UNIVERSITY OF MALAYA

UNIVERSITY OF MALAYA RESEARCH

Evaluating natural sciences research with bibliometric data

University of Malaya depends on the high quality journals covered in the *Web of Science Core Collection* to measure the impact of research

Founded in 1905 as the King Edward VII College of Medicine, the University of Malaya (UM) is Malaysia's oldest university. In 2016 UM was on the *Reuters Top 75 of Asia's Most Innovative Universities* which identifies educational institutions that are doing the most to advance science, invent new technologies and help drive the global economy.

UM is a public research university with strengths in medical science and healthcare. Recent research highlights include the development of a prototype prosthetic limb to assist patients, who have lost a leg above the knee, with strenuous activities such as running and climbing staircases.

The university receives approximately MR347 million (USD 85.3 million) in annual research funding, more than 80 percent of which comes from the Malaysian government. The University is also working with international collaborators including industry partners.

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The office of the Deputy Vice Chancellor (Research and Innovation) is responsible for the strategic development of the University's research and innovation profile, by enhancing research quality, capacity and capability across the University. This includes evaluation of research impact based on citations in leading journals as well as economic and societal outcomes.

At the same time, the Ministry of Education Malaysia is starting to put in place an assessment framework to measure the impact of research it has funded.

Rankings are also an important tool for promoting the University to students, recruiting faculty/staff and attracting industry or international collaborators. What challenges was University of Malaya facing?

- Institution **University of Malaya**
- Founded **1905**
- Students **21,045**
- Location **Kuala Lumpur, Malaysia**
- Featured Product *Web of Science*

We chose Web of Science for evaluation purposes because we recognize that journals published in Web of Science are reputable. We know it doesn't include predatory journals, so we can be confident in its quality when looking at the impact of our researchers.

says Professor Noorsaadah Abd. Rahman, Deputy Vice Chancellor (Research and Innovation), University of Malaya

What challenges was University of Malaya facing

Imperative to ensure only high quality journals were used in measuring research impact

- The University of Malaya is a pioneer in Malaysia in implementing a robust research management program based on publication and citation data.

- Given the prevalence of predatory journals, the University was concerned to ensure citations used to calculate metrics such as h-index, were based only on articles published in high quality journals.

- Get this wrong and the University risked not getting an accurate picture of the impact a researcher or research program was making.

Promoting international collaboration and engaging industry partners

- International and interdisciplinary collaborations tend to be correlated with citations, and are an important objective for UM.

- Industry is an important innovation partner and source of funding – but funding is getting tighter.

- As such, tracking and demonstrating the collaboration network for researchers was critical.

Boosting the university's ranking – critical for both funding and promoting the university to students

- Rankings are a crucial tool for promoting the university. In addition, they have a big influence on funding decisions.

- As part of their strategic vision, UM is focused on firstly measuring and then enhancing research excellence to boost rankings.

" *In addition to UM's research assessment initiative, the Ministry is requesting more information to measure the impact of research it has funded.*

says Professor Noorsaadah

Solution

University of Malaya is taking *Web of Science Core Collection* as the underlying data source to assess research impact. *Web of Science Core Collection* is a painstakingly selected, actively curated database of the journals that researchers themselves have judged to be the most important and useful in their fields. It includes gold standard research indices; Science Citation Index Expanded (SCIE), Arts & Humanities Citation Index (AHCI) and the Social Sciences Citation Index (SSCI). It also includes Emerging Science Citation Index (ESCI) which consists of high-quality, peer-reviewed publications of regional importance and in emerging research fields.

Web of Science Core Collection provides complete and consistent data for performance analysis. Unlike other solutions, *Clarivate Analytics* applies manual curation to ensure every paper in the journals covered are fully indexed, including the capture of all institutions listed no matter how many there are.

The value of Web of Science for University of Malaya is that we know the journals have gone through a rigorous process to be accepted. So we can trust that we are using a quality benchmark for our research which is acknowledged by our peers around the world.

says Professor Noorsaadah

Value delivered

High degree of confidence in the data used to measure research performance

- The *Clarivate* Journal Selection Process uses strict criteria for the acceptance and ongoing inclusion of journals in the *Web of Science Core Collection.* This means that UM is only looking at impact data for high quality, high impact journals.

- *Clarivate*'s full-time, independent, expert editors review 2,000 to 3,000 journal titles per year for inclusion in the *Web of Science Core Collection*. At present, approximately 10 to 12 per cent are accepted for SCIE, AHCI or SSCI.

UM more effectively positioned as a successful research partner

- *Web of Science Core Collection* captures 100% of authors and institutions for every paper published in the world's most important academic journals.

- Further, *Clarivate* has manually developed rules to unify research organizations for thousands of institutions.

- The result is more comprehensive data on research collaborations, which enables the University to track and demonstrate collaboration across co-authors, institutions, research areas and countries.

> ❝ *The JIF Percentile in the Journal Citation Review is very helpful. This normalized score enables us to easily compare journals across different categories covered in Web of Science.*

says Professor Noorsaadah

Delivers evidence for the University as a research leader and valuable regional partner

- With *Web of Science* as the underlying source of data, UM compiles metrics to analyze research productivity, benchmark performance against peers and demonstrate significance in the global research community.

- These insights are informing the University's strategy for enhancing research quality to generate more citations and drive up rankings in the future.

Our customer

Professor Noorsaadah Abd. Rahman
*Deputy Vice Chancellor
(Research and Innovation)
University of Malaya*

Who we are

Clarivate Analytics accelerates the pace of innovation by providing trusted insights and analytics to customers around the world, enabling them to discover, protect and commercialize new ideas faster. We own and operate a collection of leading subscription-based services focused on scientific and academic research, patent analytics and regulatory standards, pharmaceutical and biotech intelligence, trademark protection, domain brand protection and intellectual property management. *Clarivate Analytics* is now an independent company with over 4,000 employees, operating in more than 100 countries and owns well-known brands that include *Web of Science*, *Cortellis*, *Derwent*, *CompuMark*, *MarkMonitor* and *Techstreet*, among others. For more information, visit clarivate.com

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North America
Philadelphia: +1 800 336 4474
                        +1 215 386 0100

Latin America
Brazil: +55 11 8370 9845
Other countries: +1 215 823 5674

Europe, Middle East and Africa
London: +44 20 7433 4000

Asia Pacific
Singapore: +65 6775 5088
Tokyo: +81 3 5218 6500

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