



MACQUARIE

University

SYDNEY · AUSTRALIA

BUSA3021 GROUP PROJECT REPORT

Group 3

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BUSA3021 PACE: Business Analytics Project

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Table of Contents

1. Introduction	2
2. Personas Design	3
3. Resulting Data Set	7
4. Visual Answers	13
5. Analysis of data quality, data and visual ethics and unintended data harm	23
6. Conclusion & Future work	24
Acknowledgement Statement by students	25
7. References	26

1. Introduction

Great Place to Work (GPTW) is a remarkable company, helping industry leaders in refining their workplace standards, by providing more diverse and impactful surveys and solutions. This project for GPTW centres on developing a Business Analytics report from gathered data from GPTW's website, and external sources to answer key questions tailored to three distinct personas: Stephanie, Abdullah, and Michael. Each persona, crafted to represent unique workforce demographics and needs, would provide GPTW with insights into diverse employee expectations and the impact of workplace culture on business success. The first persona, Stephanie, a recent graduate persona, highlights early-career priorities such as career growth and compensation and benefits, aims to help GPTW refine survey questions and target specific industries to capture young talent's expectations. Abdullah, a government researcher, focuses on GPTW's relevance to public organisations by examining satisfaction across Australian and multinational firms, which would support GPTW's expansion into the public sector. Michael, a senior manager in financial services persona, explores how workplace culture affects client satisfaction by linking employee experience with business success.

By addressing these DV questions, GPTW can enhance its survey tools and certification standards to expand the clientele. With the help of the findings in this report, GPTW could target companies in specific industries and craft better fitting surveys and solutions by industries, geographically and by size of the companies. This report aims to provide GPTW with data-backed insights, empowering it to offer its clients with more meaningful and tailored solutions and standards across industries for further market expansion and adaptability.

2. Personas Design

The three tables below show the contents of our three personas along with their DV questions.

Persona 1	“MQBS BA Graduate - Stephanie”
Role	Recent MQBS Graduate looking for a graduate position
Context of their work/role	Major in Business Analytics; Graduated in July 2024
Key activities / decision-making needs and interests	<p>While at MQ completed an internship in a major bank</p> <p>After graduation joined ACS and the MQBS Women in Data & Analytics</p> <p>Interested in purpose-driven companies</p> <p>Not aware of the ‘Great Companies to Work For’ website</p> <ul style="list-style-type: none"> - Open to interstate work opportunities - A people person who is looking for a permanent, full-time job for graduates - Place importance in career opportunities and compensation - Values the happy and encouraging workplace - Into networking (people person) with individuals who have already started their journey towards becoming a business analytics professional such as are a database cleaner etc and communicate with them via LinkedIn to build their network.
DV Questions	Question 1: What industry has the highest employee satisfaction

	<p>rate? Which industry has the lowest?</p> <p>Question 2: Do these companies promote growth potential and great compensation and benefits for employees?</p> <p>Question 3: How do most people get their job interview from companies?</p>
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Table 2.1 Design of Persona 1 and the DV questions.

Persona 2	"Government Researcher - Abdullah"
Role	Researcher Representative from a government organisation
Context of their work/role	Focused on adopting successful workplace practices to guide Australian companies toward becoming a "Great Place to Work for"
Key activities / decision-making needs and interests	<ul style="list-style-type: none"> - Specialising in finding ways (applying similar implementations applied for companies with the 'Great Place to Work' badge) the organisation can be accredited as a 'Great Place to Work for'. - Analysing large datasets to compare how many already 'Great Places to Work' are AU-owned against how many are not AU-owned and why. - Finding the most popular industries that the already 'Great Places to Work' companies fall under. - Try to potentially be one of the few 'Great Place to Work' accredited large companies by customising what 'Great

	Place to Work' has applied to private sector companies to their public sector department of the government.
DV Questions	<p>Question 1: How many are Australian-owned firms? How many are multinational firms?</p> <p>Question 2: What are the differences in employee satisfaction between multinational firms' headquarters and their offices in Australia?</p> <p>Question 3: Which industries are more likely to have the "Great Place to Work" certification and why?</p>

Table 2.2 Design of Persona 2 and the DV questions.

Persona 3	"Mortgage Broker Micro Business Manager - Michael"
Role	Senior Manager in the Financial Services & Insurance industry
Context of their work/role	Looking to improve their business across various aspects, and one of them is by attaining the 'Great Place To Work' certification.
Key activities / decision-making needs and interests	<ul style="list-style-type: none"> - Aiming to become more recognisable, successful financially and extend their company size as the financial services industry is competitive. - Planning to expand their business by opening new offices in Australia. - Aiming to higher their reputation and retain employees. - Ultimate goal is to be certified as a 'Great Place To Work'.

DV Questions	<p>Question 1: What is the difference in employee tenure rate between companies holding the ‘Great Place To Work’ certification & the overall?</p> <p>Question 2: Which state in Australia has a high rate of employability based on ‘Great Place To Work’ data?</p> <p>Question 3: What is the correlation between various employee satisfaction ratings from ‘Great Place To Work’ accredited companies’ sizes in the financial services & insurance industry against their customer satisfaction ratings?</p>
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Table 2.3 Design of Persona 3 and the DV questions.

3. Resulting Data Set

Our main dataset was collected from publicly available data ‘Best Workplaces in Australia’ from 2021 – 2023 on the official website of ‘Great Place to Work’. The raw data was manually keyed into three separate sheets ‘2021’, ‘2022’, and ‘2023’ before combining them together in the ‘Overall’ sheet.

	A	B	C	D	E	F	G	H	I	J
	company_name	category	industry	area	state	2021_rank	2021_emplo	2022_rank	2022_emplo	2023_rank
1	The Recruitment Company	Micro	Professional Services	Sydney	New South Wales	1	22	1	22	N/A
2	Entourage	Micro	Financial Services & Insurance	Melbourne	Victoria	2	17	20	18	N/A
3	TrainTheCrowd	Micro	Education & Training	Sydney	New South Wales	3	21	N/A	N/A	N/A
4	Atarix	Micro	Information Technology	Sydney	New South Wales	4	11	N/A	N/A	N/A
5	Bellroy	Small	Manufacturing & Production	Fitzroy	Victoria	1	80	N/A	N/A	N/A
6	Avenue Dental	Small	Health Care	Sunshine Coast	Queensland	2	85	30	109	N/A
7	Tiltier	Small	Information Technology	Sydney	New South Wales	3	31	N/A	N/A	N/A
8	Proper Ventures	Small	Information Technology	Melbourne	Victoria	4	65	24	64	N/A
9	Quorum Systems	Small	Information Technology	North Sydney	New South Wales	5	40	17	50	
10	Moddex Group	Small	Manufacturing & Production	Maryborough	Queensland	6	67	N/A	N/A	N/A
11	Green Building Council of Australia	Small	Other	Barangaroo	New South Wales	7	45	N/A	N/A	2
12	DEWC Services	Small	Professional Services	Mawson Lakes	South Australia	9	35	N/A	N/A	N/A
13	Kaine Mathrick Tech	Small	Information Technology	Port Melbourne	Victoria	11	32	14	54	N/A
14	Cordelta	Small	Professional Services	Fyshwick	Australian Capital Territory	14	53	26	44	N/A
15	Sentrian	Small	Information Technology	Brisbane	Queensland	15	45	N/A	N/A	N/A
16	Luminary	Small	Information Technology	Melbourne	Victoria	16	43	N/A	N/A	2
17	Hub Australia	Small	Real Estate	Melbourne	Victoria	17	71	N/A	N/A	N/A
18	Charterhouse	Small	Professional Services	Sydney	New South Wales	18	71	N/A	N/A	N/A
19	Cobild	Small	Construction	Cremorne	Victoria	19	88	12	94	
20	SustainAbility Consulting	Micro	Professional Services	Sydney	New South Wales	N/A	N/A	2	21	N/A
21	This is Flow	Micro	Advertising & Marketing	North Sydney	New South Wales	N/A	N/A	3	15	
22	Lotus People	Micro	Professional Services	Sydney	New South Wales	N/A	N/A	4	15	N/A
23	Cullen Jewellery	Micro	Retail	Kew	Victoria	N/A	N/A	5	11	N/A
24	Stamford Capital Australia	Micro	Financial Services & Insurance	Sydney	New South Wales	N/A	N/A	6	28	2
25	Pragmateam	Micro	Information Technology	Sydney	New South Wales	N/A	N/A	7	N/A	
26	Amstelveen	Micro	Professional Services	Sydney	New South Wales	N/A	N/A	8	21	N/A

Figure 3.1 Main dataset collected from AUS ‘Great Places to Work’ website.

Sheet Name: **Overall** (combination of ‘2021’, ‘2022’, and ‘2023’)

Source(s): Great Place to Work

Relevant Attributes/Variables:

- **Company_name:** The names of the companies listed
- **Category:** The size of the company (e.g. micro, small, large)
- **Industry:** The field of interest/expertise the company is from
- **Area:** City or area the company is located in
- **State:** State the company is located in
- **Rank:** Ranking of the company based on the size and year
- **No_of_employees:** Number of employees in the company

Other additional datasets were taken from websites like Glassdoor, Seek, Google, Product Review, LinkedIn, and ABS, where all data are available publicly. The attribute ‘company_name’ from the main dataset is used as a secondary ID to link these additional datasets together. Missing values are mostly filtered out during the analysis phase, while others use the impute method by replacing the missing values with the mean or median of the column. Some of the additional data were also added into the ‘Overall’ sheet.

	A	L	M	N	O	P	Q	R	S
1	company_name	AU_owned	Global	AUS satisfacti	HQ satisfac	Median employee	Oct 2022	Oct 2023	Growth Rati
9	Tiliter	Y	Y				4	32	20
10	Propel Ventures	Y	N				3.7	50	34
11	Quorum Systems	Y	N				3.1	58	64
12	Moddex Group	Y	N				2.6	70	99
13	Green Building Council of Australia	Y	N				3.3	126	142
14	WW	N	Y	3.6	3.2		11.7	7209	6814
15	DEWC Services	Y	N				2.8	54	67
16	Sophos	N	Y	4.3	4.6		3.4	4732	4533
17	Kaine Mathrick Tech	Y	N				2.2	56	65
18	SEDA College (Victoria)	N	Y	4	3.3		4	68	76
19	Informatica Australia	N	Y	3.6	3.9		3.8	12	12
20	Cordelta	Y	N				6.4	61	61
21	Sentrian	Y	N				5.3	45	47
22	Luminary	Y	Y				3.8	88	101
23	Hub Australia	Y	N				1.7	138	159
24	Charterhouse	Y	Y				13.3	196	198
25	Cobild	Y	N				3.5	99	99
26	Biogen	N	Y				5.4		
27	Mantel Group	Y	N				2.3	715	759
28	BPAY Group	Y	N				3.3	642	708
29	OMD Australia	Y	N				2.3	541	561
30	Thoughtworks	N	Y	3.6	3.1		3.4		

Figure 3.2 Dataset of companies’ ownership, employee tenure, and employee growth rate.

Sheet Name: **Overall** (with additional dataset)

Source(s): Google, Glassdoor, Great Place to Work

Relevant Attributes/Variables:

- **AU_owned:** Australian owned companies
- **Global:** Global companies / Australian companies with global branch(es)
- **AUS satisfaction:** Satisfaction rate of the Australian branch companies
- **HQ satisfaction:** Satisfaction rate of the global companies

Sources: LinkedIn

Relevant Attributes/Variables:

- **Median employee tenure (by year):** Amount of time employees work for a company
- **Oct 2022:** Number of employees in 2022

- **Oct 2023:** Number of employees in 2023
- **Growth Rate:** Percentage change between number of employees in 2022 vs 2023

	A	D	E	F	G	H	I	J
1	company_name	Glassdoor Empl	Culture and valu	Senior managem	Work/Life balat	Career opportunitil	Compensation and ben	Diversity an
76	EFCOMM	2.7	3.9	3.5	1.5	3.5	3.9	3.5
77	Bravure	5.0	5.0	4.0	4.0	5.0	4.0	4.0
78	Miro	3.8	3.8	3.3	3.7	3.5	4.1	3.8
79	Displayr	4.9	4.8	4.6	4.7	4.5	4.7	4.8
80	Dovetail	4.3	4.2	4.2	4.3	4.2	4.3	4.1
81	SixPivot	5.0	5.0	4.7	5.0	4.7	4.3	5.0
82	AvePoint	3.3	3.0	2.8	2.8	3.3	3.0	3.1
83	Attach2 Pty Ltd	4.1	4.1	4.1	4.1	41.0	4.1	3.8
84	FSC Group	5.0	5.0	3.0	4.0	5.0	1.0	5.0
85	Kasada	4.6	4.6	4.6	4.6	4.6	4.4	4.3
86	Commision Factory	4.5	4.9	4.6	4.9	4.3	4.8	4.9
87	Beaumont People	4.3	4.4	4.2	4.4	4.3	4.0	4.3
88	TKV Group							
89	Scalapay	3.8	3.7	3.4	3.9	3.6	3.7	4.2
90	Struber	3.5	3.6	3.6	3.6	3.6	3.5	4.1
91	PhoenixDX	4.7	5.0	4.7	5.0	4.4	4.5	5.0
92	Meltwater Australia	3.8	3.8	3.5	3.6	3.8	3.4	3.6
93	EstimateOne	4.6	4.7	4.5	4.6	4.6	4.5	4.6
94	Zoom Recruitment	3.5	3.5	3.3	3.3	3.5	4.1	3.8
95	Baringa Partners	4.2	4.3	3.9	3.7	4.1	4.0	4.2
96	Sensei Project Solutions	4.1	4.0	3.8	4.3	3.8	3.8	4.5
97	IComm	4.1	4.5	4.1	4.3	3.9	3.7	4.2

Figure 3.3 Glassdoor employees reviews of the companies listed

Sheet Name: **Satisfaction Rate** (also linked to sheet 'Persona 1 Q1 & Q2')

Source(s): Glassdoor, Google and Seek

Relevant Attributes/Variables (0.0 - 5.0 ranged values):

- **Glassdoor Employee Reviews Stars**
- **Culture and values**
- **Senior management**
- **Work/Life balance**
- **Career opportunities**
- **Compensation and benefits**
- **Diversity and inclusion**

	A	D	E	F	G	H	I	J	K	L	M
1	company_name	Interview diffic	pos rate	neutral rate	neg rate	Applied On	Employee Refe	Recruit	Recruit	Camp	In Pers
145	Slalom	2.9	57%	0%	43%		20%	60%			20%
146	Sparro & Jack Nimble	3.2	70%	10%	20%	100%					
147	Henry Schein Australia	3.2	40%	0%	60%	80%			20%		
148	AirTrunk	2.8	40%	40%	20%	100%					
149	Qualtrics	3.3	27%	23%	50%	43%	22%	26%			
150	carsales.com.au	2.8	57%	13%	30%	77%	12%	8%			
151	Mastercard Australia	2.8	65%	21%	14%	73%	4%		15%		
152	Prosopa	3.2	45%	10%	45%	37%		37%	16%		
153	Nous Group	3.1	59%	16%	25%	82%	11%	4%			
154	Uber Australia PTY LTD	3.3	37%	33%	30%	69%	17%	12%			
155	Bristol Myers Squibb Australia	3.0	86%	0%	14%	40%		20%	20%		
156	ServiceNow	2.9	56%	16%	28%	67%	15%	15%			
157	Nurse Next Door Home Care Services	3.3	67%	0%	33%	100%					
158	Frontline Recruitment & Express	N/A	N/A	N/A	N/A						
159	PageGroup Australia	2.9	48%	19%	33%	56%	13%	19%			
160	Marriott International Australia	2.7	77%	5%	18%	82%	12%			6%	
161	DHL Supply Chain	3.0	43%	57%	0%	80%		20%			
162	Specsavers	2.3	72%	21%	7%	74%		5%			16%
163	Capgemini Australia	2.8	72%	13%	15%	78%	7%	11%			
164	Story House Early Learning	N/A	N/A	N/A	N/A						
165											
166											

Figure 3.4 Glassdoor employees Interview reviews and ratings.

Sheet Name: **Interview**

Source(s): Glassdoor

Relevant Attributes/Variables:

- **Interview difficulty:** How hard people find the interview to be (on a scale of 0.0 - 5.0)
- **pos rate:** Percentage of positive interview experience
- **neutral rate:** Percentage of neutral interview experience
- **neg rate:** Percentage of negative interview experience
- **Applied Online:** Percentage of getting an interview through 'applied online'.
- **Recruiter:** Percentage of getting an interview by 'recruiters'
- **In Person:** Percentage of getting an interview 'in-person'

	A	B	C	D	E	F	G	H	I
1	Industry	Average of employed total from 2021-2023							
2	Agriculture, Forestry and Fishing ; Employed total ;	305.479924							
3	Mining ; Employed total ;	290.9559882							
4	Manufacturing ; Employed total ;	897.6661439							
5	Electricity, Gas, Water and Waste Services ; Employed total ;	156.668022							
6	Construction ; Employed total ;	1237.732939							
7	Wholesale Trade ; Employed total ;	366.2988979							
8	Retail Trade ; Employed total ;	1314.465328							
9	Accommodation and Food Services ; Employed total ;	900.5620645							
10	Transport, Postal and Warehousing ; Employed total ;	692.6677545							
11	Information Media and Telecommunications ; Employed total ;	192.8922878							
12	Financial and Insurance Services ; Employed total ;	532.836596							
13	Professional, Scientific and Technical Services ; Employed total ;	1264.184353							

Figure 3.5 Labour force Australia 2024, extracted from ABS

Sheet Name: **P2 - Q3**

Source(s): ABS

Relevant Attributes/Variables:

- **Industry:** Industrial classification based on ANZSIC
- **Average of employed total from 2021 - 2023:** The total number of employed people on average

	A	B	C	D	E	F
1	company_name	category	industry	Type of Employee Satisfaction Rating	Employee Satisfaction Rating	Customer Satisfaction Rating
2	Entourage	Micro	Financial Services & Insurance	Overall	4.2	5
3	Entourage	Micro	Financial Services & Insurance	Culture and values	4.1	5
4	Entourage	Micro	Financial Services & Insurance	Senior Management	4	5
5	Entourage	Micro	Financial Services & Insurance	Work/Life balance	3.7	5
6	Entourage	Micro	Financial Services & Insurance	Career opportunities	4.1	5
7	Entourage	Micro	Financial Services & Insurance	Compensation and benefits	3.9	5
8	Entourage	Micro	Financial Services & Insurance	Diversity & inclusion	3.6	5
9	BPAY Group	Medium	Financial Services & Insurance	Overall	4.5	1.4
10	BPAY Group	Medium	Financial Services & Insurance	Culture and values	4.7	1.4
11	BPAY Group	Medium	Financial Services & Insurance	Senior Management	4	1.4
12	BPAY Group	Medium	Financial Services & Insurance	Work/Life balance	4.4	1.4
13	BPAY Group	Medium	Financial Services & Insurance	Career opportunities	3.5	1.4
14	BPAY Group	Medium	Financial Services & Insurance	Compensation and benefits	3.8	1.4
15	BPAY Group	Medium	Financial Services & Insurance	Diversity & inclusion	4.9	1.4
16	Canstar	Medium	Financial Services & Insurance	Overall	3.3	4.3
17	Canstar	Medium	Financial Services & Insurance	Culture and values	3.6	4.3
18	Canstar	Medium	Financial Services & Insurance	Senior Management	3.2	4.3
19	Canstar	Medium	Financial Services & Insurance	Work/Life balance	3.8	4.3

Figure 3.6 Employee Satisfaction Rate vs Customer Satisfaction Rate of Financial Services & Insurance companies.

Sheet Name: **Persona 3 Q3 sheet**

Source(s): Glassdoor, Seek, Google and Product Review

Relevant Attributes/Variables:

- **Type of Employee Satisfaction Rating:** Category of field/interest of satisfaction
- **Employee Satisfaction Rating:** (0.0 - 5.0 ranged values)
- **Customer Satisfaction Rating:** (0.0 - 5.0 ranged values)

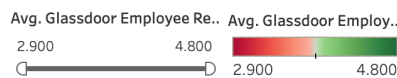
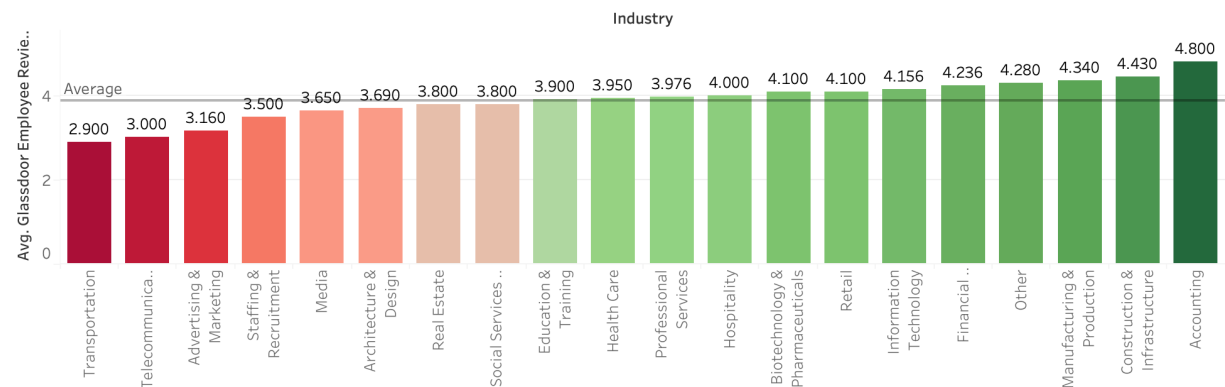
4. Visual Answers

4.1. Persona 1: MQBS BA Graduate - Stephanie

4.1.1. Question 1: **What industry has the highest employee satisfaction rate? Which industry has the lowest?**

Visual answer:

Average Employee Reviews across Industries



Employee Satisfaction Rate Meters

Avg. Career opportunities	3.8244
Avg. Compensation and benefits	3.8233
Avg. Culture and values	4.1275
Avg. Diversity and inclusion	4.0877
Avg. Senior management	3.8243
Avg. Work/Life balance	4.0040

Avg. Career opportunities



Career Opportunities across Different Industries

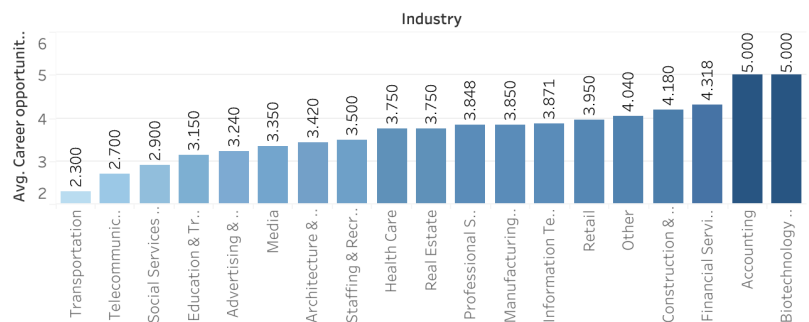


Figure 4.1.1. A visual answer showing the industries with highest and lowest employee satisfaction rate and career growth across industries

4.1.2. Question 2: Do these companies promote growth potential and great compensation for employees?

Visual answer:

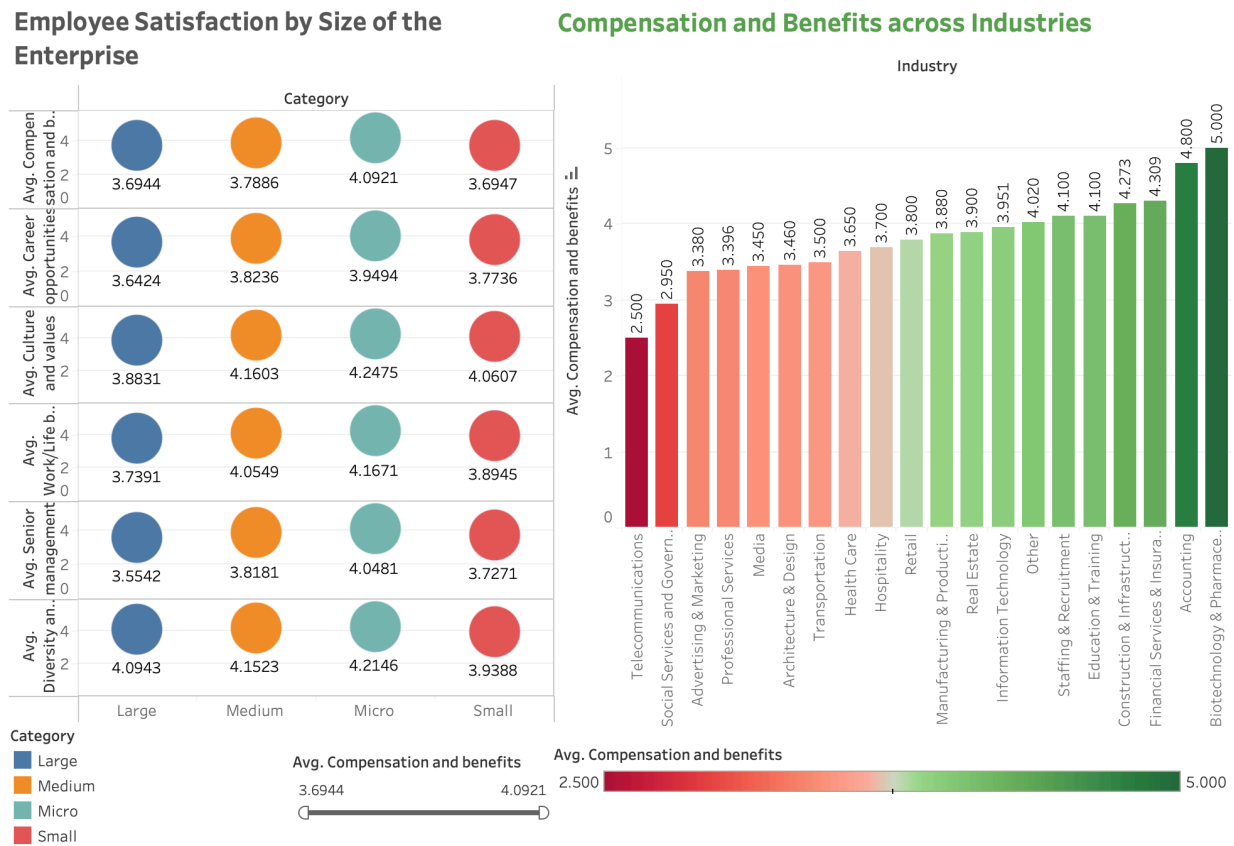


Figure 4.1.2: A visual answer showing employee satisfaction by company's size and compensation and benefits across industries

For Stephanie, a recent Business Analytics graduate who seeks growth, strong compensation, and job satisfaction, our findings are as below:

1. Accounting and Construction & Infrastructure sectors show the highest employee satisfaction rates. These sectors would be promising for Stephanie as she looks for a supportive, rewarding work environment.

2. Transportation, Telecommunications, and Advertising & Marketing are reported by the employees with relatively lower satisfaction, indicating potential challenges in workplace and internal communication and engagement.
3. Biotechnology & Pharmacy stands out for offering superior career development and compensation and benefits. These industries would align with Stephanie's aspirations for professional advancement and financial security, backed by thriving industry growth with many entry level opportunities reported for 2024.
4. Micro and Medium sized companies are found to excel in all aspects of employee satisfaction metres used for our report. Stephanie could look into these companies for better competitive advantage for her job application journey.

Based on the findings, we would recommend our Graduate Persona, Stephanie, to look into Entry Level Business Analyst roles, particularly in medium and micro sized companies, and industries such as in Accounting, Biotechnology & Pharmacy, Construction & Infrastructure to have overall job satisfaction with great career opportunities and growth along with great compensation and benefits to kickstart the career.

For GPTW, we recommend refining its survey tools to better capture specific drivers of satisfaction within industries and firm sizes, particularly in the categories of career opportunities, compensation and benefits, and senior management. From our analysis, it is found that even the GPTW best place to work winners in Australia struggle in these categories when it comes to actual employee satisfaction ratings. For instance, GPTW could add questions which distinguish between job satisfaction, long-term career growth, and entry level mentorship and opportunities for early-career professionals like Stephanie. Additionally, GPTW could explore more factors unique to high satisfaction in micro and medium companies and offer the insights to large and small enterprises to create similarly engaging and thriving workplaces. These adjustments would allow GPTW to deliver even more tailored and actionable insights and solutions to its clients in building environments ever adapting to meet emerging talents' expectations.

4.1.3. Question 3: How do most people get their job interview from companies?

Visual answer:

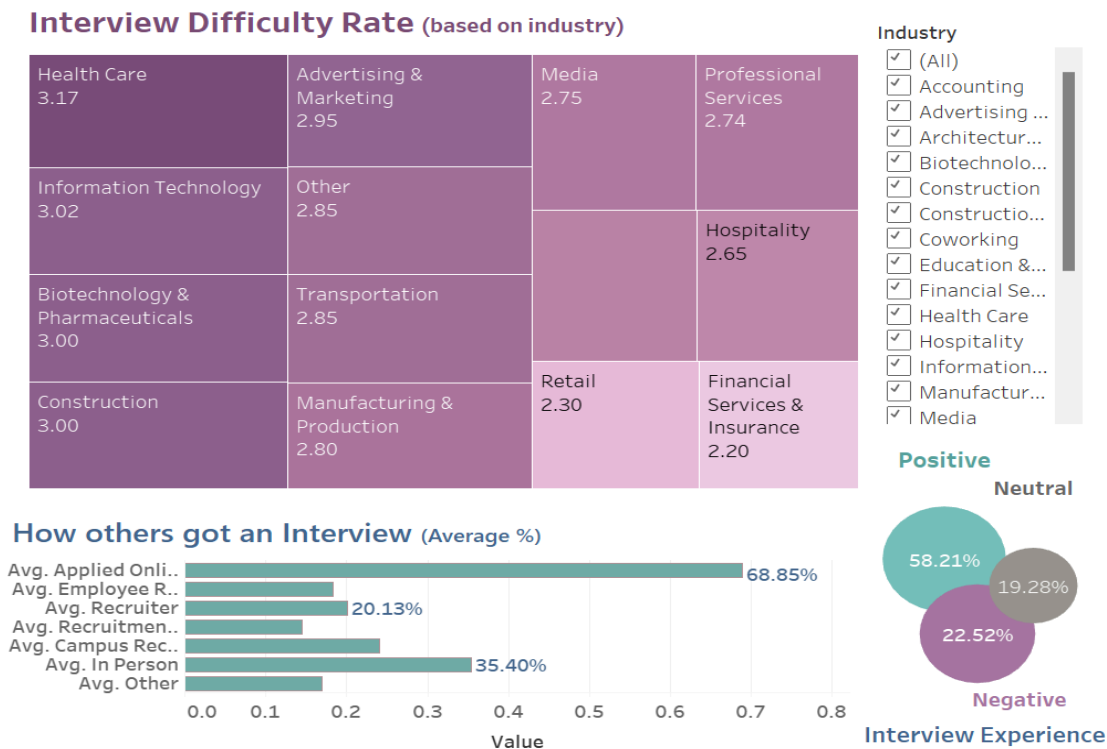


Figure 4.1.3. A visual answer showing the metrics for Interview based on industries.

The figure above shows three main parts: 'Interview Difficulty Rate', 'Interview Experience', and 'How others got an Interview'. From our analysis, we found the top three ways most people get their job interview from companies is through Applied online, In-person, and Recruiters. Online applications have the highest average percentage of 68.85% of people successfully getting themselves an interview. This makes sense as many companies would post jobs on online platforms such as LinkedIn, Indeed, or their own websites. This increases the chance of receiving an interview, as it becomes a primary channel for recruitment from companies. As for people who apply for jobs in-person or attend job fairs, they tend to create a direct face-to-face interaction with potential employers. This personal touch can leave a strong impression on recruiters as they can immediately gauge a person's professionalism and enthusiasm.

We could also gather additional information like an average of 58.21% find their interview experience to be positive. Industry with the highest interview difficulty rate is Healthcare, with an average rating of 3.17 out of 5. This is likely due to the high-pressure work environment, especially in clinical settings (Physician and Healthcare Job Board, 2022).. Healthcare professionals are expected to navigate complex challenges with their problem-solving abilities and adaptability. These insights may further help BA Graduate Stephanie in making decisions throughout her career in life.

4.2. Persona 2: Government Researcher - Abdullah

4.2.1. Question 1: **How many are Australian-owned firms? How many are multinational firms?**

Visual answer:

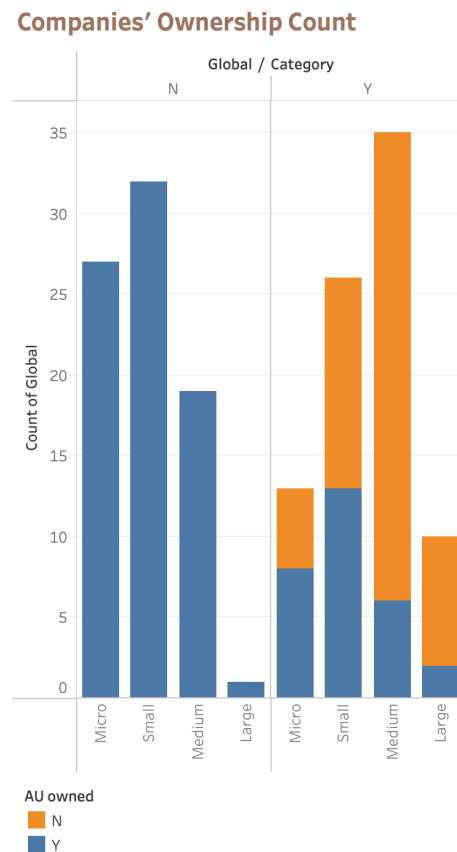


Figure 4.2.1: A visual answer showing the count of Companies' Ownership

This graph depicts the proportion of companies that are either Australian-owned or international-owned (some were founded in Australia) categorised by company size and influence. If

these firms have offices outside of Australia, the Global variable is labelled "Y". There are 164 distinct Great companies to work for between 2021 and 2023. 108 of them are Australian-owned, and 30 out of these are multinational firms. It is obvious that large firms mostly come from other countries.

4.2.2. Question 2: **What are the differences in employee satisfaction between multinational firms' headquarters and their offices in Australia?**

Visual answer:

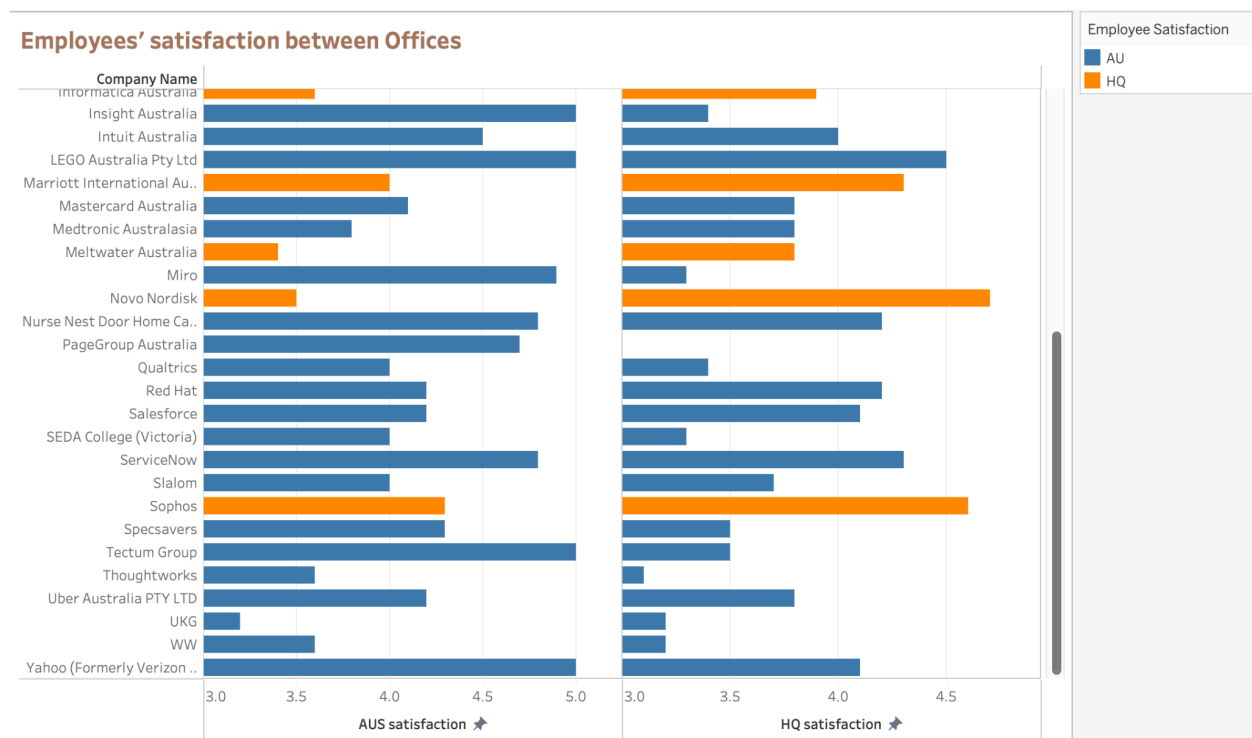


Figure 4.2.2. A visual answer showing employees' satisfaction difference between offices

This graph compares employees' satisfaction between the branches of international-owned companies in Australia and their headquarters. If the satisfaction rate in Australia is higher, the bars will be blue; otherwise, it is orange. Apparently, most of the offices in Australia have higher reviews than the headquarters (dominantly located in the USA).

4.2.3. Question 3: **Which industries are more likely to have the “Great Place to Work” certification and why?**

Visual answer:

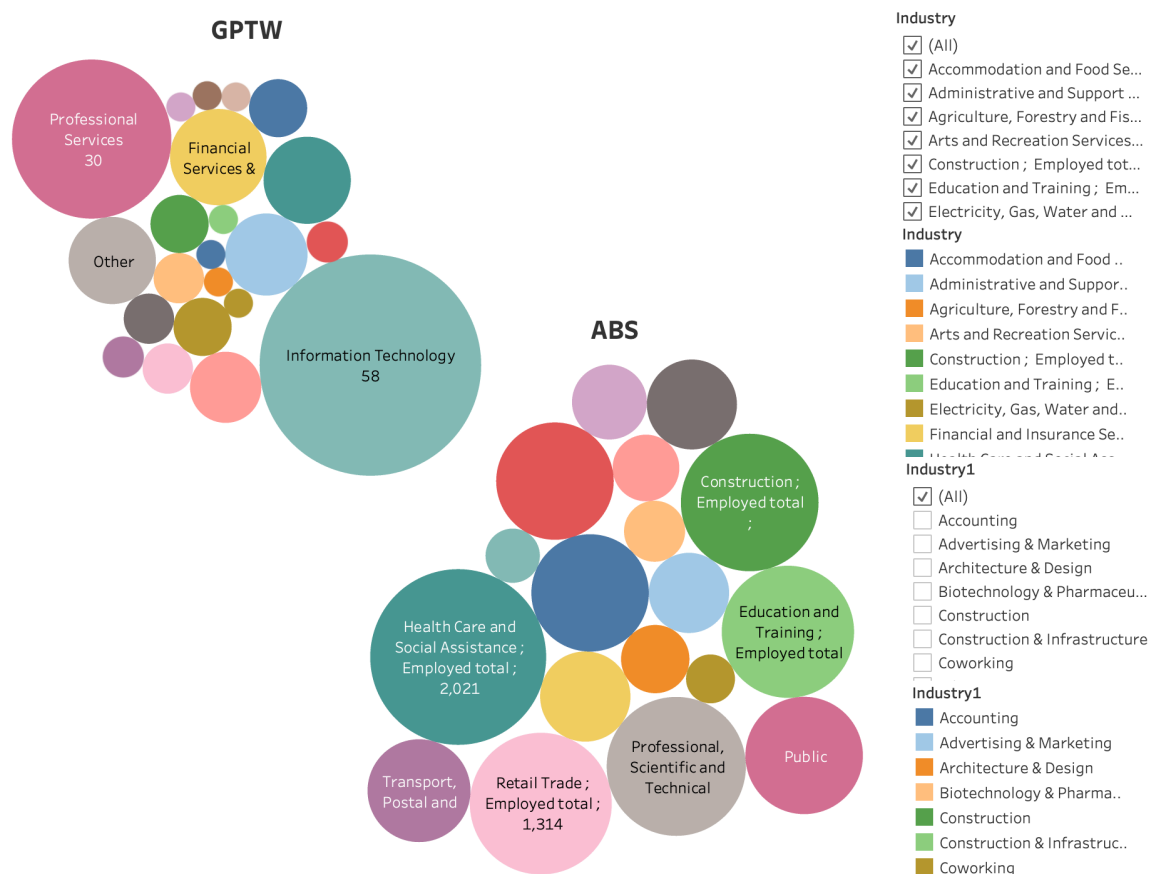


Figure 4.2.3. A visual answer showing the comparison of the industries proportions of Great Place to Work listing with average employment figures across each industry.

From ABS visualisation, the Health Care and Social Assistance stand out with the highest average employment rates from 2021 to 2023 of 2,021, suggesting the stability of the workforce. The retail trade and professional service also show high average employment rates, indicating strong job availability in these sectors.

However, the visualisation of Great Place to Work shows that the IT industry is dominant, with 58 companies recognised as Great Place to Work. Although HealthCare has the highest average employment rate, only nine companies in the HealthCare category are recognised as GPTW, which reflects a low satisfaction rate for this industry. According to RMIT University,2023, HealthCare professionals often experience the highest level of burnout, which leads to high retention rates and lower productivity. Similarly, the retail trade and professional services industry has a low proportion of

companies recognised as Great Places to Work. This suggests that while these industries have significant job opportunities, they must work on low workplace satisfaction rates.

4.3. Persona 3: Mortgage Broker Micro Business Senior Manager - Michael

4.3.1. Question 1: What is the difference in employee tenure between companies holding the 'Great Place To Work' certification & the overall?

Visual answer:

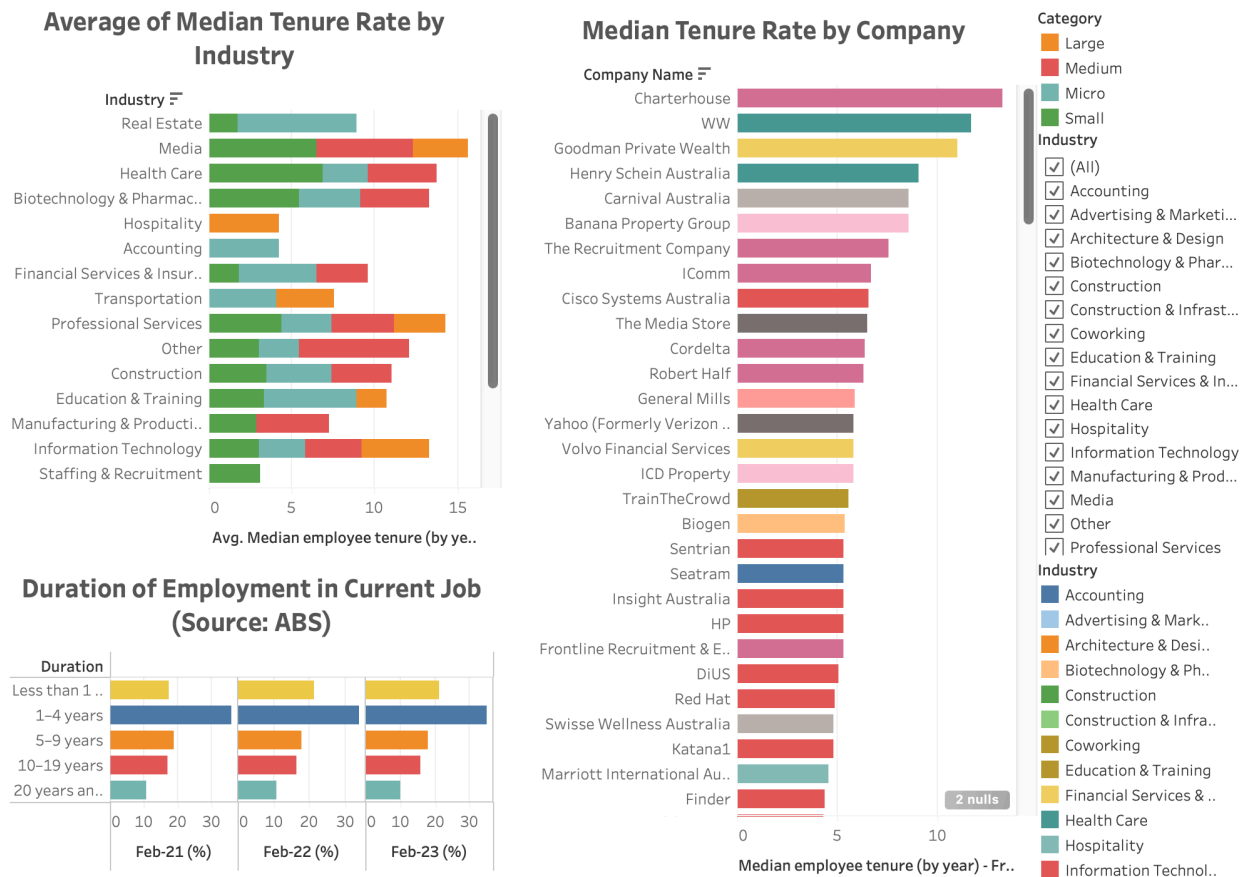


Figure 4.3.1: A visual answer showing the comparison between Median Employee Tenure from GPTW accredited company and other companies in overall

The visualisation above shows that all of the accredited companies have the median employee tenure more than 1 year, even these figures in some companies are higher than the ones listed by ABS from all of the companies. This indicates that this is a good sign for this persona to have Great Place To

Work certification since most of the accredited companies perform well in retaining their employees. Therefore, having this certification can increase their prestige and reputation.

4.3.2. Question 2: **Which state in Australia has a high rate of employability based on ‘Great Place To Work’ data?**

Visual answer:

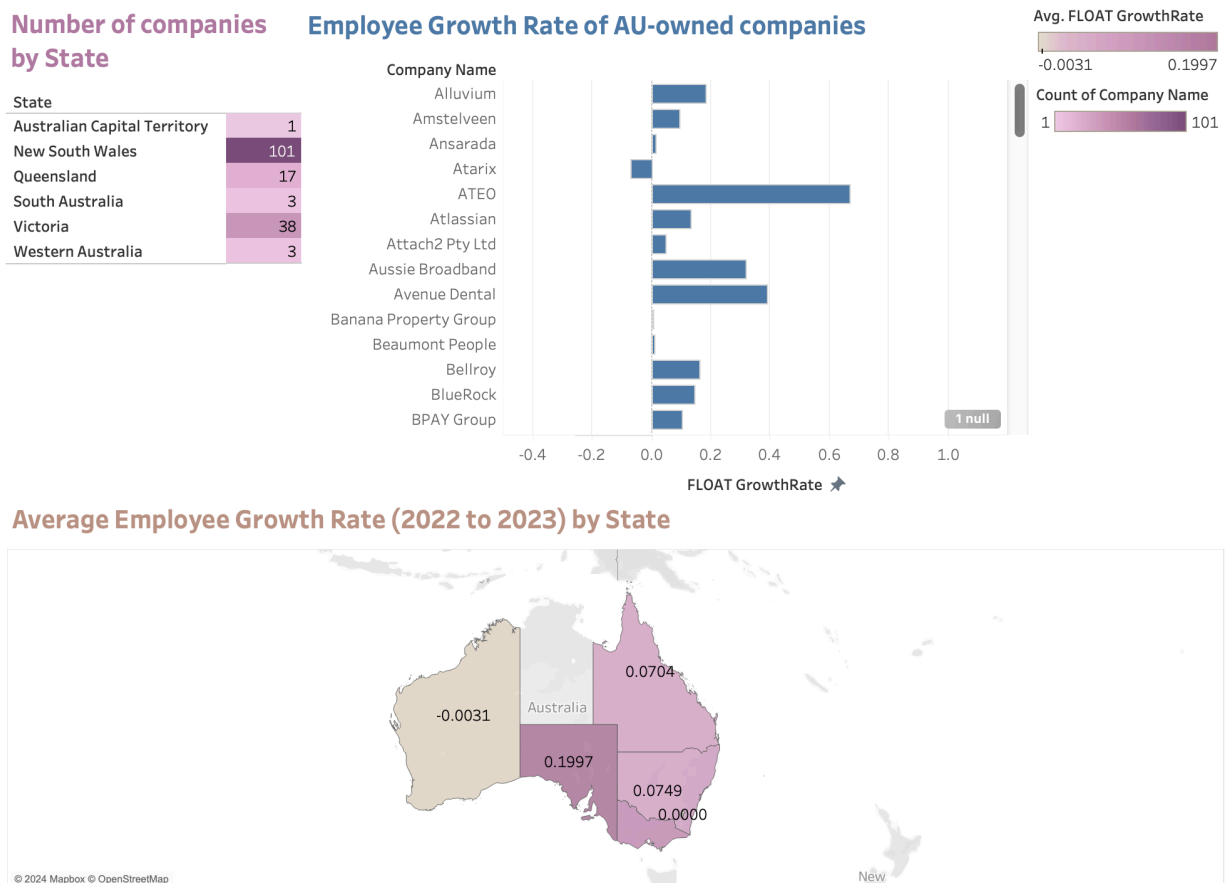


Figure 4.3.2: A visual answer showing the Employees Growth Rate within Australia

The visualisation above shows that the employee growth rate in South Australia is the highest figure within Australia. Moreover, the number of companies within South Australia provided by GPTW is low when there are only 3 companies in the list. These two factors indicate that South Australia can be an ideal area for this persona to open their new office here apart from New South Wales and Victoria. Consequently, South Australia is a promising developing area when all of the listed companies witnessed the increase in employee growth rate throughout the mentioned period.

4.3.3. Question 3: **What is the correlation between various employee satisfaction ratings from ‘Great Place To Work’ accredited companies’ sizes in the financial services & insurance industry against their customer satisfaction ratings?**

Visual answer:

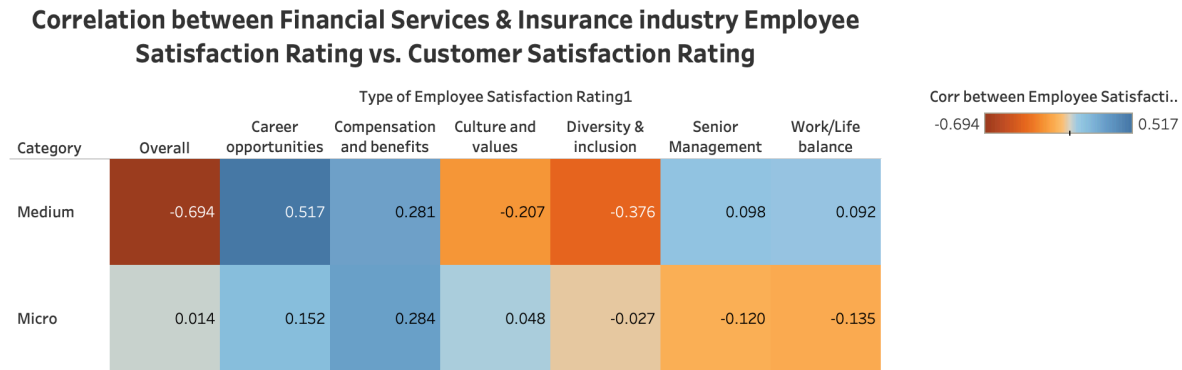


Figure 4.3.3. A visual answer portraying the correlation values between Financial Services & Insurance industry employee satisfaction ratings vs. customer satisfaction ratings.

The figure displays in the columns section the types of employee satisfaction ratings: ‘Overall’, ‘Career opportunities’, ‘Compensation and benefits’, ‘Culture and values’, ‘Diversity & inclusion’, ‘Senior Management’ and ‘Work/Life balance’. In the rows section, the company size category is showcased featuring ‘Medium’ and ‘Micro’ company size categories as they are the predominant company sizes regarding ‘Great Place to Work’ companies in the Financial Services & Insurance industry.

Key findings include:

- The strong & negative correlation between the ‘Overall’ type of employee satisfaction ratings and customer satisfaction ratings for the ‘Medium’ company size category (-0.694) implies an unexpected finding. In this case, more employee satisfaction correlates to reduced customer satisfaction.
- Secondly, the positive & moderate correlation between ‘Career opportunities’ employee satisfaction and customer satisfaction ratings for the ‘Medium’ category (0.517) suggests this

employee satisfaction rating type has a positive impact on customer satisfaction.

- Finally, the moderately negative correlation between 'Diversity & Inclusion' employee satisfaction and customer satisfaction ratings for the 'Medium' category (-0.376) could mean that this heightened employee satisfaction rating type leads to less customer satisfaction.

5. Analysis of data quality, data and visual ethics and unintended data harm

Data Quality

According to Jaya et al., 2017, businesses can formulate a better strategy by processing high data quality as it can reveal business patterns for decision-making. Quality data is essential for decision-making, so our group ensures that data accuracy is correctly represented in the workplace trends across Australian states from 2021 to 2023. Research from Redman, 1998, suggests a slight chance that a decision is based on using only good data, as any decision depends on thousands of data. However, our group minimises the risk of poor data quality by performing data cleaning and validation to ensure the reliability of workplace growth and the badge of "Great Place to Work" impact data.

Data and Visual Ethics

To ensure the consistency of our data, we focus on collecting data from 2021 to 2023 to provide the best representation of the data in that period. This project data is not real-time updates but a picture of this period's trend. While most of our data reflects this period, some visualisations, such as average employee growth rate or employees' reviews from ABS or Google, are falling outside the given period. Although it is inappropriate to include data outside the given time, these recent figures help provide context and add value to our analysis.

As business analytics, we ensure our actions align with ethical standards by harvesting our data responsibly. All data used in this project is sourced from online sources and publicly accessible, ensuring transparency as all our data are available to anyone in the public who are interested. Our approach upholds ethical standards and respects privacy by only using information that is openly available to the public.

Unintended Data Harm

We acknowledge that there might be some bias in our collected data; however, the study of

Popovic and Huecker (2023), also suggests that due to limitations in research, bias will always present to some degree, and it is essential for us to evaluate and minimise any bias in the analysis. For example, the Personas 3 question 2 visualisation question shows that South Australian companies have the highest employee growth rate. However, the data on SA needs to be more representative, as there are only 3 companies from SA in the GPTW ranking from 2021 to 2023. Furthermore, our satisfaction rate has been collected from Glassdoor, where some of it has less than five reviews, which can lead to an extremely high satisfaction rate and increasing bias. We are honest with the client about the imbalances across states in Australia and our satisfaction rate, which leads to some limitations of our analysis. However, we ensure that our visualisation interpretation is transparent and it will represent the data honestly without having any exaggeration or untruth to provide an honest and balanced insight.

6. Conclusion & Future work

It is strongly recommended that the client 'Great Place to Work' refers to and considers the highly effective and extensive data visualisations provided in this project for the future in order to ultimately advance their system by expanding their clientele and services. This could be done by firstly targeting more small and large enterprises as they are the least popular company size categories and even with the winners of 'Great Place to Work', employee satisfaction rates are below average compared to micro and medium sized companies. Secondly, offering additional background information on certified companies such as free public datasets for general education purposes and specifically to educate potential future clientele. Thirdly, providing services e.g information sessions to assist Australian companies with getting certified and improving their workplace environment.

In addition, GPTW can expand its target audience to include fresh graduates entering the job market. After building the first persona, we realised that this group represents a potential market for GPTW. Many fresh graduates seek information on industries that best align with their career aspirations and the companies they aim to work for. Furthermore, adding metrics such as interview ratings and likelihood of interview opportunities would help candidates prepare more effectively for their careers. Thus, this innovation, combined with GPTW's current prestige, presents a promising business expansion opportunity for our client.

Finally, further data sets to be considered by the client, which will lead to excelling further are the ABS, Glassdoor, Google, LinkedIn, Product Review and Seek data sets provided.

Acknowledgement Statement by students

I acknowledge that I have not used GAITs (e.g., ChatGPT) in drafting and proofreading this
assignment

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