How research analytics is driving success at a Nigerian university

In 2002, a new university joined the Nigerian higher education landscape with the mission of creating the next generation of Nigerian leaders. Located 25 miles from the capital of Lagos in the town of Ota, Covenant University now has over 7,000 students and 1,000 staff members and is on the way to becoming one of the best of the country, carving out a niche to compete at an international level.

In the past 10 years, the university has drastically increased its research output, and today it ranks fourth in Nigeria in terms of articles published per year. Prof. Aderemi Aaron-Anthony Atayero, Vice-Chancellor of the university, was there from the start. He credits their success to smart investments in the right areas, based on data analytics.

"The university was founded to tackle some of the issues the higher education landscape was facing at the time," he said. "High school graduates were confronted with a shortage of placement opportunities in universities, while at the same time, corruption was affecting the quality of the education for those who did secure a position."

Staff and faculty at Covenant University are focusing on improving this situation and turning students into leaders. This is reflected in the core values of the university, which include integrity, responsibility and sacrifice. "These values help our graduates to move beyond mere job-seekers, to true leaders, ahead of the curve," Dr. Atayero said.

It appears to be working: earlier this month, Covenant University was named to have the ' most employable' graduate list of all Nigerian universities, with a graduate employment rate of 90 percent.

 Students attend class in the Innovation R&D Center lecture hall.

In 2012, the university added a new element to its mission: to become one of the top 10 universities in the world by 2022. To achieve this ambitious goal, the university faculty introduced a number of important changes.

Using data as a guide for strategy

 At Covenant University, the number of articles published rose drastically since the university began its journey to become a world-class institution in 2012. (Source: SciVal with Scopus data)

Primarily, they needed to know who they were competing against. Dr. Atayero and his colleagues started to closely monitor the parameters used by ranking bodies such as *Times Higher Education*, which focuses on research, teaching and citations. As a result, researchers are now strongly encouraged to attend international conferences and publish in relevant outlets, indexed by databases that feed these rankings. For example, postgraduates are now required to have a certain amount of publications indexed in Scopus before they can graduate. The university also made financial investments to ensure its researchers' work can be included in the highest quality journals. This is challenging for an institution in an emerging country like Nigeria, Dr. Atayero admits, but it is necessary to be able to compete globally.

Secondly, the faculty and board needed in-depth data on where they stood and where they could excel. They use SciVal to analyze and visualize the university's performance in the global research landscape, drawing data from Scopus, the world's largest abstract and citation database of peer-reviewed literature.

 SciVal chart showing Covenant University's subject distribution based on research output (Source: Scival with data from Scopus)

"Scopus is very easy to use; everyone on our network can access it and look at their publications, and that helps to boost healthy competition," Dr. Atayero said. "Before subscribing to SciVal, we also performed our own analyses on Scopus, which revealed the core strengths of Covenant University: computer science, materials science, mechanical engineering and social sciences – specifically business management, accounting and economics.

"But it was still cloudy to us," he recalled. "So when I first saw a report from SciVal on how Covenant University was doing, I was quite amazed. At a glance you can see how you are doing in particular areas, and how you should use your funds.

"The first day I got my hands on it, I spent hours on the platform. The first thing I did, after looking at our own university, is to create a group of top performing universities to benchmark ourselves against. And because SciVal is so visual, it has become a lot easier to show our researchers how we are doing.

"Now we can also see the impact of our publications, and the niches our researchers had carved for themselves. We found out that some of our research groups are already performing at a very high level."

SciVal graph showing Covenant University's productivity in the field of Wind Power relative to other significant role players in field (Source: Scival with data from Scopus)

As a result, those groups can now be rewarded and encouraged to keep up their good work. They also noticed a decline in publications for some staff as a result of growing administrative responsibilities. Researchers are supported in their administrative duties, so that they can focus on their core tasks: teaching and research.

"We want to become one of the top 10 universities — not in Africa but in the world"

This modern building is the African Leadership Development Centre.

Dr. Atayero acknowledges that his university still has a long way to go if it wants to be able to compete with the top performing institutions, but he feels equipped to take this on. "We want to become one of the top 10 universities – not in Nigeria, not in Africa, but in the world."

Alongside its global ambitions, the university is still very invested in what is happening locally. "We still are committed to our original mission of creating the next generation of leaders," Dr. Atayero said. "If our university performs well, that will have a positive effect on the entire Nigerian research landscape, including the institutions we work with."