



ASIC

Australian Securities & Investments Commission

FINSIA Regulators Panel opening remarks: How data can drive consumer outcomes

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Introduction

Today I would like to speak about driving better consumer outcomes in the era of big data and artificial intelligence.

I have three main points I would like to make today.

- First, technology is now facilitating the collection and analysis of vast amounts of data.
- Second, there are opportunities for businesses – particularly financial services organisations – to better understand their customer base, and to tailor the products and services they offer accordingly.
- Third, data is allowing ASIC to become more pre-emptive and proactive as a regulator.

Let me quickly unpack each of these three points.

Collection and analysis of data

Over the last 20 years, the amount of data that has been generated, collected, and stored has increased exponentially. Businesses today can leverage data-driven strategies to

innovate, compete, and obtain value from the information they hold. This rapid evolution of how data is collected and stored presents both new opportunities and new risks.

Relevant to this discussion, last week the Productivity Commission published its draft recommendations on data availability and use.

On one hand, financial services providers have been able to increase their own efficiency through the use of data, streamlining processes and better pricing risk. But industry is not the only one who can benefit from increasingly sophisticated use of data.

Opportunities for business to understand their customer base and tailor products and services

The flow of data between customers and financial services providers presents opportunities for businesses to better understand their customers, and design and target products accordingly – with the end user in mind.

Data can be used to help empower consumers to take control of their financial health. Let me give you four examples.

Data for financial health

We have seen a number of businesses emerge that provide tools that aggregate and analyse consumer account information. They provide tools for things like expense analysis, cash flow management, bill reminders and savings goals.

Comparisons

There is potential for choice engines – such as comparison websites and data aggregators, if they are designed in the right way – to help consumers make better financial decisions.

Insurance risk data

We are also seeing insurance underwriting data being used in new ways. As part of their underwriting process, insurers collect a significant amount of data that is relevant to consumers and can help them manage their risks. New developments are particularly being seen in insurers helping consumers to understand manage risks related to their homes.

For example, NRMA launched its website ‘Safer Homes’. Based on its own data, it gives consumers the level of average building and contents insurance in their area. It gives information about the most common types of insurance claims in their area. In this way, NRMA is assisting consumers to assess and monitor their own risk and consider their insurance needs.

Life insurance claims

And, of course, we think that the power of data to inform consumers and drive competition can be harnessed with better quality, more transparent and more consistent data on life insurance claims.

ASIC and the Australian Prudential Regulation Authority (APRA) have committed to work with insurers and other stakeholders during 2017 to establish a consistent public reporting regime for claims data and claims outcomes. And I don't think standardised reporting is limited to life insurance – it has the potential to be extended to other industry sectors to improve consumer outcomes.

How ASIC is using data

Now, I would like to turn to how ASIC is using data to be a more pre-emptive and proactive regulator.

There is a spectrum of data analytics capabilities – from descriptive and diagnostic analytics through to advanced analytics, including predictive and prescriptive analytics.

To this end, I'd like to touch on just three examples of how we are using data analytics in our work:

- our regulatory data transformation – which we call 'FAST 2'
- our capabilities in predictive data analytics in investigations
- developments in data analytics in monitoring equities markets.

Regulatory data transformation – FAST 2

First, on FAST 2. We are committed to transforming our regulatory business by more effectively capturing, sharing and using our data.

Over the next three years, we are building an integrated platform that includes a single repository of internal and external regulatory information, with the ability to search across this information easily. This creates a single picture of a person or entity and allows us to better connect the dots.

Data analytics in investigations

We are also focused on further strengthening our capabilities in using data analytics in our investigations.

We are implementing new third-party software for use in investigation and enforcement matters, which allows pattern matching across our extensive evidence database using algorithms. It allows us, for example, to map target relationships and create chronologies, well beyond traditional word or enhanced word search capabilities.

Monitoring equities markets

In markets, we are focused on tools that help us to monitor and analyse price and volume variations more efficiently to identify insider trading and market manipulation.

Since taking over market supervision from the ASX in 2009, we have introduced our surveillance system named Market Analysis and Intelligence (MAI), which was developed by First Derivatives. It enables us to more quickly and more efficiently identify insider trading and market manipulation. MAI uses purpose-built, flexible algorithms and sophisticated data analytics to identify suspicious trading.

In leveraging the data we have access to, and our data analysis capabilities, we recently developed an innovative new market cleanliness measure to indicate anomalous trading ahead of price-sensitive announcements. Our measure looks at information leakage ahead of material, price-sensitive announcements by analysing price movements or shifts in trading behaviour before these announcements.

Advanced analytics trials

We also have a number of trials underway exploring the power of advanced data analytics.

In reviewing evidence, we are looking at machine-based learning and pattern recognition to better locate relevant documents to our investigations. We are piloting the use of social media analytics to monitor potential risks in the system. And we are looking at ways to use cognitive learning to help us detect misconduct. For example:

- we are experimenting with the use of natural language processing (NLP) supervised-learning algorithms to ‘read’ – understand and classify – market announcements so that they can then be further analysed
- we are also training a supervised statistical machine-learning procedure, known as support vector machines (SVMs), to read MAI data and detect previously unidentified accounts and future new accounts employed by fund managers to disguise their trading manner.

Chief Data Office

Finally, I would like to mention that ASIC has now established a Chief Data Office.

The Office will ensure appropriate governance of ASIC’s data assets and the data we request and use from third parties. The Chief Data Office will support ASIC to be a data-driven, forward-looking regulator and will help continue to build our capabilities in data analytics for our surveillance and enforcement activities.

Conclusion

Data can be a powerful tool and brings enormous opportunity to positively influence outcomes by creating new value for both industry and consumers.

Consumers want control of their personal data and also want to share it in exchange for benefits. But clearly in this space, trust is critical. Consumers need to be comfortable with:

- where their data is being stored
- how it is being used
- who it is being shared with.

Data storage and sharing arrangements must ensure trust is maintained. Trust in data sharing can quickly perish if the considerations of security and privacy are not aligned.