects** that can impact the application habit of current customers and conducted one new style of business partnership that not just within the concrete type.

Speed:

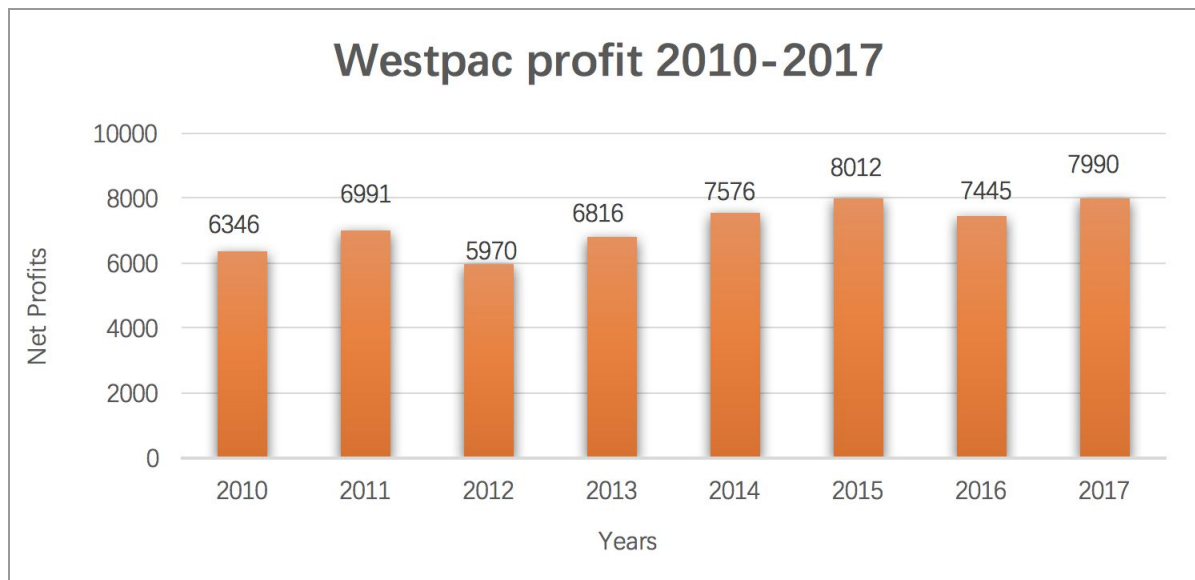
When reviewing the digital strategies history, the technological innovations and changes of Westpac bank have been under accelerating situation, for a sustained high-speed state in recent years. This high-speed can be shown in these aspects, which respectively is faster new technologies launched (the update of mobile bank), real-time decision making (Daily Share Tracker) and high dynamic network of outsourcing and integration.

Sources of Value Creation:

Regarding value creation, Westpac has formulated some robust and stable **information silos**. These data warehouse can contain gargantuan data form their customers, whilst Westpac with a personalized business intelligence system, effectively and efficiently mining potential value from the data. This excavated valuable information will be applied in the development of the company's digital platform to further increase great value interactivity platform.

Key Implications and Value Propositions:

The implication of formulated and implemented digital strategies can be embodied in the annual net profits and satisfaction of customers. Based on the last 10-year annual financial report from Westpac, it is obviously feedback the relationship between the application of digital strategies and corporate profitability. After some vital innovative node such as 2010, 2012 and 2015, the bank more likely invests a big proportion of budget in digital technologies. Then these developed or implemented digital technologies will largely contribute to the profit growth of the company for a few years later.



These successful formulations and implementation of digital strategies in Westpac can promote the existing profit model and service approaches in a more efficient and sustainable direction. In addition, every digital technology provided support to different aspects of the enterprise at that time, as shown in the following.

- **Platform operation:** From the first mobile banking app in 2010, to Westpac live in 2014, and then to the future wearable cashless payment model, all of this development is inseparable from the platform-based interactive operation and the cooperation with different partners. This value is also reflected in the annual financial report.
- **Investment forecasting:** After introducing a disruptive digital strategy, the investment institutions and asset management departments within Westpac should more easily assume external financial risks and create better and lower-cost financial projections for users.
- **Service for small businesses:** With the help of the mobile application banking system, small and micro enterprises really benefit from these visible and convenient services. Therefore, banks can obtain more deposit support from small and micro enterprises, thus helping banks to obtain benefits.

Australian and New Zealand Banking Group (ANZ):

The Australian and New Zealand Banking Group Limited, most commonly referred to as ANZ, is labelled as “one of the 5 largest listed companies in Australia and [the] number one bank in New Zealand” (ANZ, n.d., “ANZ Profile”, para. 1). At ANZ, there is a strong focus on building relationships that create value. This is achieved by the bank by combining the “energy and commitment of their people with the power of technology and data to deliver innovative and convenient services” (ANZ, n.d., “ANZ Profile”, para. 9). In order to accomplish this, ANZ has devised a digital business strategy, which involves “establishing common,

digital-ready infrastructure” and “building more convenient, engaging banking solutions” that will simplify the customer’s lives, as well as provide greater customer experience, scale and control (ANZ, n.d., “ANZ Profile”, para. 14 & 17).

Scope:

ANZ bank’s digital banking strategy includes “**strategic partnerships** to accelerate innovative culture across the bank, to support their overall strategic agenda” (“Jennifer Scott appointed GM Digital Transformation and Performance to drive commercial delivery”, 2017). There are various digital strategies and technologies which ANZ has formulated and implemented over the last decade. One of ANZ’s first digital business strategies occurred in 2011, with the ANZ **goMoney** mobile banking and payments application being released for iPhone users. This application includes BPAY functionality and also features for visually impaired people, such as VoiceOver and zooms. At the time, it proved to be very successful, with approximately 420000 customers using the application. 2012 saw the extension of the application to Android users, resulting in a total of 780000 users. ANZ also released a mobile payment app called **ANZ Mobile Pay platform** in 2016, allowing bankers to tap and pay for their purchases, as well as make “withdrawals at contactless-enabled ANZ ATMs” (Chanthadavong, 2016). People who use this are given the option to add existing credit or debit cards into the application. According to Matt Boss, this application will help customers take advantage of the changing digital environment (Chanthadavong, 2016), while providing security for all transactions. In 2017, ANZ announced that changes would be made to its ATMs to enable customers to withdraw cash using smartphones and smartwatches. **Wearable-cash withdrawal** is available at 2400 ATMs, and can be accessed using physical card alternatives, namely Apple Pay, Samsung Pay, Google Pay, Gamin Pay, and Fitbit Pay. Moreover, the bank formulated a **new underwriting program** in 2018, that combines big data with artificial intelligence, and was developed in association with the University of Technology, Sydney Advanced Analytics Institute, by analysing 10 years worth of OneCare underwriting and claims decisions. This innovation is aimed at “making the underwriting process faster, accurate, and easier for tradespeople” (Martin, 2018), and enables them to access accurate market segment profiles. Ultimately, this resulted in a reduction in the number of questions regarding the underwriting process, improved the rate of insurance applications being completed, and provided greater customer experience. Finally, within the financial industry, the Australian Securities and Investments Commission (ASIC) reports that there is an “unacceptable” delay in reporting significant breaches (McLean, 2018). To counter this, banks were asked to improve their data collection, as well as their business operation and compliance with IT systems. ANZ therefore turned to **Google Cloud** in 2018 to boost its data and analytics capability and accelerate the delivery of business insights to its customers. This cloud-based platform provides ANZ bankers with meaningful data insights instantly, thus allowing them to “make informed



As previously mentioned, one digital strategy in which ANZ has implemented is by integrating cloud computing into their business, namely Google Cloud. By utilising Google's secure cloud-based platform, many **strategic partnerships** with ANZ's Institutional customers have been formed. The use of the cloud is particularly useful in this situation as the bank can take aggregated de-identified customer datasets and share it with their partners for an enhanced and more personalised customer experience. As an example (stated by Emma Gray),

ANZ could take data from customer's payment transactions and present it to an airline client to "help understand customer patterns and actions before and after boarding a flight" (Crozier, 2018). Ultimately, this platform has enabled rapid scaling to meet ANZ's desire to enhance their data and analytics capabilities, therefore allowing the bank to achieve greater business insights.

Furthermore, in an article by Bharadwaj, et al., it is said that "scale with digital business strategy will increasingly take place under conditions of information abundance". Similar to the insights gained from the cloud (mentioned above), ANZ has formulated a program titled the 'Strategic next best conversation' program. This program uses various analytics techniques and technologies to get timely data about their customers, so that the bank can have "relevant conversations" with their customers, whether it be "sales type, service or buyer conversation" (Cameron, 2015). The information gathered from these data analytic technologies also gives ANZ the ability to "enhance every interaction with the right thing to talk to the customer about, and empower bankers to have the right conversations as well as be relevant, timely and personalised". Without this, ANZ wouldn't be able to compete and would risk becoming "stale, slow, disintermediated and largely irrelevant" (Cameron, 2015).

Speed:

At first, ANZ Bank's data and analytics team were not a cohesive unit, and did not provide any positive outcomes to the business. No one understood what they supposed to be working on, or how what they did connected to customer outcomes. In order to amend this, ANZ decided to develop an **agile** method of working, which involved dividing the team into multiple squads which operated cross-functionally. This means that all skills and expertise are represented in each team, rather than having each squad operate independently (Mitchell, 2018). ANZ also began to "roll out their **offshore** teams", so as to deliver better outcomes. Following the integration of Google Cloud, ANZ successfully enhanced the time to accomplish business processes and functions. Specifically, adopting the cloud platform has given ANZ bankers "meaningful data insights instantly", but has also enabled the bank itself to "process data 250 times faster" (McLean, 2018). Over time, this technology is aimed at helping customers make better informed business decisions and more rapidly, regarding "issues like liquidity, risk, and cash management" (McLean, 2018). Finally, from all the digital strategies mentioned in the scope (above), it is evident that ANZ's launch of new products, services and technologies is very rapid. Between 2011 and 2018, ANZ Bank has consistently and regularly formulated these new strategies to keep up with digital technological improvements. Essentially, this has enabled ANZ to gain superior insights about their customers for a more customised experience.

Sources of Value Creation:

As mentioned above, ANZ's goal is to enhance the relationship between the bank and their customers to create value. One way in which this is achieved is with **data and analytics**. Initially, ANZ's data and analytics team did not offer any real value to the business, and was viewed as a "backwater cost centre within ANZ" (Mitchell, 2018). At this time, the internal Net Promoter Score (NPS) was revealed to be -48. However, as they began to place more thought into integrating data and analytics into their processes, their NPS had risen to +20, which suggests that the bank has significantly improved the quality of what is being delivered, as well as how it is being delivered. Another example of the use of data and analytics is ANZ's creation of a business intelligence capability, which will enable the bank to identify opportunities for management to make better decisions, for both the bank and the customers. Recently, the bank has also hired more data scientists to aid in data mining. Barry John, ANZ's digital performance marketing manager, noted that they are "trying to get the data into a good place and then to understand what the customers are" (Cameron, 2017). By gaining a greater awareness of the customers, ANZ can more effectively and accurately focus their processes and functions to achieve what customers want. This therefore creates value as it enables the bank to gain a better connection with their customers. Another source of value creation is through the **omni-channel strategy** and **social media**. As an example, ANZ actively reaches out to customers through sporting events and festivals, like the Sydney Mardi Gras, by promoting these activities through social channels. Ultimately, ANZ can generate value from an increase in their customer base, which is achieved by attracting potential customers through these social engagements. The image below shows an increase in ANZ's "social fan growth", as a result of this strategy.



Furthermore, efficiency can be attained through **digital innovation, big data** and **artificial intelligence**. As mentioned in the scope, ANZ has recently launched an underwriting program that implements both big data and artificial intelligence. This program has enabled the underwriting process to become faster and more

productive, with the “number of medical questions in the underwriting process for the full OneCare product suite to eight” (Martin, 2018) being reduced. According to ANZ, the current completion of life insurance applications is at 20%, due to the need for “more data or incomplete information provided” (Martin, 2018), which has a “detrimental effect” on aspects such as Australia’s underinsurance problem, customer experience and insurer’s perception. Thus, this technology is believed to “positively impact the completion rate of insurance applications” and improve this. In doing this, value can be created. Furthermore, the **cloud platform** (specifically Google Cloud), is a source that has delivered value creation. The cloud enables the bank to analyse customer payment and buying behaviour. Value is therefore formed from these customer insights, as it allows for a more personalised and customer-focused business approach. It is also noted that implementing this cloud platform has increased productivity due to the decrease in the time taken for various processes to be completed. For instance, “analysing credit card data in the past, think eight massive computers, five days, everything running in parallel, and that’s a process that now takes us 20 seconds” (Crozier, 2018). Finally, ANZ’s adoption of the **agile approach** has enabled the bank to promptly respond to changing customer needs, create higher staff engagements, and make improvements in efficiency, therefore generating value for the business.

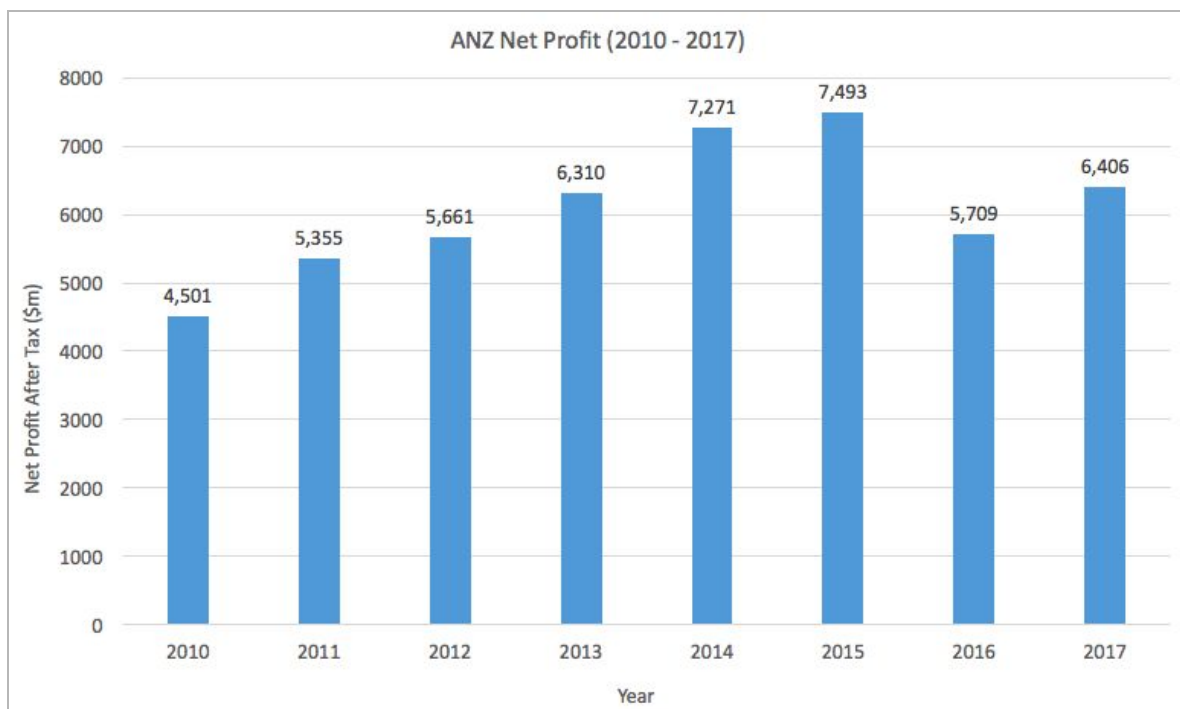
Key Implications and Value Proposition:

As ANZ continues to implement digital resources and integrate it into their business, the bank have been able to thrive in the industry, as well as strengthen their competitive position in the market. The key implications of the digital strategies implemented is expressed through the total profits earned for each financial year, and also overall customer satisfaction. Regarding ANZ’s net profit, it is evident that ANZ’s profit (after tax) gradually rises from 2010 to 2015, as seen in the graph below. As mentioned in the digital strategy scope, one of ANZ’s first notable strategy is the release of the goMoney mobile banking application in 2011 and upgrades made in 2012. During this period, there is a rise in profits, which may be explained by the rise in the number of users and transactions made from this application (\$2.5 million transactions a month in 2012) (Australian and New Zealand Bank [ANZ], 2012). 2013 also saw a significant increase in the number of customers using the ANZ goMoney, with a total of “53 million transactions value at more than \$29 billion” this year (Australian and New Zealand Bank [ANZ], 2013). Again, this may possibly explain the 11% increase in net profits between 2012 to 2013. 2015 displayed a peak profit earning of \$7.5 million, which may result from the transformations that occurred within ANZ. For example, many processes were automated and simplified platform models were adopted, all in which have contributed to increased speed and lower costs. Between 2015 and 2016, there was a 24% drop in net profit due to the investments made in reshaping certain infrastructure for improved performance in the long run. During these years, there were new digital business strategies formulated and

implemented, like the new 'Tap and Pay' contactless ATMs, implying that the bank heavily invested in digital technologies. However, despite this drop, ANZ continued to execute new strategies, such as utilising Google Cloud. ANZ's profit increased in the following year, suggesting that these strategies helped the bank rise again.

The value propositions of the bank's digital business strategies are as follows.

- ANZ aims to make their banker's everyday life a little easier by providing technologies and applications that are easily accessible and mobile. For instance, ANZ's banking application, called goMoney, provides customers with simple and intelligent features that enable users to make secure payments, view balances, transfer money, make payments quickly and fast-track calls about banking to a specialist ("The new ANZ App", n.d.), all achievable on their mobiles.
- ANZ's partnership with the Google Cloud platform allows for the accelerated delivery of data-driven business insights into the bank's customers. Ultimately, this provides banker's with instant insights and helps them make informed business decisions regarding their banking processes. Google Cloud ANZ director, Colin Timm, stated that this innovation will "help deliver a better experience for customers" (Arboleda, 2018).
- According to ANZ Customer Engagement Lead Kath Bray, the bank is "determined to bring our customers new banking experiences so they can access the money the way they want to" (McLean, 2018). One way this is achieved is through contactless payments and contactless cash withdrawals, which provides customers with ease and efficiency.



National Australia Bank (NAB):

NAB has been in the forefront of the banking industry as it is considered as one of the four major Australian banks. The majority of their success can be related to inclusion of digital resources as a part of their strategy. NAB has expanded its digital resources by adhering to the various components of the digital business strategy, which are stated below.

Scope:

Just like other banks, the scope of banking operations has been widened by removing the traditional information silos widening the customer experience. But NAB has further enhanced the scope by not only external implementations but also has made room for improvements in the internal widening of company's scope. To enhance external scope, it has firstly introduced digital services such as online banking, mobile app services and ATM's that have expanded the horizon for the customer to make transactions via 24/7 availability rather than traditional office hour approach. For the internal scope, it has recently decided to eliminate the internal structure of people, processes and foundational technology and instead shifted to a service centric model where cross functional teams works together and own services, such as internet banking, "end to end product, technology, design, delivery and operations perspective" (Cozier, 2018). This approach has allowed the team to work in an agile environment to support quick decision making, as well as improve efficiency.

Scale:

Similar to the other three major banks, by using these digital strategies, NAB have significantly transcended functional and divisional boundaries of the traditional banking business. One example most possibly can help understand this phenomenon. Whether the bank launched their first Internet bank in 1999 or there was only one employee looking at user experience (UX) for nab.com.au 10 years ago, NAB has become not only a bank that can embrace current blockchain technology and virtual economy, but also continues to rapidly evolve to mining more valuable data from their abundant database (Bennett, 2017). Moreover, as always pay attention to support the small businesses, a strong and stable digital partnerships will be established between small businesses and the bank. Small business brings a wealth of data resources and values, and in turn, the customer journeys are also enhancing their customer experience for the bank (Bennett, 2017).

Speed:

As new digital technologies continue to develop, banks must actively explore different ways of implementing digital strategies to help them strengthen their competitive position within the industry. At NAB, one of the first digital strategies that were adopted was internet banking in 1999, which consisted of a team of only 2

employees, at an unprecedented rate to embrace the era of rapid change. Over time, NAB has created over 2000 new digital and technology roles. In doing this, NAB is able to create a “flatter structure which drives creativity, fosters innovative thought and ensures quicker decision-making” (Bennett, 2017). These digital and technology specialists are therefore able to partake in core technological areas, such as DevOps, Engineering, Architecture, Security, UX and Data, and developing new strategies, products and services relating to these fields. According to Bennett, the bank is delivering change through these digital strategies at 2-3 times the speed they would normally deliver under traditional methods. In Bennett’s speech, it is noted that NAB constantly delivers new products and services to their customers every 90 days (Bennett, 2017). Moreover, NAB bank is said to be shifting to a “services-centric model”, which involves “cross-functional teams owning services, such as internet banking or mobile banking, end-to-end from the product, technology design, delivery and operations perspective” (Crozier, 2018). This contributes to the speed of digital strategies, as it allows NAB teams to “move much faster, be more agile, make decisions faster and build sustainable supported technology services” (Crozier, 2018).

Based on these competitive laboratory projects, the company has the ability to accelerate their customer solutions. Executive General Manager, Anne Bennett, mentions in 2017, that the bank is currently improving efficiency and velocity of traditional banking services to a significant extent. Furthermore, like the supporting pillars to ensure the steady development of bank, NAB also spared no effort in endeavouring to stabilize the high-speed orbit through increasingly matured cloud technologies and large-scale IT infrastructures. Thereby forming a fast, agile, dynamic information network can further ensure that the bank can accurate real-time decision-making and adaptation strategies in the daily operation (Crozier, 2018).

Sources of Value Creation:

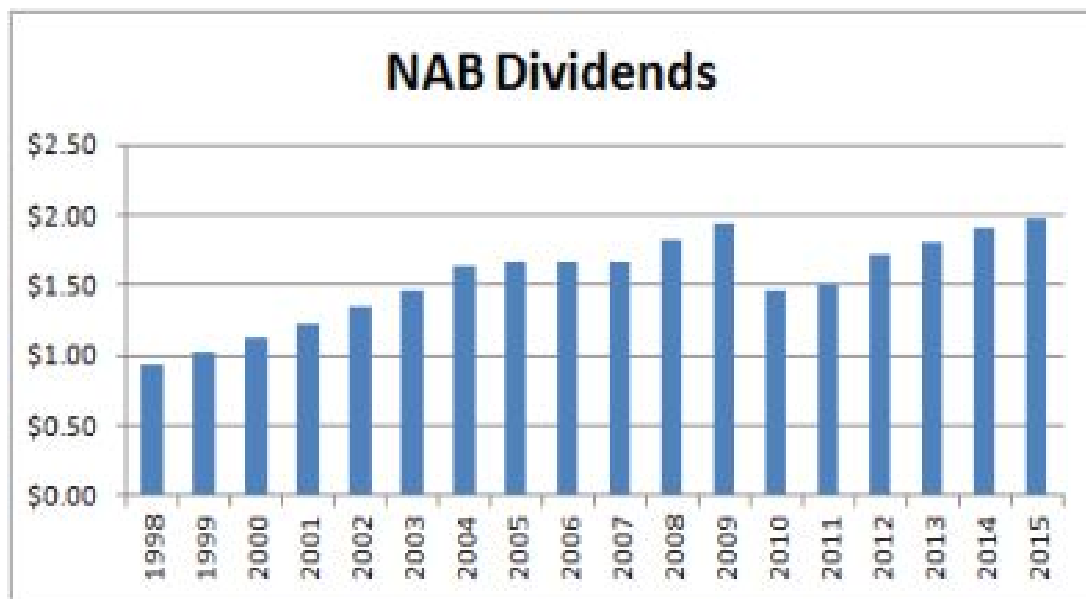
It is based on continuous innovation of new digital technologies and new business strategies and persistent IT partnership and infrastructures construction, the back office of the bank therefore accommodates huge amounts of data. Based on one statistic data published in 2017, NAB can manage annual 275 million service interactions, which means nearly all of the assumption and prediction of banking service or investment could find their answers were being met online. Another survey information from the department, named Virtual Banker, which has shown that this AI banker has the capability to give real-time answer over 280 questions, with 37,000 variations on a number of topics, therefore leading to efficiency and increased productivity. All of the improvements in banking services come from the constantly mining and consolidation of big data. The management is well aware that in order to survive in fierce competition and develop disruptive innovation and competitive advantage, it is necessary to capture value and create value from the data.

As explained above, NAB has shifted to a services-centric model, whereby cross-functional teams own services. As a result of this change, the bank has seen an improvement in the speed and agility in the work delivered by the teams, and decisions can be made faster, therefore resulting in greater productivity. Like many of the major banks, NAB's customer insights and analytics (CIA) team have been "unlocking value in customer data", which involves looking into customer insights and discovering what customers are doing. This ultimately helps create value for the bank as it allows them to create a more personalised experience for customers, by providing them with the right offer or information (Williams, 2017). Although there are many sources of value creation from NAB's digital strategies, overall, the bank "hopes to deliver improved customer experience with fewer, simpler products, via its digital channels, and reduce its operational and regulatory risks from a 'simplified, more responsive, and resilient technology environment'" (McLean, 2017).

Key Implications and Value Propositions:

As a part of the four major banks of Australia NAB is also in the competition of being the most customer preferred bank of the people of Australia. As the main focus of the bank is customer experience they have been fuelling themselves for a drastic digital transformation (CMO, 2017). From last few years they have shifted their focus on digitising their resources to create value out of them. Below mentioned are their digital propositions and then we will discuss how they created value out of them.

1. **Website Content Management Platform:** In the vision of being more responsive online and providing people with right digital business tools and creating digital options for the future, NAB shifted their focus on the platform systems.
2. **Digital advisory Council:** NAB established a digital advisory council to deal with the digital aspects of the bank, identify the key enablers which when aligned with the bank's infrastructure could lead to success. This team identified 10 enablers such as usability and design, and digital innovation.
3. **Agile Methodology:** NAB has employed agile methodology for their customer management systems. They believe that this would help them mitigate risks and set high standards for the projects.
4. In the graph below, we can directly see a correlation between the revenue and the efforts NAB has put into digitising their resources. From 2010-2015, we can see a linear increase in the revenue. Though the value increase isn't too much from the consecutive previous years, we are still expecting that we could see a high rise in revenue in coming future as IT resources will show their true colours with time.



Comparative Analysis of the Digital Business Strategies

The four major banks we have discussed in our project have implemented different digital and non digital strategies to make themselves ahead in the competition of customer reputation and value creation. Below are the key findings from the four banks about how and what digital strategies they implemented, and how it has affected their financial and customer reputation.

Digital Strategies:

1. **Commonwealth bank** always focused on product innovation and operational excellence. They have always put IT on the front foot, thus giving them an advantage in being the leaders in the industry. The use of the digital resources in the central architecture has given them the leverage of being the first movers in the market.
2. **Westpac bank:** From in depth analysis of Westpac, we can see that IT wasn't really the focus of the bank in its earlier years. Though they always focussed on innovation, it has only been ten years since they shifted their focus on elevating their digital resources and create value from it. Their shifted focus on digital resources could be compared with the value creation in last four to five years.
3. **ANZ bank** has a strong focus on building relationships to create value. Data analytics is one of the main areas they focused on to create value and improve the quality of deliverables. They are quite ahead in the digital world in comparison to many banks in terms of using IT to provide services like mobile pay platform, and contactless ATMs.

4. **NAB**, similar to the other banks, has widened the scope of its internal and external functionalities by leveraging its digital resources. Similar to the other banks, NAB has implemented various technologies as part of their digital strategies, as a way of gaining competitive advantage, improving efficiency and productivity, and enhancing their customer's experience. These digital strategies and technologies include moving to a service-centric model, online banking, and launching mobile applications.

	Commonwealth Bank	Westpac	ANZ	NAB
Scope	<ul style="list-style-type: none"> • Rapid transition from traditional to digital interfaces • Eliminated information silos • New platform ('customer decision engine' to collect and process data) 	<ul style="list-style-type: none"> • Transfer from traditional bank to a modern digital bank <ul style="list-style-type: none"> ◦ ATMs ◦ Mobile computing model ◦ Platforms established 	<ul style="list-style-type: none"> • Acceleration towards innovative culture • Uses mobile and tablets, social media, online services and emerging technology (eg. cloud) <ul style="list-style-type: none"> ◦ Mobile banking and applications - eg. goMoney ◦ Wearable-cash withdrawal 	<ul style="list-style-type: none"> • Widening customer experience • Removing information silos • Introducing digital services (eg. online banking, mobile applications, ATMs) • Shift to service-centric model (eliminating people, processes and foundational technology)
Speed	<ul style="list-style-type: none"> • Cloud services for scaling (ie. Amazon's cloud services) • Unlimited storage on the cloud for customers to store data • Services to provide and improve partnership opportunities • CBA invited private cloud providers to create partnerships 	<ul style="list-style-type: none"> • Expanding business scale • Rapid introduction of technologies - eg. mobile computing platform • Created network effects 	<ul style="list-style-type: none"> • Integrating cloud computing into the business to scale • Strategic partnerships (to improve data and analytics capabilities) • Information abundance • 'Strategic next best conversation' program to get data about customers 	<ul style="list-style-type: none"> • Slight inclination towards removal of functional and divisional boundaries of the traditional banking business • Embraced blockchain technology and virtual economy • Data mining for valuable and abundant information from data • Digital partnerships
Scale	<ul style="list-style-type: none"> • Constant innovations <ul style="list-style-type: none"> ◦ Contactless payments ◦ Wide market appeal of mobile applications 	<ul style="list-style-type: none"> • Accelerating environment - sustained high-speed state • Faster new technologies 	<ul style="list-style-type: none"> • Rapid launch of new products and services • Agile methodology • Offshoring some data and analytics teams 	<ul style="list-style-type: none"> • Fast, agile, dynamic information network • New technology and digital roles - create a flatter structure to drive creativity,

	<ul style="list-style-type: none"> ○ New POS system (PI platform) for faster transactions ○ Tap-and-pay technology 	<p>launched (eg. update of mobile bank)</p> <ul style="list-style-type: none"> ● Real-time decision making (eg. Daily Share Tracker) ● High dynamic network of outsourcing and integration 	<ul style="list-style-type: none"> ● Cloud platform for meaningful data insights and faster processing (250x faster) ● Rapid and more informed decision making 	<p>foster innovation and for quicker decision-making</p> <ul style="list-style-type: none"> ● Rapid delivery of digital strategies (2-3 times the original speed, new products/services every 90 days) ● Real-time decision making
Source of Value Creation	<ul style="list-style-type: none"> ● Traditional business models and digital business resources ● Leverage customer information to create a personalised experience ● CBA app for a personalised experience and to help customers better manage finances ● Facebook platform for P2P payments 	<ul style="list-style-type: none"> ● Robust and stable information silos ● Personalised business intelligence system to mine for valuable data 	<ul style="list-style-type: none"> ● Data and analytics as source of revenue ● Omni-channel strategy ● Social media ● Digital innovation, big data and artificial intelligence ● Cloud platform ● Agile approach to work structure to increase responsiveness 	<ul style="list-style-type: none"> ● Persistent IT partnership and infrastructures construction ● AI banker - improve efficiency of processes (ie. answer questions more quickly) ● Big data for greater insights ● Services-centric model - delivers agility and speed, faster decision making, greater productivity ● Customer data - deliver more personalized experience

Revenue:

1. From the above figure **“CBA profit analysis”**, we can easily analyse that there is a linear increase in the revenue of the bank in the last years. This could be credited to the fact that Commonwealth bank always puts innovation and customer satisfaction at forefront, hence increasing their customer base which in return increases their revenue.
2. In the figure, **“Westpac profit 2010-2017”**, we can see that there is never a drastic increase or decrease in the revenue of the bank in last few years. There had been only a little increase in some years and only little decrease in the others. Otherwise they had been having stable revenue suggesting

that they never had humongous increase in their customer base even when they introduced new services.

3. From the above figure “**ANZ Net Profit, 2010-2017**”, we can see that there has been increase in the revenue of the company from the year 2010 to 2015 which can credited to the use of data analytics as the core of the company. Data analytics helped the bank to grow, build new products and services and create better relationships with their customers. From 2015-2017, we can see stable revenue and not much rise in the revenue. This could because of the less new services offered or because of time lagging effect of IT which will show increase in revenue in coming years.
4. In the above figure (“**NAB Dividends**”), we can see an increase in the dividends of the bank since 1998-2009. This could be accredited to the bank of active involvement of the bank in increasing the services of bank, digitizing the resources etc which lead to increase in the customer base of the bank. After that there had been a little decrease which could be because of stagnant position in innovation. Since 2010 till present the revenue has seen a linear increase.

Overall, it is clear that Commonwealth Bank has earned the most revenue, with a total of \$9.83 million. Having a high revenue may suggest that there were many transactions and customers, further implying that the digital strategies were effective.

Customer Satisfaction:



According to an article by **ROY MORGAN** (October 24, 2017), the customer of the Commonwealth Bank are more satisfied than the customers of other four banks. According to their sources in last 12 months,

satisfaction with banks has decreased from 21.7% to 80.8%, which could be credited to the fact that there had been a lot of security glitches during this period and the customer showed a lot of resentment against the bank. Yet, despite this fact, the overall value has always been above average. **Commonwealth Bank** displayed the highest customer satisfaction of approximately 77.1%, whereas **Westpac** had the lowest satisfaction rate of 74.2%. The satisfaction level of the major four banks have been rising steadily since 2005. The reason behind such high levels is the shifted focus of the banks towards customer experience and satisfaction. From the analysis presented in the above sections, it is evident that the banks that have effectively leveraged their digital resources have created value by attracting a bigger customer base. On the other hand, banks such as Westpac or NAB, which have used IT to improve their products and services, have only attracted a smaller user base.

Conclusion

From the overall analysis of the report, it is clear that leveraging of digital resources brings beneficial results on a number of factors of the organisation. Not only does the revenue of the banks increase, but customer satisfaction rate also elevates. This is supported by the high customer satisfaction percentage and high revenue recorded, as displayed in the above sections, particularly for banks like Commonwealth Bank. Furthermore, formulating and implementing digital strategies has proven to improve efficiency and productivity within banks, provide greater focus towards their customers, and also enables the banks to tailor their services and features towards their bankers expectations. In today's world, banking businesses who want to become leaders in the market will need to leverage the four components of the SMAC stack (social, mobile, analytics and cloud). In doing this, value creation will be eminent from the investments made. Hence, through an exploration of the four major banks, it is evident that banks that don't effectively utilise and integrate digital resources will fail to compete in this industry.

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