Strategic Workforce Analytics Unpacked

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Agenda

1. A View of Analytics
2. Strategic Workforce Planning
4. Closing Remarks
A View of Analytics
A View of Analytics

Source and Optimise Data
Skills, tools and experience to collate, match, validate and transform data into an optimal format for analysis and accurate prediction from a variety of sources

Analyse and Interpret
Deductive – expert rule sets based on domain knowledge and experience
Inductive – Insights derived from experience and observable trends

Model and Predict
Forecast, optimise and model the future
Evolution of Analytical Maturity

Investment in Business Analytics

Data
Information
Knowledge
Insight and Foresight

Strategic Impact

Reporting
Query/Ad Hoc Exploration
Analytical Insight
Innovation

- Customer insights and statistics (e.g., counts, profiles, etc.)
- Marketing effectiveness

- Customer analysis
- Context and relevance KPIs
- “Slice and Dice” functionality

- Behavioral analytics
- Predictive analytics and modeling
- Customer attrition modeling
- Fraud detection and prevention

- Data mining and visualisation
- Real-time behavioral analytics
- Targeted marketing
- Offer management
- Price optimisation

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Strategic Workforce Planning
The Business Case for Strategic Workforce Planning

Organisations have increasingly been experiencing a business need for strategic planning solutions that can anticipate and proactively manage workforce gaps and align talent strategies.

**Projected Workforce Supply and Demand**

[Graph showing projected workforce supply and demand with a marked skilled labour gap]

**Increasing Need for**

- Proactive identification of upcoming talent gaps on granular levels
- Talent strategies that are aligned with projected gaps in recruiting, career management and succession planning
- Workforce analytics to evaluate internal and external workforce trends, associated risks, and business impact
- Targeted strategic workforce planning using contingent labor and other flexible workforce options
Align Supply and Demand With Strategy

Supply Projections
Visualize the organization down to the individual level and calculate "inflow" and "outflow" trends

Demand Projections
Incorporate macro economic data and drivers to project workforce demand for the organization

Planning & Modeling

Scenario Planning
Allows for "what if" planning

Internal
- HR
- Finance
- Operations
- Internal Benchmarks
- Pipeline

External
- Macro Economic Data
- Industry Specific
- Labor Market
- Benchmarks

Real Time Reporting
Monitoring
Iterative Data Generation
SWP Approach

- Define a business strategy
- Identify business drivers that link to the strategy
- Consider possible efficiencies, and impacts to productivity
- Consider all staff or just critical workforce segments
- Identify how many positions are available
- Model staff available
- Identify gaps
What is retention analytics?

Retention analytics measures the risk of voluntary attrition in your workforce down to the individual level.

Retention analytics is measured using both internal Human Resource (HR) and external market data, such as economic factors.

What are the organisational benefits?

Improved, Customisable, Timely Data
Retention analytics can enable organisations to identify:

- Who is at risk of attrition
- What the primary drivers of attrition are
- When the attrition is expected to occur
- The point at which attrition is expected to negatively impact the organisation
- The cost of attrition risk to the organisation

Proactive Decisions and Better Planning:
Retention analytics can enable organisations to better:

- Implement plans to retain critical talent
- Prevent excessive attrition costs
- Align talent strategy with business objectives
Supply Side Modelling: GLM’s

- Allow for various decrements or increments
- Preserve statistical significance (distributions, outliers, etc.)
- Highlight main characteristics driving observations
- Link employee profile to observations for analyses and projections
Supply Side Modelling: GLM Framework

GLM’s are a **flexible generalisation** of normal linear regression. The modelling allows for **non-normal error distributions** and relates dependant variables with explanatory variables with a **link function**.

**Normal Linear Regression:**

\[ y_i = X_i \beta + \epsilon_i \quad \text{for } i = 1, 2, \ldots, n \]

Where:

\[ y_i \sim N(\mu_i, \sigma^2) \quad \text{and} \quad \epsilon_i \sim N(0, \sigma^2) \]

**Generalized Linear Model:**

\[ g(\mu) = X \beta \]

Where:

- \( E[Y] = \mu \) for each \( y_i \) and \( \mu_i \) in \( Y \) and \( \mu \)
- \( y_i \) is distributed along the exponential family (typically Poisson)
- \( g(.) \) is a monatomic, differentiable function (link function)
- \( X \) is a matrix of independent covariates that characterise employees
- \( \beta \) is a vector of unknown parameters estimated by MLE
Managing the Workforce

• Current trends indicate that the majority of twenty-something’s (Generation Y or millennials) change jobs every 18 months

• The cost of voluntary turnover is often not well understood; the indirect costs can vary from 50% to 150% of the position’s annual compensation

• The manager’s performance score is often a leading variable in predicting whether an employee with leave the firm in the upcoming year

• More money is cited as only the third main reason why employees quit; the top reasons are (i) career advancement and (ii) better work/life balance

Attrition Findings

Distribution of exits:
- 5% from Death
- 7.5% from Dismissals
- 80% from Resignations
- 7.5% from Retirements

- Years of service is a strong predictor of future resignation

- Males experience heavier decrement rates for dismissal and resignation. In particular, they experience:
  - 18% higher rate of dismissal
  - 26% higher rate of resignation

- Managerial levels of staff have lower levels of resignations than other staff
Attrition Findings

• Race is the second strongest predictor of resignations

• High levels of absenteeism has been found to be an indicator of probable resignation. Sick level vs. Training

• Performance is not a significant factor
Closing Remarks
Closing Remarks

1. Retention analytics can provide a proactive approach to identifying and addressing retention issues

2. Strategic workforce planning connects HR strategy to business strategy and ensures that the “right people are in the right place at the right time and at the right cost”

3. Ensuring alignment in pay, performance and productivity can enhance employee engagement and promote organisational effectiveness
Thank You

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