

تحديات

كيف نستخدم تقنيات ذكاء الاعمال لدعم اتخاذ قرارات الموارد البشرية

CHALLENGES

HOW DO BUSINESSES MAKE EFFICIENT HR
STRATEGIC DECISIONS WITH BUSINESS
INTELLIGENCE?

ALAA HADY
MANAGING PARTNER
ADVANCED MANAGEMENT
SOLUTIONS

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Agenda

- ما هي الصعوبات التي تواجهها في جمع مؤشرات الموارد البشرية؟

- هل توجد جميع بيانات الموارد البشرية و التدريب في نظام واحد ام عدة أنظمة؟

- كيف نستعمل تقنيات الذكاء الصناعي في رفع اداء (عملية توظيف أفضل الكفاءات)؟

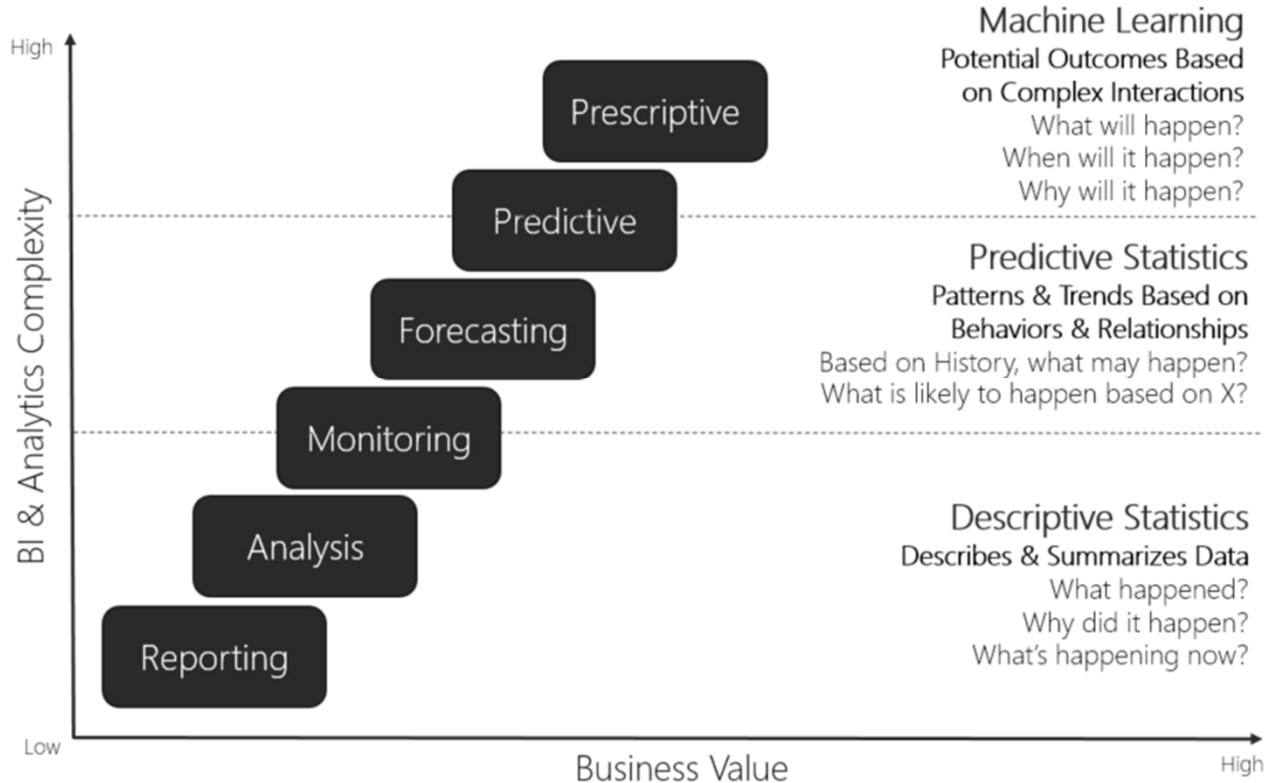
- كيف نستخدم ادوات ذكاء الاعمال في معرفة اسباب التسرب الوظيفي؟

التحليل الذكي للأعمال Business Intelligence

تحليل الماضي وتحسين المستقبل

وضع أطر لإدارة الأداء لتحديد المؤشرات
الرئيسية وتتبعها وتوفير التحليل الذكي
للأعمال.

Maturity Model





HR Dashboard



Interview
Analysis



Employee
turnover analysis

HR Metrics



Recruitment



Engagement and Retention



Employee Value & Performance

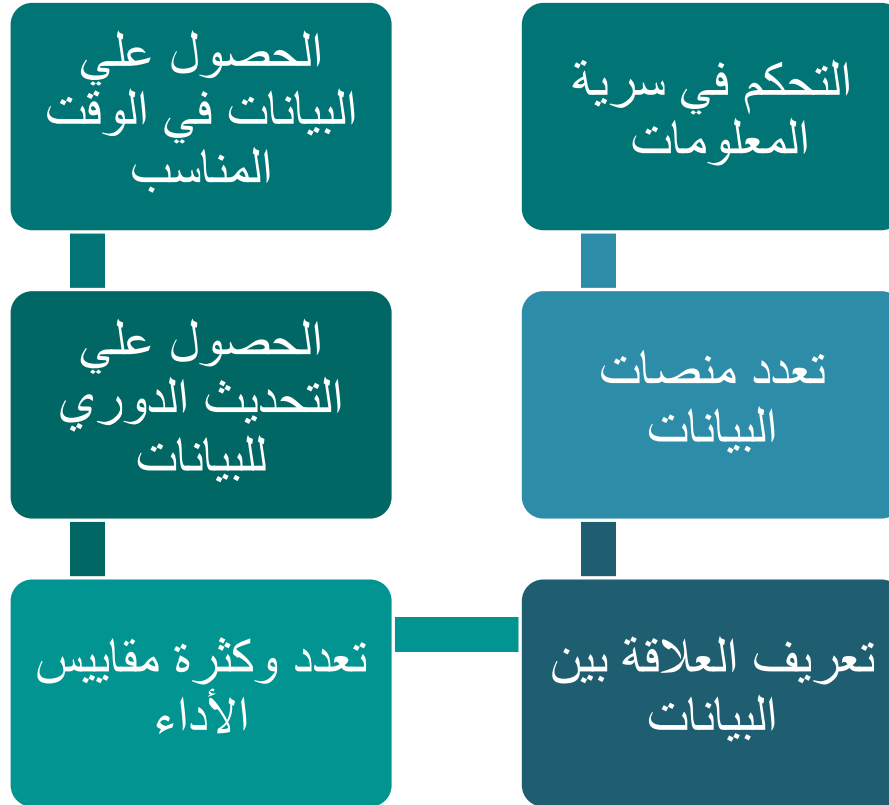


Training and Development

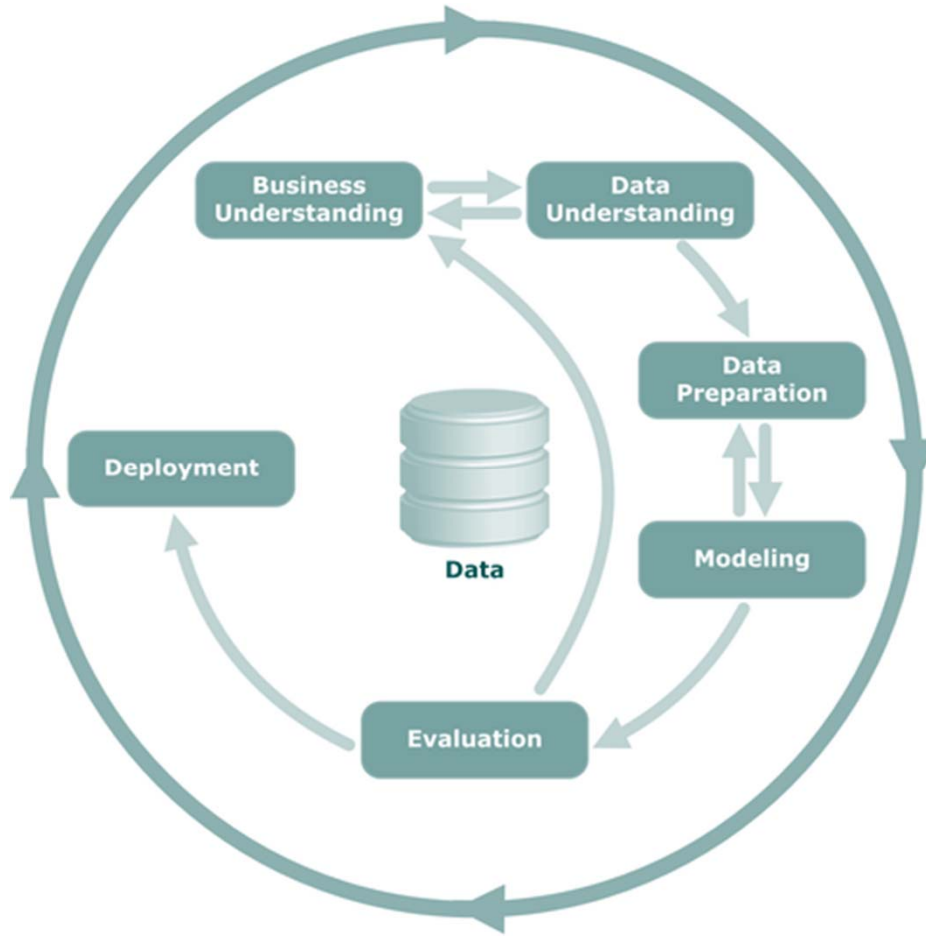


HR Service & Software

تحديات تحليل وتنقية وعرض البيانات



Data Analysis



Data integration

69% of companies are integrating data to build a People Analytics database (Bersin, 2017)

87% of front runners report high data quality (NTM, 2016)

31% of organizations report poor data quality as the biggest data challenge to conduct analytics (NTM, 2016)

77% of organizations report dispersed data across multiple HR systems as their main challenge to analytics (NTM, 2016)

Employee Analysis

Employee Count

374

Minimum Salary

0

Average Salary

43K

Maximum Salary

128K

Avg Yrs of Service

17

Employee Pay Status

- Active
- Paid Leave of Absence
- Retired w/ Benefits
- Terminated
- Terminated, Last Check

Employee Pay Status

- Full-time Regular
- Full-time Temporary
- Part-time Regular

Job Type Code

- Search
- Account Executive
 - Accountant
 - Accounting Manager
 - Accounts Payable Cle...
 - Accounts Receivable ...
 - Admin Clerk
 - Administrative Assist...
 - Application Consultant
 - Application Senior C...
 - Benefits Specialist
 - Buyer
 - Carpenter
 - Clerk

Age Group

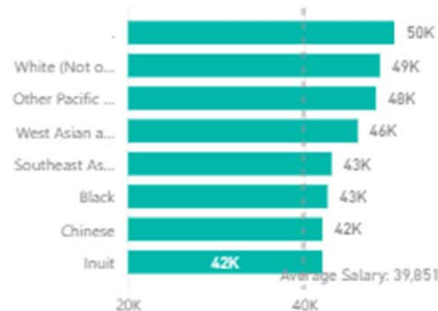
Age Group ● <20 ● 20 to 29 ● 30 to 39 ● 40 to 49 ● 50+



Gender



Ethnic Code

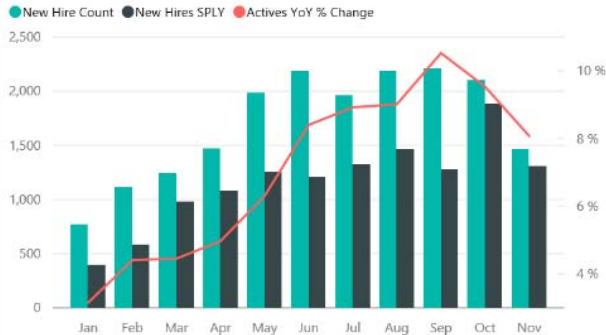


| Home Business Unit | Home Business Unit Desc | Employee Name | Employee Pay Status Desc | Employment Status Desc | Age | Annual Salary | Avg Years of Service | |
|--------------------|-------------------------|--------------------|--------------------------|------------------------|-------|-----------------|----------------------|-----------|
| 330 | Stockton Mfg Facility | Coaltrain, John P. | Active | Full-time Regular | 0.00 | 26,312 | 19 | |
| 330 | Stockton Mfg Facility | Edwards, Peter | Active | Full-time Regular | 0.00 | 42,122 | 17 | |
| 330 | Stockton Mfg Facility | Esperanza, Jauquin | Active | Full-time Regular | 0.00 | 40,500 | 17 | |
| 330 | Stockton Mfg Facility | Gonzales, Kim | Active | Full-time Regular | 35.00 | 36,855 | 20 | |
| 330 | Stockton Mfg Facility | Harris, Gavin | Active | Full-time Regular | 40.00 | 38,660 | 22 | |
| 330 | Stockton Mfg Facility | Harrison, Anita | Active | Full-time Regular | 0.00 | 37,800 | 18 | |
| 330 | Stockton Mfg Facility | Kramer, Helen | Active | Full-time Regular | 0.00 | 38,000 | 17 | |
| 330 | Stockton Mfg Facility | Lee, Brandon | Active | Full-time Regular | 0.00 | 28,808 | 22 | |
| 330 | Stockton Mfg Facility | Parsons, Marc | Active | Full-time Regular | 0.00 | 40,850 | 18 | |
| 330 | Stockton Mfg Facility | Phillips, Michelle | Active | Full-time Regular | 50.00 | 40,750 | 19 | |
| 330 | Stockton Mfg Facility | Richards, Jason | Active | Full-time Regular | 0.00 | 41,355 | 20 | |
| 330 | Stockton Mfg Facility | Sarano, Anthony | Active | Full-time Regular | 0.00 | 40,000 | 17 | |
| Total | | | | | | 4,913.00 | 16,141,602 | 17 |

Ask a question about your data

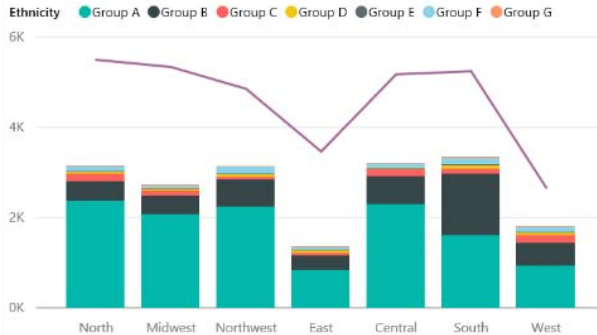
New Hire Count, New Hires Same Period Last Year, Actives YoY % Change

BY MONTH



New Hire Count, Active Employee Count

BY REGION, ETHNICITY



New Hires

LAST 6 MONTHS OF 2014

10K

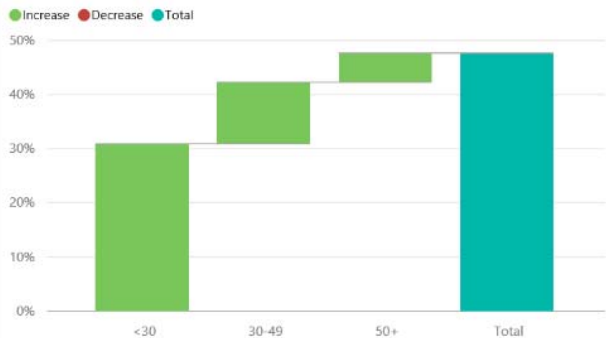
New Hire Count

BY GENDER



Bad Hires as % of Actives

BY AGE GROUP



Bad Hires (<60 Days of Employment)

BY REGION, ETHNICITY



Active Employee Count

BY AGE GROUP



Active Employee Count

BY REGION



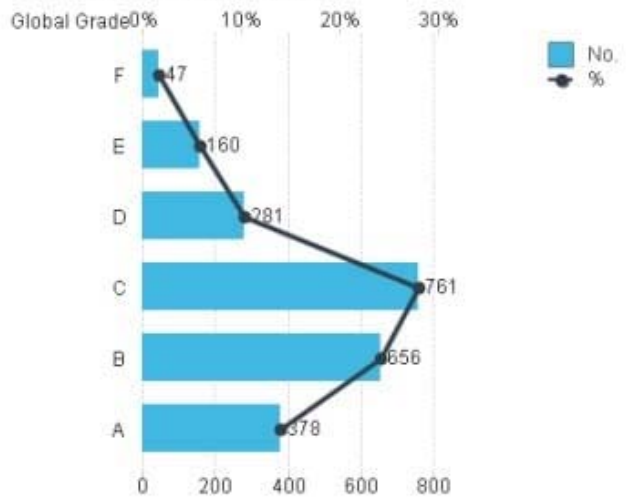
Dashboard

Current Year View 2015

2014 | **2015** | 2016 |
 Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec

[Info] [Checkmark] [Help] [Print]

Headcount (active) by Grade



ARC by Grade



Currently viewed headcount **2283**

Talent and CEM

| | | | |
|------------------|--------------|-----------------------------|------------|
| Top Talent | 284 | Global Off Track Year Start | 352 |
| Top Talent % | 12.4% | Reduction | 66 |
| Top Performers | 697 | Global Off track YTD | 286 |
| Top Performers % | 30.5% | | |

KPI Overview

| Leavers | | Joiners | | Promotions | |
|---------------|--------------|---------------|--------------|-----------------|-----------------|
| 424 | | 447 | | 371 | 21.1% |
| A Grade Hires | 179 | College Hires | 158 | Av Cost of Hire | £6196.20 |
| | 40.0% | | 35.3% | Cost of Hire % | 13.4% |

Leavers

| | | | | | |
|---------------|------------|--------------|----------------|------------|-------------|
| Regretted | 130 | 5.7% | Top Talent | 41 | 1.8% |
| Non Regretted | 294 | 12.9% | Top Performers | 82 | 3.6% |
| Total Leavers | 424 | 18.6% | Managed | 181 | 7.9% |

HR dashboard: Sickness & Absence

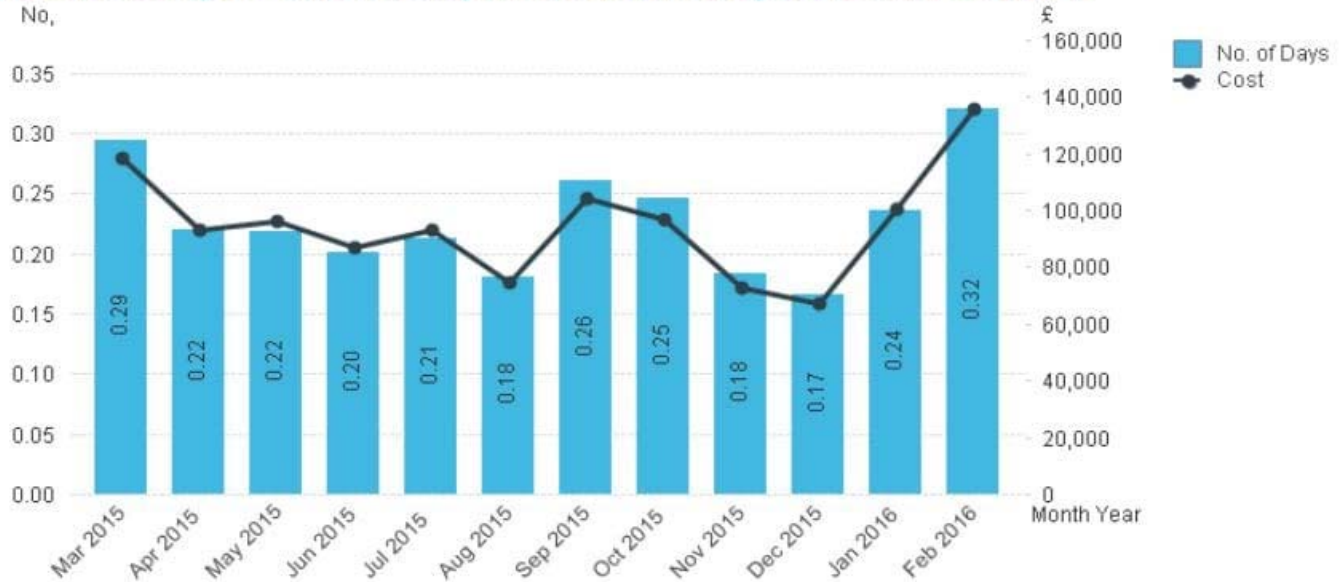
Viewing **Doctor's Appointments** **Maternity Leave** **Sabbatical** **Study Leave**
Maternity Appointments **Paternity Leave** **Sickness**

Year Analysis (Last 12 Mths) | Month Analysis - Feb

| | | | | |
|--------------------|-----------------------------|-------------------------|-------------------------------|-------------------------------|
| Lost Time % | Days/Total HeadCount | Cost of Absences | Cost of Sickness - MST | Cost of Sickness - LTS |
| 1.0% | 2.6 | £1,141,019 | £771,860 | £369,159 |

Rolling 12 M... Total Absen... Rolling 12 M... Absence Ho... No of Absen... Absence Det... Average abs...

Total Absence Days for Absence Description selected Divided by All Permanent HeadCount



HR dashboard: Talent 9 box grid

Leavers LastOpinion Talent (current) **Talent & CEM** Recruitment OnBoarder Sickness & Absence L

2015 **2016** Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

i ✓ ? P

New Talent Matrix

Talent Detail

CEM Progress

| | | | | |
|--------|--|--|--|--|
| High | Exceeds Expectations Average APR 1 during the last 3 years, Can include once a 2 | HL 11 0.1% | HM 348 4.4% | HH 700 8.8% |
| | Above Expectations Average APR 2 during the last 3 years, Can include once a 3 | | | |
| Medium | Meets Expectations Average APR 3 during the last 3 years Can include once a 2 or a 4 | ML 475 6.0% | MM 1971 24.8% | MH 1266 16.0% |
| | | | | |
| Low | Below Expectations Average APR 4 or 5 during the last 3 years, can include once a 3 | LL 139 1.8% | LM 210 2.6% | LH 51 0.64% |
| | | | | |
| | | Limited capacity, motivation or willingness to grow or ambition not demonstrated | Motivation and willingness to grow, capacity needs to be developed | Motivation, willingness and capacity to grow |
| | | D (Low) | C (Medium) | A, B (High) |

HR dashboard: Diversity



Home

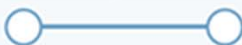


 Salary
Analysis

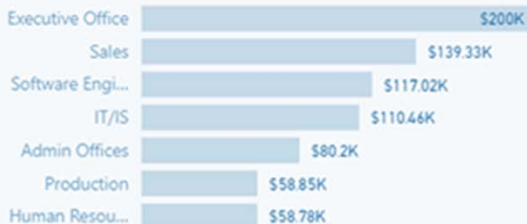
Date Range for Analysis

1/1/2017

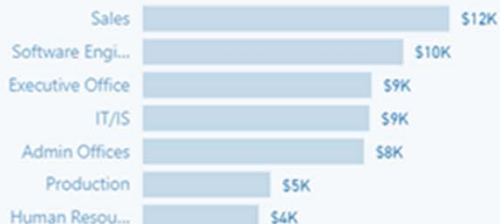
12/31/2019



Avg. Annual Salary by Department



Avg. Monthly Salary by Department



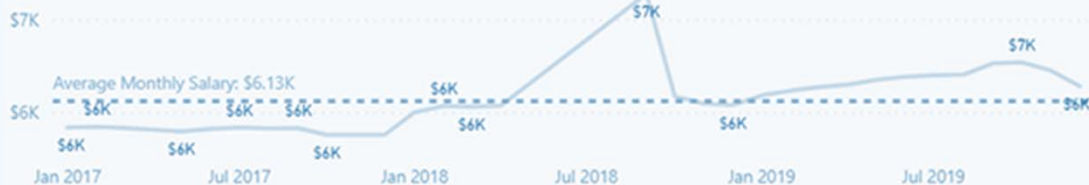
Total Salary Expenses

\$36.2M

Avg. Monthly Employee Salary

\$118K

Average Monthly Salary

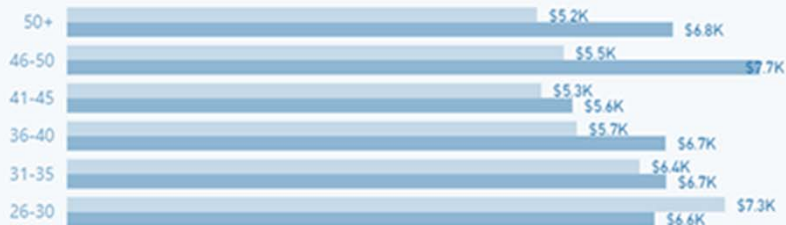


Avg. Salary per month by Gender



● Male ● Female

Avg. Salary per month by Age Range and Gender



● Female ● Male

| Department | Employee Name | Average Salary |
|------------|-----------------------|----------------|
| IT/IS | Ait Sidi, Karthikeyan | \$13,198 |
| Sales | Houlihan, Debra | \$12,320 |
| IT/IS | Roehrich, Bianca | \$12,188 |
| IT/IS | Favis, Donald | \$12,079 |
| Sales | Valentin, Jackie | \$12,079 |
| Sales | Riordan, Michael | \$11,888 |
| Sales | Onque, Jasmine | \$11,781 |
| Sales | Strong, Caitrin | \$11,687 |
| IT/IS | Turpin, Jumil | \$11,667 |
| Sales | Nguyen, Dheepa | \$11,657 |
| Sales | Digitale, Alfred | \$11,631 |
| Sales | Fraval, Maruk | \$11,615 |
| Sales | Gonzales, Ricardo | \$11,597 |
| Sales | Mullaney, Howard | \$11,595 |

Home



Historical & Trends

Open Positions



2017

2018

2019

Q1

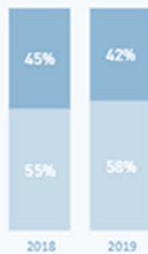
Q2

Q3

Q4

Headcount

● Female ● Male



Headcount

● 2018 ● 2019



Hires



Terminations

● Female ● Male



Terminations



Turnover



Business Intelligence

أشهر برامج التحليل الذكي للأعمال

SAP Business Intelligence

Oracle BI

Microsoft Power BI

MicroStrategy

Datapine

SAS Business Intelligence

Yellowfin BI

QlikSense

Zoho Analytics

Sisense

Looker

Clear Analytics

Tableau

Domo

IBM Cognos Analytics

تجربة عملية

Active Employees vs Separations

● Actives ● Actives SPLY ● Seps YoY % Change



Tap the arrows above on the left to drill down. To drill up, tap the up arrow.

Actives YoY Var by Region



Seps by SeparationReason



● Seps ● Seps SPLY ● Actives YoY % Change



Seps and Seps SPLY by Month



Seps and Seps SPLY by Month



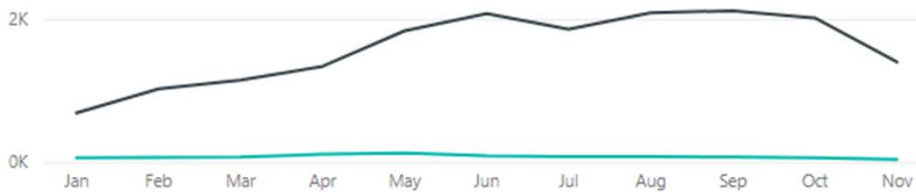
New Hires

● New Hires ● New Hires SPLY ● Actives YoY % Change



New Hires by Month and FPDesc

● Full-Time ● Part-Time



New Hires and Actives by Region and Ethnicity

Ethnicity ● Group A ● Group B ● Group C ● Group D ● Group E ● Group F ● Group G ● Actives

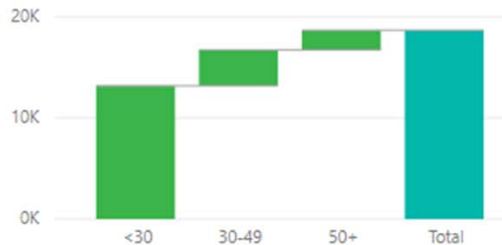


Tap the arrows above on the left to drill down. To drill up, tap the up arrow.

New Hires by Gender



● Increase ● Decrease ● Total



Bad Hires

Region

All

BadHires by Gender



BadHires by Region and Ethnicity

Ethnicity ● Group A ● Group B ● Group C ● Group D ● Group E ● Group F ● Group G



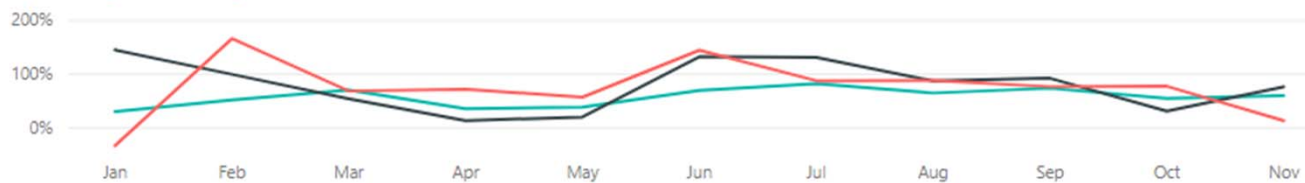
BadHire%ofActives by AgeGroup

Increase Decrease Total



Bad Hires YoY % Change by Month and AgeGroup

AgeGroup ● <30 ● 30-49 ● 50+



The L&D Dashboard

000' Lacs Mn

Business / Vertical

Program Name

Location

Dept

All

All

All

All

KEY COST METRICS

418

Total Trained

341

Unique Trained

439

Total Invited

3,526.8

Total Cost

10,248.1

Total Cost YTD

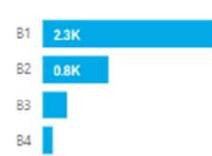
8,034

Cost/Emp

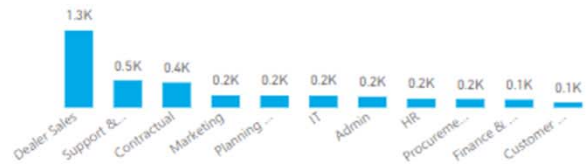
Total Cost by Type



Total Cost by Band



Total Cost by Dept



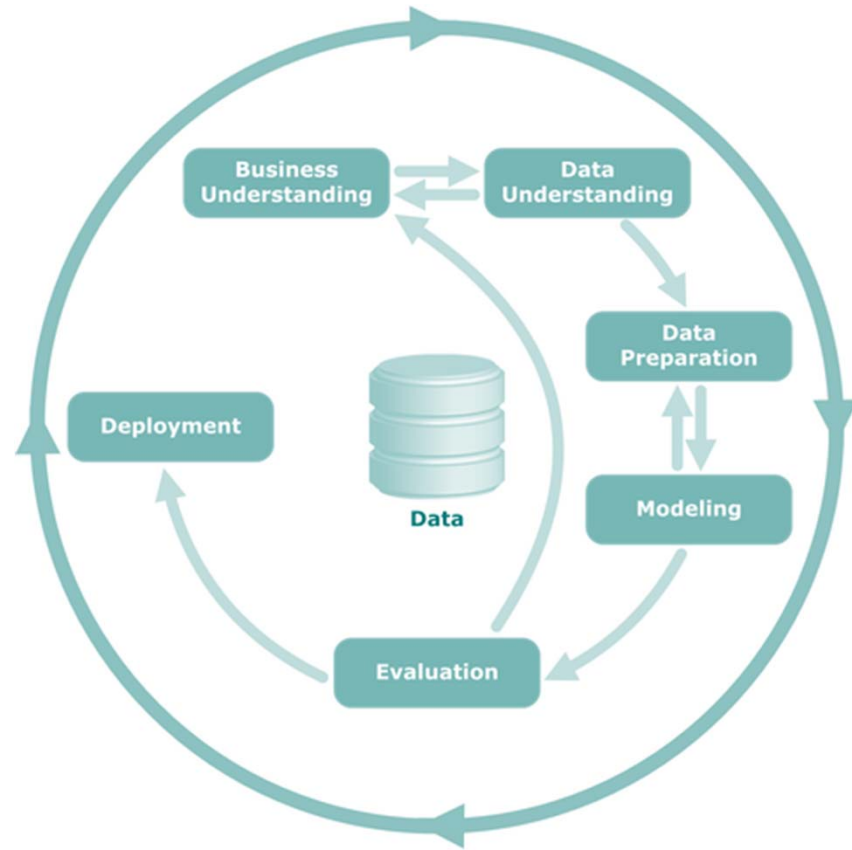
| Month | Business / Vertical | Program | Total Cost | Cost/Emp | Invited | Absent | Trained |
|-------|---------------------|-------------------------------|------------|----------|---------|--------|---------|
| Mar | B2B Markets | Brand and Customer Institute | 50.0 | 10,000 | 5 | | 5 |
| | | Change Quest | 80.0 | 8,000 | 10 | 2 | 8 |
| | | Crucial Conversation | 120.0 | 8,571 | 14 | | 14 |
| | | Goal Setting Digital Era | 77.0 | 7,000 | 11 | 1 | 10 |
| | | GST Certification | 24.0 | 4,000 | 6 | | 6 |
| | | High Impact Presentation | 47.1 | 5,882 | 8 | | 8 |
| | | HRBP Workshop | 6.0 | 1,500 | 4 | 1 | 3 |
| | | I&S Certification | 100.0 | 7,692 | 13 | 1 | 12 |
| | | Instructional Design Workshop | 130.0 | 14,444 | 9 | | 9 |
| | | Last Impressions | 230.0 | 10,000 | 23 | 3 | 20 |

5 Most Expensive Programs

- Instructional Design Workshop - 280.0 | PerEmp 20,000 | Trained 14 | Inv 14
 - Personal Finance Workshop - 276.0 | PerEmp 23,000 | Trained 12 | Inv 12
 - SPEED Training - 235.2 | PerEmp 18,092 | Trained 13 | Inv 13
 - Crucial Conversation - 210.0 | PerEmp 10,000 | Trained 20 | Inv 21
 - Brand and Customer Institute - 200.0 | PerEmp 10,000 | Trained 20 | Inv 20
- Total = 1201.2 | Per Emp 15,015 | Trained 79 | Inv 80

The per employee cost is not converted into Lacs/Mn

How to start



Deployment

CEO

CEO

Top management

VP HR

COO

Managers

HR Manager

L&D
Manager

Department
Manager

Department
Manager

Sup and Staff

Unit head

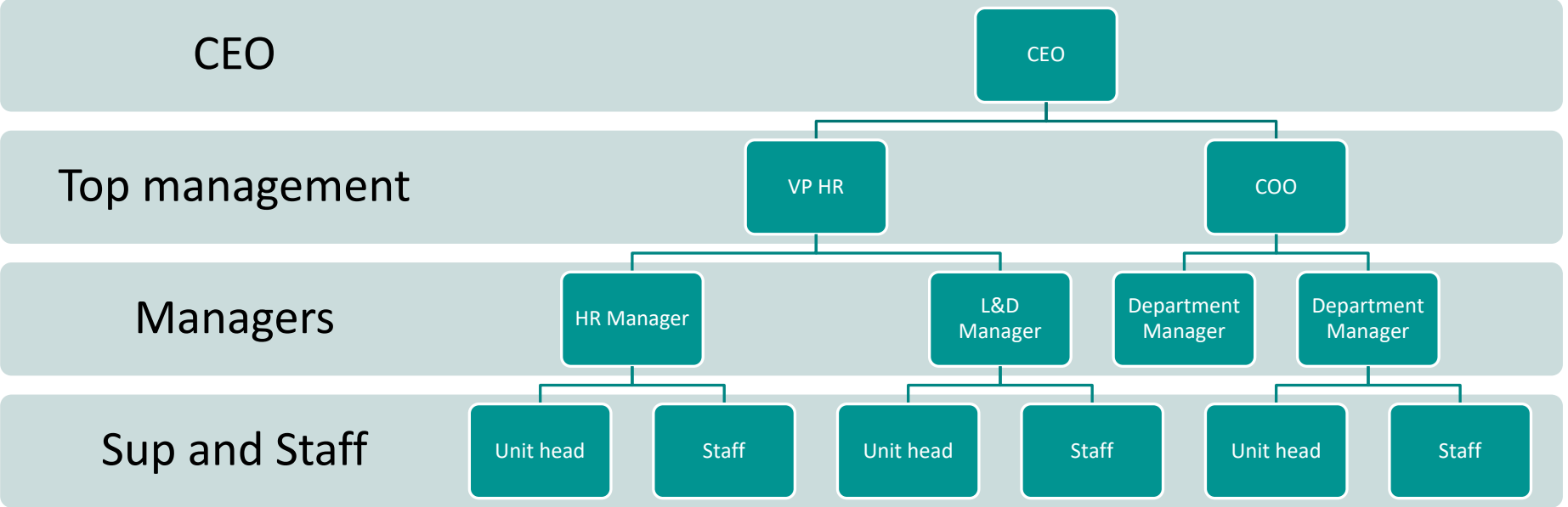
Staff

Unit head

Staff

Unit head

Staff



RACI Example

| Actions for the Focus Area | Roles and Responsibilities | | | | | | |
|------------------------------------|----------------------------|-----|-----|-----|------|-------|-------|
| | Rita | Bob | Sue | Tom | Dick | Harry | Sally |
| Strategic Plan | R+A | I | CI | I | I | I | I |
| Leadership Development | R+A | C | CI | I | I | I | I |
| External Masterclasses | R+A | I | CI | CI | I | I | I |
| Commissioning external consultants | R+A | C | I | CI | I | I | I |
| Strategic Measurement | R+A | I | - | I | I | I | I |
| Professional Development | R+A | C | - | I | I | I | I/C |
| Change Agent Programme | R+A | I | CI | I | I | I | I |

Where is AI Being Used in HR?

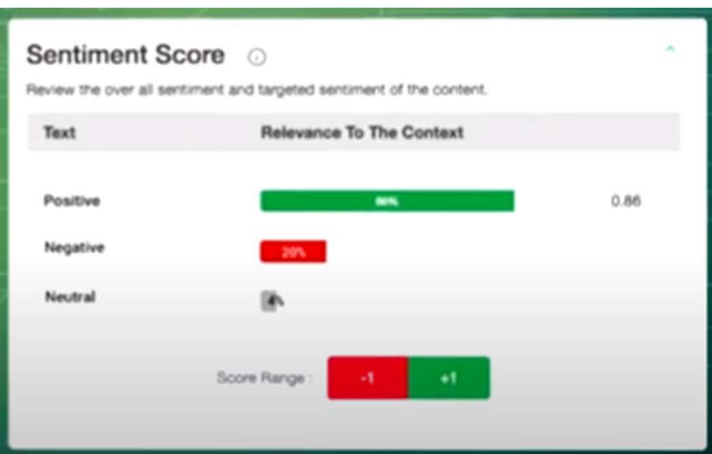
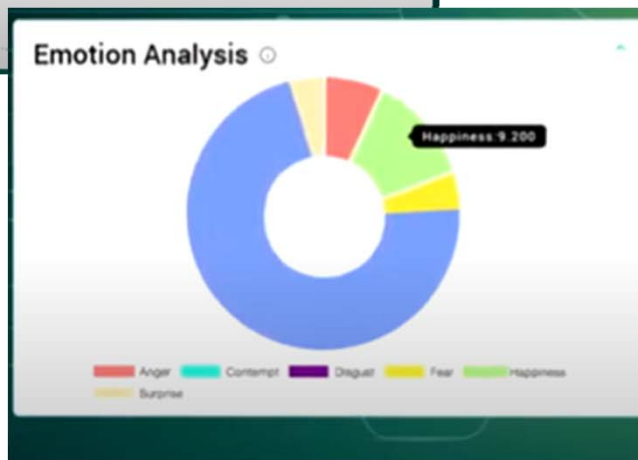
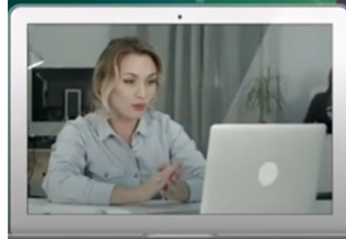
| | |
|---|------------|
| Sourcing Screening, & Interviewing | 40% |
| Career Development & Training | 29% |
| Improve Candidate Recruiting | 26% |
| Performance Management | 24% |
| Provide Recruiters with Hiring Insights | 24% |

Interview Invites

Interview Status: All | Filter: All | Search: [SEARCH] [RESET]

Records per page: 10 | 100 | 500 | 1000 | 2000 | 5000 | 10000 | 20000 | 50000 | 100000 | 200000 | 500000 | 1000000

| CANDIDATE NAME | CANDIDATE EMAIL | JOB TITLE | ACCESS CODE | STATUS | SENT ON | EXPIRED ON |
|----------------|-------------------------|---------------------|-------------|-----------|-------------|-------------|
| Jenny Tan | jennytan@gmail.com | Key Account Manager | 84231498 | Pending | 05 Jan 2018 | 05 Jan 2018 |
| Ella Hoobler | ella.hoobler@gmail.com | Key Account Manager | 48271561 | Pending | 05 Jan 2018 | 05 Jan 2018 |
| Neil Mathia | neil.mathia@gmail.com | Key Account Manager | 17492894 | Pending | 05 Jan 2018 | 07 Jan 2018 |
| Heidi Anders | heidi.anders@gmail.com | Key Account Manager | 07148259 | Pending | 05 Jan 2018 | 07 Jan 2018 |
| Luke Agreste | luke.agreste@gmail.com | Key Account Manager | 43431574 | Pending | 05 Jan 2018 | 07 Jan 2018 |
| David Roberts | davidroberts@gmail.com | Key Account Manager | 17198736 | Pending | 05 Jan 2018 | 05 Jan 2018 |
| Heidi Fager | heidi.fager@gmail.com | Key Account Manager | 17762142 | Pending | 05 Jan 2018 | 05 Jan 2018 |
| Michael Jones | michael.jones@gmail.com | Key Account Manager | 14028461 | Interview | 05 Jan 2018 | 05 Jan 2018 |



Web Spiders Pvt. Ltd. (8283)

Candidate Responses

Select Job: Project Manager - Technology

Applicant List: **QUESTIONS**

Auto Play: ON | **MARK FOR REVIEW** | **COMPARE RESPONSES**

1. Please let us know if you have appeared for an interview in any position in Web Spiders before. If yes, then please mention in which year/month you had given the last interview.

2. Do you prefer working on a single project or multiple projects at the same time?

3. How do you ensure that your project is always on track?

4. How do you handle a team member who isn't productive?

5. Have you worked on a project that led? What happened?

6. How do you monitor and manage risks to the project?

7. Tell me how you schedule projects and establish timelines.

8. Tell me about a full project life cycle? What is involved?


9. When was the last time you didn't delegate? What happened?

10. What are some of the tools and resources you've used to develop your team?


JEREMY TAN
RESUME 11 MORE

Rate this candidate: ☆☆☆☆☆

Question 2: Do you prefer working on a single project or multiple projects at the same time?



Emotion analysis















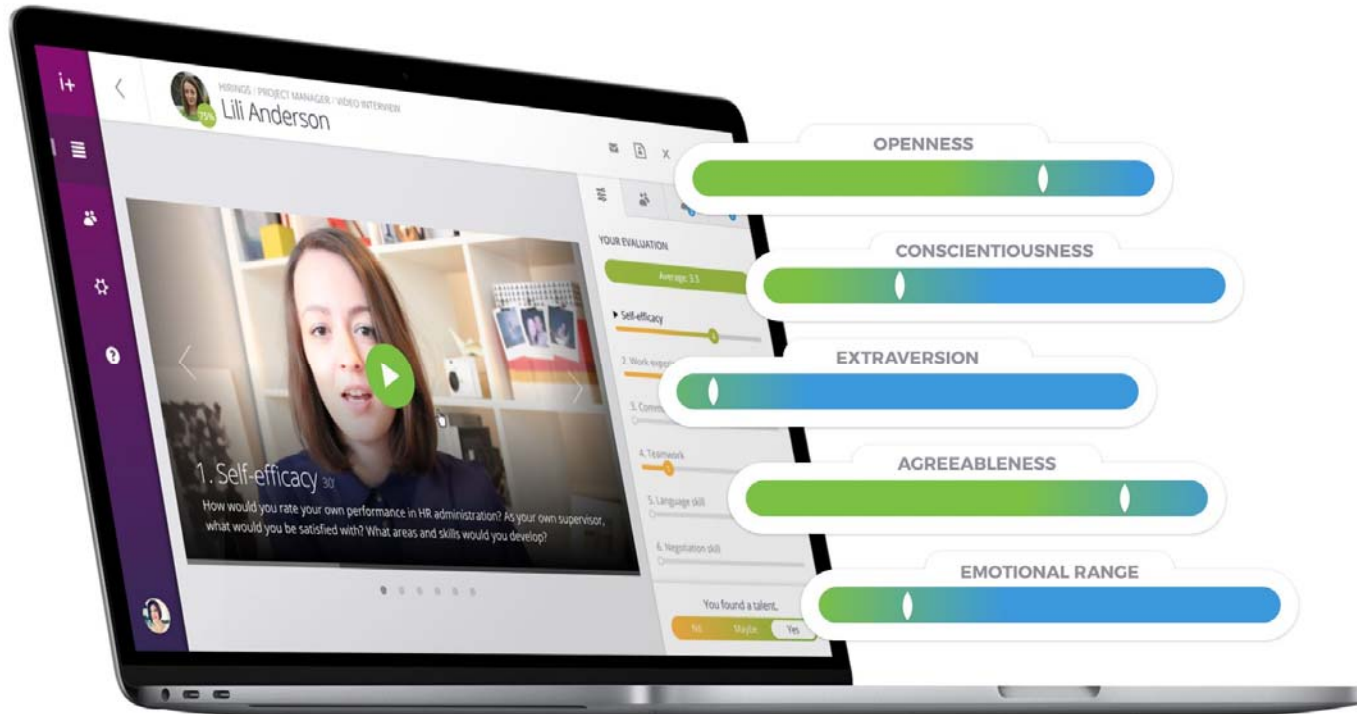
Legend: Smile (Green), Engaged (Blue), Hesitation (Yellow), Restless (Red)

| Time (s) | Smile | Engaged | Hesitation | Restless |
|----------|-------|---------|------------|----------|
| 0s | 80 | 0 | 0 | 0 |
| 12s | 10 | 0 | 0 | 0 |
| 24s | 85 | 0 | 0 | 0 |
| 30s | 90 | 0 | 0 | 0 |
| 48s | 40 | 0 | 0 | 0 |

1 2 3 4

Question 3: Give an example of a goal you reached and tell me how you achieved it.

| | | | |
|---|--|--|---|
| <p>Erna Anestasa Exp: 5 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Peter Adolphus Exp: 5.5 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Nicolas Antonio Exp: 8 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Lucile Agneska Exp: 4 Years Prev Company: XYZ Company Pvt. Ltd.</p>  |
| <p>David Roberts Exp: 5 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Michael Fygel Exp: 3 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Michael Jones Exp: 6.5 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Jeremy Tan Exp: 6.5 Years Prev Company: XYZ Company Pvt. Ltd.</p>  |
| <p>Veronica Coscencia Exp: 3 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Noel Lin Exp: 3 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Gavriel Gurgun Exp: 10 Years Prev Company: XYZ Company Pvt. Ltd.</p>  | <p>Francis Lee Exp: 5 Years Prev Company: XYZ Company Pvt. Ltd.</p>  |



VIDEO

MULTIPLE CHOICE

Q1: What can you tell me about yourself?



Transcript

Text

Confidence

Sentiment

Hello my name is Jeremy Tan and I work at XYZ as an Account Manager

0.723

71.2%

I am currently looking for a better opportunity

0.333

92.5%

I have an experience of 4.5 years

0.834

52.1%

would like to contribute to the organisation

0.926

67.8%

My experience in client servicing and account management has helped me to

0.926

create and maintain excellent rapport with the clients of various regions

0.987

in my previous role I have been able to

1:10

시중합병가 성격특성 시선처리 머리분석

2 전체 5등급 중
86 종합 평가
92 추천 지수

시중합병가 성격특성 시선처리 머리분석



시중합병가 성격특성 시선처리 머리분석

면접자님은 총 60초 동안 인터뷰를 진행했습니다.
인공지능 기반 세션어의 행동분석 도구를 바탕으로 분석한 사회적 기술(Social Skill) 평가에서 면접자님께 대한 추천 점수가 96점으로 전체 5등급 중 상위 1등급에 해당합니다.
당가지 평가 항목 중에서 유쾌함, 사회성, 신뢰감, 소중능력, 활기침, 집중도, 정확성, 호감도, No 음란어에서 우수한 평가를 나타냈습니다.
신중함, 눈미주춤에서 보통의 평가를 나타냈습니다.



표정 인식기술로 면접 분석 가능!

시중합병가 성격특성 시선처리 머리분석



시중합병가 성격특성 시선처리 머리분석

- 신중성: 세션어 60초 동안 인터뷰를 진행한 것으로 보여준다는 점입니다.
- 신중성: 세션어 60초 동안 인터뷰를 진행한 것으로 보여준다는 점입니다.
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유형분석기 분석결과 표정분석기



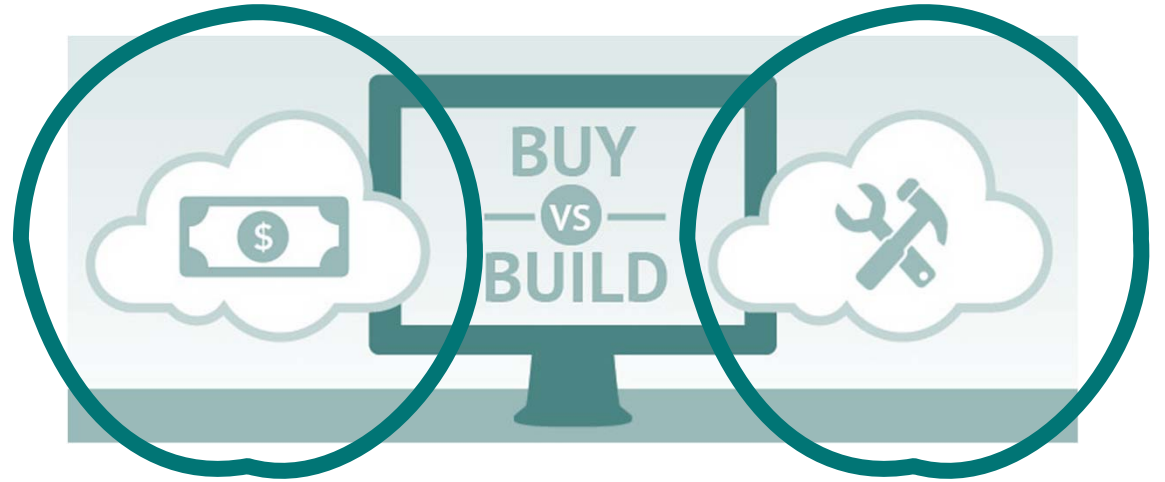
Video Interviewing



HR Analytics Case Studies with Business Impact

| COMPANY | ISSUE | BUSINESS IMPACT: |
|---------------|-------------------------------|---|
| EXPERIAN | Turnover at Experian | Estimated savings of \$8,000,000 to \$10,000,000 over the past 18 months |
| CREDIT SUISSE | Predicting who will quit | Approximately \$ 70,000,000 in savings per year by retaining high performing employees |
| FMCG RETAILER | A/B Testing Employee Training | An ROI of 400% on training programs in the first year |
| E.ON | Sick days at E.ON | Improved their understanding of the causes of absenteeism and reached effective means to reducing the latter. |
| SHELL | Engagement at Shell | 1% increase in employee engagement resulted in a 4% drop of 'recordable case frequency' |

How to start



Business Intelligence Service

1 day per week + Capacity building

Contacts

Email

alaa@amsol.ca

WhatsApp / Telegram

+1-(519) 200-5565

Website

www.amsol.ca/hr-bi

علاء عبد الهادي استشاري في شركة الحلول المتقدمة للإدارة بكندا

عمل م. علاء في استشارات تطوير الاستراتيجيات واعاده الهيكلة وتطوير الموارد البشرية وحلول المعلومات وتحليل البيانات في عدد من شركات البترول والهيئات الحكومية والشركات الخاصة والشركات الهندسية بالإضافة الي الجمعيات غير الهادفة للربح كما وعمل في عدد من الشركات الاستشارية العالمية

قام المهندس علاء بتقييم عدد من الشركات في جائزه دبي للموارد البشرية

حصل م. علاء على ماجستير في اداره الاعمال من جامعه ماسترخت في هولندا و شهاده متخصص في الموارد البشرية من جامعه مينيسوتا وشهاده متخصص في تحليل البيانات من جامعه دوق وكان المهندس علاء عضو مجلس اداره في جمعيه العربية لإدارة الموارد البشرية لمدة ثمان سنوات بالإضافة الى عضويته في العديد من الجمعيات المتخصصة

A guide to implementing HR analytic

