Where all & What all Actuaries do in outsourcing/Pensions?

4th IAI Connect, 2015

August 22th, 2015

Karl Residency, Mumbai

Agenda

- Summary
  - Where all
  - What All
- Profiling of Outsourcing units
- Companies
- Services
  - Life
  - Non –Life
  - Pensions
  - Marketing and Acquisition Analytics
  - Actuarial Data and System Management
- Working in Outsourced Units

Summary

Where all

- Started in 1999 with just two units and about 50 actuarial employees
- 1,350+ actuarial professionals working in offshore actuarial centers
- More than 2 dozens companies – Captives, Third Party service providers, ITES companies, Consultants
- Location – Gurgaon /Noida, Bengaluru, Mumbai, Chennai, Hyderabad and Pune
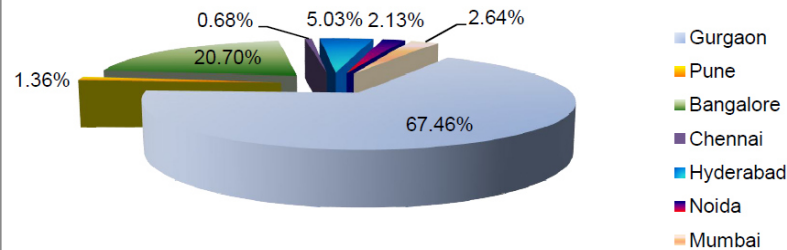
What all

- Across Life, P&C, Health and Pensions supporting USA, Canada, Bermuda, UK & other European countries, Middle East and East Asia, Australia and Japan
- Complexity of work depend on the maturity level (age of the relationship) as well as type of relationship (captive, third party, BOT)
- Almost every task that a direct Insurance/Reinsurance company does except final reporting/signing off
- Significant portion - data related and repetitive task (e.g. running models and report generations), system conversions
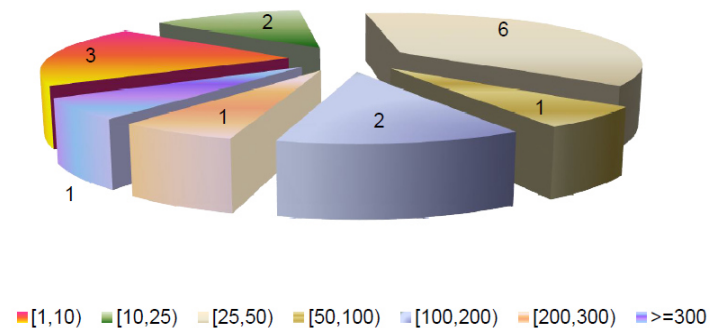
Information and Estimates based on (1) 'Off-shored actuarial work in India – A Survey Report' done by the Institute of Actuaries of India published on Nov 28, 2012 and (2) other company websites
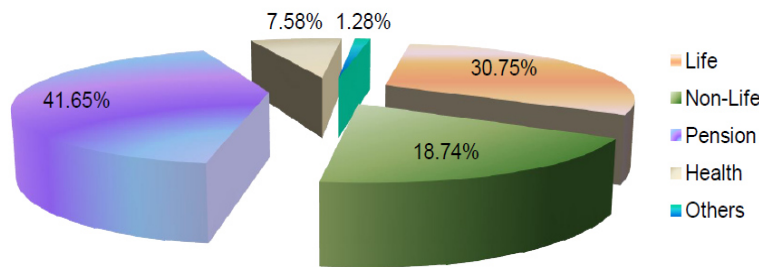
Profiling of Outsourcing units
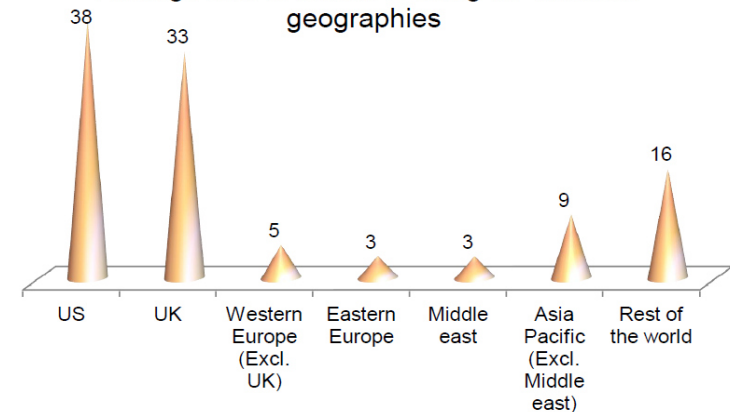
Employee distribution in India-Percentages

- Gurgaon — 67.46%
- Pune — 1.36%
- Bangalore — 20.70%
- Chennai — 0.68%
- Hyderabad — 5.03%
- Noida — 2.13%
- Mumbai — 2.64%

Units with employee count falling in different ranges

[1,10) — 3
[10,25) — 2
[25,50) — 1
[50,100) — 1
[100,200) — 2
[200,300) — 6
>=300 — 1

Distribution of off-shored work in India

- Life — 30.75%
- Non-Life — 18.74%
- Pension — 41.65%
- Health — 7.58%
- Others — 1.28%

Average size of teams working for different geographies

- US — 38
- UK — 33
- Western Europe (Excl. UK) — 5
- Eastern Europe — 3
- Middle east — 3
- Asia Pacific (Excl. Middle east) — 9
- Rest of the world — 16

Information and Estimates based on (1) 'Off-shored actuarial work in India – A Survey Report' done by the Institute of Actuaries of India published on Nov 28, 2012 and (2) other company websites

Companies

1	AIG Analytics & Services Pvt. Ltd.	18	McKinsey Knowledge Center
2	Allianz Cornhill Information Services Pvt. Ltd.	19	Mercer GOSS
3	Aon Specialist Services Pvt. Ltd.	20	MetLife GOSC
4	Arrowpoint Technologies Pvt. Ltd.	21	Milliman India Pvt. Ltd.
5	AXA Business Services Pvt. Ltd.	22	Prudential Process Management Services India Pvt. Ltd.
6	Deloitte Consulting India Pvt. Ltd.	23	Quantium
7	Ernst & Young GSS	24	RR Donnelley
8	EXL Service Holdings, Inc.	25	RSA Actuarial Services Pvt. Ltd.
9	Genpact	26	Sutherland Global Services
10	HCL Technologies	27	Swiss Re Shared Services (India) Ltd.
11	HSBC Global Resourcing	28	Tata Consultancy Services
12	iCarmaa	29	Torus Business Solutions Pvt. Ltd.
13	iGate (Patni Computers Systems)	30	Tower Watson India
14	Infosys BPO	31	WNS Global Services Pvt. Ltd.
15	IREVNA (CRISIL)	32	Xceedance Infotech
16	JLT India Pvt. Ltd. /Paternsoter India Pvt. Ltd.	33	Xchanging
17	KPMG Global Services	34	XL India Business Services Pvt. Ltd.

Life

Product Development and Pricing Support (mainly for Group schemes)

- Premium rate development, filing preparation and market assessment
- Analysis of in-force business, Stress testing
- Analysis of Change (in assumptions)– impact on key variables, including present value of future profit, margins, asset share and cost of guarantees

Experience analysis

- Lapse/Persistency/Mortality/Morbidity analysis
- With-profit Products Surrender / Transfer Value review

Reserving/Valuation (GAAP) and Financial Reporting

- Valuation of individual businesses, involving establishment of assumptions, bonus rates finalization, determination of reserves, solvency margin and reporting
- Support the preparation of statutory, GAAP and IFRS financial statements

Modeling and other support

- Prophet/Moses/MG-alpha/Axis modeling , conversions, migration from Excel
- Tool development & maintenance - to calculate surrender/ transfer/ estimated maturity values, Market Value Reduction in line with current market conditions

Non-Life

Product Development, Underwriting and Pricing support

- Portfolio review and profitability analysis for Personal and Commercial lines
- Pricing and Rate making Support - GLMs, Catastrophe Risk Modeling
- Predictive modelling for customer behavior, life time value and effectiveness of distribution channel
- Reinsurance pricing analysis

Reserving and Capital Modeling

- Reserve Evaluation - validating key assumptions, Loss and Expense projections
- Reserve Variability – explaining potential variability and its implications, distribution of possible losses using stochastic models
- key insights into reinsurance requirements, Bad Debt analysis
- Capital allocation among LOBs and ALMs

Reporting

- Reports for executives, regulators, rating agencies and board members

Experience analysis

Pensions

Defined Benefit Pension Valuation

- Match of prior actuary's pension valuation results
- Conduct experience studies and assumptions analysis
- End to end pension valuations for single and multi-employer plans
- Pension expense budgeting and disclosures
- Funding and expense projections
- Forecast analysis using pre-set assumptions and/or sensitivity scenarios
- Asset Liability modeling

Pension Quote/Buy out pricing

Pension Administration and Business Planning

- Pension plan participant data management
- Estimated or final benefit calculations for plan participants

Other projects

- Executive compensation and HCE (highly compensated employee) analysis
- Plan Design, Plan Termination or other special plan events
- Support to Defined Contribution schemes
- Pension Systems Conversions from Legacy Software

Actuarial Systems Support

Data Management

- Preparation of reference data or design specifications for data warehouse changes, Validation of data warehouse changes
- Grouping of data files
- Generation of assumption tables, etc.

Model Development

- Consolidation of complex and inefficient legacy models into a standard model
- Modeling of newly launched products or regulatory changes etc.
- Model migration across versions of actuarial software

Automation and Optimization:

- Optimization of run time through suitable model alterations
- Deletion of redundant variables and indicator expressions
- Automation of the processes (result extractions, run log checks, basis comparison, etc.)

Regular Maintenance and Quality Control

- Implementation of model release management
- Unit / System and Regression testing
- Standardized documentation complying with the Technical Actuarial Standards Modeling, etc.

Marketing and Claims Analytics

Acquisition Analytics
- Customer Segmentation
- Market Sizing
- Pricing Strategy
- Marketing Scorecard
- Channel Optimization

Retention Analytics
- Retention Modelling
- Estimating Customers' Life Time Value
- Price Sensitivity Analysis
- Creating Profitability Versus Retention Matrix
- Cross-Sell / Up-Sell Strategy and Modelling

Claims Analytics
- Data Foundation Activities
- Fraud Detection
- Prioritization and Optimization of Subrogation Activities

Working in Outsourcing

Pros

- Global exposure (Products, Actuarial methodologies and practice, Companies, Cities, People, Culture)
- Global mobility, Onshore experience
- Exposure to Client and P&L management
- Growth opportunities – People management
- Cross functional learning, opportunity to work on multiple projects in a short span
- Project Management tools – Transitions, PMO, Risk Mitigation, Collaboration opportunity with support functions - IT , Quality/Six Sigma teams

Cons

- No direct access to other teams (e.g. underwriting, claims) critical for actuarial delivery
- Initially…less complex tasks…leading to incomplete knowledge of work. Involvement in decision - gradual
- Strict timelines and Quality requirement
- Dealing with Non Actuarial/Insurance leadership
- US/UK Shift timing
- Actuarial Study?

Thank You!

Prabhakar

Sutherland Global Services

Cell: +91-887-963-1388

E-mail: prabhakar.veer@sutherlandglobal.com