

## 1. Analysis by DEI categories

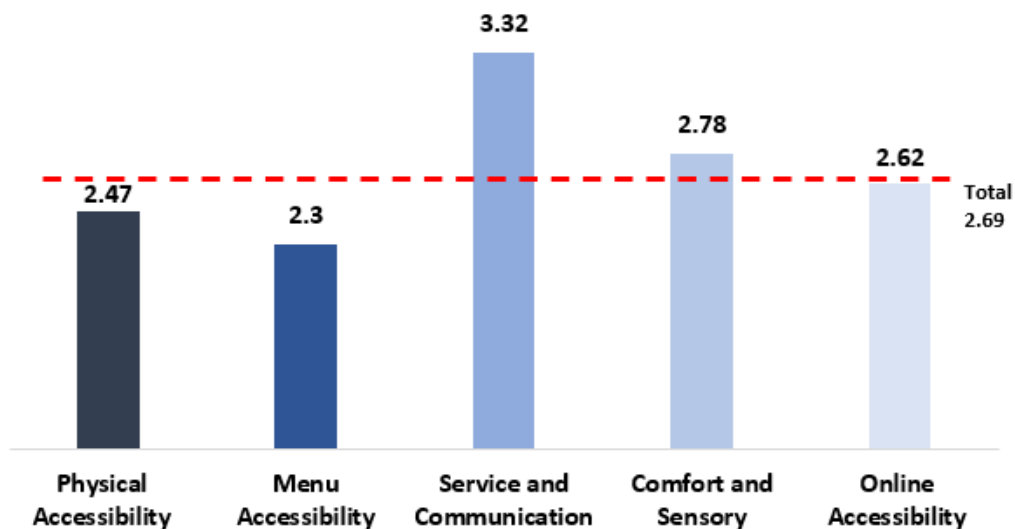
Descriptive statistics was conducted across five DEI-related accessibility categories: Physical Accessibility, Menu Accessibility, Service and Communication, Comfort and Sensory, and Online Accessibility.

- **Physical Accessibility (M = 2.47, SD = 0.63)**  
Owners reported mixed evaluations of physical access features such as step-free entryways and mobility-friendly layouts. Scores around the overall mean indicate that while basic accessibility measures are in place, comprehensive physical inclusivity (e.g., accessible restrooms or wide interior pathways) remains uneven across restaurants.
- **Menu Accessibility (M = 2.30, SD = 0.65)**  
This category received the lowest rating among all five dimensions. In detail, the results suggest that restaurants often lack multilingual menus, clear dietary information, or visual aids to support diverse customers. The slightly positive skew (Sk = 0.60) implies greater variability and mixed awareness regarding inclusive menu design. This domain represents the most urgent target for improvement.
- **Service and Communication (M = 3.32, SD = 0.62)**  
This dimension achieved the highest overall mean, reflecting owners' strong confidence in their interpersonal skills and inclusive service delivery. Most respondents rated this aspect highly, and the negative skew (Sk = -0.35) shows that scores concentrated toward the upper end of the scale. Responses were also tightly clustered (K = -1.26), suggesting consistent perceptions of strength in this area.
- **Comfort and Sensory (M = 2.78, SD = 0.54)**  
Ratings were close to the overall average, implying balanced yet cautious self-evaluations regarding lighting, noise levels, and general sensory comfort. Slight negative skewness (Sk = -0.39) indicates that respondents leaned modestly toward positive perceptions, though variability remains.
- **Online Accessibility (M = 2.62, SD = 0.72)**  
Digital inclusivity scored marginally higher than most on-site DEI factors, which suggests that many owners perceive their websites or social-media content as relatively accessible. However, the larger SD and flat kurtosis (K = -1.46) highlight considerable variability in online access—some businesses excel, whereas others lag behind.

DEI Categories	Mean	Standard deviation	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
Physical	2.47	.63	.090	.512	-.786	.992

<b>Accessibility</b>						
<b>Menu</b>	2.30	.65	.602	.512	-.836	.992
<b>Accessibility</b>						
<b>Service and Communication</b>	3.32	.62	-.349	.512	-1.260	.992
<b>Comfort and Sensory</b>						
<b>Online Accessibility</b>	2.62	.72	-.210	.512	-1.457	.992

Moreover, these patterns are clearly illustrated in the graphs as well. In particular, the visual distribution highlights owners' confidence in their interpersonal and customer-facing inclusivity practices, while Menu Accessibility falls well below the total average, thereby emphasising its perceived need for improvement. The remaining categories cluster closely around the average, revealing a fairly balanced self-assessment of accessibility-related performance overall.



Taken together, the trends suggest that restaurant owners tend to view their DEI performance favourably, yet distinct disparities remain between the different dimensions. Service and Communication emerges as a clear area of strength, while Menu Accessibility continues to represent the most evident opportunity for targeted improvement.

## 2. Analysis on individual restaurants

Descriptive statistics across 20 restaurants show substantial variation in DEI-related accessibility practices. While some establishments demonstrate clear strengths in service

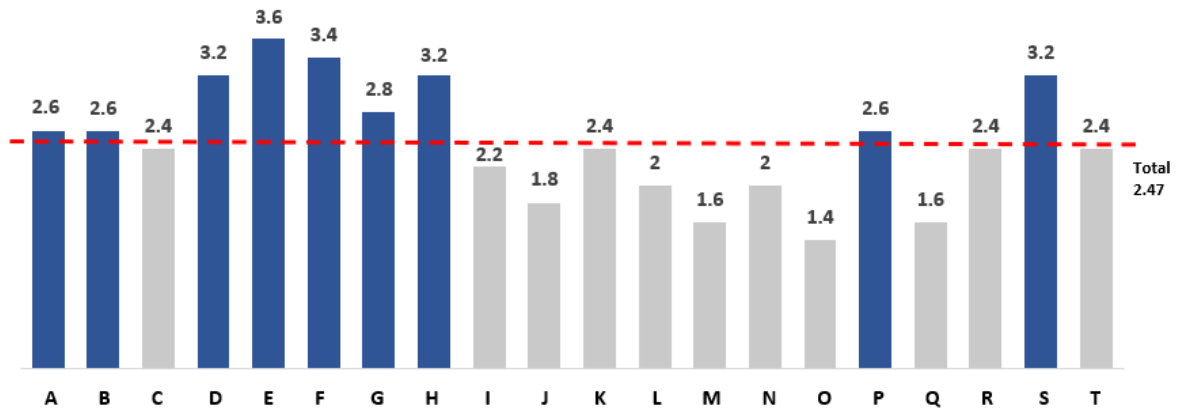
inclusivity, others continue to struggle with menu presentation, physical accessibility, and digital reach. The detailed breakdown below summarises key findings for each category.

- **Physical Accessibility (M = 2.47)**  
Scores for physical accessibility varied widely across restaurants, ranging from 1.40 (Restaurant O) to 3.60 (Restaurant E). Restaurants such as D, E, F, H and S reported relatively high accessibility ratings above 3.00, likely reflecting the presence of step-free entrances, wider walkways, or accessible restrooms. Conversely, several restaurants—including J, M, O, and Q—scored below 2.00, suggesting limited physical inclusivity. Overall, the results imply that physical accessibility remains unevenly implemented, with strong performers demonstrating good design practices but many lacking comprehensive physical accommodations.
- **Menu Accessibility (M = 2.33)**  
This category recorded one of the lowest overall averages. The result postulates that many restaurants continue to face challenges in presenting information inclusively, with scores ranged from 1.60 (e.g., E, L, M, O, S) to 3.60 (e.g., Restaurant I). Herein, Restaurants I, G, and T emerged as relative leaders, suggesting better menu design practices such as visual cues, multiple language options, or clear dietary labelling. The consistently low scores across several other establishments point to limited awareness of linguistic and cultural accessibility, making this a key area for targeted improvement.
- **Service and Communication (M = 3.32)**  
The highest-rated category overall, Service and Communication reflects restaurant owners' confidence in engaging with diverse customers. Many restaurants—including A, B, D, E, G, and I—achieved perfect or near-perfect scores of 4.00, indicating consistently positive self-evaluations of interpersonal inclusivity and adaptive service. A few restaurants (e.g., L, M, O) scored notably lower, but these remain exceptions. Overall, this domain emerges as a shared area of strength, characterised by positive attitudes and stable practices in inclusive customer service.
- **Comfort and Sensory (M = 2.78)**  
Comfort and Sensory scores clustered closely around the overall mean, with most restaurants rating between 2.00 and 3.67. The highest scorers such as G and I in this regard likely maintain balanced lighting, manageable sound levels, and comfortable spatial arrangements. In contrast, establishments at the lower end (e.g., A, M, N) may lack deliberate environmental adjustments for customers with sensory sensitivities.
- **Online Accessibility (M = 2.63)**  
Ratings for online inclusivity revealed moderate yet stable performance across restaurants, ranging from 1.50 (L, O) to 3.50 (A, B, G, I, S). Restaurants scoring highly in this category appear to maintain up-to-date websites or social media pages with accessible navigation and multilingual information. On the other hand, lower-scoring restaurants likely lack accessible online materials, reflecting gaps in digital engagement and inclusivity awareness. Despite that, the overall mean slightly exceeds other accessibility dimensions (e.g., on-site physical accessibility and service consideration). The results thus suggest that overall, digital accessibility—while imperfect—is evaluated somewhat more positively.

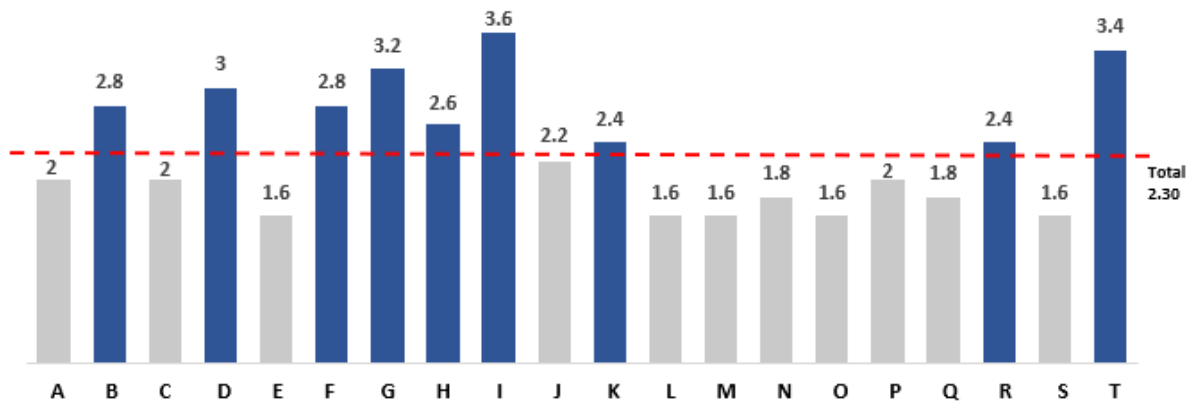
Restaurants	Mean				
	Physical Accessibility	Menu Accessibility	Service and Communication	Comfort and Sensory	Online Accessibility
A	2.600	2.000	4.000	2.000	3.500
B	2.600	2.800	4.000	2.667	3.500
C	2.400	2.000	3.800	1.667	2.500
D	3.200	3.000	4.000	3.000	2.750
E	3.600	1.600	4.000	3.000	3.000
F	3.400	2.800	3.800	2.667	3.000
G	2.800	3.200	4.000	3.667	3.500
H	3.200	2.600	3.000	3.000	3.000
I	2.200	3.600	4.000	3.667	3.500
J	1.800	2.200	3.600	3.000	2.250
K	2.400	2.400	3.200	3.333	2.000
L	2.000	1.600	2.200	2.667	1.500
M	1.600	1.600	2.400	2.000	1.750
N	2.000	1.800	2.800	2.000	1.750
O	1.400	1.600	2.400	3.000	1.500
P	2.600	2.000	2.600	3.000	2.000
Q	1.600	1.800	3.000	2.667	2.000
R	2.400	2.400	3.000	3.333	3.000
S	3.200	1.600	3.400	2.667	3.500
T	2.400	3.400	3.200	2.667	3.000
<b>ALL</b>	2.470	2.333	3.320	2.783	2.625

The visual patterns presented below reinforce the findings described earlier. Across all five dimensions, restaurants demonstrated uneven but generally positive self-assessments of DEI-related accessibility. Service and Communication consistently exceeded the overall mean, confirming it as the strongest domain, while Menu Accessibility remained the weakest area, falling notably below the total average. Physical, Sensory, and Online Accessibility showed moderate and relatively balanced levels of performance.

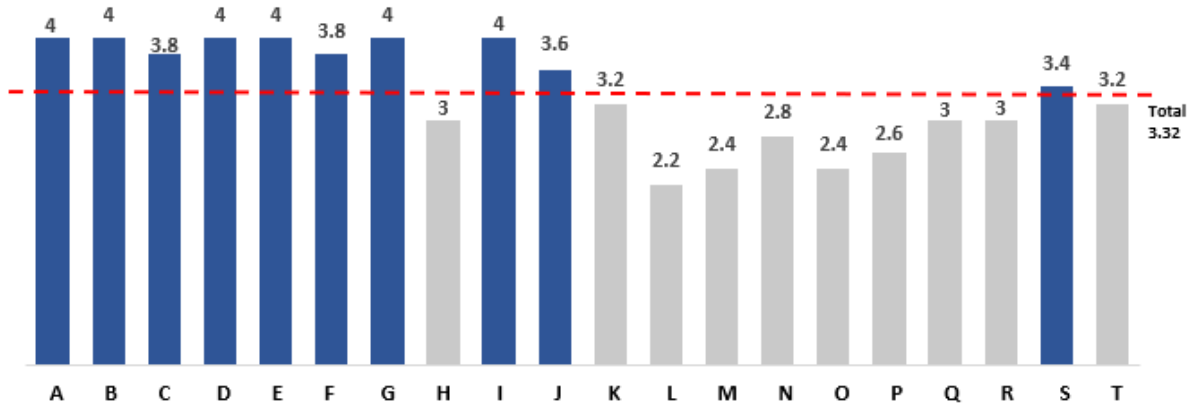
### Physical Accessibility

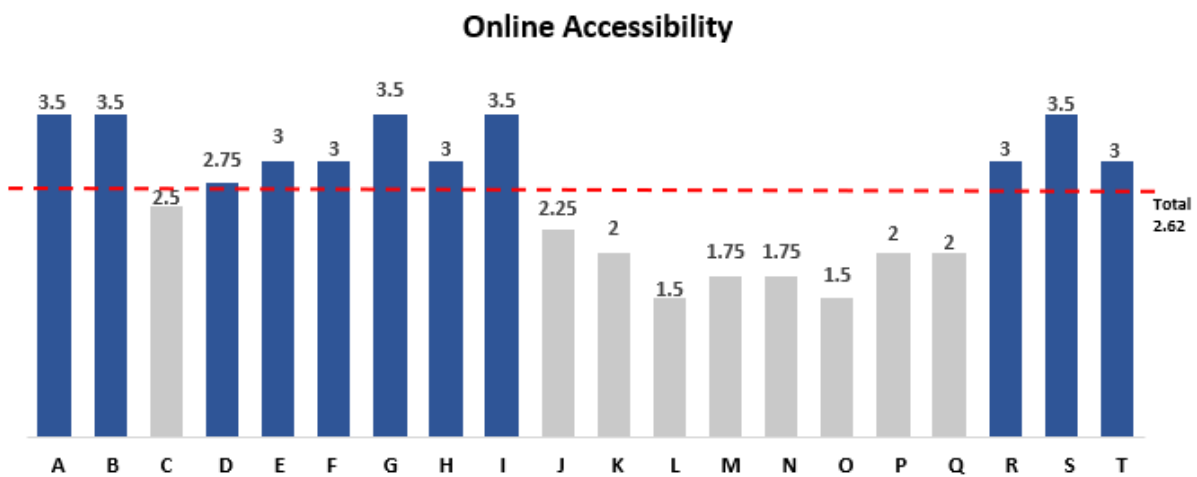
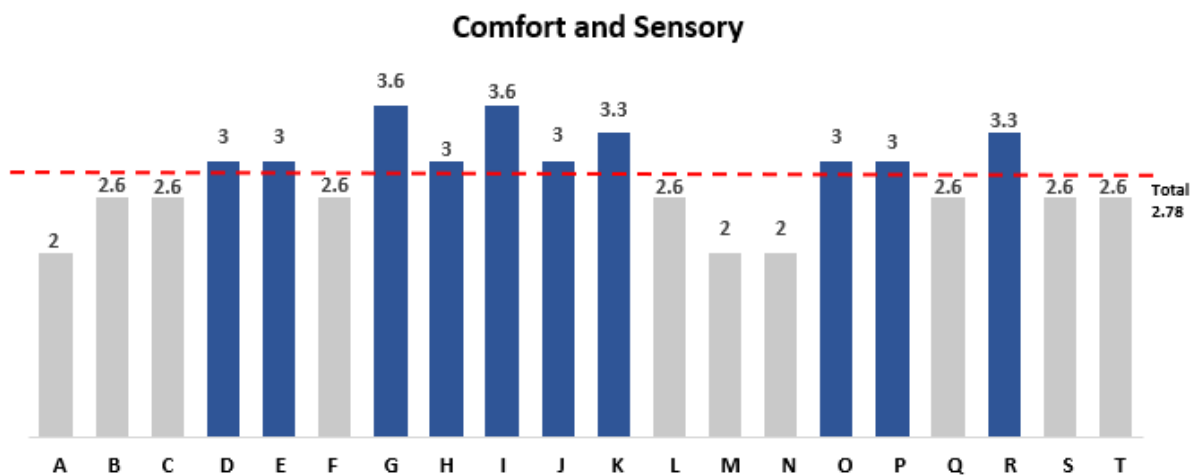


### Menu Accessibility



### Service and Communication





Taken together, the descriptive results and visual trends demonstrate that restaurant owners generally perceive their DEI performance positively, though with substantial variation among specific domains. Service and Communication consistently stands out as the most robust and uniformly high-performing category, reflecting shared confidence in interpersonal inclusivity and customer engagement. Menu Accessibility, by contrast, remains the weakest and most uneven area, underscoring the need for clearer, more inclusive communication of information. Additionally, Physical and sensory aspects show moderate but inconsistent performance, while Online Accessibility suggests a growing recognition of digital inclusion—though further development remains necessary to ensure equitable access across all customer groups.

## 5. Group Differences

### 5.1. Correlation Matrix

Before conducting group difference analyses, a Pearson correlation analysis was performed to examine the interrelationships among the five DEI-related accessibility domains and to assess potential risks of multicollinearity. As shown in the table below, several statistically significant positive correlations were found, indicating that the five domains are conceptually related but not redundant.

To elaborate, the strongest association emerged between Service and Communication and Online Accessibility ( $r = .793^{**}$ ,  $p < .001$ ), suggesting a substantial overlap between interpersonal inclusivity and digital accessibility. While this correlation is relatively high, it remains below the conventional multicollinearity threshold ( $r > .90$ ). This may imply that the two variables capture related yet distinct aspects of inclusivity. Similarly, Physical Accessibility was moderately correlated with both Service and Communication ( $r = .578^{**}$ ,  $p < .01$ ) and Online Accessibility ( $r = .656^{**}$ ,  $p < .01$ ), reflecting the shared underlying construct of accessibility without implying redundancy.

By contrast, *Comfort and Sensory* exhibited comparatively weak associations with the other variables (ranging from .153 to .501), reinforcing its relative independence within the overall accessibility framework. Collectively, these results confirm that inter-domain relationships are meaningful but not strong enough to cause multicollinearity concerns, and correspondingly that it is valid to consider all five DEI domains for subsequent group-level comparisons.

Variables	Physical Accessibility	Menu Accessibility	Service and Communication	Comfort and Sensory	Online Accessibility
Physical Accessibility	1				
Menu Accessibility	0.280	1			
Service and Communication	0.578**	0.529*	1		
Comfort and Sensory	0.180	0.501*	0.153	1	
Online Accessibility	0.656**	0.582**	0.793**	0.251	1
Mean	2.47	2.3	3.32	2.78	2.62
SD	0.63	0.65	0.62	0.54	0.72

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

## 5.2. *T-test*

An independent samples t-test was conducted to examine mean differences between independent and franchise restaurants across the five DEI-related accessibility domains. The detailed results and interpretations are outlined as follows.

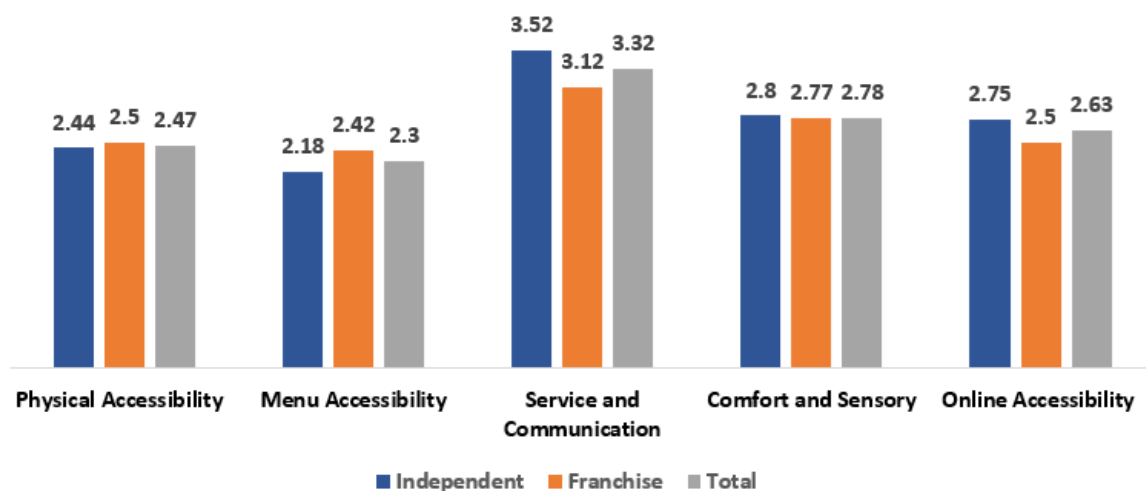
- Physical Accessibility**  
 The mean score for franchise restaurants ( $M = 2.50$ ,  $SD = 0.34$ ) was marginally higher than that for independent restaurants ( $M = 2.44$ ,  $SD = 0.69$ ), but the difference was not statistically significant [ $t(18) = 0.21$ ,  $p > .05$ ].
- Menu Accessibility**  
 Franchise restaurants ( $M = 2.42$ ,  $SD = 0.25$ ) scored slightly higher than independents ( $M = 2.18$ ,  $SD = 0.75$ ), with no significant difference [ $t(18) = 0.42$ ,  $p > .05$ ]. Thus, menu diversity and adaptability did not vary meaningfully by restaurant ownership.
- Service and Communication**  
 Independent restaurants ( $M = 3.52$ ,  $SD = 0.17$ ) rated higher than franchises ( $M = 3.12$ ,  $SD = 0.48$ ), though the difference did not reach statistical significance, [ $t(18) = 1.48$ ,  $p > .05$ ]. The pattern suggests a tendency for independents to emphasise more personalised, customer-centred communication.
- Comfort and Sensory**  
 Mean differences between independent ( $M = 2.80$ ,  $SD = 0.74$ ) and franchise ( $M = 2.77$ ,  $SD = 0.47$ ) restaurants were minimal and non-significant [ $t(18) = 0.13$ ,  $p > .05$ ]. Therefore, both groups appear to maintain similar attention to environmental comfort and sensory inclusivity.
- Online Accessibility**  
 Independent restaurants ( $M = 2.75$ ,  $SD = 0.52$ ) scored slightly above franchise restaurants ( $M = 2.52$ ,  $SD = 0.29$ ), but again the difference was not significant [ $t(18) = 0.76$ ,  $p > .05$ ]. This proposes that digital inclusivity practices are relatively uniform across ownership types.

Variables	Restaurant Types	n	M	SD	F
Physical Accessibility	Independent	10	2.44	.689	0.043
	Franchise	10	2.5	.341	
	<b>Total</b>	<b>20</b>	<b>2.47</b>	<b>.565</b>	
Menu Accessibility	Independent	10	2.18	.748	0.669
	Franchise	10	2.42	.251	
	<b>Total</b>	<b>20</b>	<b>2.3</b>	<b>.621</b>	
Service and Communication	Independent	10	3.52	.167	2.184
	Franchise	10	3.12	.476	



	Total	20	3.32	.319	
Comfort and Sensory	Independent	10	2.8	.742	0.018
	Franchise	10	2.77	.471	
	Total	20	2.78	.633	
Online Accessibility	Independent	10	2.75	.516	0.584
	Franchise	10	2.5	.288	
	Total	20	2.63	.453	

Besides, the visual distribution shown in the accompanying graph confirms the statistical results: both groups exhibit comparable levels of perceived inclusivity, with only minor variations in specific areas. To be more specific, independent restaurants show noticeably higher averages in Service and Communication and Online Accessibility, indicating stronger tendencies toward personalised interaction and digital engagement. Conversely, franchise restaurants slightly outperform independents in Physical and Menu Accessibility. This result may be attributable to the fact that branded eateries adhere to standardised corporate policies and guidelines, which ensure consistent design standards and menu updates.



Meanwhile, both groups show nearly identical results for Comfort and Sensory, suggesting a shared level of environmental consideration. Taken together, the visual and statistical findings demonstrate that ownership structure does not substantially differentiate DEI performance, though independents appear marginally more responsive to interpersonal and technological dimensions of accessibility.