Australia as a global hub for the Analytics Offshoring industry
–
a strategic perspective

Strategy & Economics ⇔ Operational Risk Mgmt ⇔ Six Sigma & Global Delivery

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Overview of the presentation structure

Section 1 : Scoping the Financial Services Analytics Offshoring opportunity

- The historic evolution pattern of Offshoring strategies – the decade in review
- Financial Services Analytics Offshoring : an in-depth perspective
  - Overview of the key Analytics offshoring domains
  - Actuarial, insurance and wealth management analytics
  - Corporate and investment banking analytics
  - Retail banking analytics
  - Strategic functions analytics
    - Strategic financial management analytics
    - Strategic business intelligence and research analytics
- Structuring alternatives adopted by institutions: an in-depth perspective
  - Third party analytics providers – Gecis Global and Inductis
- The "coal face" of FS Analytics Offshoring – in-depth review of five job advertisements

Overview of the presentation structure (contd….)

Section 2 : The strategic case for Australia as a leading global hub

- **Limitations experienced by the Analytics Offshorers – end clients and service providers**
- **Building block 1: Size, sophistication of Australian financial markets**
- **Building block 2: Multi-factor productivity – more sustainable than labour cost arbitrage**
- **Building block 3: Skill-set availability, rigour and quality**
- **Building block 4: Skill-set flexibility – European and Asian multi-lingual skills**
- **Summary slide and Q&A**

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1. Scoping the financial services Analytics Offshoring opportunity

Historical evolution of Offshoring strategies – the last decade in review

A tangible movement from the periphery to the core of a typical financial services organisation !!

Offshoring Scoping matrix	Retail Banking	Wealth Mgmt. and Life Insurance	Institutional, Invstmt. and Business Banking	Finance, Accounting, IT, HR and other centre functions
IT, Infrastructure and support	Core Banking system - application development and mntnce. Data mining, and warehouse support CIF database mntnce.	Life Policy systems mntnce and application development Mastertrust and wrap platform development and support	Loan accounting and trading systems – app dev and support SME customer database support Middleware systems support	Group HR, payroll and shared services applications Group procurement and payable systems – mtnce and devlpmnt.
Product based Transaction processing and Customer contact centres (direct and indirect)	Mortgage and personal loan origination Mortgage and personal loan processing and servicing Collections and eDisputes processing	New business and administration Investor and adviser query handling and telemarketing. Insurance claims administration and payment	Project finance documentation support FX,currency ops and . Derivatives settlement Trade Finance and LCs – advice and settlement	Accounts receivables and payables processing General ledger management functions Employees super fund administration
Analytics Offshoring activities	Mortgage and personal loans portfolio pricing Data warehousing, Data mining and marketing analytics	Fund performance analysis, reporting and accounting Actuarial support, product pricing including DFA models	Credit proposal analysis, preparation and documentation Portfolio analytics – EDF, LGD, ROEE	Management accounting reports and budget analysis Economic Equity and CAM model maintenance and support

FS Analytics Offshoring – overview of the rapidly emerging domain

Globally, there are five analytics domains that are starting to emerge strongly in the FS sector

From cheap labour to Knowledge Process Offshoring ("KPO")

Key observations:

1. Nearly 12 major "third party" service providers and 6 major "former captives" now have 300 plus FTEs in this Area
2. Indeed, both established offshorers (Gecis, Amex, eServe / Citi, SCOPE / StanChart, World Bank) and the recent announcers (Aviva, ING, Franklin Templeton, JP Morgan Chase, Morgan Stanley and ABN Amro) have focused extensively on these analytics services

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Retail banking analytics domain – an in depth perspective

Focus currently around CRM, Distribution and channel mgmt. and Product-management analytics

From cheap labour to Knowledge Process Offshoring ("KPO")

Scope of Analytics Offshoring ("KPO") in the FS sector

- **Product Management and portfolio risk analytics –** attrition and propensity modelling, product profitability analysis, business cases to support new product launches, portfolio delinquency analysis, automated credit scoring algorithms and "exceptions" credit proposal preparation
- **Distribution and channel management analytics –** branch closure and branch location analysis, geo-mapping studies, workforce planning and productivity monitoring
- **Fraud management analytics –** credit card fraud analytics, eDisputes tracking and resolution and collection process support
- **CRM and Marketing information systems analytics –** customer segmentation analysis (churn rates, total value of customer reviews and segment profitability), data mining and warehousing analytics (COGNOS and Informatica reports) and market research support (primarily statistical data analysis – parametric and non-parametric tests)

Key observations:

1. Emerging domain – 4 out of 12 analytics service providers have dedicated FTEs for these (largest has 120 FTEs dedicated to this domain)
2. In 2 cases, CRM analytics have involved the service provider taking over the client's TERADATA warehouse on a "systems on" basis i.e. everything from data entry to application development to COGNOS report production is done by the same service provider

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Corporate credit and Investmt. banking analytics domain – an in depth perspe

Focus currently around "pitch-book" preparation, equity and credit research and project finance ana

From cheap labour to Knowledge Process Offshoring ("KPO")

Scope of Analytics Offshoring ("KPO") in the FS sector

- **M&A and Equity Capital Markets analytics –** target valuation modeling, due diligence check-list support, cost synergy and consolidation modeling, book-running algorithms development and maintenance and new product pricing support (primarily, convertibles and option-product pricing support)
- **Equity research analytics –** most parts of product update and maintenance, "stand alone" thematic report research and preparation and new company coverage initiation
- **Credit research, structured and project finance analytics –** ratings reviews modeling, industry research, project DCF, accounting and tax modeling support and loan pricing analytics (typically, EL and LGD estimation and ROEE pricing support)
- **Securitization program analytics –** pool credit quality analysis, performance analysis (dynamic and attributive analysis), historic data analysis and default probability and severance analysis
- **Proposal and "pitch book" preparation –** industry and competitor analysis, comparable company data from standard data sources and presentation decks for bankers and equity analysts

Key observations:

1. A very popular domain –10 major service providers and 3 captive entities support this domain. Almost every major Wall Street firm and several large European corporate banks have commenced activities in this area – captive and/or third party
2. Started off primarily as valuation modeling and presentation support activity centers about 18 months ago, have since grown in size and sophistication rapidly
3. Ideally suited to Australian financial services and ICT skill sets – given our strong domain knowledge base

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Actuarial, Insurance and Funds mgmt. analytics domain – an in depth perspect

Focus currently around analytics support for Experience analysis, DFA modeling and Statutory repo

From cheap labour to Knowledge Process Offshoring ("KPO")

Scope of Analytics Offshoring ("KPO") in the FS sector

- **Life and General Insurance product-driven analytics –** claims modeling and experience analysis (size and trend analysis, distribution fitting and goodness of fit reviews) as well as claims management and underwriting reviews
- **Financial Analysis and Reporting analytics –** Dynamic Financial Analysis modeling (basic stochastic analysis and simulations), embedded and appraisal values support, product profitability reviews and expense ratio analysis through value chain modeling
- **Managed funds product-driven analytics –** Funds performance analysis and benchmarking reviews (primarily multiple regression and correlation analyses), hedge fund performance analytics (data aggregation, style vs returns calcs…etc)
- **Marketing information systems related analytics –** customer segmentation, churn analysis, channel and agent profitability reviews and other related data-mining exercises

Key observations:

1. Extremely limited service provider capabilities – only 1 service provider, Gecis Analytics, is able to demonstrate tangible experience in this area
2. Captives such as Aviva, Franklin Templeton and Prudential are attempting to actively train actuaries on their own to support these services
3. Perfectly suited to Australian skillset and experience levels

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Strategic Financial Management analytics domain – an in depth perspective

Focus currently around Activity Based Costing, Risk Mgmt. support and Capital Mgmt. support

From cheap labour to Knowledge Process Offshoring ("KPO")

Scope of Analytics Offshoring ("KPO") in the FS sector

- **Management accounting analytics –** monthly and half-yearly budgeting support, Activity Based Costing support for detailed value chain analysis, product and business group profitability reviews
- **Shareholder value and risk analytics –** Economic equity and risk modeling such as VAR curves construction and updating, simulation and other stochastic support
- **Financial accounting and compliance support –** basic activities such as US GAAP translation, SOX 404 statement support, IFRS-conversions of existing financial data as well as periodic reports and controlled entity consolidations

Key observations:

1. Rapidly emerging area – only 4 service providers and a few captives have tangible capabilities but all of them are looking to expand FTE numbers quite seriously
2. Ideally suited to Australian skill-sets and capabilities especially given the quality and rigour of our accounting programs

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Strategic Business Intelligence analytics domain – an in depth perspective

Focus currently around Industry and competitor analysis as well as Presentation support

From cheap labour to Knowledge Process Offshoring ("KPO")

Scope of Analytics Offshoring ("KPO") in the FS sector

- **Strategy development analytics –** comparable company reviews, industry trend analysis as well as Total Shareholder Return calculations and reviews
- **Strategic transaction support –** M&A and event driven research support, valuation analysis, competitor and comparable company analysis
- **Presentation and report production support –** presentation charts and graphics, strategic reports lay-out design, manitenance and other publishing support

Key observations:

1. Very popular domain – almost all major service providers are active in this domain
2. Almost all major strategy consulting firms (McKinsey, BCG….etal) have gone down this path either through captive knowledge centers or engaging third party analytics service providers
3. Becoming rapidly commoditized – so, probably does not suit Australian skill-sets and capabilities in the long run

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Structural alternatives in Analytics Offshoring

Currently significant numbers of captive analytics outfits but eventually, third party structures wi

From captive single location to "multi-location" third party specialists

Structures followed by global banks and insurers

Captive single-location Analytics Outsourcers – Several captive analytics outfits have emerged in the last 18mths to 2 year period, most of them set up as global research centres to support primarily the US and UK operations of Wall Street firms and Strategy Consulting firms

Key examples- McKinsey's Knowledge-centre, Morgan Stanley's Advantage Global Services, JP Morgan's Global Research Centre and Global Credit Analysis Unit, Lehman Brothers' Financial Control and Operations centre, and Franklin Templeton's Global Data Analytics centre

Third party multi-location Analytics specialists– this structure will prevail ultimately. More and more of third party analytics specialists are becoming increasingly sophisticated and are looking to develop strong domain capabilities to match the captives. They are looking to actively expand their delivery centres, globally to countries outside of their current delivery locations mainly India. **Ideally, suited to the Australia story !!**
Key examples – Gecis Global, Inductis, WNS, Office Tiger, Aranca, Irevna, Sutherland group and Evalueserve

Key observations:

1. Like in the previous two waves – IT Offshoring and BPO, the third party service providers will ultimately dominate the analytics marketplace and therefore, are the most important group from an Australian perspective
2. They are also the group that are actively looking to diversify their revenue and delivery centers and so, could be significant strategic partners for Australia
3. ***The key question is – How do we demonstrate Australia's advantages to them ?***

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Gecis Global Analytics – an in-depth perspective

Largest, well diversified and rapidly emerging financial services Analytics service provider

Transitioned from captive to "multi-location" third party structure

Gecis Global, Analytics unit

Company background – originally, a captive entity of GE Capital and was called GE Capital International Services. Has successfully made the transition from a low end captive service provider to a leading "third party" service provider with special focus on Analytics activities. Has adopted the multi-location delivery model and in addition to India has operations out of China, South Africa, Eastern Europe and Latin America and is looking to diversify, further

Size and Domain expertise – Overall 16,000 FTEs out of which about ***1,200 FTEs*** are dedicated to delivering Analytics functions. Significant domain expertise in corporate credit, structured and project finance analytics, retail banking analytics and financial management analytics. Looking to aggressively expand actuarial and insurance analytics.

Typical Analytics FTE qualifications– MBAs with Engineering undergrad/ Chartered Accountants/ Chartered Financial Analysts / ACMA / Masters in Statistics / PhDs in mathematics / Fellow and Associates of the Actuarial Institute of India

Quality and Technology management strategies – strong Six Sigma driven quality management methodologies (DMAIC / DMADV) with nearly 350 Master Black Belts and Black Belts. Robust BCP methodology including full fledged alternate delivery centers and geo-political contingency plans for US and India

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Inductis Inc. – an in-depth perspective

A "start up" retail banking and data analytics focused financial services Analytics service provider

VC-backed retail banking and data analytics "start up"

Inductis Inc.

Company background – Company was founded in June 2000 by ex-Mitchell Madison consultants and is a venture capital backed organization. HQ out of New York, they have one offshore analytics delivery centre based out of Gurgaon (Delhi) in India. Looking to diversify delivery centers to other analytics destinations.

Size and Domain expertise – Overall 150 FTEs delivering analytics functions. Significant domain expertise in retail banking customer data mining and analysis especially in the areas of predictive models relating to campaign response, risk underwriting, customer segmentation and retention analysis for credit cards and small business customers

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Typical Analytics FTE qualifications– MBAs with Engineering undergrad/ Masters in Statistics/ PhDs in Applied Mathematics and other quantiative disciplines

Quality and Technology management strategies – company has developed a proprietary quality and project management methodology "DECIDE RIGHT" to ensure that there is a clearly auditable approach towards analytics delivery. BCP via contractual dependence on AT&T to resume work in alternative locations.

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The "coal face" of Analytics Offshoring – offshored credit risk analysts

American Express's Global Corporate Card ("GCC") portfolio risk mgmt.

Fundamentally, a captive offshored risk analytics group

Amex GCC risk mgmt. analytics

Position background – Basically, credit analysts located at offshored analytics centers to work with Global Corporate Card alliance partners based primarily in the US,UK and Australian geographies, to develop and maintain risk incidence and monitoring frameworks

Expertise demanded – minimum 5 years risk analysis experience, "hands on" knowledge of CreditMetrics and KMV Portfolio Monitor, strong project management experience, computer skills involving SAS, SPSS, Excel and Powerpoint and good report writing skills

Typical qualifications needed– MBAs from one of the IIMs with Engineering undergrad from IITs. Chartered Accountants/ Masters in Statistics / PhDs in mathematics would also be "seriously considered"

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The "coal face" of Analytics Offshoring – offshored investment banking analysts

JP Morgan Chase Centralized Research Group ("CRG") senior analysts and junior analysts

Fundamentally, a captive offshored M&A senior analysts' group

JP Morgan Chase CRG supporting global investment banking deals

Position background – CRG established to support JP Morgan's investment banking and M&A deal makers, globally, with research, analysis and insight relating to the origination and execution of deals globally. CRG team members will also participate actively in the creation and maintenance of M&A pitch-books and deal origination ideas, globally.

Expertise demanded – 3 to 5 years experience in research,invesmtent advisory or consulting organisations. "Hands on" sectoral knowledge of atleast one of Technology, Banking and Insurance, Oil and Gas, Mining and Metallurgy, Chemicals and Healthcare. Need very strong expertise in finance, accounting and DCF valuations and also possess strong verbal and written communications skills.

Typical qualifications needed– MBAs from one of the IIMs preferably with Engineering undergrad from IITs / Chartered Accountants/ Associate or Fellows of the Actuarial Institute.

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The "coal face" of Analytics Offshoring – offshored "third party" credit research

Progeon's credit research analytics group – senior delivery managers to support fixed income research

Fundamentally, a "third party" offshored credit research group

Progeon's *(an Infosys subsidiary)* Credit Research Analytics group

Position background – company has recently established a large third party KPO to provide credit research related analytics activities for a leading multi-national institutional and investment banking client. Needs senior delivery managers with strong credit research experience to cater to its requirements.

Expertise demanded – 10 to 15 years of international credit analysis and/or research experience within financial research organisations or financial services analytics outfits. Should be able to manage teams of 25 to 30 senior and junior credit analysts supporting "third party" clients and have strong project management skills.

Typical qualifications needed– MBAs from one of the IIMs preferably with Engineering undergrad from IITs / MBAs from top-tier US and UK business schools/ other relevant qualifications such as PhD in finance, economics or accounting.

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The "coal face" of Analytics Offshoring –"third party" market research analytics

Gecis Global analytics – senior strategic marketing analysts for global commercial finance activities

Fundamentally, a "third party" strategic marketing analytics team

Gecis Global, Analytics division

Position background – Company needs senior marketing analysts to support strategic marketing analyses for commercial finance activities. Emphasis is on market, customer segmentation and competitor assessment based on secondary research from external market and industry sources. Typically analysis would be used by global commercial finance client-teams to support go-to-market strategy and growth initiatives, globally.

Expertise demanded – atleast 5 years experience in profit pool methodologies, defining and sizing markets, customer segmentation and other related analytics methodologies. Significant portion of work experience must be in relation to supporting commercial finance, corporate and business banking or leasing / hire-purchase businesses.

Typical qualifications needed– MBAs from one of the IIMs or top-tier US and UK business schools with either a finance or marketing major

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The "coal face" of Analytics Offshoring – global data warehousing directors

Franklin Templeton Investments – offshore directors to manage and mine global data warehouses

Fundamentally, an offshore data mining and CRM team

Franklin Templeton Investments, Global Data Warehouse Analytics

Position background – Company needs offshore directors to support and manage their global data warehouses located in the US and 60 other offices, globally . Mandate of the team is to extract, validate, analyse, quantify and present data-mining "hypotheses" for company's customer and marketing data globally.

Expertise demanded – atleast 10 years of experience in a senior data analytics role within a mutual fund or pension fund environment. Proficiency of SPSS, SAS as well as "hands on" experience owning and managing large databases (800+ Gigabytes). Hands on experience in the managed funds or pension sectors as well as ability to manage offshore teams across different time zones.

Typical qualifications needed– PhDs / Masters in Statistics or similar quantitative research disciplines

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2. The Strategic case for Australia as a leading financial services Analytics hub

Key Limitations experienced by end-client and service providers

Limitations centre around lack of domain maturity, skill-set availability, multi-lingual skills and

From cheap labour to Knowledge Process Offshoring ("KPO")

Key inhibiting factors limiting the growth of Analytics Offshoring

- **Domain expertise –** several delivery locations have had government-owned and controlled financial markets and financial services industries, till recently. Therefore, they *currently* lack the domain maturity and domain expertise that is required to fully support several analytics domains
- **Skill-set availability –** several current delivery locations are experiencing critical skill-set shortages due to a combination of booming domestic banking and insurance industries and historical lack of domain maturity *eg. there are currently only 200 odd life actuaries in the whole of India as opposed to about 2000 odd in Australia !!*
- **Multi-lingual skillsets –** current delivery locations have serious limitations to support both continental European and North Asian geographies due to lack of strong multi-lingual skill-sets. They also lack a vibrant international student culture that can act as a building block for this capability !!
- **Business Continuity Planning and Infrastructure concerns –** BCP methodologies are forcing service providers and clients to diversify delivery locations with more reliable infrastructures. Regulators are also starting to take cognizance of "location specific" aggregation of risks associated with offshoring especially analytics offshoring activities eg. FSA of UK document released in May after the India visit

Key observations:

1. End-clients will force service providers to diversify analytics delivery locations to other suitably qualified and medium-cost destinations, in the immediate 18mths to 2 year time horizon
2. Analytics service providers, themselves, will start creating complementary hubs based around skill-sets and infrastructural advantages not available in current delivery locations based primarily in various Indian cities

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In conclusion, the Analytics Offshoring opportunity is needs action NOW

Focus on showcasing Australia's strong ICT and FS skill-sets to end clients and service providers

An innovative path for Australia as an ICT and Financial Services hub

Action points NOW

- **Domain expertise – showcase our strong financial services industry maturity to end-clients and analytics service providers, alike**
- **Skill-set quality and availability – demonstrate in a tangible manner our current advantages in this area by highlighting specific areas of expertise for example, life insurance actuaries**
- **Multi-lingual skillsets – demonstrate our solid native-fluency skill-set in European and Asian languages**
- **BCP and infrastructure-driven productivity advantages – promote strongly our infrastructure-driven productivity advantages *(multi-factor rather than labour cost productivity)***

Key observations:

1. Rough estimates of this Analytics Offshoring opportunity are between $1billion and $12billion, globally, by the year 2010 – bit of a "Texan Farm" range ☺
2. Analytics Offshoring ("KPO") allows Australia to re-position itself globally as an innovative ICT and Financial Services hub. The role of the government (state and federal) should NOT be under-estimated in this enormous task !!
3. Australia needs a strong and committed action plan with co-operation from both the ICT and the Financial Services industry to drive this theme forward

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