Times Higher Education Japan University Rankings:

Times Higher Education (THE, part of THE World Universities Insights Limited) is the data provider underpinning

university ranking, and with almost five decades of experience as a source of analysis and insight on higher education, we have unparalleled expertise on the trends underpinning university performance globally. Our data and s universities to help them achieve their strategic goals.

The annual Times Higher Education (THE) Japan University Rankings, started in 2017, aims to provide the definitive list of the best universities in Japan, evaluated across four key pillars of Resources, Engagement, Outcomes and

students, helping them choose where to study. Benesse Corporation is a publisher of educational materials in Japan, and has strong relationships throughout the Japanese education community. These rankings have been prepared by THE together with Benesse Corporation, and are published by Benesse Corporation in Japan and by THE across the world

To help demonstrate the integrity of the Rankings, we have asked to undertake independent limited assurance over our application of the specific procedures (i) - (xiv). Their independent limited assurance opinion on our application of specific procedures (i) (xiv) is set out on page 16 and 17 of this document. The independent assurance opinion from PwC covers the top 100 universities by rank, and banding allocation below the top 100. It does not include individual pillar scores.

The specific procedures (i) (xiv) are split into four sections:

- 1) Data collection and sources
- 2) Criteria for exclusion, inclusion, and data processing
- 3) Calculation, scoring and ranking
- 4) Publication and reporting

Red boxes will document the methodology area and context for the specific procedure (i) (xiv) marked with the and bolded, which has been independently assured by PwC.

Important links:

JUR 2019 Final

Directors' Statement:

This -to-end process for generating the THE Japan University
Rankings 2019 management of Times Higher Education, we state that we have followed our Methodology and correctly applied the specific procedures denoted by (i) - (xiv) as marked with the

Summary of the Rankings methodology:

The THE Japan University Rankings score universities across four key pillars that we believe are important when applying to universities. These are:

Resources: does the university have the right resources? Engagement: does the university engage its students? Outcomes: does the university produce good results?

Environment: does the university have a supportive environment?

THE uses 16 carefully calibrated performance metrics, listed below, to provide comprehensive and balanced comparisons. The methodology makes use of data sourced by THE, Benesse Corporation and Elsevier as described in section 1. Core university data submitted by the universities is validated by THE. Each of the metrics are normalised and weighted according to our methodology to generate the final Rankings as set out in the calculation of metrics section.

The 16 performance metrics are grouped into the four pillars:

Resources

- o Finance per student
- o Faculty per student
- Mock university entrance exam score
- o Research output per member of staff
- o Research grants per member of staff

Engagement

- Student engagement
- Student recommendation
- Interaction with teachers and faculty
- Global talent development
- o Student ability development

Outcomes

- Employer reputationAcademic reputation

Environment

1) Data collection and sources

Benesse Corporation

THE Japan University Rankings 2019

3) Calculation, scoring and ranking

Calculation of metrics

The pre-weighted indicators are calculated for each university xi based on the definitions below:

1. Resources

Finance per student:

o This metric is calculated as institution income (include all forms of income, such as general university funds, grant income, research income, contract income, teaching income, donations, investments and commercialization) divided by full-time equivalent (FTE) number of students in all years and of all programmes that lead to a degree, certificate, university credit or other qualification, as adjusted for regional price parity at the prefecture level. This metric uses a logarithmic scale to incorporate outliers prior to normalisation.

Faculty per student:

 The student-to-faculty ratio is defined as total FTE number of staff employed in an academic post divided by FTE number of students in all years and of all programmes that lead to a degree, certificate, credit or other qualification.

Mock exam entrance level score:

• The mock exam metric requires no calculation before normalisation as it is extracted directly from Benesse Corporation mock exam results data.

Research output per member of staff:

 This metric captures the number of papers per member of staff and is a measure of research presence. It is calculated as the total scholarly output between 2013 and 2017 (from Elsevier) divided by number of academic staff. This metric uses a logarithmic scale to incorporate outliers prior to scaling.

Research grants per member of staff:

 This metric captures the research presence which is calculated as the number of research grants divided by number of academic staff. This metric uses a logarithmic scale to incorporate outliers prior to scaling.

2. Engagement

Student engagement:

- This metric is generated from the average scores per College (gender-weighted) from four questions on the student survey:
- o To what extent does the teaching at your university or college support CRITICAL THINKING?
- To what extent did the classes you took in your college or university so far CHALLENGE YOU?
- o To what extent does the teaching at your university or college support REFLECTION UPON, OR MAKING CONNECTIONS AMONG, things you have learned?
- To what extent does the teaching at your university or college support APPLYING YOUR LEARNING to the real world?

Student recommendations:

- o This metric is generated from the average score per College (gender-weighted) from the following question on the student survey:
- o If a friend or family member were considering going to university, based on your experience, how likely or unlikely are you to RECOMMEND your college or university to them?

Interaction with teachers and faculty:

This metric is generated from the average scores per College (gender-weighted) from two questions on the student survey:

- To what extent do you have the opportunity to INTERACT WITH THE FACULTY and teachers at your college or university as part of your learning experience?
- To what extent does your college or university provide opportunities for COLLABORATIVE LEARNING?

Global talent development:

- This metric is generated from the raw scores per university from the following question on the high school survey:
- o Please choose universities in Japan that focuses on global talent development and fill in the university codes up to 15 (in any order).
- This metric is the mean score across two years and uses a logarithmic scale to incorporate outliers prior to normalisation. Only non-zero values will be standardised. Universities that received no votes will score zero.

Student ability development:

- This metric is generated from the raw scores per university from the following question on the high school survey:
- o codes up to 15 (in any order)
- This metric is the mean score across two years uses a logarithmic scale to incorporate outliers prior to normalisation. Only non-zero values will be standardised. Universities that received no votes are scored zero.

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