"For every PhD research, the core aim of the research undertaken is to add new knowledge to the body of existing knowledge."



The uptake of doctoral thesis research in Ghana



INTERNATIONAL CONFERENCE ON SCIENTOMETRICS, STI POLICY AND SCIENCE COMMUNICATION

Harris Andoh PhD Student, CREST, Stellenbosch University

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Presentation Outline

- Problem statement and focus
- Overarching goal
- Literature review
- Forms of Research Uptake of PhD theses
- Key conclusions
- Recommendations





Preliminary Study and rationale-1

- Universities in Africa were established in the 1940s with the dual mission of teaching and research.
- Since the end of 1970s, African universities have moved through various characterisations, being labelled as teaching, vocational, and then developmental universities among others
- It is only over the past decade that the research mission seems to have emerged again as a key function of African universities.
- The latest shift in missions has been necessitated by Globalisation and Knowledge-based Competition; Call from International Organizations and Affiliations; the world university rankings; calls from stakeholders; internationalization; massification and most recently a striving to achieve <u>"world-class university"</u> status



Preliminary Study and rationale-2

- Most criteria for defining a WCU includes high quality doctoral education; PhD enrolment and graduation and cutting edge doctoral research in these universities.
- In short, doctoral studies is a core part of any WCU.
- Although Africa's universities continue to provide research and train researchers which is a key condition for its development, the uptake and utilization of the knowledge from such research is minima



Problem statement and focus-3

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- oral admissions in the field have steadily increased in the last twelve (12) years in the two major universities in Ghana
- issues concerning environment and natural resources management are at the forefront in Ghana and Africa in general
- But the utilization of knowledge from doctoral theses to the general body of knowledge which already exits has not been well studied
- To what extent have the PhD theses produced by Ghanaians in the field of ENRS been taken up by the authors themselves and other research end users to utilize the findings and recommendation to tackle environmental and natural resources challenges faced by the country?



Overarching Goal

To investigate the extent and nature of the uptake of PhD research conducted in Ghana, to the environmental and natural resources challenges in Ghana and specifically as it relates to national policy formulation and implementation.



The Change In The Mission Of African Universities

-Education Commissions in British African Colonies (1845 – 1948)

-the Channon Report (1943) was the first time that an external commission would come out so strongly in favour of **identifying research as one of the mission** of these colleges and in addition as a future mission of African universities.

-Channon Report raised an issue that is still of considerable relevance today in Africa: the matter of research as an integral part of the mission of the African university.

The Channon Report stated that:

"... We consider it as highly important that research should come to be regarded as being of no less importance than teaching in the life of the colleges. Unless steps are taken greatly to broaden their life, the colleges will certainly fail to achieve the objective of becoming the intellectual centres of their territories."



"Lost research mission" of African universities (1960 - 1980)

- The Addis Ababa Conference (1961)
- Tananarive Conference (1962)
- The Accra Workshop (1972)
- The Era of Developmental Universities (mid 1970s)
- The 1980 Tananarive Conference the role of university in societies
- Brain Drain
- World Bank Structural Adjustment programme
- Massification
- Decline in university funding
- Political Atmosphere





Shift in missions of African universities (2000 – date)

- Globalisation and Knowledge-based Competition
- Call from International Organizations and Affiliations
- World University Ranking and World-Class Universities Status
- Issues of Research
- Internationalization





New Discourse of World Class Universities and Africa

The new vision of the University of Ibadan (2014) is:

"...To be a world-class institution for academic excellence geared towards meeting societal

The University of Botswana (2013):

"The University of Botswana is to be a leading academic centre of excellence in Africa and the

the world."

needs."

The University of Dar es Salaam (UDSM) Vision (2011):

"To become a reputable world-class university that is responsive to national, regional and global development needs through engagement in dynamic knowledge creation and application."

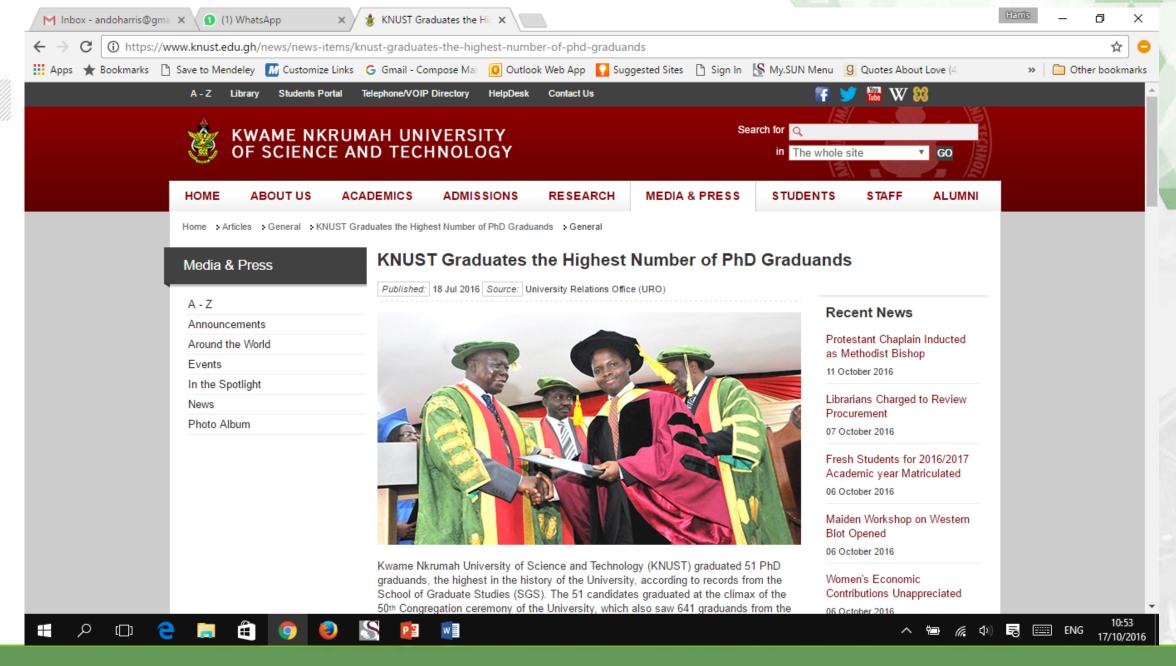
University of Nairobi having its new vision as: (2013):

".... is to be a world-class university committed to scholarly excellence."

Generally African universities production of PhD is very small compared to other developing countries like Brazil, China and India. Fast-developing countries are growing doctoral output at more than 7%, with Mexico (17%) and China (40%) increasing at astronomical rates

what is left out of the debate in African universities producing more PhDs and also becoming WCU is the issue of the utilization and uptake of PhD research findings into practice and policy.





SAS*T***IP**

The Role of Doctoral education in attaining WCU Status in Africa

Strong emphasis on the production of more doctoral graduates emerged in the post-2008 period

The University of Ibadan even goes a step further to develop a Strategic plan for Staff Recruitment, Development & Retention in line with its mission to become a world class university and in that document states that:

"...... The NUC has pronounced the PhD degree as the minimum qualification for an academic career in Nigerian universities and that increase in the number of staff members who complete their doctoral in a particular year.

.... And in doing the above, the university will improve its research profile and quality teaching staff (UB Staff Recruitment, Development & Retention (2012 -2017, p7)".

In the new University of Ghana Strategic Plan 2014 -2024, it mentions that its strategic objective is to:

".....Support PhD training for cohort of lecturers without PhDs and phase out old system of lecturers without PhDs. At least 85% of the faculty in all departments should have PhDs by 2018"

The Strategic plan also mentions as one of the Major pillars of the strategy over the plan period will be to:

"Grow the numbers of graduate students, especially at the PhD level, to ensure a ratio of 50:50 (undergraduate/graduate) by the end of the plan period."

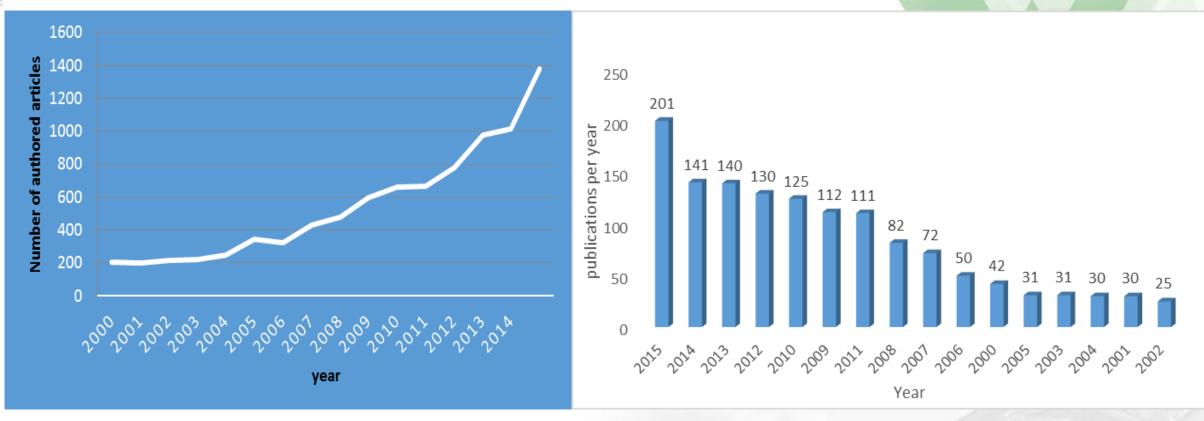


Field Of Environmental and Natural Resource Sciences (ENRS) in Ghana

- multidisciplinary and interdisciplinary nature
- The strengths of most public universities in Ghana
- Two public universities established in 2011 to focus on ENRS programmes
- 8 out of 13 institutes under CSIR Ghana undertake research in ENRS
- Ghana also hosts the United Nations University- Institute for Natural Resources in Africa
- Bibliometric evidence



A Bibliometric Analysis of ENRS Research in Ghana: 2000 –2015



Ghana-authored articles in WoS (2000 to 2015)

Published Articles per year for Ghana in ENRS (2000 - 2015)



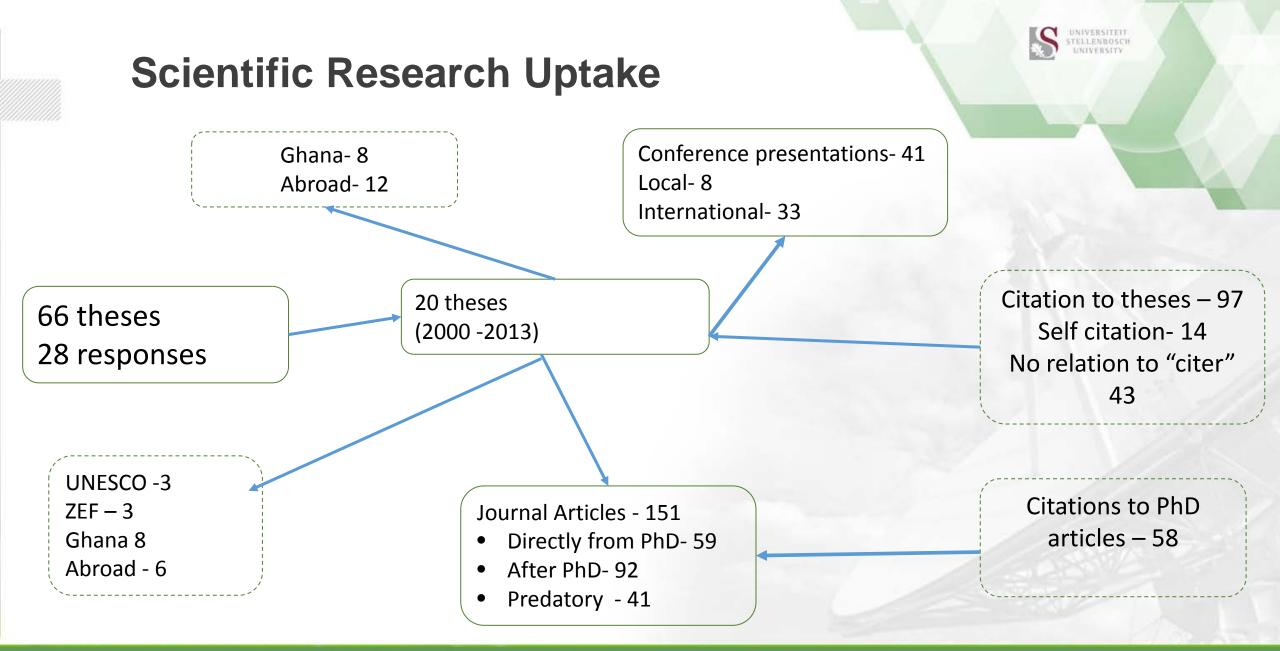
Research Design and Methodology



Theses sources	Number	Percentage
University of Ghana	11	16.67
Kwame Nkrumah University of		
Science and Technology, Ghana	25	37.89
University of Bonn, ZEF, Germany	13	19.70
UNESCO-IHE, Netherlands	5	7.60
Other Universities Abroad	12	18.18
Total Thesis Received	66	100

Theses retrieved from various institutions







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Conference presentation feedback

- Feedback from the presentations of interviewees were through emails, discussions after presentations and comments from experts.
- essential step in optimizing uptake of thesis findings.
- The type of conference also played a role.
- The content of the research



Research Uptake to Policy and/or Practice

<u>Recommendations</u> for further research

20 Theses

Typology of Authors -Research(9) -Academe (6) Consultants (5)

Thesis further recommendation uptake

- Fair uptake through postgraduate supervision
- Post doctoral studies

General recommendations

to policy and practice

-proposed a policy package for the attainment of sustainable solid waste management in Ghana -explored the performance improvement, regulatory policy, and sustainable service delivery of water in Ghana

Knowledge of Uptake

- involved in projects directly linked to their PhDs
- lies in opportunities after PhD studies and not the professional field

Thesis recommendation uptake to policy

- involved in a project or policy activity
- Knowing someone in position did not guarantee uptake



Limitations to research uptake

- Moving away from the field of study after the PhD
- Lack of collaboration with industries



- Stakeholders were only interested in research when they have problems that need urgent solutions.
- A lack of data, unavailability of tools for analysis and the volume of work in one's professional field
- Publications being technical
- Co-authorship
- Lack of appropriate mechanisms laid down by institutions for the dissemination of research findings.



Conclusions

- These conferences were a good point for uptake as participants asked questions after the presentations to have a better understanding of the research. After these presentations some interviewees received comments from participants that helped shape the final versions of their thesis, whilst others received emails for further collaborations, others established good networks.
- Publishing in predatory journals is detrimental to research uptake and impact as papers published in many predatory journals disappear online few days after being "published". predatory journals were considered as a "second option".
- there was little or no uptake op doctoral theses for policy through the dissemination of thesis recommendation.
- The interviewees who are involved in government and donor projects optimize that opportunity to make their recommendations known and also adopted into policy.
- Research uptake can effectively be optimized through co-operation and collaboration with stakeholders
- reiterates the strong culture of African governments not seeing research as relevant to national development.
- that there is little awareness and appreciation of the need for uptake of research findings to policy and practice



Recommendations

- 1. Universities and research institutions in Ghana should have interest in the new knowledge generated from doctoral research in all fields. And those universities should recognize that doctoral research is main integral part of the institutions research system.
- 2. PhD students should be given the required platforms to communicate their findings during and after their studies.
- 3. To ensure the uptake of thesis further research recommendations, it is recommended that PhD holders are made to teach and supervise mainly in the field they undertook their PhD.
- 4. While it will be difficult to regulate consultancies of research and academic staff, efforts should be made by their institutions to ensure they undertake consultancies that are in line with their field of specialization to optimize uptake of their findings.
- 5. The notion of being employed mainly by university and research institutions after PhD should change. These institutions should recommend PhD holders to the private sector and industries for internships and employments.



Future research

- The study had a narrower scope in terms of the field. The study should focus on a subfield in ENRS. This will help know better, the subfields in ENRS that have good uptake.
- 2. Investigate the uptake of doctoral research in other fields relevant to Africa's development challenges such as medicine; agricultural and public health.
- 3. The role of the private sector in ensuring the utilization of doctoral research findings in their field of work.
- 4. Bibliometric study of doctoral publications in Ghanaian and African universities.
- 5. The nexus between African "WCU" and doctoral research uptake
- 6. The role of doctoral research uptake and the new mission and vision of African universities .









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