Changing Faculty members' attitude towards the use of ICTs in teaching and research: the SIDS model

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Introduction

- Initiatives introduced to encourage Universities to integrate ICTs in teaching and research
  - National Research and Education Networks (NRENs)
  - Education Roaming (EDUROAM)
  - Open source software
- But few faculty members using ICTs in teaching and research.

Barriers for integration of ICTs in teaching and research

- Lack of in-service and re-training in ICTs is barrier
- Lack of technical and appropriate administrative support
- Lack of adequate hardware/software and insufficient number of computers to be used by teachers and students
- Lack of basic knowledge/skills for ICT as well as knowledge/skills for ICT integration in teaching and research
- Lack of appropriate physical environment and ICT infrastructure
- Lack of appropriate course content and instructional programs
- Insufficient lecturer/ teacher time

Researchers solutions

- Solutions that specifically target the barriers, eg offering higher quality and more quantity of in-service training training for ICT; decreasing the course load of the teachers.
- No generic solutions that can address these barriers
- No framework proposed that can be used to change faculty members attitude towards use of ICT for teaching and research.

Aim and objectives

- To elicit and synthesize variables that can be used to change faculty member's attitude towards the use of ICT for teaching and research in Zambia.
- Outcome of study was to document and develop a framework for changing University faculty member's attitude to motivate them to integrate ICTs in teaching and research.

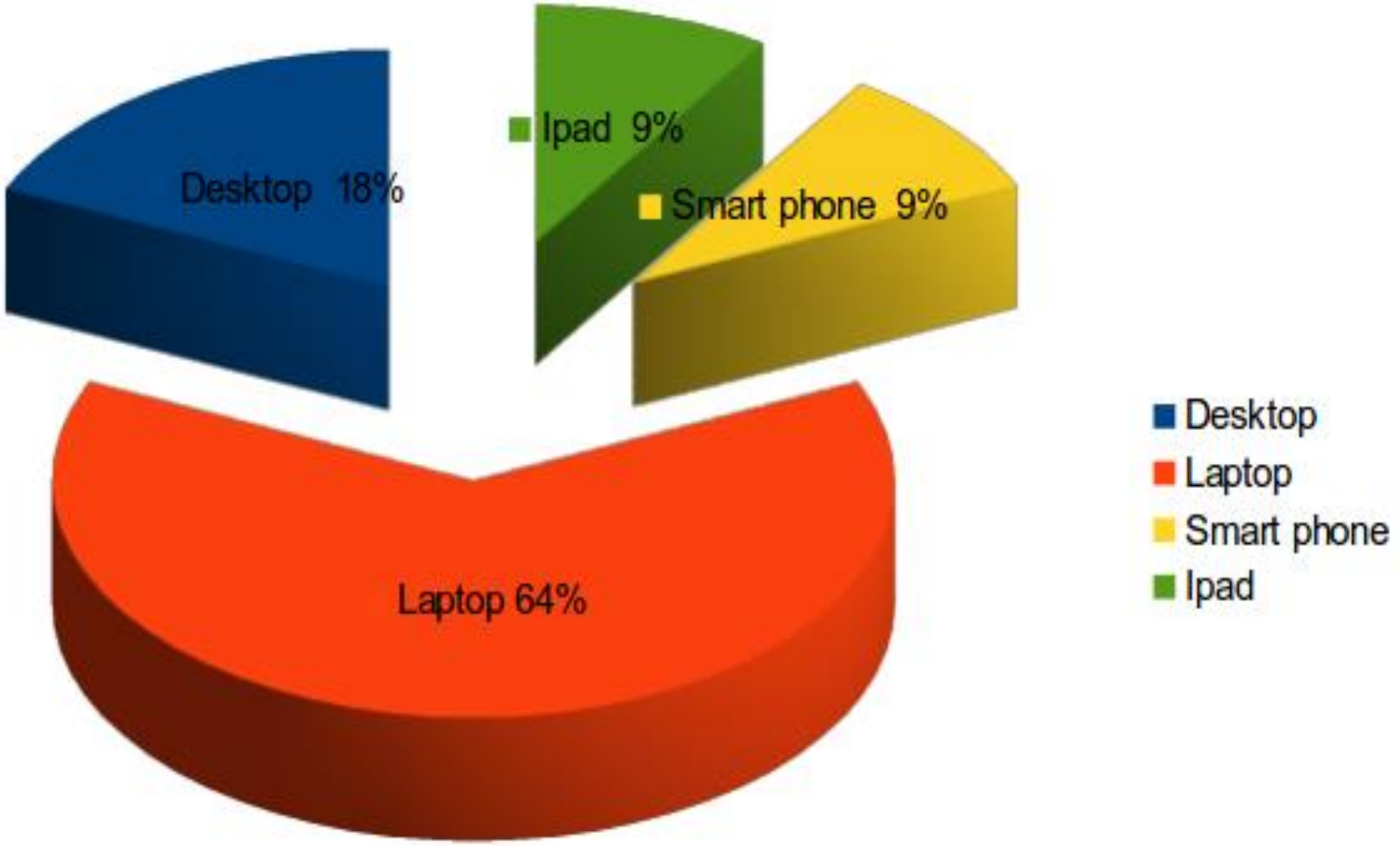
Research Questions

- What ICT tools are available to assist faculty members to use ICT in teaching and research and what barriers deter them to use these tools?
- What are the important variables that influence faculty members to encourage them to use ICTs in teaching and research?
- What is the relationships between the important variables that influence faculty members to adopt ICTs in teaching and research?
- What are the possible enablers or drivers that can change faculty members' attitude to encourage them to use ICTs for teaching and research?

Methodology

- Survey approach used
- Administration of self-completion questionnaires to a sample of faculty members at one of the public Universities in Zambia.
- The University was purposively selected because it possessed variety of ICT tools for teaching and research.
- Descriptive analysis was used to analyse the data for this study.
- The data collected were coded and analysed in LibreOffice Calc.

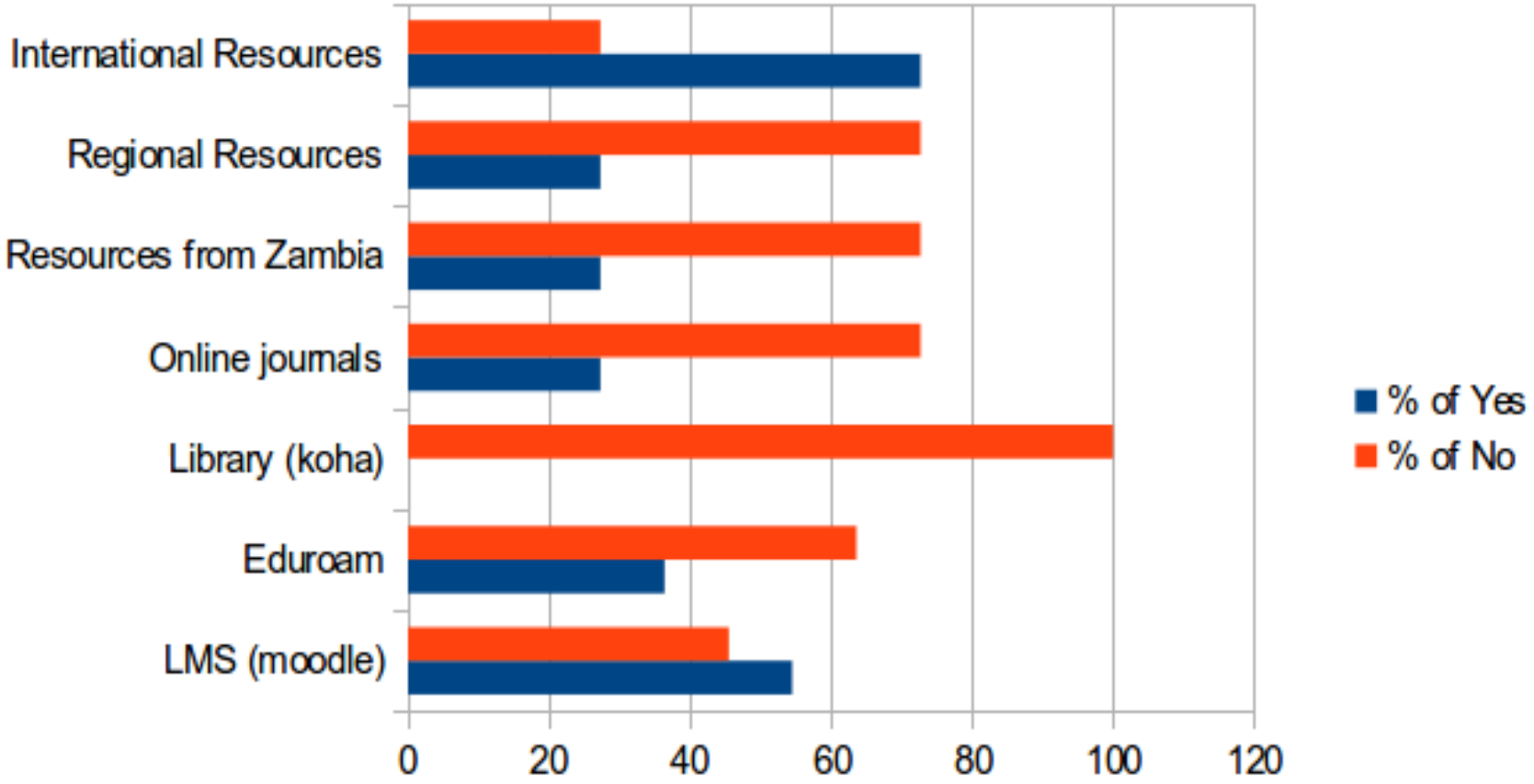
Computing devices used



Internet usage

Areas used for Internet	No of respondents (%)
google search	36.4
wikipedia	0.0
facebook or twitter or other social sites	0.0
research and learning	45.5
torrents or ftp sites	0.0
procurement of goods eg cars	9.1
personal reasons	9.1
Other (please specify)	0

Usage of ICT resources



Internet usage

Software Packages	No of respondents (%)
Word processing (e.g. Microsoft Word, Open Office, etc.)	0
Spreadsheets (e.g. Microsoft Excel, Open Office, etc.)	10
Database management (e.g. Microsoft Access, File Maker, etc.)	30
Presentations (e.g. Microsoft Powerpoint, Page, etc.)	10
Statistical packages (e.g. SPSS, R, Stata, etc.)	10
Browsers (e.g. Internet Explorer, Firefox, Chrome, Opera, etc.)	40
Calendaring (e.g. Microsoft Outlook, Mozilla Sunbird, etc.)	0
Reference management (e.g. Endnote, Bibus, Refworks, Zotero, etc.)	0
Modeling and simulation (e.g. Mathematica, etc.)	0

Barriers for integrating ICT in teaching and research

Assessed barriers	No of respondents (%)
No incentive to use it	22.2
No time to use ICT or Internet	0.0
Inadequate research facilities/ laboratories	0.0
Too busy or too much work pressure	33.3
Lack of ICT skills	11.1
Poor quality of ICT service	33.3

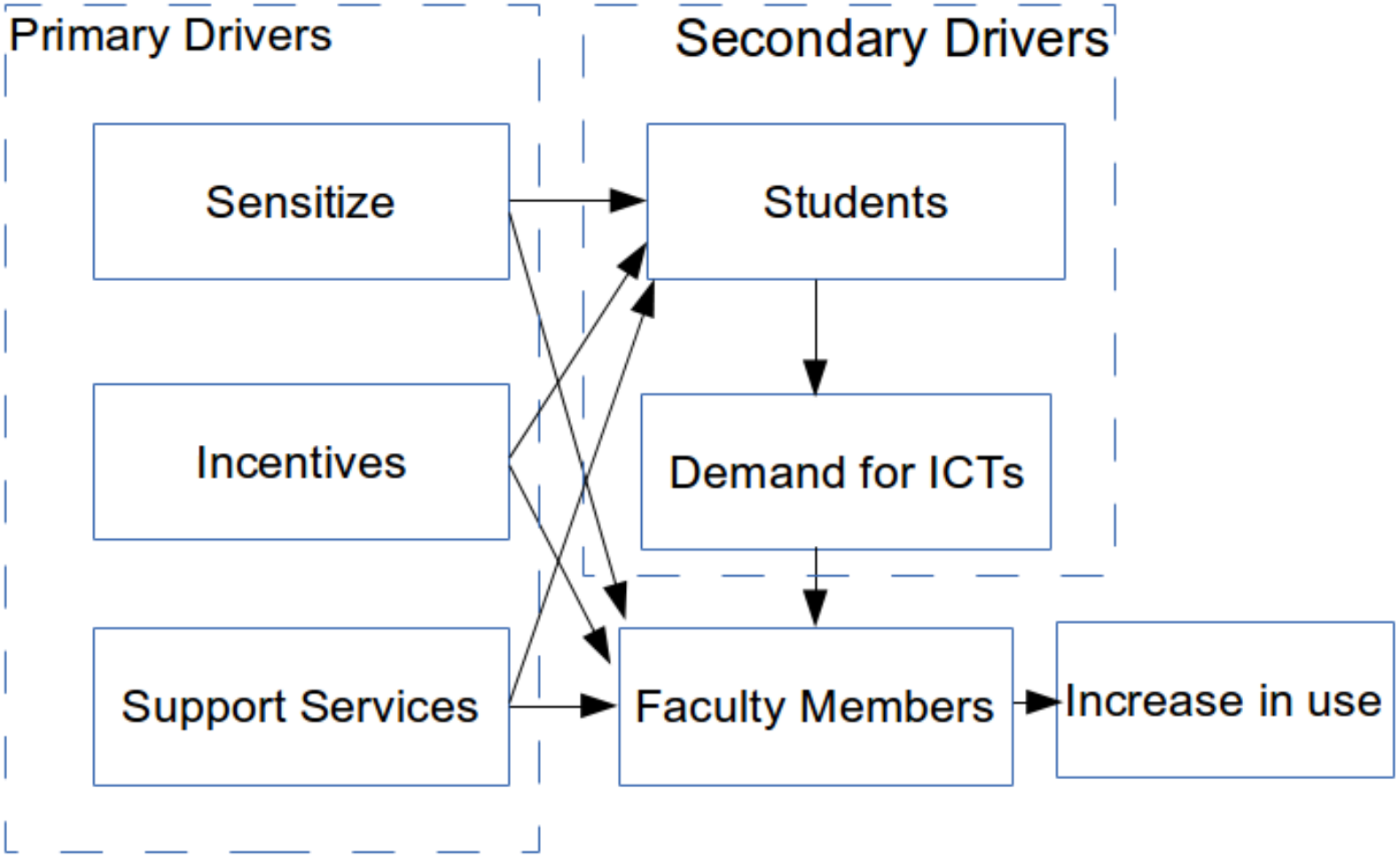
Drivers for integration of ICT in teaching and research

Assessed drivers of change	**No of** respondents **(%)**
Sensitization seminars on advantages of using ICT and Internet	27.3
University Management directive to students and staff to use ICT and Internet	9.1
Provide incentives to users of ICT and Internet	9.1
Improve internet connectivity	54.5
Other (please specify)	0.0

Lesson learnt

1.Provide ongoing support services to faculty members and assist them to integrate ICTs in teaching and research.
2.Sensitize faculty members on the advantages of integrating ICTs in teaching and research.
3.Sensitize students on the advantages of integrating ICTs in learning and research.
4.Provide incentives to faculty members that encourage them to use ICTs in teaching and research.
5.Identify barriers for integrating ICTs in teaching and research in your institutions and use appropriate tools (drivers) to overcome the barriers.
6.Start with a small core group of faculty members and use incremental approach to motivate faculty member to integrate ICTs in teaching and research.

SIDS (Sensitize, Incentives, Demand, Support) model



Conclusion

- The study shows that there are still barriers faced by some faculty members to integrate ICT in teaching and research
- SIDS model has been developed to address these barriers and change faculty members attitude to integration of ICTs in teaching and research.
- Limitations of this study was that data was collected from one University.
- Future work will focus on further elaboration and validation of the SIDS model at more Universities in Zambia.

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Thank you