Research productivity and Web Visibility of Dental Faculty in Tanzania: A scientometric analysis

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Motivation, problem area

Scientometrics

- It analyzes the research productivity and citation impact of researchers make in their discipline
- It is important in informing policies and decisions regarding dentistry education & patient care services
- **Not much is known about the research productivity of Tanzanians dental faculty**

Research Objectives

- To determine publication & citation patterns of dental faculty
- To identify highly cited papers and track their citation life cycle
- To determine the authorship pattern among dental faculty
- To determine the productivity of individual authors and their institutions.

Research approach, Methodology

- Dental faculty names obtained at the School of Dentistry
- Total population (n=23)
- Author impact analyses from 1983-2013

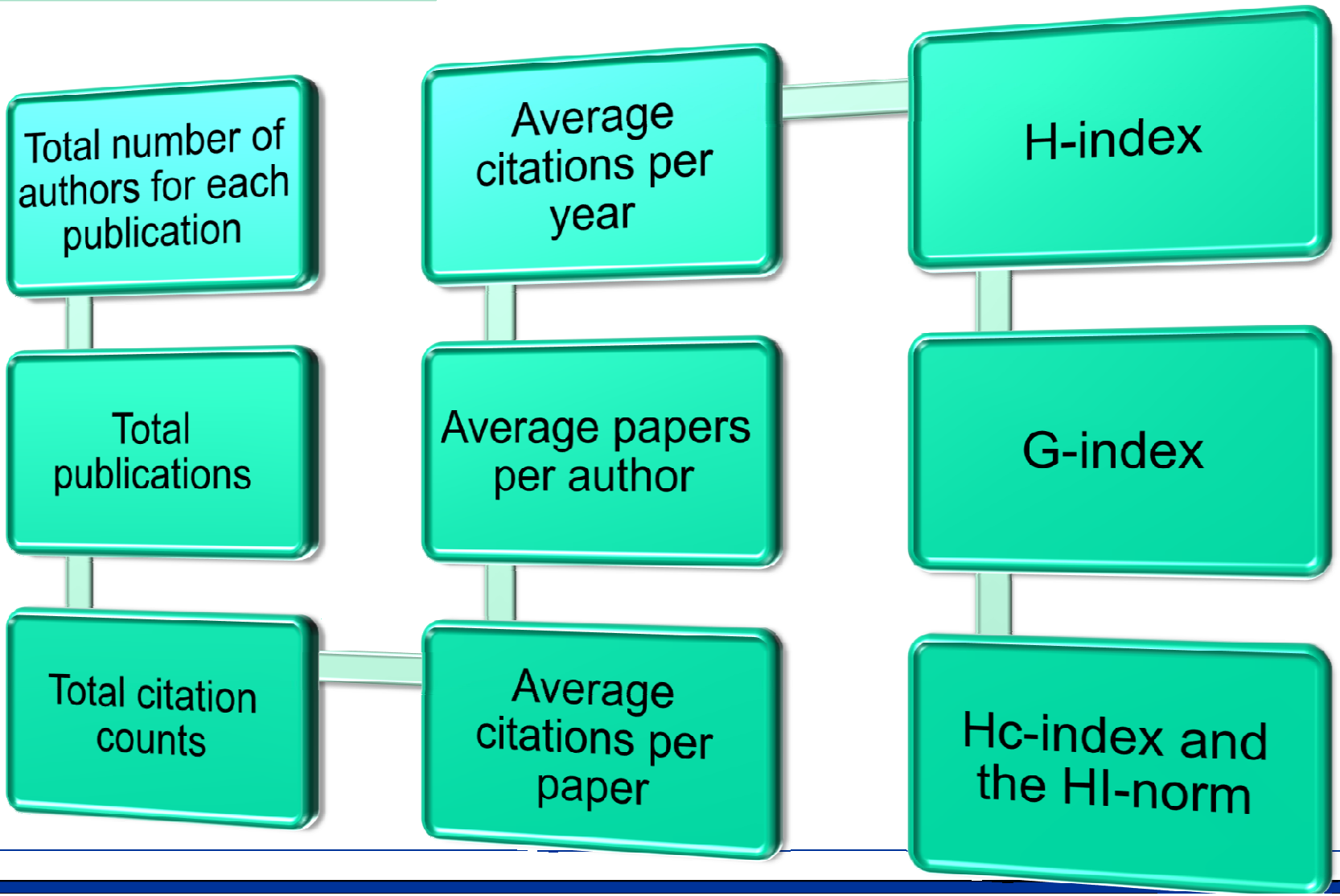
Scientometric analysis

- Publish or perish (PoP) software was used
- Search and retrieves data from Google Scholar

Procedure

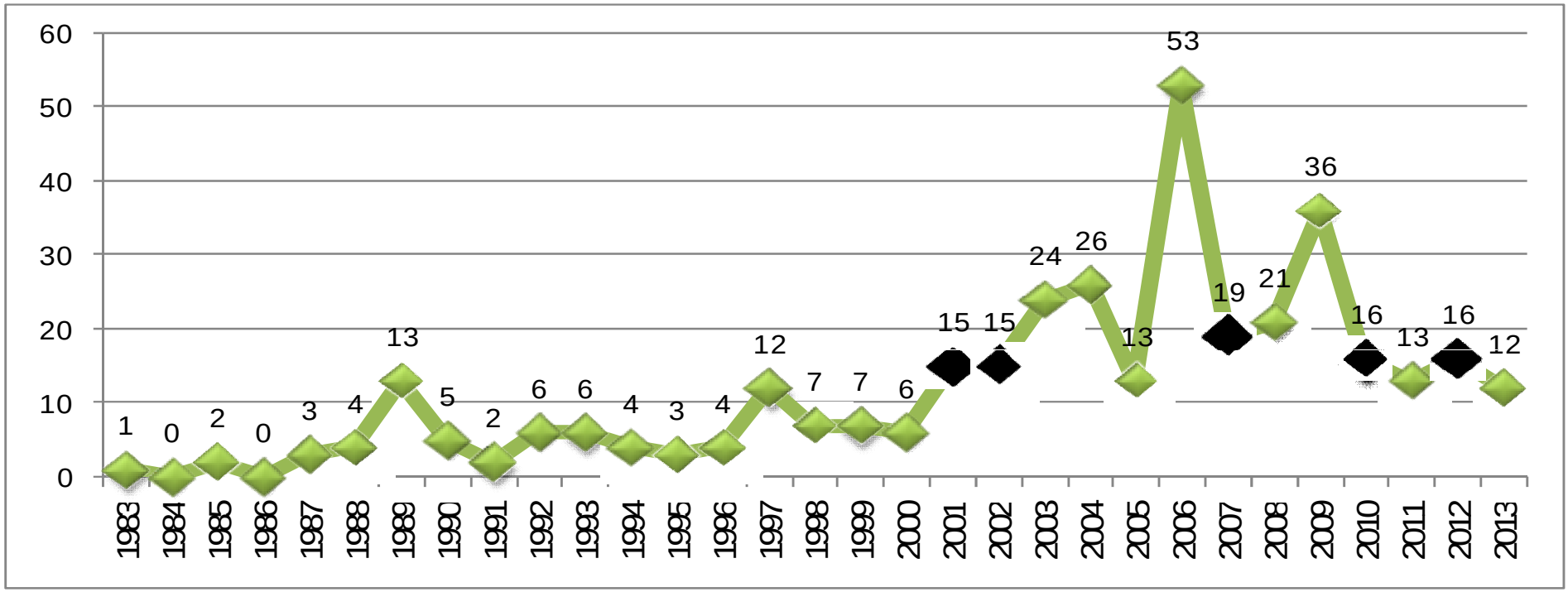
Research approach, Methodology

Retrieved statistics include



Study results

Year-wise Distribution of Publications



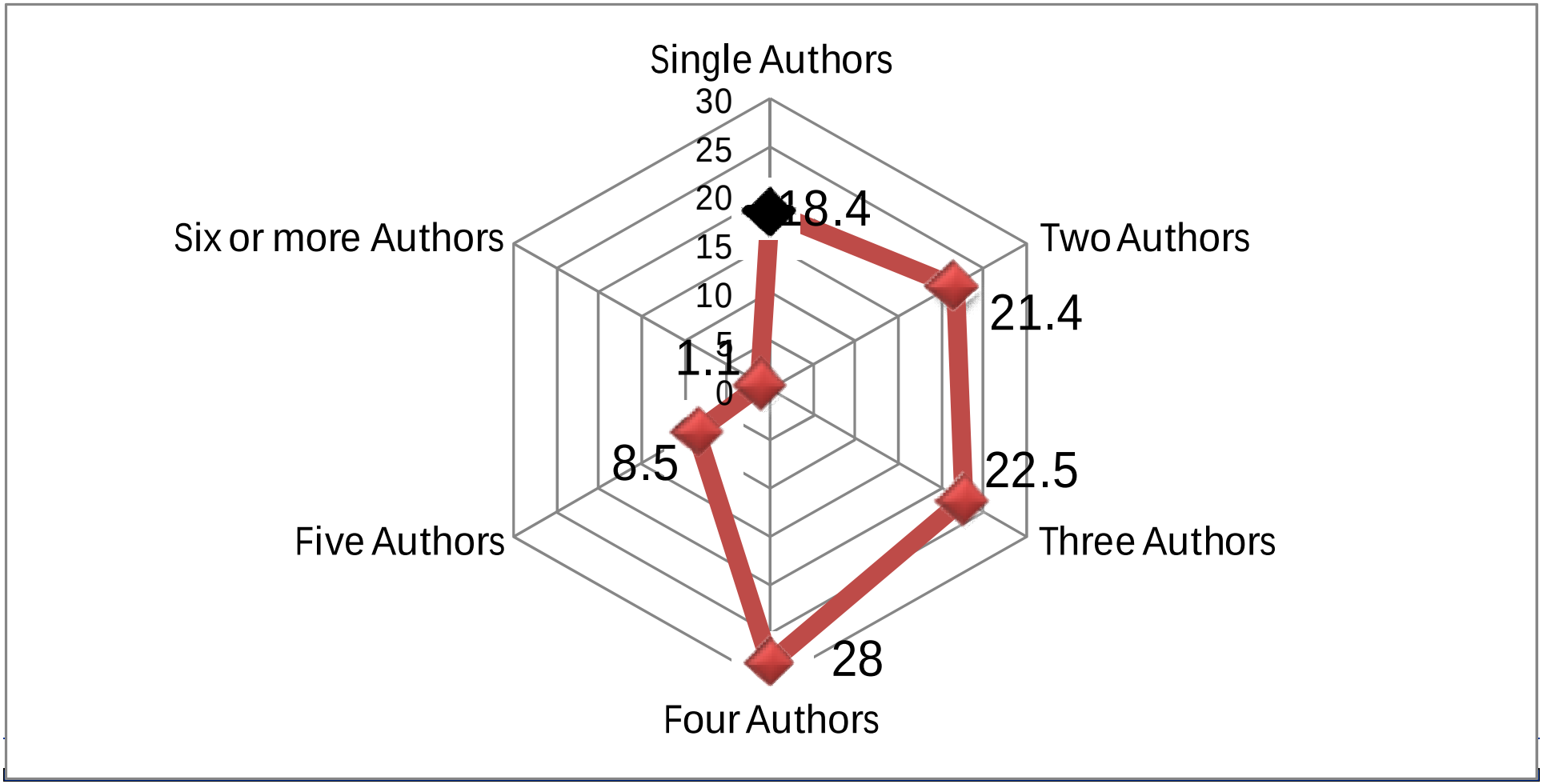
Total number of publications - 364

Average publications per year - 12

High number of publications recorded in 2006 (n=53) and 2009 (n=36)

Authorship Pattern of Publications

-About 81.5% of the publications were multi-authored
- with 37.6% of the publications authored by four or more authors
- Degree of collaboration was very high 0.82

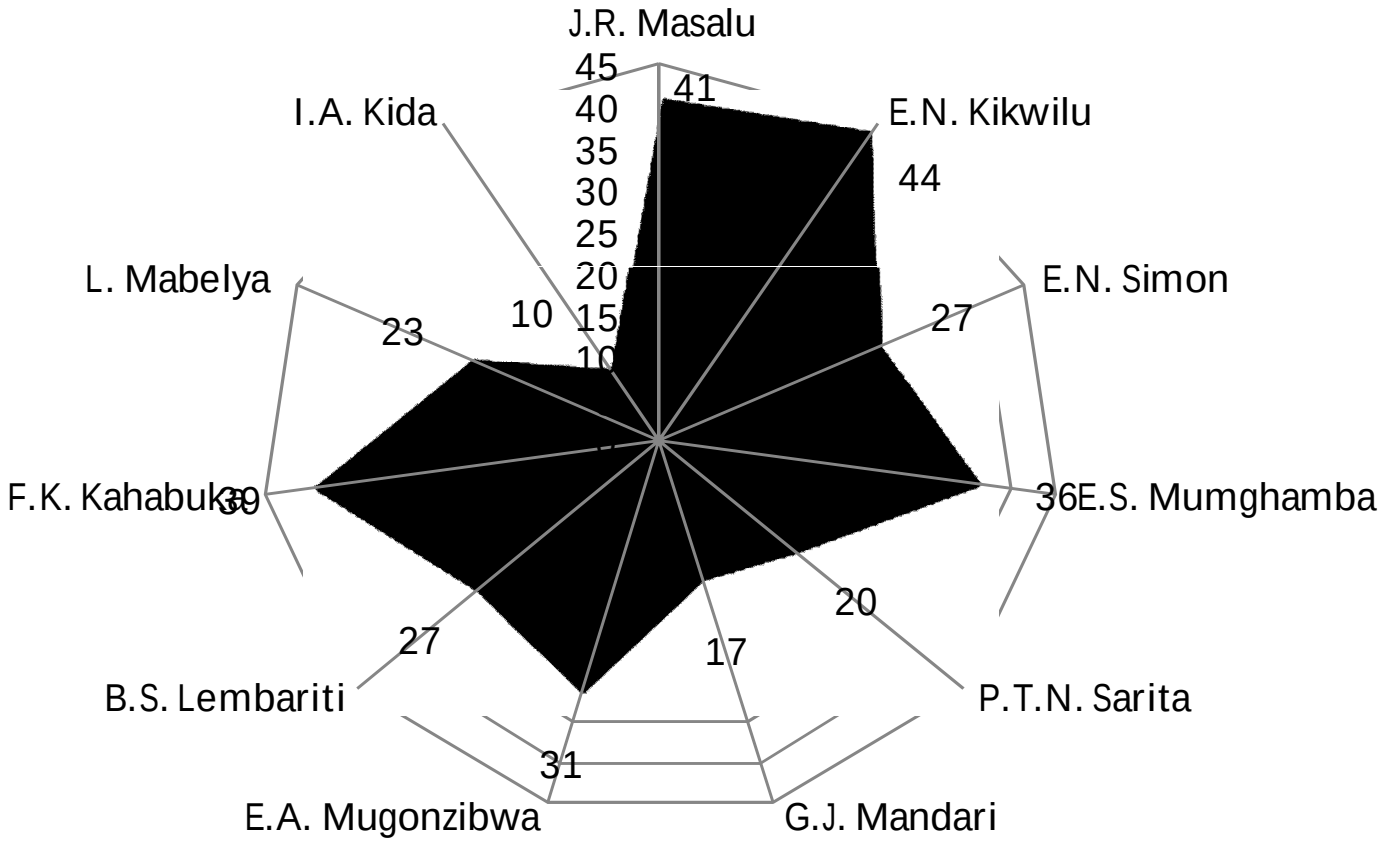


Rank-list of most productive authors

- Number of publications per author (N=364)

Ranking

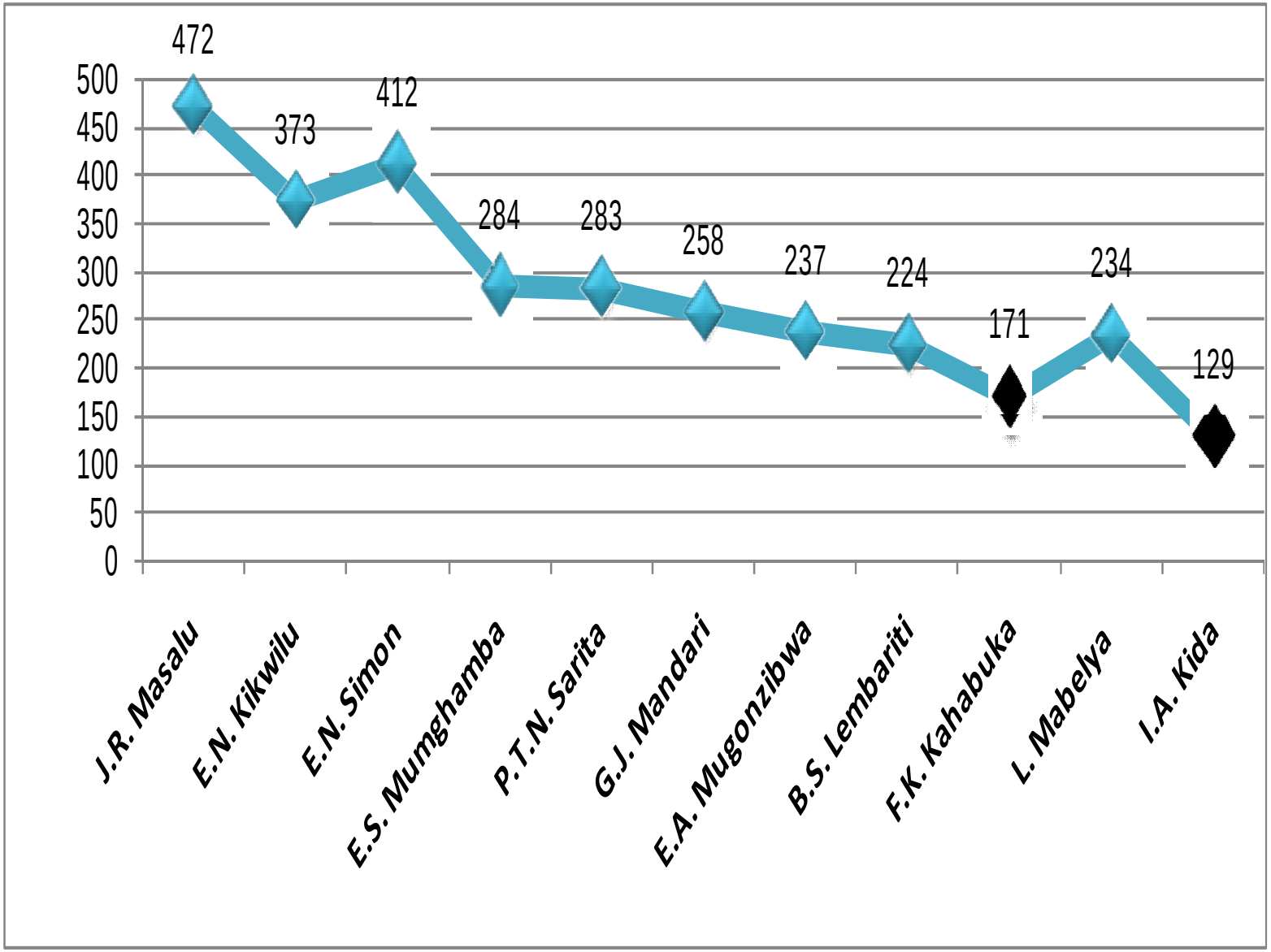
1. **Kikwilu**
2. **Masalu**
3. **Kahabuka**
4. **Mumghamba**
5. **Mugonzibwa**



Number of citations per author

Ranking

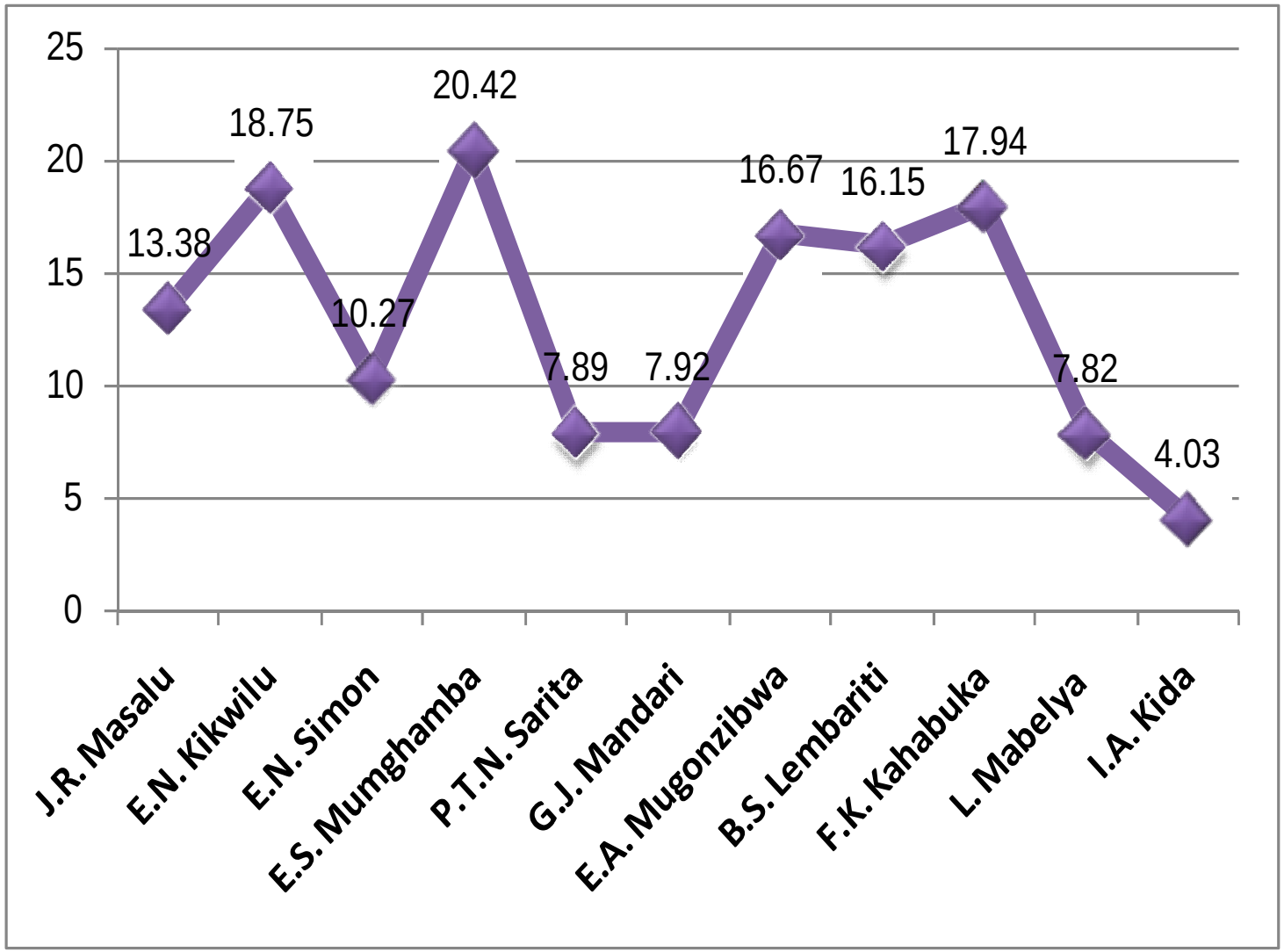
1. **Masalu**
2. **Simon**
3. **Kikwilu**
4. **Mumghamba**
5. **Sarita**



Average papers per author

Ranking

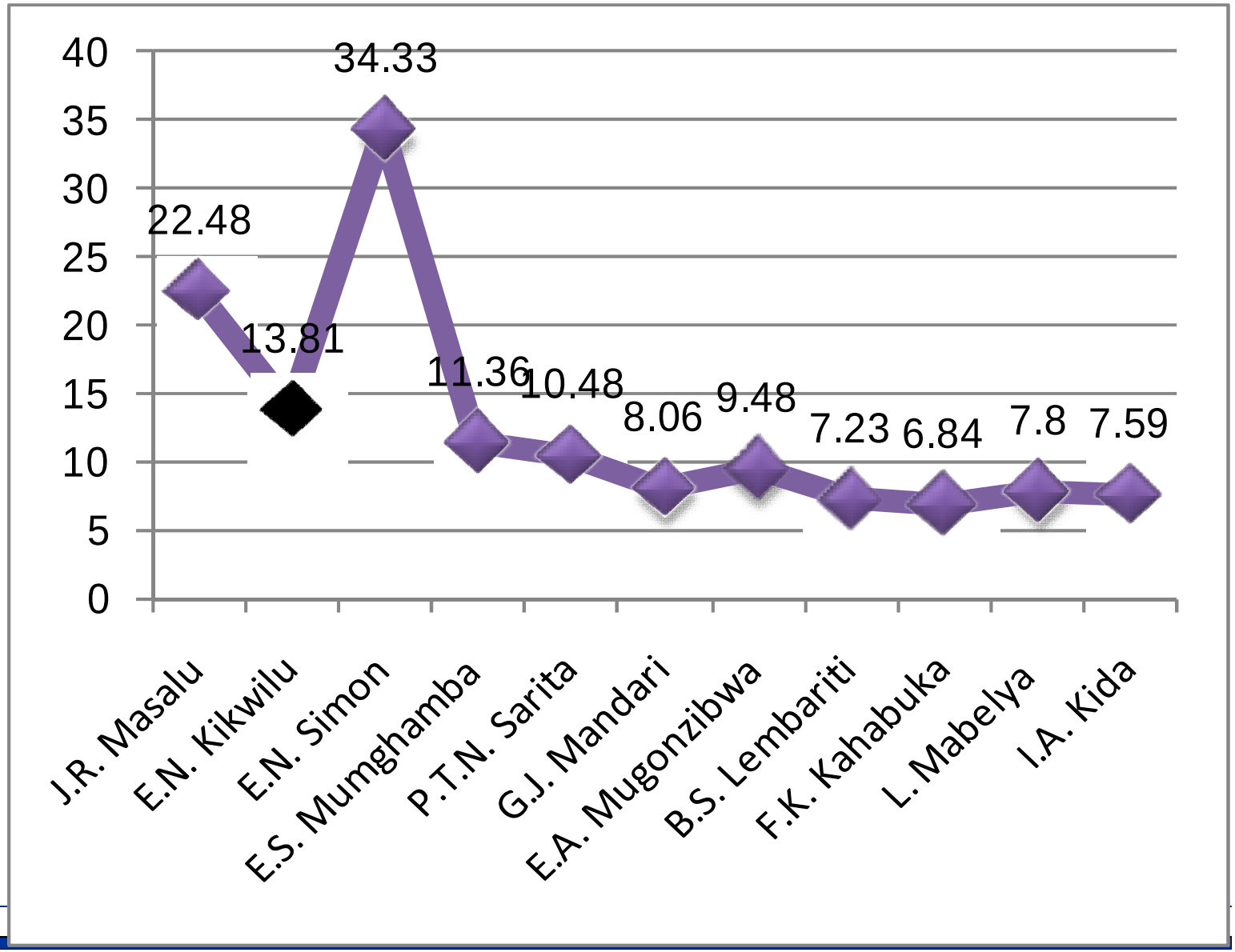
1. **Mumghamba**
2. **Kikwilu**
3. **Kahabuka**
4. **Mugonzibwa**
5. **Lembariti**



Average citations per year

Ranking

1. **Simon**
2. **Masalu**
3. **Kikwilu**
4. **Mumghamba**
5. **Sarita**



H-Index & G-Index

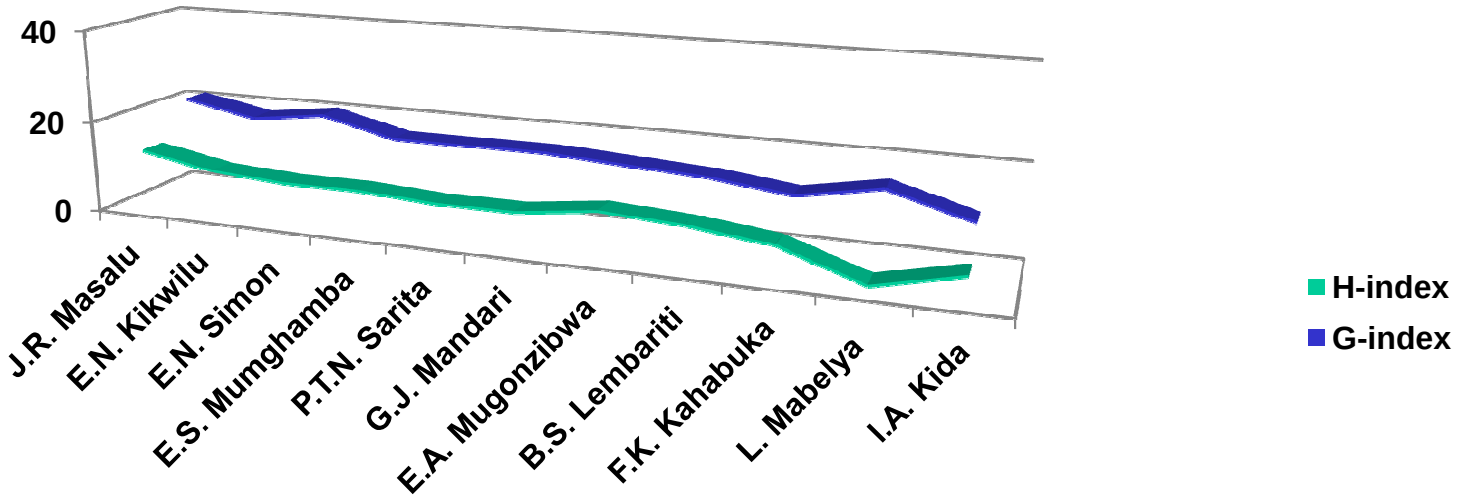
H-index – measures the number of publications and the number of citations per publications, whereby the most highly cited articles contribute to the *h*-index

H-Index

1. Masalu
2. Kikwilu
3. Simon Mumghamba

G- Index

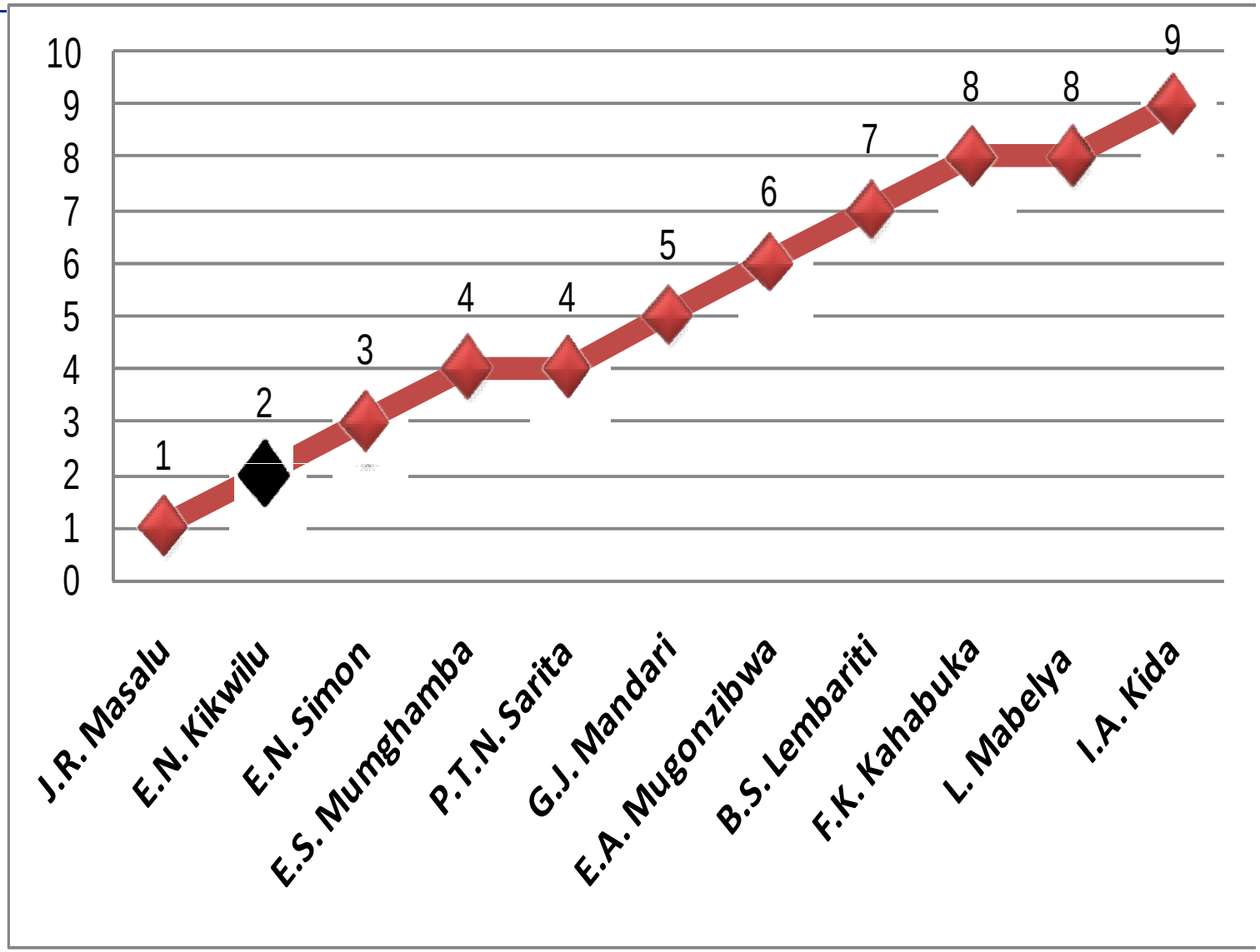
1. Masalu
2. Simon
3. Kikwilu



G- index - measures the distribution of citations received by a given researcher's publication

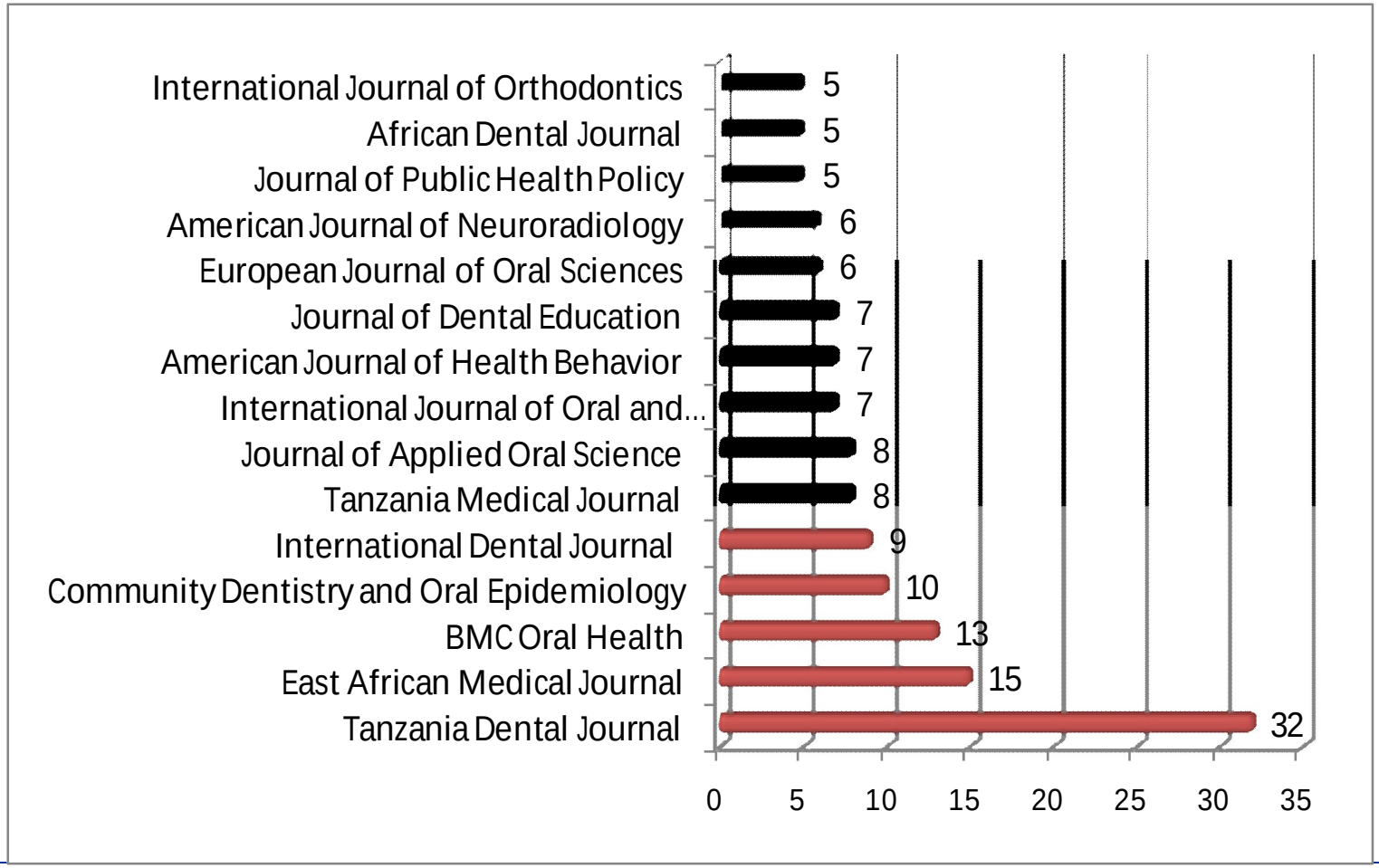
Overall ranking of the most productive authors

1. Masalu
2. Kikwilu
3. Simon
4. Mumghamba
5. Sarita



Journal preference of researchers

- *Tanzania Dental Journal was the only Tanzanian journal with a substantial number of articles (n=32)*



Discussion of major findings

- Most articles were published from 2000s
- Most publications were multiple authored
- Degree of collaboration was high (0.82)
- *All dental faculty maintained variation in their performance as no single scholar maintained the same rank in all metrics*
- A substantial number of articles were published in Tanzania dental Journal

Conclusions & Recommendations

- Scientometrics studies are important in informing Dental education, curriculum development, research and delivery of patient care services

- Way forward
  - Publish in journals that are widely visible (e-journals & open access journals)
  - Encourage mentorship between senior & junior staff
  - Encourage students to publish with members of academic staff
  - Establish local online journals



Thank you for your attention!

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