C-suite's Next Game Plan:
Data Analytics?
Malaysia's survey of banks

Preface

Analytics as a business discipline has existed for decades. Its application and acceptance has advanced recently because of the scale and pace at which data is accumulating from multiple sources, rapid speed of access, reducing storage costs and the sophistication of enabling tools and technology.

There is a vista of opportunities to be realized in financial services from acknowledging the importance of data as an asset and the deployment of sophisticated analytics to realize the benefits of their data assets.

Making the transition from data and analytics immaturity to a financial business enjoying significant competitive advantage over its rivals will require a systematic approach to improving capabilities.

Presently many financial service companies around the world are still focussed on data management solutions. They have yet to embed analytics into operational decisions on an enterprise-wide basis and their analytic capabilities are generally patchy, with no consistency of approach across their business.

For many banks, data and analytics initiatives have been driven by the risk and regulatory agendas rather than by the potential for growth. Making that switch will require greater maturity in both data and analytics. Those that have already moved furthest on their data will find the adoption of analytics easier — they'll be able to focus on quality data and to integrate internal and external data, where relevant.

With analytics seated at the top of the business agenda for many leading organisations, there lies a major new opportunity where banks cannot afford to underperform.

Foreword

Tay Kay Luan
Chief Executive
Asian Institute of
Chartered Bankers
(AICB)

Analytics as a business discipline has existed for decades. With the rapid pace and scale at which data is accumulating from multiple sources, and the sophistication of enabling tools and technology, data analytics has become a key business agenda for many leading organisations looking for new ways to create competitive advantage. Beyond information system frameworks, the value of data analytics lies in the deep insights that financial institutions can leverage.

Our joint banking-wide survey with EY revealed that Malaysia-based banks appear to be at the nascent stage of capitalising on Data Analytics.

To fast-track the recognition of a bank's 4th asset to be Data, the driving factor is the creation of a data-driven eco-system guided by a connected data strategy across various business functions. Along this data artery, AICB aims to support the regional banking ecosystem by providing deeper insights and knowledge on Data Analytics as well as to further develop appropriate human capital development programs to balance the risks and improve enterprise-wide performance.

We hope this thought leadership publication and its survey insights would be helpful in advancing your bank's future strategic plans on the management of data analytics. Our thanks and gratitude to all banks who participated in this survey.

Enjoy the report.

Thots @ analytics

Chow Sang Hoe
Managing Partner,
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In tandem with the business transformation focus on People, Process and Technology, Data Analytics is increasingly placed as the 4th foundational element by outperforming organisations. Analytics can be leveraged to deliver more value with sophisticated techniques to allow banks to discover root causes, analyze micro-segments of their markets, transform processes and make better predictions.

We recognise the challenges for banks to quantify the value from analysing their structured and unstructured data to generate insights in supporting their business decisions. The question in mind is how to leverage data assets to drive business decisions and at the same time safeguard data privacy and data protection.

In deriving topline value from data analytics, there is growing focus for financial services institutions to develop a holistic and strategic plan in identifying the business opportunities and minimising the risks. As we head towards an era of rapid change or disruption, there is need for top-speed agility and adaptability. Hence, adopting a "Strategise-Activate-Connect" approach can advance the optimisation of bank's data analytics capabilities.

We hope this thought leadership publication is a useful reference for your next actions.

Happy to converse further…

Contents

Survey background

Survey profile

The survey on Data Management and Analytics was developed with the purpose of understanding current status of big data transformation among Malaysia-based banks and deriving insights on developments made in implementing and enhancing data analytics practices.

WHEN?	WHO?	WHAT?	HOW?
3 July – 9 September 2015	Malaysia-based banks, local and foreign	Structured questionnaire	Online survey

Who responded:

Bank types

- Commercial bank — 54%
- Development financial institutions — 21%
- Islamic bank — 17%
- Investment bank — 8%

Bank origins

- Foreign 46%
- Local 54%
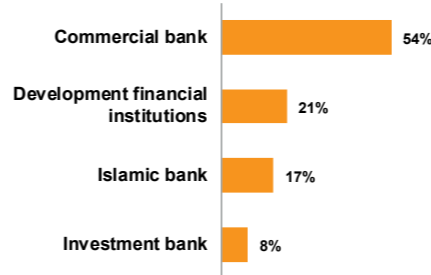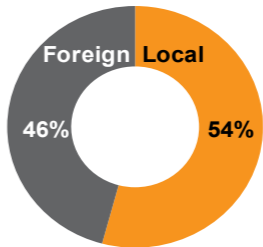
Business functions

- Others* 11%
- Technology 33%
- Information 15%
- Risk 30%
- Analytics 11%
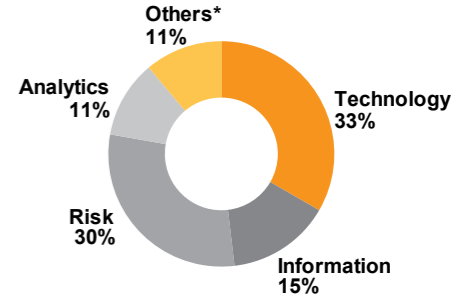
*Others include human resource, strategy and business intelligence

Note:
Where relevant, comparisons were made in some areas with EY's global survey of 150 financial services firms in the banking, insurance and asset management sectors titled "The science of winning in financial services: competing on analytics, opportunities to unlock the power of data" 2015.

Trending data analytics

Analytics is fast becoming a foundational element of business transformation. Key trends that are driving analytics to become a vital element for business transformation include the following:

These trends in tandem with increasing competition, cost and regulatory pressures are motivating CEOs to fast-track their organisational transformation by leveraging on data analytics.

1 Data explosion

Exponential increase in volume, velocity, variety of data in tandem with increase usage of smart phones, social media and machine sensors.

2 Lower cost of storage and processing

Handling vast amount of data is now feasible due to falling costs of data storage and processing.

3 Wide availability of analytics tools

Simplified and effective analytical tools are now available – no longer reserved to handful of data experts.

4 Increasing focus on security and risk management

Organisations worldwide are making data security, protection and privacy their priority due to heightened frequency of cyber attacks.

Data explosion

Increasing focus on security and risk management

Wide availability of analytical tools

Analytics at the central core

Lower costs of storage and processing

Survey highlights

Where are Malaysia-based banks on Data Analytics?

Next actions to consider

Benchmarked against global peers, Malaysia is perceived to be:

1 **An emerging analytics market**
- Notable gaps in realising value from data assets across the People, Process and Technology dimensions
- Broad management of Data Analytics - CTOs, CIOs and CROs currently take on "surrogate" role

2 **Lack of investment focus on optimising data insights**
- Data analytics largely focussed on risk management purposes
- Lackadaisical talent strategy for recruitment of CDO/CAO – higher focus on data compliance (security, risk and governance) functions

3 **Scope for customer analytics and strategic collaborations**
- Scope for wider adoption of customer analytics in marketing, sales and product development
- Social media, telecommunication and retail are gaining prominence as banks' new collaborators in accessing customers

Strategise
- Align analytics and business strategies
- Organise a supportive structure
- Focus on information management framework

Activate
- Assign ownership and accountability
- Address potential data security and privacy threats
- Identify and develop right talent

Connect
- Centralise data management and dissemination
- Integrate data platforms for digital transformation
- Capture emerging data and interactions

Survey findings

Answering 3 Qs…

1 Where are we with data assets today?

2 What data insights to improve performance?

3 How is the outlook for data investments?

Where are we with data assets today?

Q. How would you rate the maturity of your organisation with regards to each of the following elements related to realising value from its data assets?

Mean score

| | 1 | 2 | 3 | 4 | 5 |

Highly immature — Highly mature

People
- Relevant data skills and human capital — Malaysia 2.7 / Global 3.6
- Overall ability to realise value from data assets — Malaysia 3.0 / Global 3.7
- Overall leadership on importance of data — Malaysia 2.9 / Global 3.6

Process
- Relevant data processes — Malaysia 3.0 / Global 3.7
- Set up of organisation structure for data — Malaysia 3.0 / Global 3.6
- Data governance — Malaysia 3.2 / Global 3.7

Technology
- Relevant technologies and systems — Malaysia 3.1 / Global 3.7

■ Malaysia survey ■ Global survey

Malaysia-based banks appear to be in their early maturity in the management of data assets across the three dimensions of People-Process-Technology.

Source:
▶ The science of winning in financial services, 2015, EY
▶ EY analysis

Note: Hypothetically, in a customer maturity model, a gap of 1.0 equals to 2 years of improvement. From the survey, it appears that Malaysia-based banks with 0.5 – 0.9 gap are one to two years behind current global practice standard.

Where are we with data assets today?

The majority of Malaysia-based banks (from 78% to 93%) surveyed have a comprehensive set of internal data governance policies, including data security-data privacy-data access-social media policies, ahead of their global peers. In addition, the majority 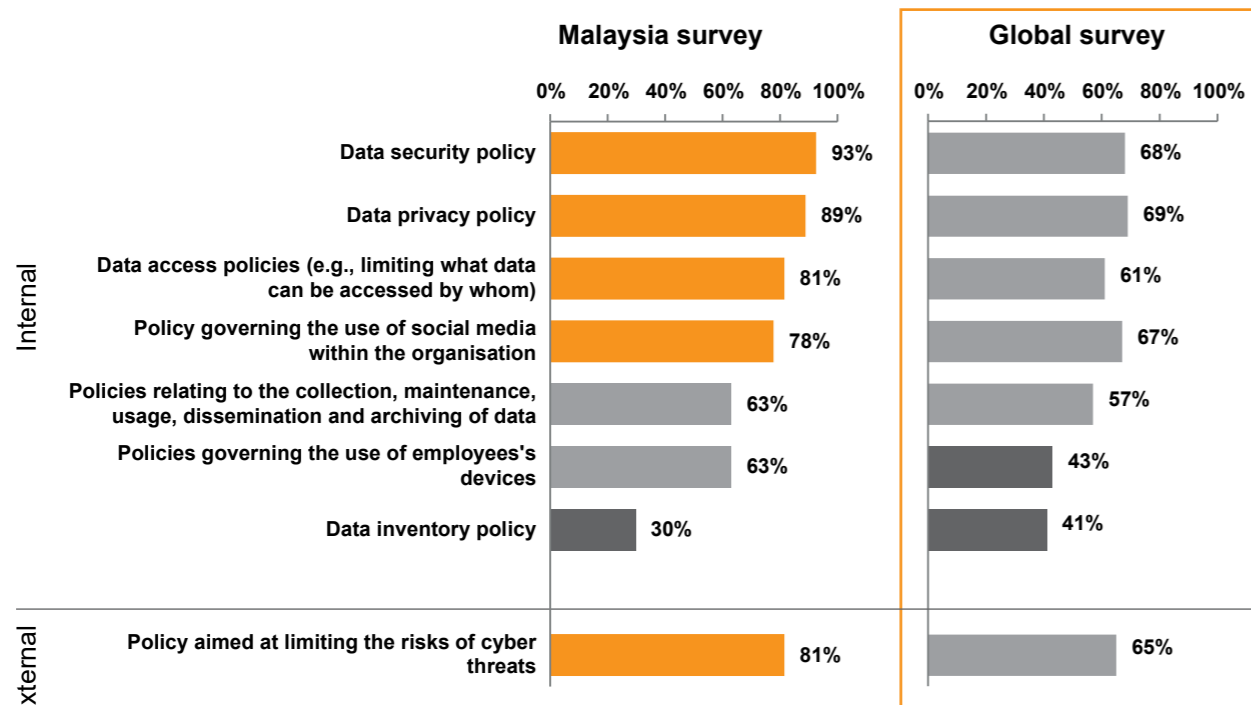of banks have in place policy to limit risks of external cyber threats (8 out of 10 banks). Improve areas include data inventory policy (just 30%); policies on the use of employees devices (63%) and policies relating to data management (63%) – Global peers cited similar gap areas.
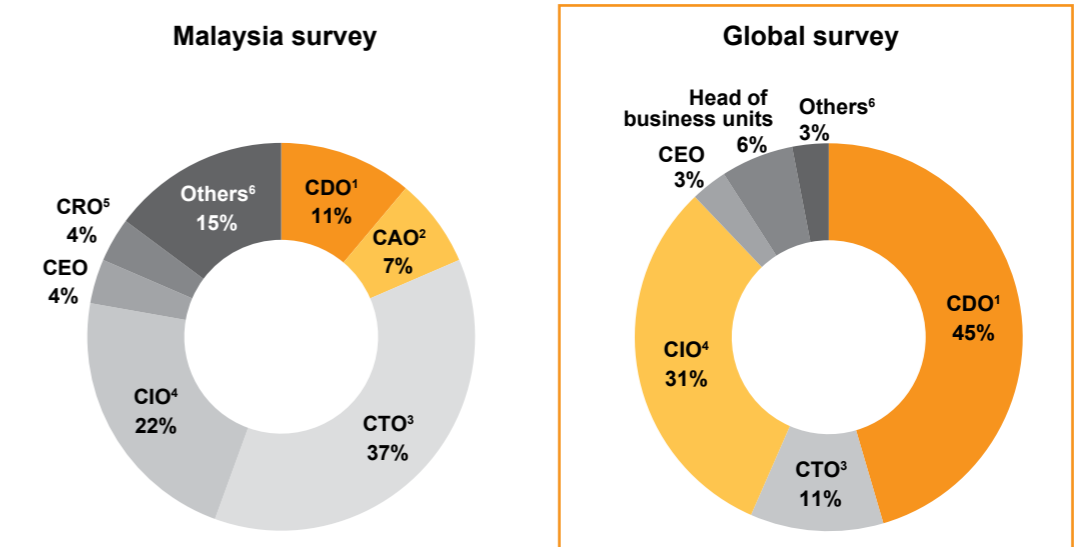
Three-fifths (59%) of Malaysia-based banks have their IT Chiefs as data custodians, i.e. CTO (37%) and CIO (22%), in contrast to the 42% CTO/CIO of their global banking peers. Pertinent to note that 45% of their global peers have a CDO primarily responsible for data management versus just 11% of Malaysia-based banks.

Q. Which data governance-related policies or frameworks do you already have in place?

Malaysia survey

Data security policy	93%
Data privacy policy	89%
Data access policies (e.g., limiting what data can be accessed by whom)	81%
Policy governing the use of social media within the organisation	78%
Policies relating to the collection, maintenance, usage, dissemination and archiving of data	63%
Policies governing the use of employees's devices	63%
Data inventory policy	30%
Policy aimed at limiting the risks of cyber threats	81%

Global survey

Data security policy	68%
Data privacy policy	69%
Data access policies	61%
Policy governing the use of social media	67%
Policies relating to the collection, maintenance, usage, dissemination and archiving of data	57%
Policies governing the use of employees's devices	43%
Data inventory policy	41%
Policy aimed at limiting the risks of cyber threats	65%

Internal / External

Source:
► *The science of winning in financial services, 2015, EY*
► *EY analysis*

Q. Who in your organisation is primarily responsible for data today?

Malaysia survey

- CDO[1] 11%
- CAO[2] 7%
- CTO[3] 37%
- CIO[4] 22%
- CEO 4%
- CRO[5] 4%
- Others[6] 15%

Global survey

- CDO[1] 45%
- CTO[3] 11%
- CIO[4] 31%
- Head of business units 6%
- CEO 3%
- Others[6] 3%

Note:
[1]CDO = Chief data officer / Chief data privacy officer which includes Head of group data management
[2]CAO = Chief analytics officer which includes Director / Head of analytics
[3]CTO = Chief technology officer which includes Head of technology / IT
[4]CIO = Chief information officer which includes Head of information
[5]CRO = Chief risk officer which includes Head of risk
[6]Others = Director / General manager / Senior manager of specific functions in line with data management policies

Source:
► *The science of winning in financial services, 2015, EY*
► *EY analysis*

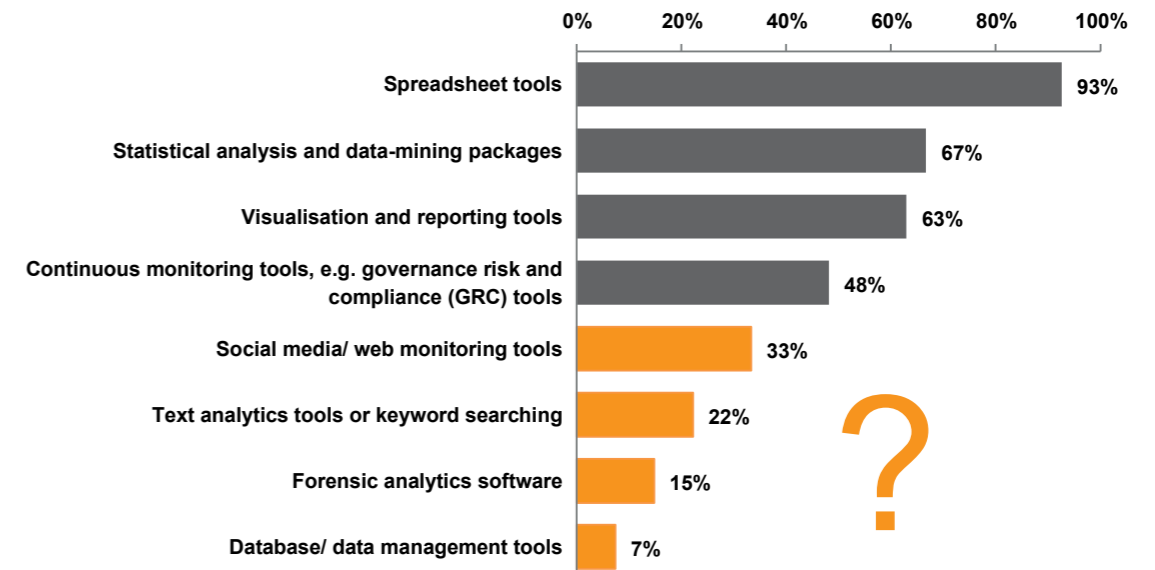# Where are we with data assets today?
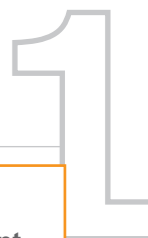
> Whilst a significant 75% of global peers appoint a specific individual with overall data responsibility, less than half of Malaysia-based banks (44%) do so. Meanwhile, interesting to note that both Malaysia-based banks and global peers intend to appoint a data analytics individual.
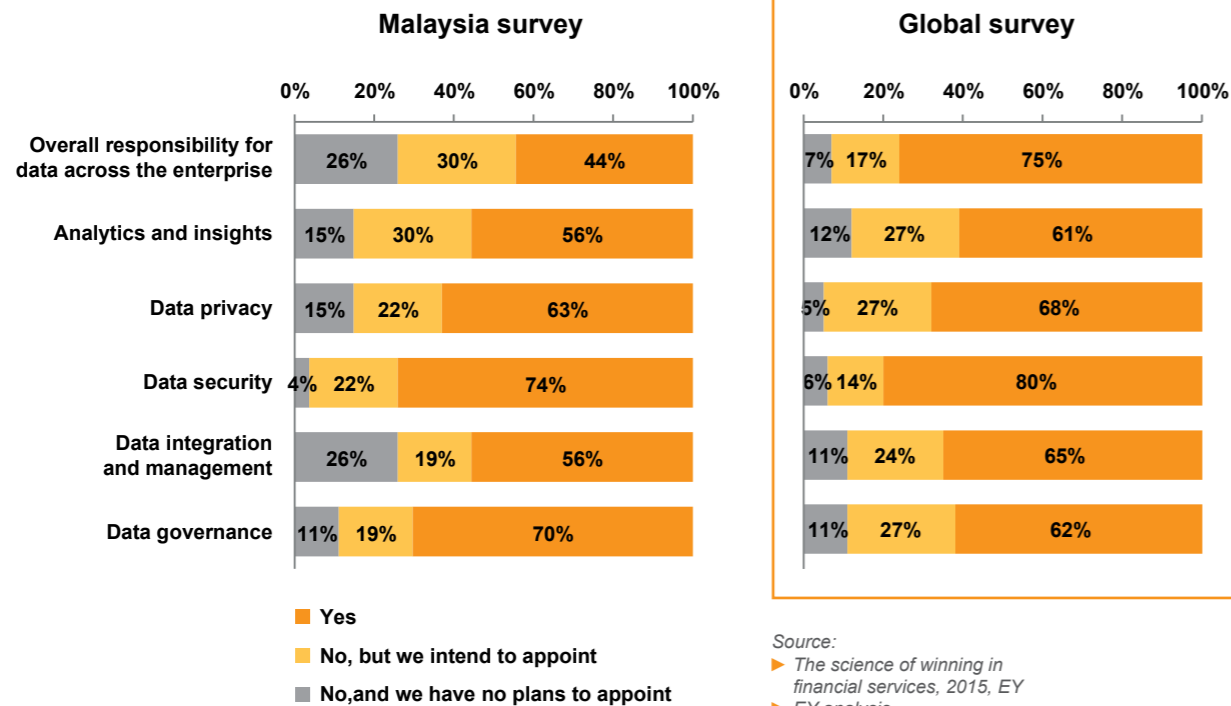
> Malaysia-based banks are largely equipped with "statistical-reporting-GRC" data management tools, and lesser equipped with advanced analytics-related tools.

Q. Does your organisation have a specific individual with ultimate responsibility for the following activities?

Q. From the many data analytics tools mentioned below, which, if any, are you currently using in your organisation?

Malaysia survey

Activity	No, and we have no plans to appoint	No, but we intend to appoint	Yes
Overall responsibility for data across the enterprise	26%	30%	44%
Analytics and insights	15%	30%	56%
Data privacy	15%	22%	63%
Data security	4%	22%	74%
Data integration and management	26%	19%	56%
Data governance	11%	19%	70%

Global survey

Activity	No, and we have no plans to appoint	No, but we intend to appoint	Yes
Overall responsibility for data across the enterprise	7%	17%	75%
Analytics and insights	12%	27%	61%
Data privacy	5%	27%	68%
Data security	6%	14%	80%
Data integration and management	11%	24%	65%
Data governance	11%	27%	62%

- **Yes** (Yes)
- **No, but we intend to appoint**
- **No, and we have no plans to appoint**

Source:
▶ *The science of winning in financial services, 2015, EY*
▶ *EY analysis*

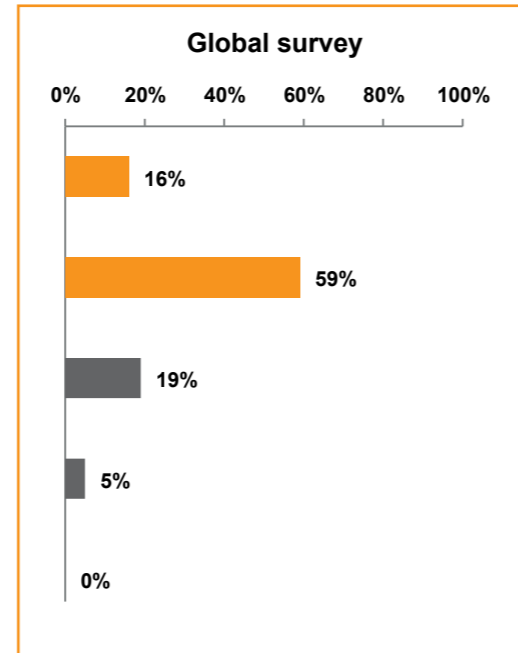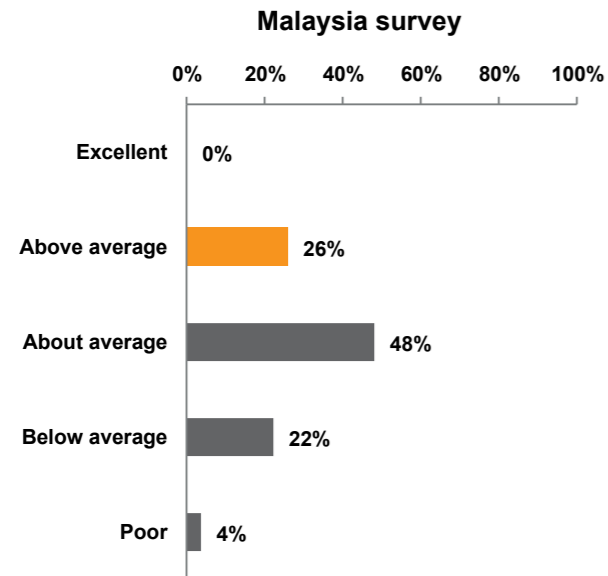| Data analytics tool	%
Spreadsheet tools	93%
Statistical analysis and data-mining packages	67%
Visualisation and reporting tools	63%
Continuous monitoring tools, e.g. governance risk and compliance (GRC) tools	48%
Social media/ web monitoring tools	33%
Text analytics tools or keyword searching	22%
Forensic analytics software	15%
Database/ data management tools	7%

?

What data insights to improve performance?

Malaysia-based banks rate their "average" position in optimising the extraction of useful insights from its data assets.

Relative to global peers, Malaysia-based banks rated an average score in the quality of data-driven insights across the various aspects of data analytics, from risks to customers, markets, talent and competitors.
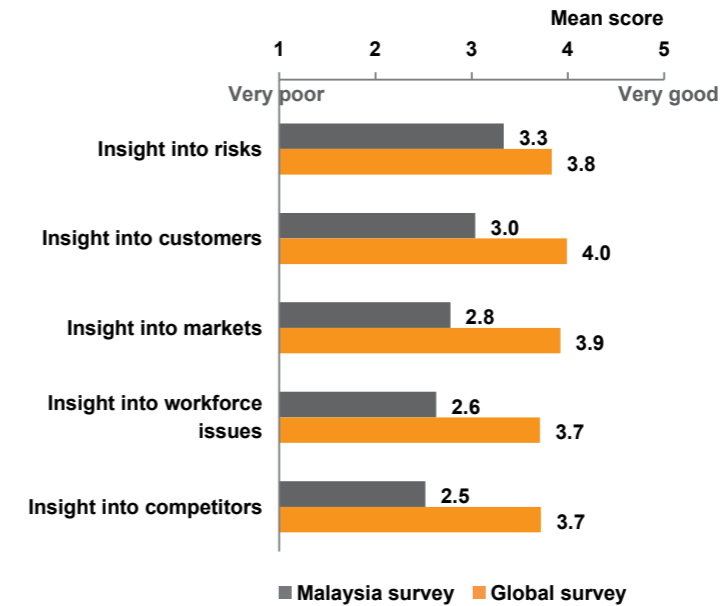
Q. How good do you believe your organisation is at extracting useful insights from its data to improve its overall performance or competitiveness in comparison with its main rivals?

Q. How would you rate the quality of data-driven insights in your organisation across the following areas?

Malaysia survey

Excellent	0%
Above average	26%
About average	48%
Below average	22%
Poor	4%

Global survey

	16%
	59%
	19%
	5%
	0%

Source:
► *The science of winning in financial services, 2015, EY*
► *EY analysis*

Mean score

Very poor — Very good (1–5)

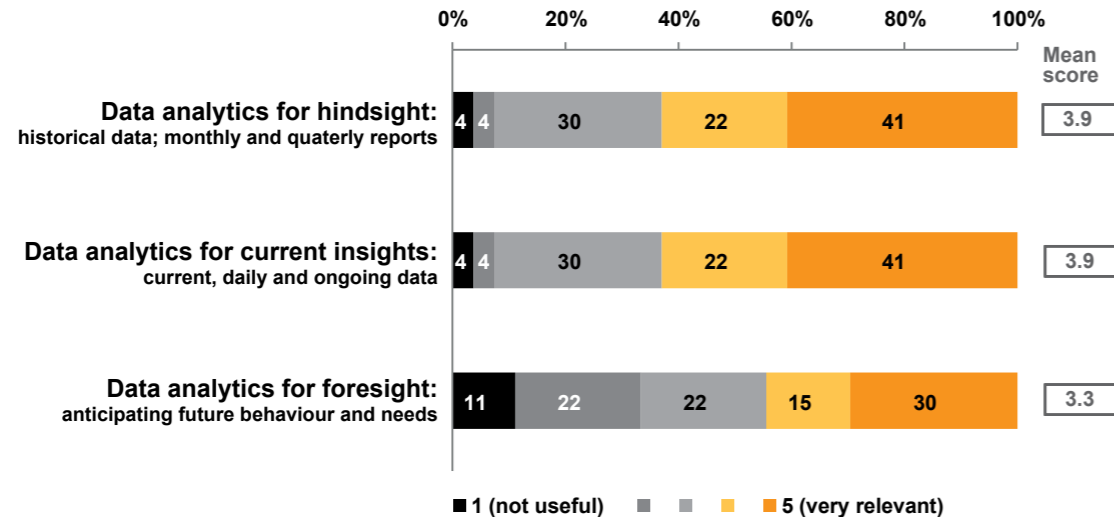|	Malaysia survey	Global survey
Insight into risks	3.3	3.8
Insight into customers	3.0	4.0
Insight into markets	2.8	3.9
Insight into workforce issues	2.6	3.7
Insight into competitors	2.5	3.7

■ Malaysia survey ■ Global survey

Source:
► *The science of winning in financial services, 2015, EY*
► *EY analysis*

What data insights to improve performance?

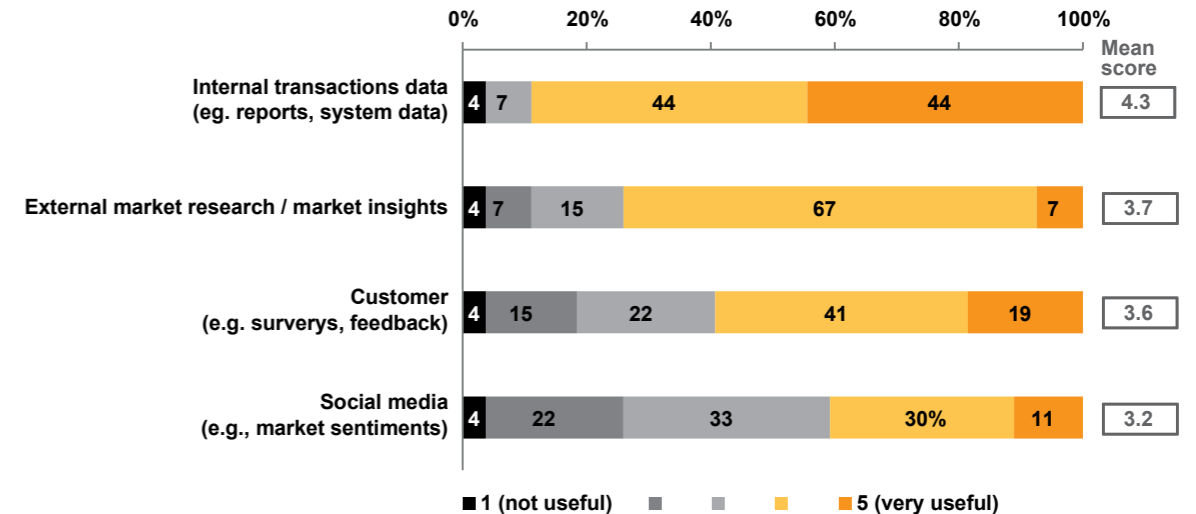| The usage of data analytics is more utilised in understanding current and historical data. Predictive data analytics is lesser used. |
| --- |

Q. The use of data analytics can be segmented into 3 categories, i.e., hindsight, current insight and foresight. How would you rate the relevance of data analytics for each of the 3 categories in your organisation?

Data analytics for hindsight:
historical data; monthly and quaterly reports — 4 | 4 | 30 | 22 | 41 — Mean score **3.9**

Data analytics for current insights:
current, daily and ongoing data — 4 | 4 | 30 | 22 | 41 — Mean score **3.9**

Data analytics for foresight:
anticipating future behaviour and needs — 11 | 22 | 22 | 15 | 30 — Mean score **3.3**

■ 1 (not useful) ■ ■ ■ ■ 5 (very relevant)

| Presently, three datasets, i.e. internal data-external market research-customer surveys are perceived to be more useful than social media data. |
| --- |

Q. Which perspective of datasets would be most useful to your organisation?

Internal transactions data
(eg. reports, system data) — 4 | 7 | 44 | 44 — Mean score **4.3**

External market research / market insights — 4 | 7 | 15 | 67 | 7 — Mean score **3.7**

Customer
(e.g. surverys, feedback) — 4 | 15 | 22 | 41 | 19 — Mean score **3.6**

Social media
(e.g., market sentiments) — 4 | 22 | 33 | 30% | 11 — Mean score **3.2**

■ 1 (not useful) ■ ■ ■ ■ 5 (very useful)

What data insights to improve performance?

> While two out of three Malaysia-based banks appear to have partially adopted a customer analytics approach, a significant proportion (37%) have not adopted at all.

> More than half of banks rated customer analytics as useful for marketing, sales and product service development activities. Of lesser analytics application is the determination of brand equity/image, competitive positioning and operations/delivery.
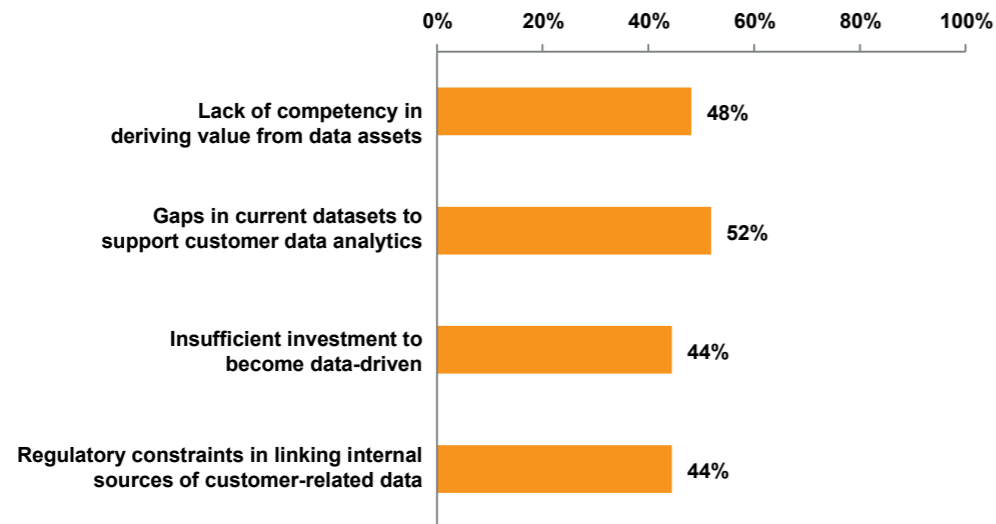
Q. In your views, to what degree has your organisation adopted the customer analytics approach?

Fully adopted[1]
4%

Not adopted at all[3]
37%

Partially adopted[2]
59%
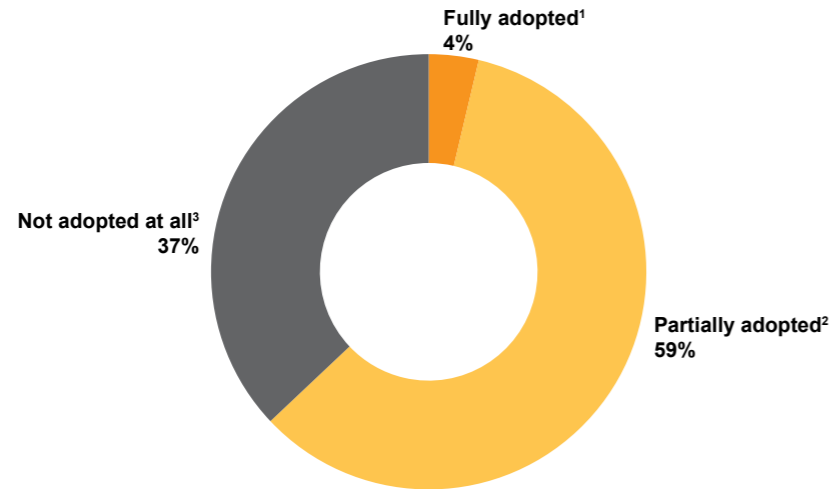
Note:
[1] Fully adopted represents respondents who rated 5 in rating scale
[2] Partially adopted represents respondents who rated 4 and 3 in rating scale
[3] Not adopted at all represents respondents who rated 2 and 1 in rating scale

Q. How would you rate the usefulness of customer analytics in the following aspects of your organisation?

Aspect	1				5	Mean score
Marketing	4	7	26	37	26	3.7
Sales	4	7	26	37	26	3.7
Product / service development	4	7	26	48	15	3.6
Customer service	4	7	30	41	19	3.6
Product / service pricing	4	11	33	30	22	3.6
Operations / delivery	4	4	44	41	7	3.4
Competitive positioning	7	11	33	33	15	3.4
Brand equity / image	7	15	37	30	11	3.2

■ 1 (not useful) ■ ■ ■ 5 (very useful)
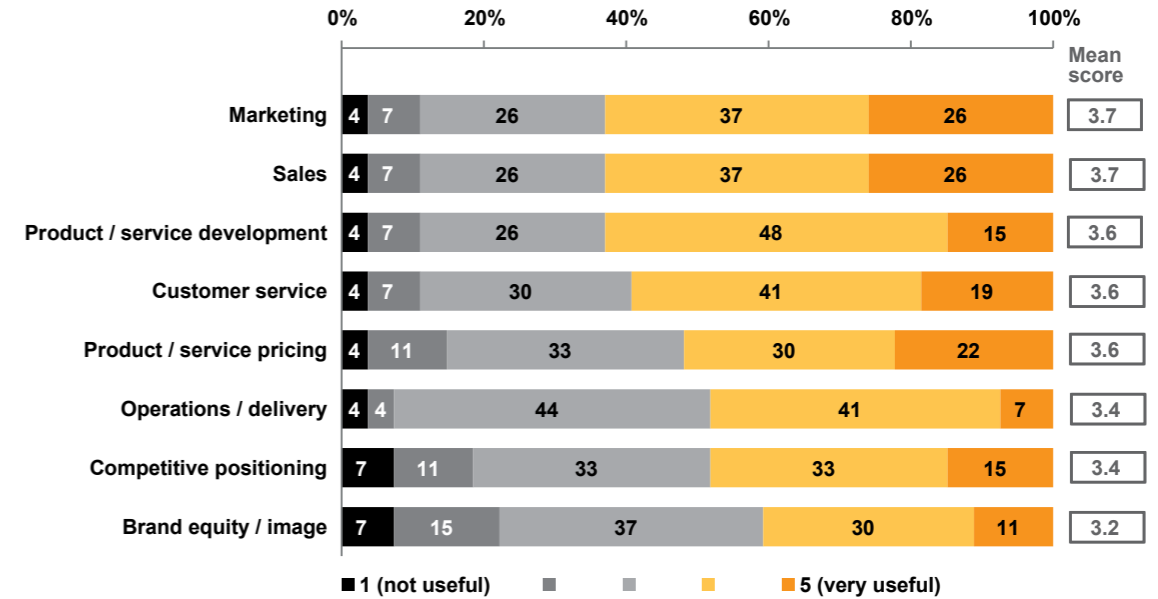
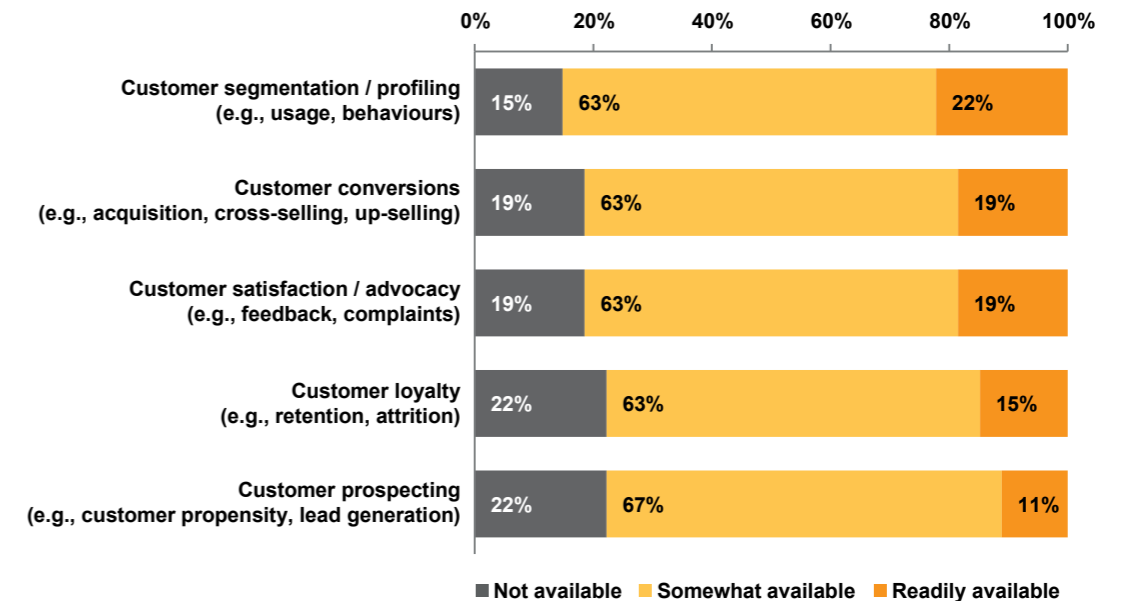# What data insights to improve performance?

Nearly half (between 44%-52%) of Malaysia-based banks perceived current gaps in datasets, competency, investment focus and regulatory constraints as key obstacles in maximising the use of customer data analytics.

Most banks are already accessing the various customer knowledge bases.

Q. **What do you consider to be the main reasons in preventing your organisation from maximising the use of customer data analytics?**

Reason	%
Lack of competency in deriving value from data assets	48%
Gaps in current datasets to support customer data analytics	52%
Insufficient investment to become data-driven	44%
Regulatory constraints in linking internal sources of customer-related data	44%

Q. **To your knowledge, how would you rate the level of availability of the following customer knowledge bases in your organisation?**

Knowledge base	Not available	Somewhat available	Readily available
Customer segmentation / profiling (e.g., usage, behaviours)	15%	63%	22%
Customer conversions (e.g., acquisition, cross-selling, up-selling)	19%	63%	19%
Customer satisfaction / advocacy (e.g., feedback, complaints)	19%	63%	19%
Customer loyalty (e.g., retention, attrition)	22%	63%	15%
Customer prospecting (e.g., customer propensity, lead generation)	22%	67%	11%

- Not available
- Somewhat available
- Readily available

How is the outlook for data investment?

> Presently, risk and finance functions are rated as primary beneficiaries of data analytics. Less data investment focus lie in the marketing, sales, operations, HR and procurement areas.

Q. Based on current practices in your organisation, which business functions are primary beneficiaries of data analytics?

Business function	%
Risk management	93%
Finance	81%
Strategic planning	78%
Marketing	59%
Sales	59%
Operations	44%
Human resources	33%
Procurement	15%
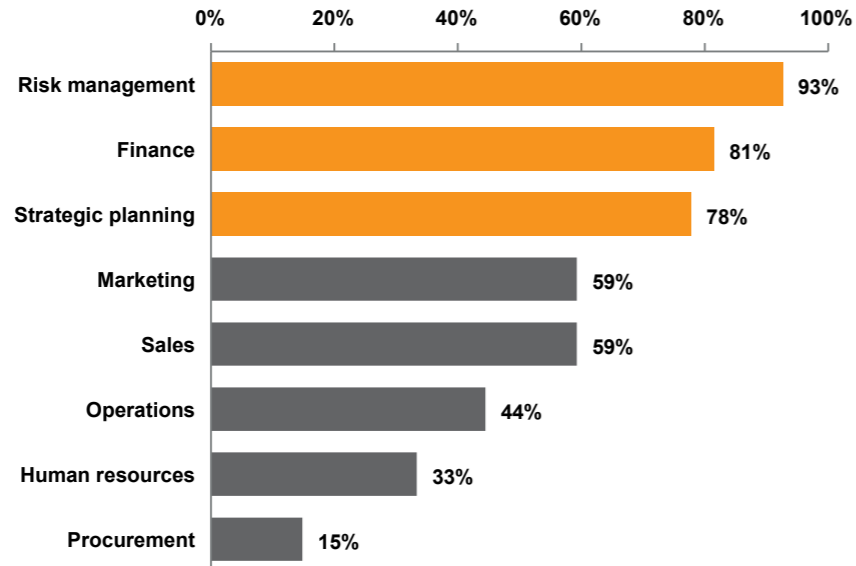
> Over half (56%) of Malaysia-based banks are open to third-party engagement to enhance their data analytics capability.

Q. Does your organisation engage a third party organisation to assist with data management and analytics?

- Yes, we have engaged — 30%
- No, but we are considering — 26%
- No, we prefer in-house engagement — 44%
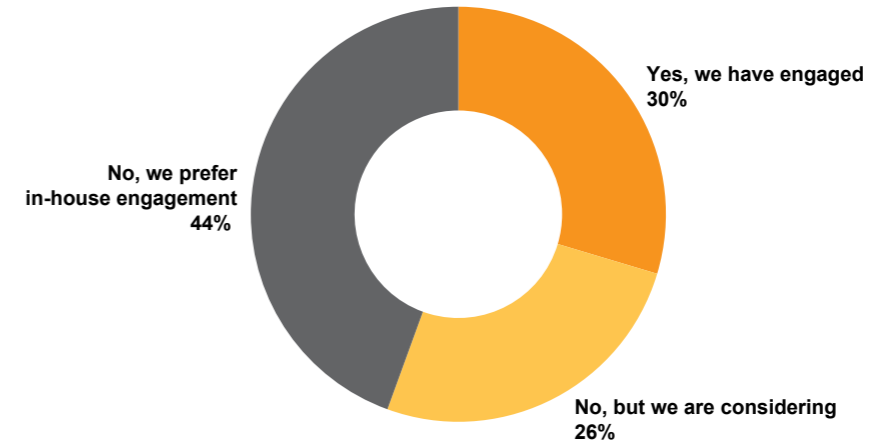
How is the outlook for data investment?

> Managing risk remains Malaysia-based banks' top priority in the last two years and the next two years. Other major investment areas of focus include finance and marketing. In the next two years, there appears to be a doubling of niche focus on data analytics in strategic planning (from 15% to 33%).

> Lack of analytical skill/capabilities is indicated as a key factor hindering Malaysia-based banks in maximising their use of data assets, aside from data collection/collation difficulties.

Q. Among the various business functions in your organisation, which do you perceive are the top 3 areas that have received investment prioritisation for data analytics development, in the past 2 years and next 2 years?

Q. What do you consider to be the main obstacles in preventing your organisation from maximising use of its data assets?

Past 2 years

Function	Highest priority	2nd priority	3rd priority	Total
Risk Management	44	22	19	85
Finance	22	26	19	67
Marketing	15	22	7	44
Operations	7	7	30	44
Sales	7	11	15	33
Strategic Planning	4	7	4	15
Human resources	4	4		8
Procurement			4	---

Next 2 years

Function	Highest priority	2nd priority	3rd priority	Total
Risk Management	33	26	22	81
Finance	11	19	19	48
Marketing	15	30	4	48
Operations	11	7	26	44
Sales	15	7	19	41
Strategic Planning	15	7	11	33
Human resources	4			
Procurement				---

Legend: ■ Highest priority ■ 2nd priority ■ 3rd priority

Main obstacles — Malaysia survey vs Global survey

Category	Obstacle	Malaysia survey	Global survey
People	Lack of analytics skill / capabilities	70%	27%
People	Insufficient support from senior executives / management	26%	18%
Process	Difficulties collecting and analysing unstructured data	63%	31%
Process	Poor quality of data in the organisation	52%	24%
Process	Overcoming internal data siloes	48%	16%
Process	Concern over data privacy restrictions	41%	37%
Technology	Insufficiently mature technologies / systems	41%	27%
Others	Convern over regulatory issues relating to data usage	37%	44%
Others	Lack of resources/ budget	30%	26%

Source:
- *The science of winning in financial services, 2015, EY*
- *EY analysis*

How is the outlook for data investment?

To enrich insights on their customers, Malaysia-based banks are open to collaborations with multiple external parties including other finance services, government agencies, social media and telecommunication services.

Q. To enrich the quality of insights of your organisation's customers, which of the following external industry players would you most likely collaborate with?

Industry player	Percentage
Finance services (e.g., credit bureau, payment partners / gateways)	85%
Government agencies	74%
Social media links / players	52%
Telecommunication services	41%
Retail (e.g. consumer / fashion / IT)	26%
Media / entertainment	15%
Travel / hotel / leisure	15%
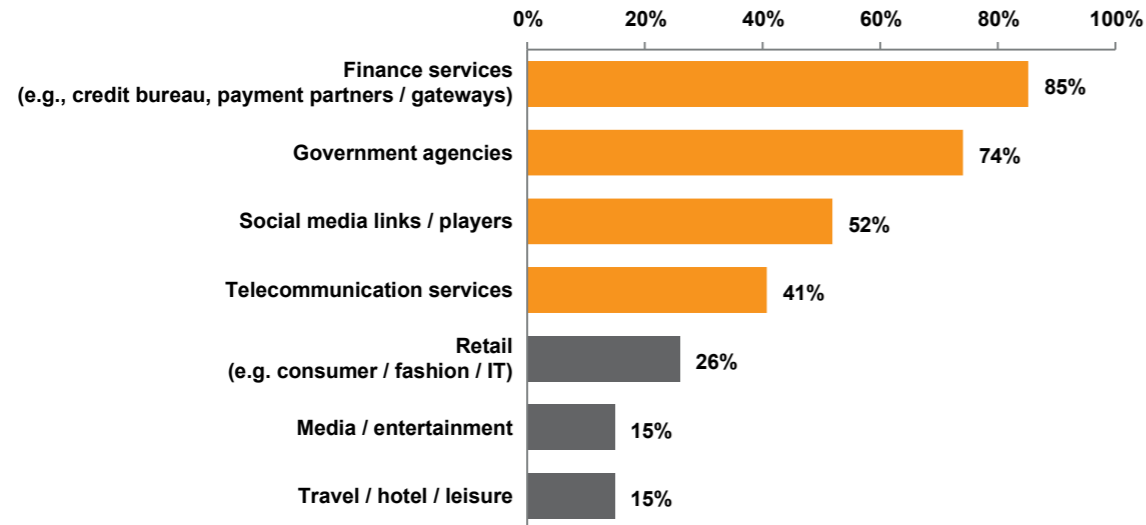
Key insights
for next actions

Relative to its global peers on data analytics practices, Malaysia-based banks appear:

Ahead of

Governance policies

…Higher focus on compliance (security, privacy and access) functions
*88% of Malaysia-based banks have data governance-related policies in place, ahead of global at 66%**
Q. Which data governance-related policies or frameworks do you already have in place?

Align on

Talent acquisition

…Intend to appoint a Data Analytics individual	…Has or (to hire) a specific individual for Data Governance
30% in line with global at 27%	*Malaysia and global at 89%*
Q. Does your organisation have a specific individual with ultimate responsibility for the following activities?	

Away off

Data assets optimisation			Leadership in data analytics	Customer analytics
Lagging behind global peers on extracting useful data insights	Lagging across key areas of data analytics: ▶ Risks ▶ Customers ▶ Markets ▶ Workforce issues ▶ Competitors	Key obstacles preventing maximisation use of data assets: ▶ People ▶ Data collation process ▶ Data quality	Lack of specific CDO/CAO for enterprise-wide Data Analytics management	Lagging in adopting customer analytics
Only 26% rate "above average" versus Global at 75%	*"Below average scores" - Malaysia mean score of 2.8 versus Global at 3.8*	▶ *People at 70% versus Global at 27%;* ▶ *Data collation process at 63% versus Global at 31%;* ▶ *Poor data quality at 52% versus Global at 24%*	*Only 18% have CDO/CAO versus Global at 45%*	*37% have not adopted customer analytics at all*
Q. How good do you believe your organisation is at extracting useful insights from its data to improve its overall performance or competitiveness in comparison with its main rivals?	Q. How would you rate the quality of data-driven insights in your organisation across the following areas?	Q. What do you consider to be the main obstacles in preventing your organisation from maximising use of its data assets?	Q. Who in your organisation is primarily responsible for data today?	Q. In your views, to what degree has your organisation adopted the customer analytics approach?

Note:
*Average number of respondents who indicate that data security, data privacy and data access policies are in placed in their organisation.

Next actions

Strategise-Activate-Connect

In improving the optimisation of bank's data assets, we propose the following 9 areas which can advance current data management practices:

Strategise

1 Establish analytics strategy in alignment with enterprise-wide business strategy

2 Build the right organisational structure and governance framework to support "value-driven" decision–making

3 Step-up focus in information management system; cognisant of data integrity, availability and accessibility

Activate

4 Consider the appointment of a CAO/CDO who can steer the management of data assets as well as hold accountability and ownership for data quality

5 Address data privacy and security concerns including potential cybersecurity threats and use of cloud-based infrastructure

6 Develop action plans to grow and upskill the analytics talent pool in keeping up with the rapid change of technology

Connect

7 Create an organisation-wide analytics lab for centralised data management and dissemination of actionable insights to the decision makers

8 Establish multiple-channels for digital transformation with integration of data platforms

9 Open up avenues for the identification and capturing of emerging data channels and customer interactions

Understanding the business ecosystem

Data analytics need to anchor on a multi-dimensional and rapidly evolving data ecosystem to generate business value – broadly today's business ecosystem comprised customers, risks, competitors, markets and talent. While a deep understanding of the business is always critical to realize value from analytics, it is important to remember that for many forms of analytics, advanced training in math and statistics underpins the quality of the work.

Each nodes represent external / internal data sources
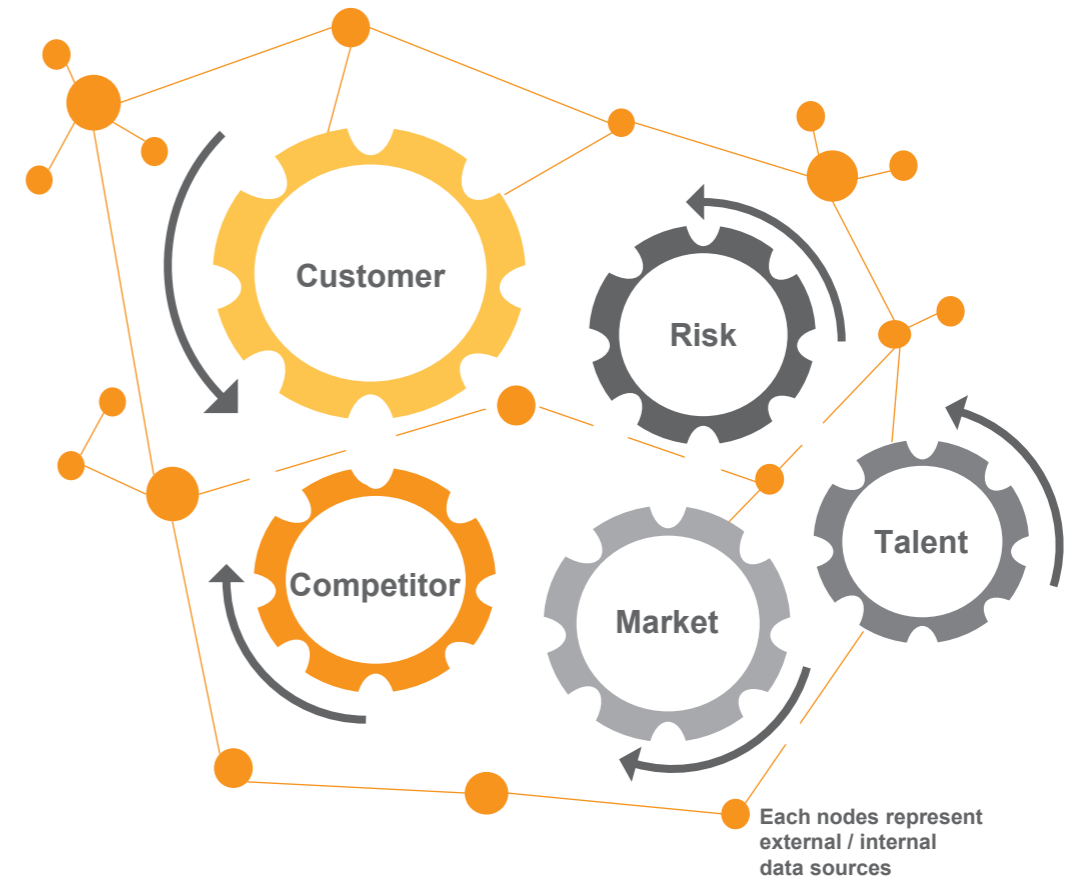
Next actions

Change and program management

In the last decade, Malaysia-based banks have embarked on Change and program management to protect and optimise their data assets. In planning for its future growth phase, advanced analytics is the Next Game plan to monetise data and to compete on a differentiated platform for long-term Value Creation.

Differentiators
- Sector-led
- Issue-driven
- Technology-enabled
- Globally coordinated

Value oriented
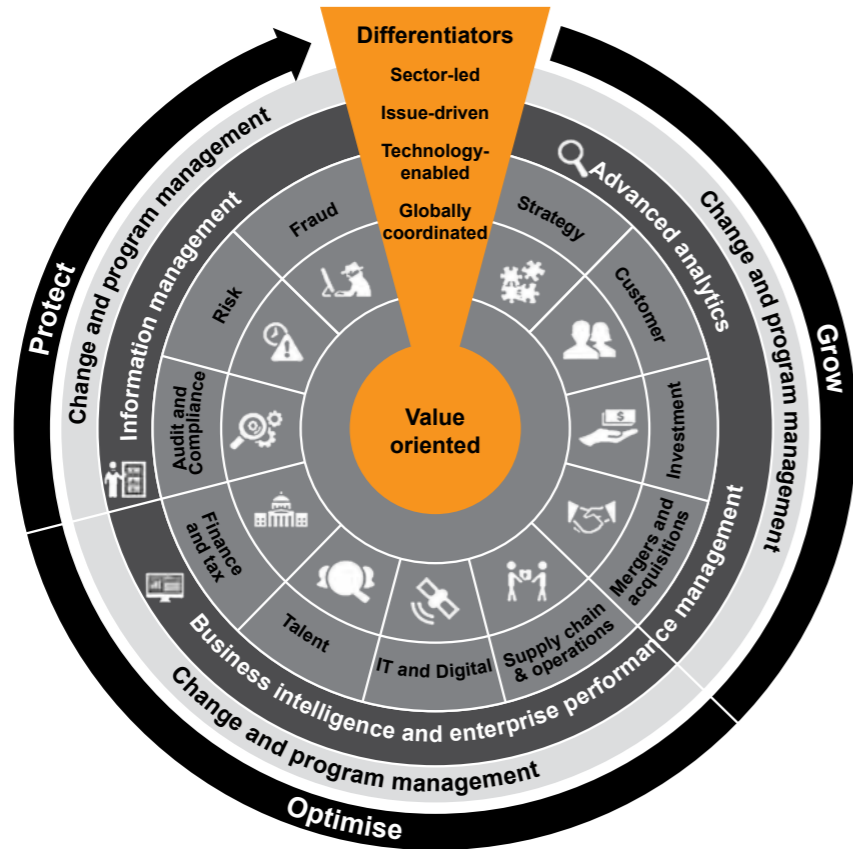
Legend:
- Differentiators
- Customer Value Proposition
- Enterprise Capability
- Functional Solution

Integrating data analytics with the broader aspects of business

Industry Imperatives	Approach
grow — Financial institutions are looking to monetise data for product innovation. As the industry returns to a growth agenda, industry leaders will leverage data to achieve competitive differentiation.	▶ Quantitative analysis ▶ Analytics and data mining ▶ Performance analytics and scorecards
Financial services customers are smarter and more technology - savvy than ever before. They expect similar experiences, regardless of channel. Meanwhile, financial institutions are challenged with converting massive amounts of digital data into meaningful insight.	▶ Single view of customer ▶ Enterprise data architecture ▶ Customer data integration ▶ Visualisation, analytics and data mining
optimise — Over the last decade, financial institutions grew quickly through mergers and acquisitions. As a result, siloed systems inhibit the effective collection, management and mining of data. The associated costs and inefficiencies are constraining growth.	▶ Metadata management ▶ Reporting strategy and rationalization ▶ Data simplification and integration strategy ▶ Target operating model and architecture
Economic headwinds, historic loss rates and high capital losses have driven a dramatically increased use of analytics and activity-based costing.	▶ Qualitative and Quantitative analysis ▶ Analytics and data mining ▶ Premium and loss analysis
protect — Data is at the center of the regulatory agenda. Financial institutions must comply with increasingly time sensitive and granular regulatory requests. Regulatory demands for scenario testing have many financial services organisations enabling ad hoc analytics platforms and drill-down capabilities to answer inquiries.	▶ Regulatory reporting and dashboard ▶ Data governance and quality ▶ Planning and forecasting ▶ Risk Data Aggregation and Integration ▶ Lookback analysis
Financial institutions are under attack from a growing list of threat actors including hacktivists, industrial spies and disgruntled employees. Protecting the business requires real-time analysis of behaviors and patterns.	▶ Alerts and notifications ▶ Fraud analytics ▶ Data governance, policies and standards
Risk leaders are under significant pressure to identify concentration risks and correlations across lines of business. There is also a greater convergence of finance and risk reporting and information needs.	▶ Integrated risk analytics ▶ Reporting, dashboards and scorecards ▶ Data profiling, analysis and remediation ▶ Data strategy ▶ Governance, policies, and standards ▶ Enterprise data architecture and integration ▶ CDO target operating model

Next actions

How to execute the analytics value chain

To drive better decisions, we must first ask the right business questions and then seek answers in the data. Whilst, our work moves left to right, our thinking must move from right to left

Analytics value chain

Manage data → Relevant data / Appropriate data sources → **Perform analytics** → Insights / Business intelligence and reporting → **Drive decisions** → **Improve performance** / **Manage risk**

Transaction / behaviour history

continuous feedback loop

Enterprise-wide capabilities
To execute the analytics value chain, the following capabilities are needed:

1 Analytics strategy and governance
Creating an enterprise analytics strategy that aligns with organisation's business objectives. This may include assisting in the establishment of an Analytics Center of Excellence or other operating models.

2 Information management and big data
Effectively collect, protect and distribute structured and unstructured data – ensuring information has integrity and is available and accessible when needed.

3 Advanced analytics
Applying advanced techniques, models and statistical methods to structure and unstructured data sources to identify insights that drive business value and performance improvement.

4 Business intelligence
Visualising structured and unstructured data – providing meaningful and actionable views of business operations and performance to support decision-making.

Functional services
Organisations need to take action in the following areas:

1 Customer
Leverage data from customer behavior to make key business decisions that strengthen brands, drive revenue growth and increase customer satisfaction.

2 Supply chain / operations
Analyse demand patterns and logistics processes to improve performance and reduce costs throughout the supply chain.

3 Finance
Provide increased visibility and control to optimise financial planning, decision making, and achievement of business goals and objectives.

4 Fraud and forensics
Monitor transactions to detect suspicious activity, minimise loss, and facilitate intervention.

5 Risk Management
Gain a better understanding of the organisation's risk exposure across the enterprise.

6 Compliance
Develop an accurate view of the organisation's statutory and regulatory compliance domains.

7 Capital and transactions
Understand costs, benefits, uncertainty and risks to make confident strategic decisions, capital allocations and resource commitments.

8 Talent management and human capital
Use quantitative methods and techniques to improve organisational decisions related to workforce planning.

AICB publications
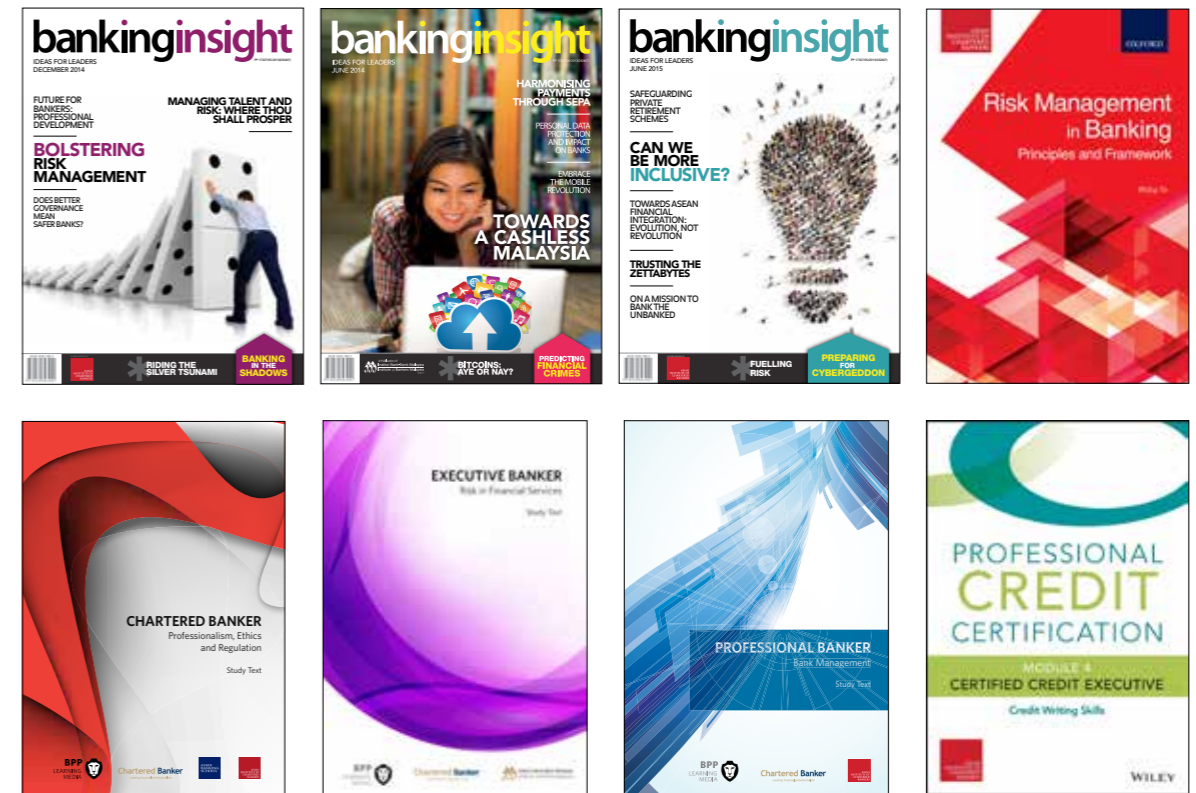
References

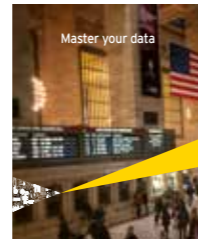# EY thought leadership publications

Data management and analytics

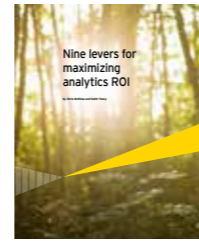**Building trusted relationships through analytics and experience**

The science of winning in financial services Competing on analytics

Ready for takeoff? Overcoming the practical and legal difficulties in identifying and realizing the value of data

Master your data

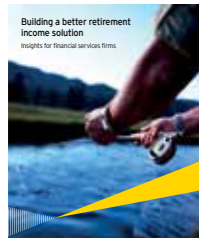**Nine levers for maximizing analytics ROI**

Financial services and risk management

Building a better retirement income solution Insights for financial services firm

Advancing service in a digital age Global Commercial Banking Survey 2014

Winning through customer experience EY Global Consumer Banking Survey 2014

Shifting focus Risk culture at the forefront of banking

Building trust in the cloud Creating confidence in your cloud ecosystem
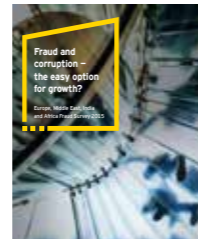
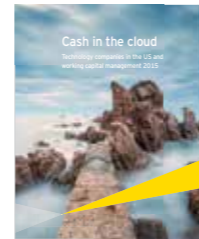**Big risks require big data thinking Global Forensic Data Analytics Survey 2014**

Addressing the evolving challenges of IT risk IT Risk Management Survey 2014

Get ahead of cybercrime EY's Global Information Security Survey 2014

Fraud and corruption – the easy option for growth?

Cash in the cloud

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