# Unpacking the metrics: a critical analysis of the 2025 QS World University Rankings using Australian university data

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Despite extensive critiques of university rankings highlighting their emphasis on reputation metrics over teaching quality and equity, empirical validation remains limited. This study addresses this gap by analysing relationships between QS World University Rankings indicators and overall scores for Australian universities (2025 dataset). Using correlational analyses on publicly available data, the findings identify Academic Reputation, Employer Reputation, and Employment Outcomes as influential metrics, while Faculty-to-Student Ratio and Sustainability show limited or negative correlations. Results further suggest systemic biases favouring larger, research-intensive institutions, potentially disadvantaging smaller or specialised universities regardless of academic quality. Although focused on the Australian higher education context, this research contributes timely empirical insights relevant globally. The findings inform university leaders, policymakers, and scholars, providing evidence to critically evaluate ranking methodologies and advocating for transparent, equitable, and pedagogically inclusive approaches to assessing institutional excellence.

KEYWORDS

academic reputation, Australian universities, higher education rankings, institutional performance, QS World University Rankings

## Introduction

University rankings have become increasingly influential in shaping the global higher education landscape, significantly impacting the strategies and operations of academic institutions worldwide. These rankings are extensively utilised by prospective students to inform their university choices, by policymakers and funding bodies to guide resource allocation, and by institutional leaders to benchmark performance and strategise improvements. The influence of rankings extends beyond mere comparison; they actively shape institutional reputations, drive competitive funding dynamics, and enhance or constrain international research and academic collaborations (Hazelkorn, 2018; Marope et al., 2013). As ranking outcomes directly affect universities' visibility and competitiveness, institutions often adapt their priorities and practices to align more closely with ranking criteria, reinforcing the perceived legitimacy and importance of these metrics. This profound influence underscores the necessity of critically evaluating the metrics used in rankings, their prioritisation, and their broader implications for educational quality and equity.

### Key metrics and critiques

Most ranking systems emphasise academic reputation, research performance, and economic value, aligning closely with national and institutional goals for global

competitiveness, funding, and prestige (Marginson, 2016). However, prioritising these factors often sidelines critical dimensions such as teaching quality and equity, essential pillars of educational integrity. Despite their widespread acceptance, global rankings face critiques regarding methodological transparency, validity, and their over-reliance on subjective, perception-based indicators (Sauder and Espeland, 2020; Shin et al., 2011). These critiques highlight structural biases inherent in rankings that disproportionately favour metrics aligned with elite research outputs and economic considerations over pedagogical effectiveness and equitable access.

## The Australian context and global perspectives

In Australia, higher education is a major national export industry, heavily influenced by international enrolments. Australian universities frequently use QS World University Rankings in marketing strategies to attract international students and justify tuition fee structures (Universities Australia, 2023). With over 30 Australian universities competing globally, rankings serve both as performance benchmarks and promotional instruments, generating tension between perceived and actual educational quality. This tension is not unique to Australia and reflects broader global debates about defining academic excellence. For example, Latin American scholars and university leaders argue that global rankings impose a hegemonic Anglo-American university model, neglecting their distinct cultural, social, and developmental missions (Bernasconi, 2013; Maldonado-Maldonado and Cortés, 2016; Ordorika and Lloyd, 2013). The varied responses across different countries, some resisting rankings to pursue equity-driven reforms, others leveraging rankings to guide public investments, underscore the transnational impacts of rankings and the need for empirical studies that critically evaluate ranking frameworks within specific national contexts.

## Research gap and significance

Despite extensive critiques regarding methodological limitations and structural biases inherent in university rankings (Hazelkorn, 2018; Marope et al., 2013; UNESCO, 2021), rigorous empirical examination of recent ranking data remains limited. While the literature robustly highlights how rankings often prioritise metrics disconnected from universities' fundamental educational missions, particularly teaching quality, student support, and equity (Sauder and Espeland, 2020; Shin et al., 2011), empirical validation of these critiques through recent ranking data analyses is scarce. This study aims to bridge this gap by empirically assessing the QS World University Rankings' 2025 dataset for Australian universities. Specifically, it investigates whether the established critiques of ranking methodologies remain valid and explores which factors underpin the rankings. By clarifying how metrics are organised and their effectiveness, this study provides empirically grounded insights that can inform critical reassessments of global ranking frameworks.

This study unveils how recent university ranking metrics correlate with specific institutional factors within the Australian context, providing a contemporary empirical reference for ongoing global debates about university rankings. Although the analysis is grounded

in the Australian higher education landscape, its broader implications extend to global contexts, offering valuable insights into structural biases and their social consequences. Ultimately, this research advances the dialogue on fairer, more inclusive, and pedagogically responsive approaches to evaluating institutional excellence. The study underscores broader societal implications, such as the disproportionate benefits that reliance on global rankings can confer upon applicants from privileged backgrounds, as exemplified by Chile's Becas-Chile scholarship program (Perez Mejias et al., 2018). By elucidating structural consequences within the Australian context, this research provides valuable empirical evidence for universities, policymakers, and ranking agencies globally, advocating for fairer, more inclusive, and pedagogically grounded evaluation practices.

# Literature review

## Historical development and evolution of university rankings

The development of university rankings has evolved from national classification systems and informal reputation surveys into complex global frameworks. One of the earliest formal classification efforts was the Carnegie Classification introduced in 1970 in the United States, which categorised institutions based on research intensity. Although not a ranking per se, it laid the groundwork for later metrics-based comparisons (Altbach and Salmi, 2011). The formalisation of rankings began in 1983 with the launch of the U. S. News & World Report rankings. These rankings incorporated both subjective peer assessments and quantitative indicators such as graduation rates and faculty resources, thereby establishing a model for comprehensive institutional evaluation (U.S. News & World Report, 2024). Around the same time, European countries developed systems aligned with national priorities. For instance, France's Centre National de la Recherche Scientifique (CNRS) and Germany's Centre for Higher Education Development (CHE) introduced evaluations that emphasised institutional accountability and performance benchmarking, particularly in relation to national policy goals (Dill and Soo, 2005; Usher and Savino, 2007).

The early 2000s marked a shift toward international comparisons, driven by the growing need for global standards in higher education quality assurance. UNESCO played a key role in advocating for internationally comparable evaluation frameworks (Marginson and van der Wende, 2007, as cited in Shin et al., 2011). This global momentum culminated in the release of the Academic Ranking of World Universities (ARWU) by Shanghai Jiao Tong University in 2003. ARWU introduced a research-centric methodology that prioritised indicators such as Nobel laureates, Fields Medal recipients, and publication outputs, signalling a new era of rankings focused on elite research productivity (ShanghaiRanking, 2024).

In 2004, Times Higher Education (THE) and Quacquarelli Symonds (QS) collaborated to launch the first iteration of the THE–QS World University Rankings, combining data collected by QS with editorial oversight from THE. This partnership produced joint global rankings until 2009. In 2010, the collaboration ended, and both organisations developed independent methodologies. QS retained the original framework and data sources, continuing under the title QS World University Rankings. Meanwhile, THE partnered with Thomson Reuters (now Elsevier) to develop a new ranking methodology focused

more heavily on research environment and teaching metrics (Hazelkorn, 2015; QS, 2024a; Times Higher Education, 2024).

Over time, QS has broadened its scope by introducing regional rankings, subject-specific assessments, and graduate employability indices. Recent additions include metrics for sustainability, international research collaboration, and employment outcomes, reflecting evolving global priorities in higher education (QS, 2024b). As of 2025, the QS World University Rankings remain one of the most prominent and influential systems globally. The current methodology is structured around five thematic lenses: Research and Discovery (50%), Employability and Outcomes (20%), Global Engagement (15%), Learning Experience (10%), and Sustainability (5%). These lenses are operationalised through specific indicators: Academic Reputation (30%) and Citations per Faculty (20%) fall under Research and Discovery; Employer Reputation (15%) and Employment Outcomes (5%) under Employability; and four metrics including International Faculty Ratio, International Research Network, International Student Diversity, and International Student Ratio (each 5%) comprise the Global Engagement lens. The Learning Experience lens includes the Faculty-to-Student Ratio (10%), while Sustainability is represented by a dedicated 5% indicator.

While this multifactorial QS ranking structure suggests a comprehensive approach, the dominance of reputation-based indicators and the relatively limited weight allocated to pedagogical quality and student experience have attracted increasing scrutiny from scholars (Hazelkorn, 2015; Marginson, 2014; Sauder and Espeland, 2020). Methodological criticisms, particularly regarding the reliance on reputation surveys and bibliometric data, highlight potential biases that reinforce the standing of historically prestigious institutions, often neglecting broader dimensions of educational quality such as teaching excellence, equity, and community engagement (Dill and Soo, 2005; Van Raan, 2005; Kehm and Stensaker, 2009).

## The influence of university rankings in higher education

University rankings have become a dominant force in shaping higher education systems globally. A substantial body of literature demonstrates their growing influence over institutional behaviour, government strategies, and cross-border collaboration (Hazelkorn, 2018; Marope et al., 2013). At the governmental level, particularly in emerging and middle-income economies, rankings are used to prioritise funding allocations and guide reforms in curriculum, infrastructure, and research capacity. For example, national excellence initiatives in countries like China, Japan, and Russia have led to ranking improvements of up to 17 places, largely driven by targeted investment and policy coordination (Altbach and Salmi, 2011; Marope et al., 2013). Similarly, in Latin America, scholars and education leaders have raised sustained critiques of global university rankings, highlighting their methodological bias and epistemological limitations. These systems are said to impose a research university archetype rooted in Anglo-American traditions, overlooking historic regional missions of public service, social justice, and community-based pedagogy (Ordorika and Lloyd, 2013; Ordorika and Lloyd, 2013; García de Fanelli, 2019).

Rankings have also been linked to widening funding inequalities in the region, as governments increasingly channel resources into top-ranked institutions at the expense of regional universities with socially critical roles (Finardi et al., 2023). Additionally, the dominance of English-language bibliographic databases in citation indicators marginalises Spanish and Portuguese scholarship, reinforcing what some describe as "epistemological hegemony" (Darwin and Barahona, 2024). In response, regional experts have proposed alternative frameworks such as U-Multirank and context-sensitive models that better recognise mission diversity and equity (Marope et al., 2013). These perspectives resonate with broader global concerns about the homogenising effects of rankings and reinforce the rationale for a more inclusive, pedagogically grounded framework.

On the institutional level, university rankings shape enrolment strategies, brand positioning, and academic recruitment. High-ranked universities attract high-performing students who perceive rankings as indicators of academic quality and career outcomes (Hazelkorn, 2015). Institutions often respond by expanding English-language programmes, increasing international student enrolments, and prioritising faculty with high research visibility. This behaviour aligns with findings that institutions actively adapt their operational strategies to align with ranking criteria (Sauder and Espeland, 2020).

Rankings also influence employer perceptions and downstream migration pathways. Employers frequently use university rankings as proxies for graduate quality, with implications for hiring decisions and professional reputation. For example, Australia's National Innovation visa scheme prioritises PhD holders from universities ranked in the global top 100, directly linking ranking status to immigration eligibility (Department of Home Affairs, 2023). Similar policies in Canada and the UK illustrate how rankings are embedded into national talent attraction strategies (Kwak and Chankseliani, 2024).

At the global level, rankings influence academic hierarchies and geopolitical narratives. Investment-driven advancements by universities in regions such as the Gulf States, East Asia, and Latin America have resulted in these institutions entering global top tiers, challenging the traditional dominance of Anglo-American systems (Times Higher Education, 2025). This global reordering reflects a shift in power dynamics and the role of rankings in soft diplomacy and national competitiveness.

A recurring theme in the literature is the distortion of institutional missions. Empirical studies argue that rankings encourage metric-driven behaviours at the expense of broader educational values such as pedagogical quality, equity, and community engagement (Hazelkorn, 2018; Shin et al., 2011). Moreover, the pressure to perform on specific indicators can lead to superficial policy reforms or resource allocation that may not translate into genuine improvements in learning or societal outcomes. This pressure to conform to a single, dominant model of university quality is a global concern. In Mexico, rankings have been identified as powerful policy drivers, pushing institutions toward elite, STEM-focused configurations that may not align with national development needs (Estevez Nenninger et al., 2018). Moreover, a policy brief by the United Nations University warns that such rankings often incentivise universities to prioritise short-term gains, such as superficial metric improvements over meaningful investments in teaching, staff wellbeing, or community partnerships (United Nations University, 2023). These trends exemplify how rankings can distort institutional priorities even in systems with different educational missions and socio-political goals.

Collectively, the literature suggests that while rankings can incentivise improvement and visibility, their outsized influence must be critically assessed, particularly when institutional goals become narrowly aligned with ranking metrics rather than educational quality

or equity outcomes. Within this global context, the Australian higher education sector exemplifies the strategic integration of rankings into institutional and national agendas. Australia is one of the world's leading destinations for international students, with international education representing a multi-billion-dollar export industry. As such, Australian universities actively leverage rankings. Particularly QS and THE rankings, in promotional campaigns, branding strategies, and international recruitment efforts (Universities Australia, 2023). The visibility of global rankings supports narratives of institutional excellence, justifies tuition frameworks, and shapes decisions about partnerships, curriculum development, and infrastructure. Rankings also play a crucial role in national education diplomacy and influence how Australian institutions position themselves within regional and global academic markets. These dynamics highlight the high-stakes environment in which Australian universities operate and the reliance on rankings as both a tool and a benchmark for institutional success (Hazelkorn, 2018; Marope et al., 2013).

## Critique and empirical analysis of rankings

Despite their widespread influence, university rankings face growing scrutiny due to significant conceptual and methodological limitations. A primary concern is the over-reliance on subjective reputation-based indicators, particularly in the QS World University Rankings, where Academic and Employer Reputation together account for 45% of the total score. These survey-based metrics tend to reinforce established hierarchies rather than reflect current institutional performance (Shin et al., 2011). Critics have also highlighted the methodological opacity and questionable validity of some metrics used across ranking systems. For example, citation metrics, while popular as a proxy for research output can be highly variable across disciplines and do not necessarily reflect research impact or teaching quality (Van Raan, 2005; Bornmann and Daniel, 2008; Elsevier, 2022).

Language and regional biases have also been documented, particularly the favouring of institutions in English-speaking, high-income countries, thus marginalising universities with strong local missions in non-Anglophone contexts (Marginson and van der Wende, 2007). Additionally, university rankings often neglect pedagogical excellence, community engagement, and social inclusion, leading to a narrow conception of institutional quality (Dill and Soo, 2005; Kehm and Stensaker, 2009). This emphasis on research metrics has been linked to the marginalisation of teaching responsibilities and broader public service goals. Institutional behaviour is also influenced by rankings, with some universities adopting strategies that artificially enhance their scores. Examples include hiring highly cited researchers or Nobel laureates and forming nominal international partnerships to inflate metrics related to research reputation and global engagement (Marope et al., 2013).

Taken together, these critiques highlight the need for a more balanced, transparent, and multidimensional approach to evaluating university performance. This study contributes to this growing dialogue by offering a correlation-based analysis of QS World University Rankings indicators in the Australian context. It explores the extent to which current QS metrics align or misalign with empirically grounded indicators of educational quality, thereby informing future ranking methodologies that are more pedagogically inclusive and context sensitive.

## Methodology

This study utilises publicly available data from the QS World University Rankings 2025, with a specific focus on Australian universities due to resource constraints and the feasibility of consistent institutional comparison within a single national context. The dataset was retrieved and adapted from the official QS rankings website and includes metrics such as Academic Reputation, Employer Reputation, Faculty-to-Student Ratio, Citations per Faculty, International Faculty Ratio, International Student Ratio, International Research Network, Employment Outcomes, and Sustainability (QS, 2025b). While the extracted and processed dataset used for the analysis is provided as Supplementary material, the complete dataset remains accessible through the official QS source (QS, 2025b).

During the data preparation stage, the dataset was cleaned to retain only numeric values and ensure consistency in the variable formats. Initially, records for 38 Australian universities were retrieved from the QS World University Rankings 2025 dataset. However, 7 of these institutions lacked an Overall Score and were therefore excluded from the analysis. As a result, data from 31 Australian universities were included in the final analysis.

The analysis was conducted in two stages. In the first stage, descriptive statistics and boxplots were used to examine the distribution of Overall Scores across university classifications provided by QS, specifically Size (Extra Large, Large, Medium, Small) and Focus (Fully Comprehensive, Comprehensive, Focused). These visualisations offered insights into structural patterns and institutional characteristics within the dataset.

In the second stage, Pearson correlation coefficients were computed to evaluate the strength and direction of relationships between the ranking indicators and the Overall Score. This statistical analysis was performed using Python libraries, including pandas, seaborn, and matplotlib. A correlation heatmap was generated to visualise these associations, highlighting both strong and weak correlations, including negative ones. This approach allowed for a detailed quantitative assessment of which indicators most significantly contribute to QS rankings and how they interact with one another.

It is important to clarify that this analysis of the QS ranking criteria is based on the methodology applied to the QS World University Rankings 2025 dataset. Any subsequent changes to QS's ranking methodology, such as those introduced for the 2026 rankings (published in 2025) (QS Quacquarelli Symonds, n.d.), including the adjustment where International Student Diversity became an unweighted indicator, are not reflected in this paper. This paper exclusively presents and discusses the matrix relevant to the 2025 ranking cycle.

## Results and discussion

Descriptive analyses reveal observable patterns in how QS classifications based on university size and institutional focus relate to Overall Scores. According to QS (2024a), university size is categorised into four groups: Extra Large (XL), Large (L), Medium (M), and Small (S), based on student enrolment volume. Although QS does not disclose the exact student number thresholds for each category, these classifications broadly reflect institutional scale, ranging from small regional institutions to large, multi-campus universities. Meanwhile,

focus refers to the breadth of academic offerings and is categorised into three levels: Fully Comprehensive (FC) institutions offer a wide and balanced range of academic disciplines, often including professional degrees, humanities, sciences, and technology; Comprehensive (CO) universities offer a broad portfolio but may emphasise specific disciplinary clusters; and Focused (FO) institutions are more specialised, concentrating on a narrower academic or professional area (e.g., education, health, or creative arts).

As shown in Figure 1, Extra Large (XL) universities recorded the highest average Overall Scores, followed by Large (L) and Medium (M) institutions. Small (S) universities exhibited the lowest mean scores. This trend aligns with broader concerns that university rankings reward scale and visibility, which often advantage larger institutions with diverse offerings and substantial resources. It is also plausible that larger universities benefit from higher Academic and Employer Reputation scores, both of which collectively account for a substantial proportion of the QS methodology. Given that reputation-based indicators are influenced by institutional recognition and branding, larger and more established institutions may be more likely to receive favourable assessments from academics and employers alike, further reinforcing their positions in global rankings.

Figure 2 illustrates the distribution of QS Overall Scores by institutional focus. Fully Comprehensive (FC) universities exhibited the highest and most consistent Overall Scores. Comprehensive (CO) universities showed more variability and generally lower scores, while Focused (FO) institutions had the lowest median scores and the greatest dispersion. These findings suggest that breadth of academic disciplines and institutional scope may positively influence perceived quality and ranking outcomes. It is plausible that QS rankings, by prioritising reputation and citation-based metrics, inherently favour institutions that are broader in focus and thus more visible across multiple academic domains. Focused institutions, despite possibly

excelling in niche areas or maintaining high-quality education in specialised fields, may be disadvantaged in the current QS methodology, which tends to amplify the advantage of institutional scale, disciplinary breadth, and established global recognition.

These descriptive patterns are consistent with critiques of global rankings that highlight systemic favouritism toward large, research-intensive institutions. The implications of these structural classifications are discussed further below in relation to the performance indicators and correlation findings.

## Correlation between each indicator and the overall score

The correlation analysis revealed that the Overall Score was most strongly associated with Academic Reputation, $r(29) = 0.98$, $p < 0.001$, followed by Employer Reputation, $r(29) = 0.97$, $p < 0.001$, and Employment Outcomes, $r(29) = 0.94$, $p < 0.001$ (see Figure 3). These indicators, which collectively account for 50% of the QS methodology (QS, 2024a), highlight the dominant role of perception-based metrics. While widely cited as measures of prestige, such metrics have been criticised for perpetuating historical privilege and lacking responsiveness to current institutional improvements (Hazelkorn, 2015; Marginson, 2014).

Citations per Faculty also demonstrated a strong association with the Overall Score, $r(29) = 0.79$, $p < 0.001$, affirming the significance of research productivity. However, its slightly lower strength compared to reputation-based metrics indicates that empirical research performance alone does not drive rank outcomes. Notably, the correlation between Citations per Faculty and Academic Reputation was moderate, $r(29) = 0.67$, $p < 0.001$, suggesting that research reputation does not always align with measurable. This
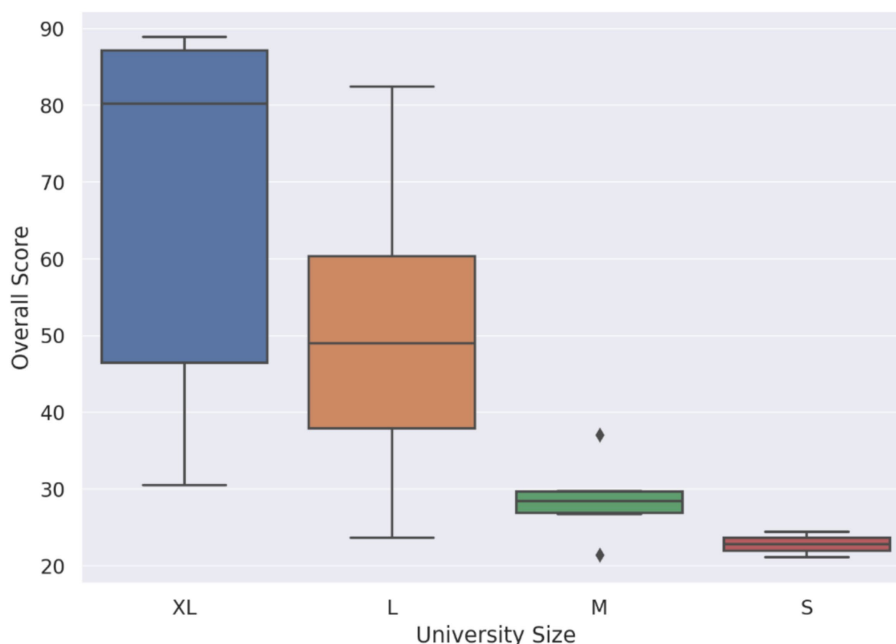
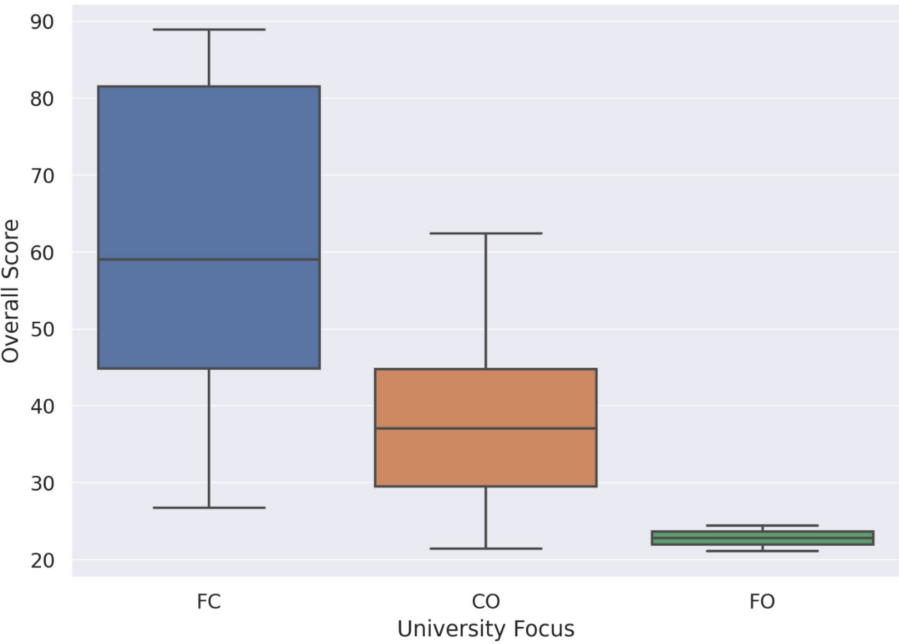

FIGURE 1
Average QS overall score by university size.

**FIGURE 2**
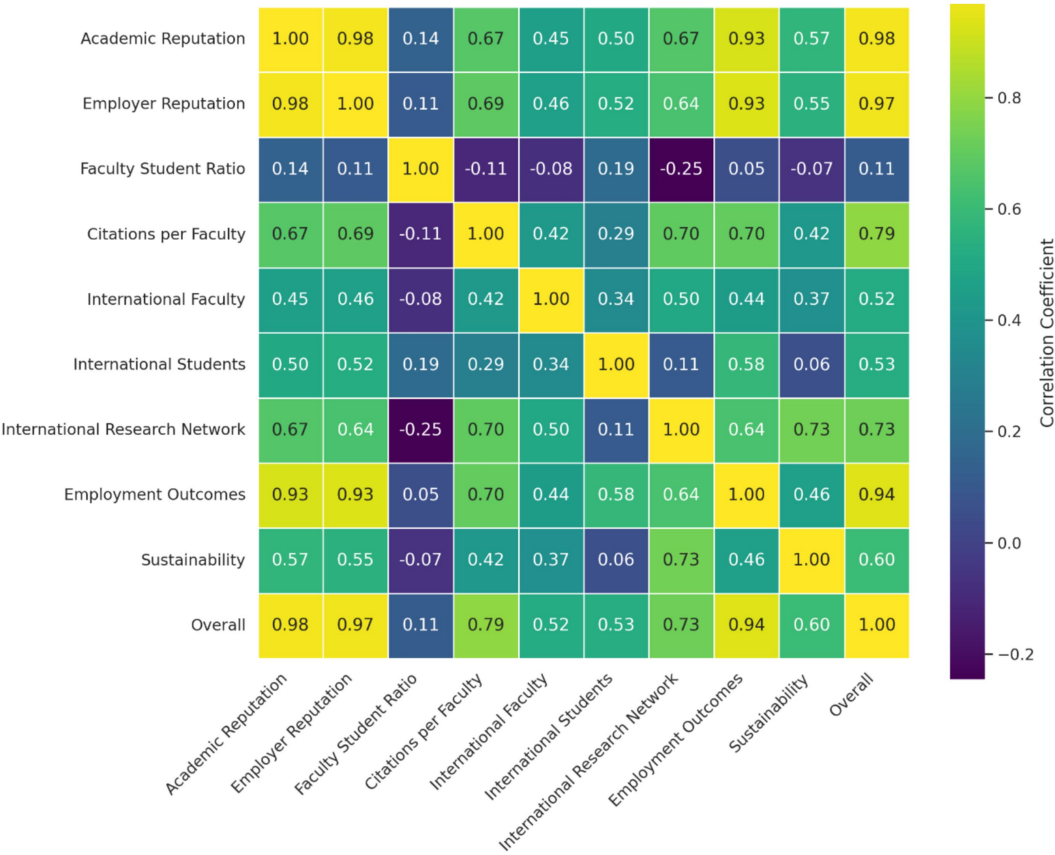Distribution of QS overall scores by university focus.



**FIGURE 3**
Correlation heatmap of QS 2025 ranking indicators (Australian universities).

concern has been the subject of sustained academic critique. Scholars such as Bornmann and Daniel, 2008 and Tahamtan and Bornmann (2019) have argued that reputation-based indicators often reflect historical prestige and subjective perceptions rather than current, verifiable research performance. These metrics risk reinforcing institutional hierarchies and may obscure disciplinary differences in publication and citation practices, ultimately undermining the reliability of rankings that heavily rely on reputation scores.

Faculty Student Ratio exhibited a weak correlation with the Overall Score, $r(29) = 0.11$, $p = 0.556$, and was negatively correlated with several other indicators: International Research Network, $r(29) = -0.25$, $p = 0.166$; Sustainability, $r(29) = -0.07$, $p = 0.702$. These findings indicate a misalignment between teaching-related infrastructure and the criteria valued by global rankings. Despite evidence that lower student-to-faculty ratios are linked to better student engagement and outcomes (Umbach and Wawrzynski, 2020; Shin et al., 2011), such metrics are underweighted in the QS framework. This suggests that pedagogical quality and student-centred learning environments are systematically undervalued in favour of research visibility and internationalisation, raising concerns about the extent to which rankings reflect the core educational mission of universities.

Moderate correlations were observed for International Faculty, $r(29) = 0.52$, $p = 0.003$, and International Students, $r(29) = 0.53$, $p = 0.002$, indicating some influence of internationalisation metrics. Sustainability also showed a moderate positive correlation with the Overall Score, $r(29) = 0.60$, $p < 0.001$, reflecting the increasing but still secondary weight given to institutional commitment to environmental and social responsibility.

## Correlation among the ranking indicators

As shown in Figure 3, the correlation map revealed strong interconnections among reputational indicators. Academic Reputation and Employer Reputation were nearly collinear, $r(29) = 0.98$, $p < 0.001$, suggesting potential redundancy in their measurement. Employment Outcomes were also strongly correlated with both Academic Reputation, $r(29) = 0.93$, and Employer Reputation, $r(29) = 0.93$, indicating that employability rankings may be shaped more by perception than by distinct labour market data (Hazelkorn, 2015).

Citations per Faculty correlated moderately with Academic Reputation ($r(29) = 0.67$, $p < 0.001$), yet much lower with Faculty Student Ratio ($r(29) = -0.11$, $p = 0.556$), reinforcing the idea that teaching capacity and research recognition function in largely disconnected domains under the current model. Faculty Student Ratio also displayed weak or negative correlations with Employment Outcomes ($r(29) = 0.05$, $p = 0.796$), Sustainability ($r(29) = -0.07$, $p = 0.702$), and International Research Network ($r(29) = -0.25$, $p = 0.166$), further suggesting the marginal role of pedagogical investment in global performance evaluations.

## Critical evaluation of the ranking metrics and its implications

The analysis reinforces the understanding that the QS World University Rankings tend to disproportionately reward institutional

visibility, research output, and stakeholder perception. The prominence of Academic Reputation and Employer Reputation, both derived from large-scale surveys, reflects a heavy reliance on subjective inputs that may reinforce legacy hierarchies rather than assess contemporary institutional performance (Dill and Soo, 2005; Sauder and Espeland, 2020). Although Citations per Faculty provides a more quantifiable measure of academic output, it does not offset the dominant role played by reputational indicators. The fact that Citations per Faculty correlates more strongly with Overall Score than Faculty-to-Student Ratio highlights a methodological preference for research productivity over indicators typically associated with teaching quality. This pattern points to a systemic undervaluation of teaching infrastructure and student support within the QS methodology. Faculty-to-Student Ratio, a widely recognised proxy for academic accessibility and class size, exhibits weak or even negative correlations with several other indicators. This is notable given substantial empirical evidence linking smaller class sizes and more engaged faculty with improved student learning outcomes and satisfaction (Umbach and Wawrzynski, 2020; Shin et al., 2011). Similarly, the limited correlation between Sustainability and other core indicators suggests that institutional commitment to social responsibility is only marginally reflected in ranking outcomes. These trends mirror structural critiques from Latin America, where ranking-driven pressures have been shown to distort academic values and institutional priorities. Ordorika and Lloyd (2013) argue that global ranking systems structurally disadvantage Latin American universities by privileging indicators aligned with Anglo-American models, which emphasise research volume, citation metrics, and international prestige, while neglecting missions grounded in social equity, cultural relevance, and public service. Extending this critique, Finardi et al. (2023) observe that such pressures increasingly incentivise scholars in the region to publish in international, English-language journals, often at the cost of locally oriented research agendas and epistemic diversity. These global parallels underscore the urgency of redefining university quality in ways that better reflect institutional diversity, pedagogical excellence, and social contribution.

Furthermore, the descriptive findings indicate that large and fully comprehensive universities tend to score higher in the QS rankings. This trend implies that institutional size and breadth may confer advantages within the current framework. Larger institutions are more likely to attract global partnerships, secure higher research funding, and achieve broader visibility, all of which align with QS's weighting of reputation, international engagement and publication-based metrics. In contrast, smaller or more specialised universities, including those with strong pedagogical outcomes, may be structurally disadvantaged. Their limited scale and narrower disciplinary focus can restrict performance on visibility-driven indicators, despite their potential excellence in teaching or niche research areas. Therefore, the weighting structure appears to favour large, research-intensive institutions, raising concerns about fairness and inclusiveness in global rankings.

In essence, while QS rankings continue to serve as a high-profile reference for institutional comparison, their reliance on reputational and research-intensive measures may distort perceptions of institutional quality. A more balanced approach that incorporates teaching effectiveness, equity-focused strategies, and local impact could result in a more holistic and inclusive assessment of university performance. Such a revision would not only broaden recognition

across diverse types of institutions but also promote more equitable and pedagogically meaningful evaluation frameworks in higher education.

## Recommendations

Drawing on the findings and critical evaluation of the QS World University Rankings, a number of strategic recommendations are proposed to enhance the transparency, equity, and methodological robustness of global university ranking systems, ensuring they reflect and support the core missions of higher education institutions.

Stakeholders, including ranking agencies, government bodies, and academic leaders, are encouraged to undertake a careful and inclusive re-examination of ranking methodologies. Future frameworks should move beyond reliance on static, perception-based indicators by adopting pilot models that actively incorporate feedback from a diverse range of institutions. Establishing regional working groups, particularly with representation from underrepresented regions such as the Global South, could promote participatory development and mitigate systemic biases in indicator design (Hazelkorn, 2018).

National governments and policymakers have a critical role in supporting the development of locally relevant, context-sensitive metrics. These should be aligned with strategic educational goals and encourage balanced improvement in both research and teaching quality. In parallel, public agencies could play a facilitative role in encouraging ranking organisations to disclose data sources and methodological choices transparently, enabling independent verification and fostering public trust (Marope et al., 2013).

Universities, for their part, may benefit from pursuing a dual strategy. While working to enhance performance in commonly ranked indicators, such as international research networks and citation impact, they should also contribute constructively to dialogue on the refinement of ranking criteria. Engagement in ranking reform discussions can help ensure that institutional diversity, educational impact, and equity goals are appropriately valued (Sauder and Espeland, 2020).

Ranking organisations should also be urged to increase transparency in their processes. This includes publishing detailed methodological reports, providing access to raw datasets, and adopting clearer rationales for indicator weightings. Enhanced transparency is essential to reduce the perception of opacity and arbitrariness that often surrounds global ranking outputs (Bornmann and Daniel, 2008).

Finally, it is recommended that students, funding agencies, and other key stakeholders approach rankings with critical awareness. Rather than treating rankings as definitive indicators of institutional quality, users are encouraged to supplement them with other information sources, such as national performance matrices, teaching evaluations, graduate outcomes, and field-specific assessments. As Marginson (2014) suggests, a pluralistic and evidence-based understanding of institutional performance would better serve individual learners and contribute to a more holistic higher education ecosystem.

The aforementioned recommendations advocate for a more reflective and balanced approach to the use and development of global university rankings. Ensuring their future relevance and legitimacy depends on broader stakeholder participation, methodological accountability, and alignment with the diverse purposes of higher education.

## Limitations

This study is subject to several limitations that should be acknowledged when interpreting the findings. First, the analysis relied solely on publicly available data from the QS World University Rankings 2025. As such, it was restricted to the core indicators reported by QS and does not include potentially influential internal metrics such as teaching evaluations, student engagement, or institutional context.

Second, the scope of the study focused exclusively on Australian universities. While this national perspective offers valuable insights into the local implications of global rankings, the results may not be generalisable to institutions in other regions where structural, policy, and cultural factors differ. Future research may extend this approach to comparative studies involving universities across multiple countries or regions.

Third, the analysis was based on Pearson correlation coefficients to identify relationships between ranking indicators and overall scores. Although correlations offer useful insights into the strength and direction of associations, they do not establish causality. Interpretations must therefore be made with caution, as correlation does not imply a direct or causal effect between variables.

Finally, the study employed a cross-sectional analysis of a single year's data. Rankings and institutional performances can vary over time, and longitudinal analysis may reveal additional patterns or shifts in factor importance. Future research could expand the temporal dimension to assess changes across multiple years and the stability of indicator influence. Despite these limitations, the study contributes meaningfully to ongoing debates about the validity, influence, and reform of global university ranking methodologies.

## Conclusion

This study examined the relationships between key indicators in the QS World University Rankings and the overall institutional scores of Australian universities in the 2025 dataset. By applying descriptive and correlation analysis to publicly available data, the study identified both systemic patterns and specific metric-level relationships that shape ranking outcomes.

The findings confirm that reputation-based indicators-Academic Reputation, Employer Reputation, and Employment Outcomes-are the most influential in determining institutional rank. Conversely, indicators more directly associated with pedagogical quality and educational environment, such as Faculty-to-Student Ratio and Sustainability, demonstrated weak or negative correlations with overall score. In addition, descriptive analysis revealed that larger and more comprehensive universities generally performed better in QS rankings, suggesting structural advantages tied to institutional scale and academic breadth.

These insights raise critical questions about the validity and inclusiveness of the QS ranking framework. Institutions with focused academic profiles or smaller enrolments may be structurally disadvantaged despite strong teaching or niche research excellence. Furthermore, the dominant role of perception-based metrics potentially reinforces historical prestige rather than capturing current institutional performance.

The study is limited by its reliance on a single year of QS data and its exclusive focus on Australian universities, which may constrain generalisability to other global contexts. As the analysis is correlational and cross-sectional, causality should not be inferred. Beyond the Australian case, this study contributes to an expanding international discourse that critiques the narrow metrics underpinning global rankings. Latin American experiences show how uncritical adoption of these frameworks can marginalise universities with strong teaching profiles and community-based missions. Recognising these patterns strengthens the call for globally inclusive and socially responsive ranking reforms that prioritise equity, institutional mission, and educational quality over visibility alone (Ordorika and Lloyd, 2013; UNESCO, 2021).

Future research could build on this foundation by incorporating multi-year data, cross-country comparisons, and qualitative assessments of teaching and community engagement. A more participatory and transparent approach to constructing global ranking frameworks, one that meaningfully integrates measures of teaching quality and social contribution could offer a fairer and more accurate reflection of institutional value in higher education.

## Data availability statement

The original contributions presented in the study are included in the article/Supplementary material, further inquiries can be directed to the corresponding author.

## Author contributions

MB: Writing – original draft, Methodology, Project administration, Data curation, Visualization, Validation, Resources, Investigation, Supervision, Funding acquisition, Conceptualization, Software, Formal analysis, Writing – review & editing.

## Funding

## Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## Generative AI statement

The author(s) declare that Gen AI was used in the creation of this manuscript. GenAI was used for preparing the Python scripts to analyze the data.

## Publisher's note

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## Supplementary material

The Supplementary material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2025.1619897/full#supplementary-material

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