

Research Driven Innovation: A Collaborative Approach for Developing Countries' Research Uptake.

A CASE OF UNIVERSITY OF DAR ES SALAAM ICT INCUBATOR
(UDICTI)

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Introduction

Everyone uses data everyday!

- To make a decision
- Build up to a decision (Information)

- But, you need to have data first!

- And Add context; Establish facts; Arrive to conclusions! (RESEARCH)

- And apply what you GET (Development)

R&D

Introduction

- ❑ Innovation drives economic growth.
- ❑ But what fuels innovation?
- ❑ Research and Development (R&D) activities
 - ❑ Scientists and Researchers develop new knowledge, techniques, and technologies.
 - ❑ As technology changes, people can produce more with either the same amount or fewer resources, thereby increasing productivity.
 - ❑ As productivity grows, so does the economy.

- ❑ (Most of the) developed countries have attributed that to R&D
- ❑ Argued: Developing countries should follow suite
- ❑ There are initiatives in silos to achieve that
- ❑ Question: Are they making IMPACT? What is the way forward?
- ❑ This study assessed the Research application in the UDICTI process, and based on their experience draw the way forward

Methodology

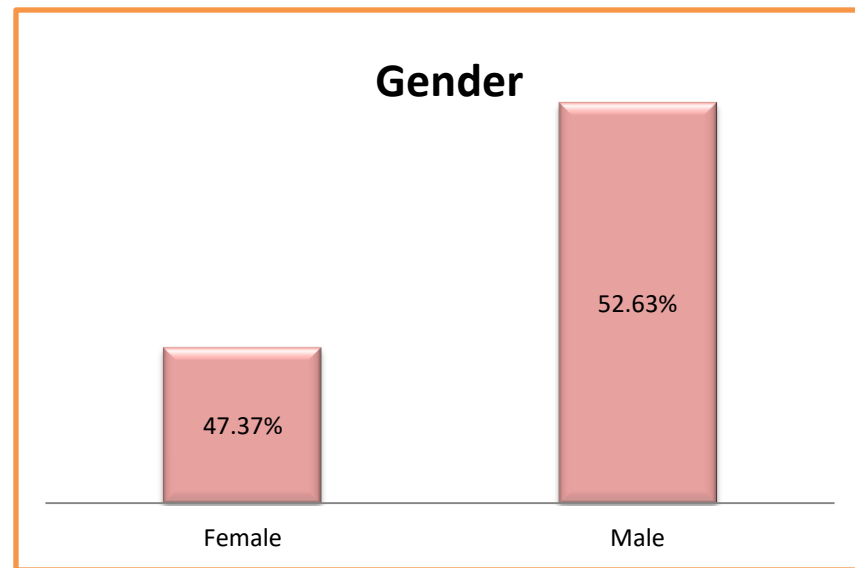
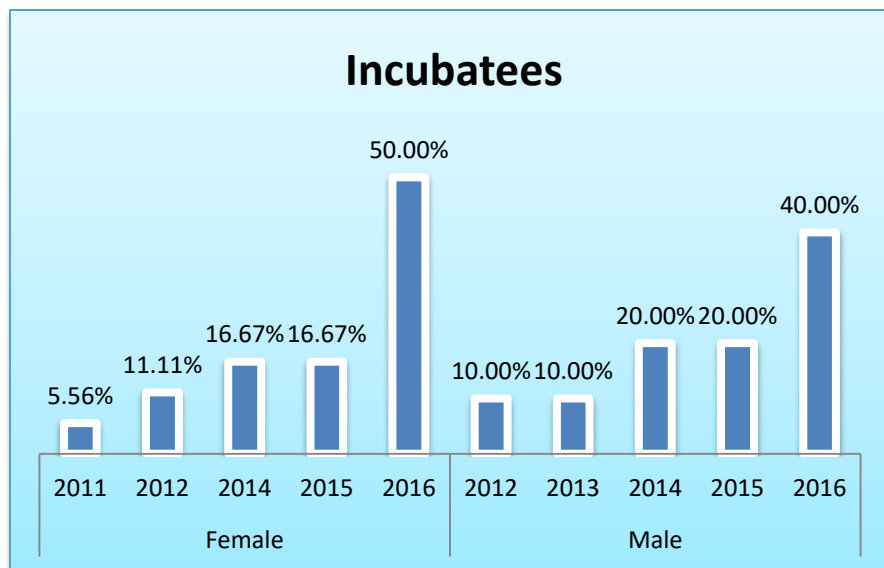
- Bench work data review (UDICTION/Research papers)
 - Documents (which) reviewed (Motivational talk reports, Negawatt reports.
 - Papers and books on innovation, research, Open Access, Open Data, Countries performances, Research uptake

- Online survey to 50 UDICTION Incubatees
#38 responses

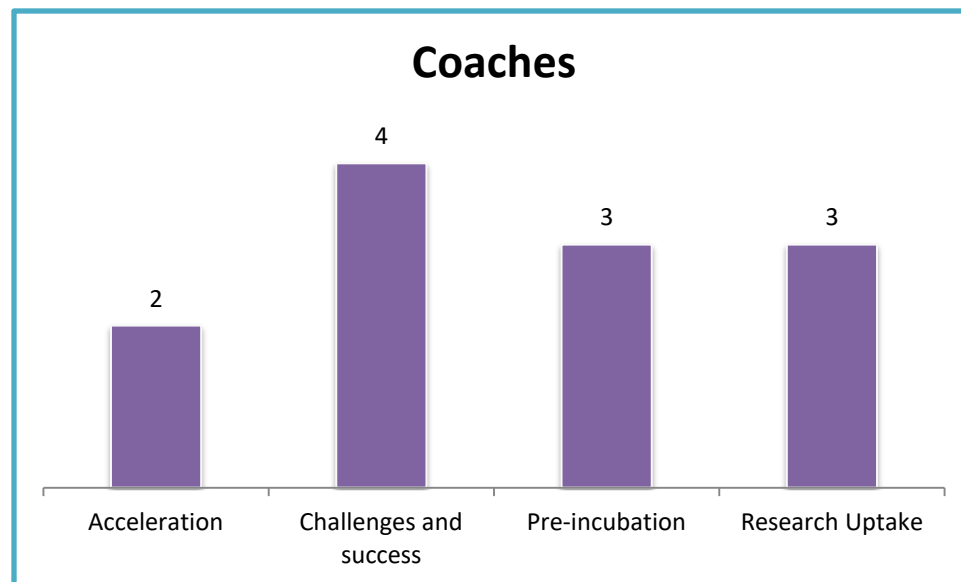
- Interviews with UDICTION coaches
4 coaches interviewed on the process, challenges and way forward

Results and Discussions

Incubatees and Coaches



- 4 coaches
- 38 Incubatees



Areas

- Pre-incubation
- Acceleration
- Challenges
- Success
- Research uptake



What was UDICTI built on?



- ❑ UDICTI was established NOT to commercialize research results BUT to commercialize students final year Projects
- ❑ Most of students solutions were not necessarily what was demanded by the market—rather showcasing their skills and knowledge (We will see more in students approach from study output later)

UDICTI BACKGROUND

- 2008 - Idea
- 2011 - Operationalization:



First coach training and first batch



- Staff given crash course on coaching
- Five students coached in parallel with coach training
- All students were final year CoICT students
- All students got employed
- One company in existence



UDICTI BACKGROUND

- 2012, 2013 - Second batch; very little output; a lot of learning

- Any UDSM student allowed to join
- Over 30 students joined
- Few students committed to the process
- Two companies in existence (ICTPack, iCollate)



UDICTI BACKGROUND

- ▣ 2014, 2015 - Partner with ITIDO; two more batches; more coach training; a lot more learning



- 2 coaches attending first team coaching training in Tanzania, 5 coaches attended one-day mini-training
- 9 active coaches in total, all CoICT staff
- Shortened program length
- Recruited a batch of 11, and another of 6.



What does UDICTI do?

Train

- Collaborate with other institutions
- Government agencies (Legal and regulatory)

Research

- Through Business and projects

Business

- In the process to establish a startup

UDICTI

Coach

- 13 coaches

Accelerate

- Proven ideas accelerated to products/services

Mentor

Space

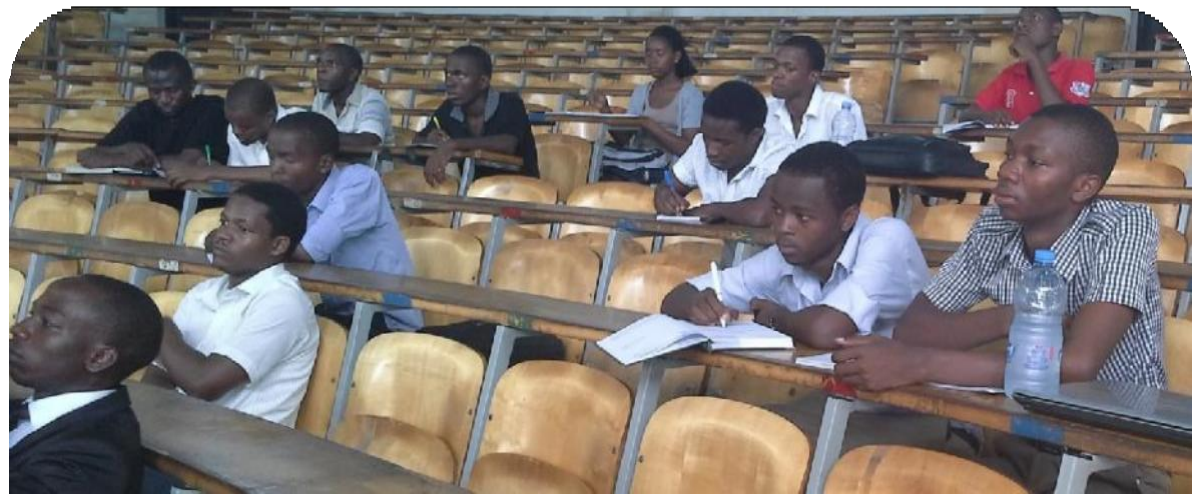
- Innovation activities by students

Network

- Exhibitions
- Graduation



**Motivational Talk
Sat 18 Jan 2014**



**Why Should You Start Your Own
Business?**



Source, UDICTI repository



**Motivation and Pitch Session
Thurs 01 May 2014**

**Motivation Session
Sat 06 Dec 2014**



Source, UDICTI repository



**Recruitment
Sat 10 Jan 2015**





**Incubatee Training Sessions
Sept 2014**



Incubatee Training and Coaching Sessions 02 – 06 March 2015



UDSM Research Exhibition Week – 28 March 2015



UDSM Research Exhibition Week – 1st April 2016





What are the success/Achievements

The study found that, UDICTI:-

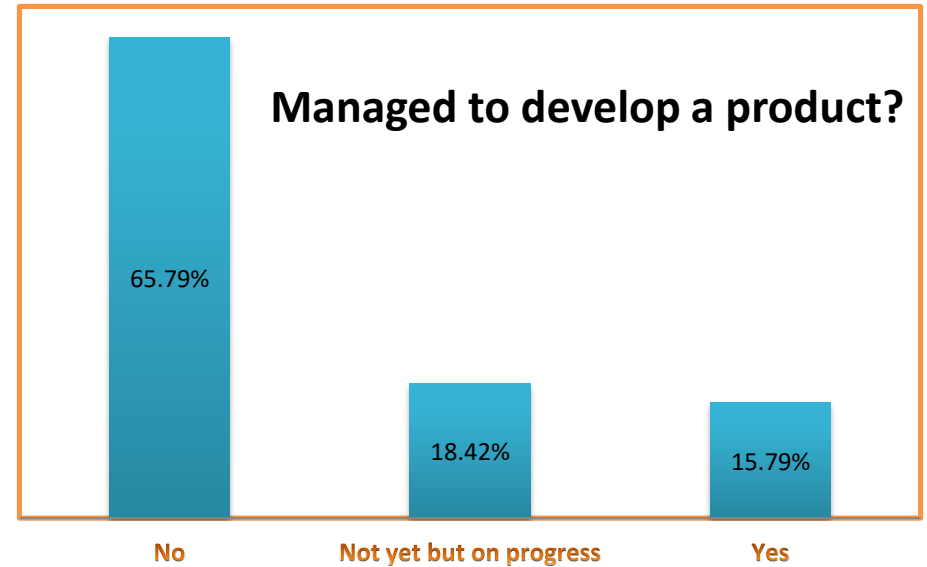
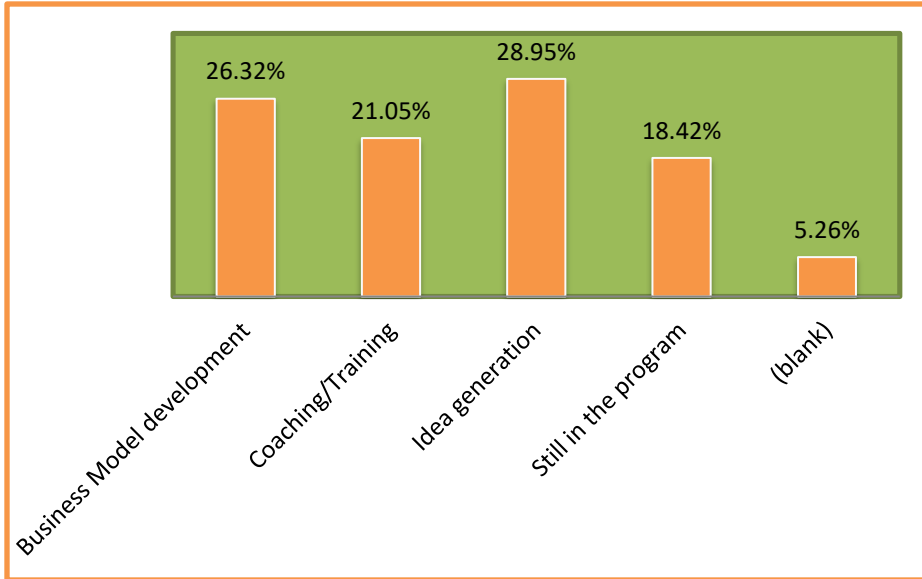
- ❑ Reached over 1000 students between 2011-17 and created awareness on innovation and entrepreneurship
- ❑ Recruited over 200 students
- ❑ 4 ICT businesses developed (Ho-Tech Engineering Ltd, ICT Pack Solutions, Smart Exam Co. and iColate)
- ❑ Some products on the final stages (DiiO Smart Exam, VICOBA, BRT cards (to be tested in phase 3))
- ❑ Created relationships with Local Stakeholders in innovation (Governmental Units, Local Organisations, Local incubators and Innovation Hubs)
 - >DTBi, BUNI, BRELA, TRA, ITIDO
- ❑ Links with International institutions and organisations from Finland
 - >ProAcademy, TiimiAkademia and Demola
- ❑ Accelerated a world winning team in the Negawatt challenge



RESEARCH ?

Investigated how
Research has been
applied and how is that
connected to
success/Failures

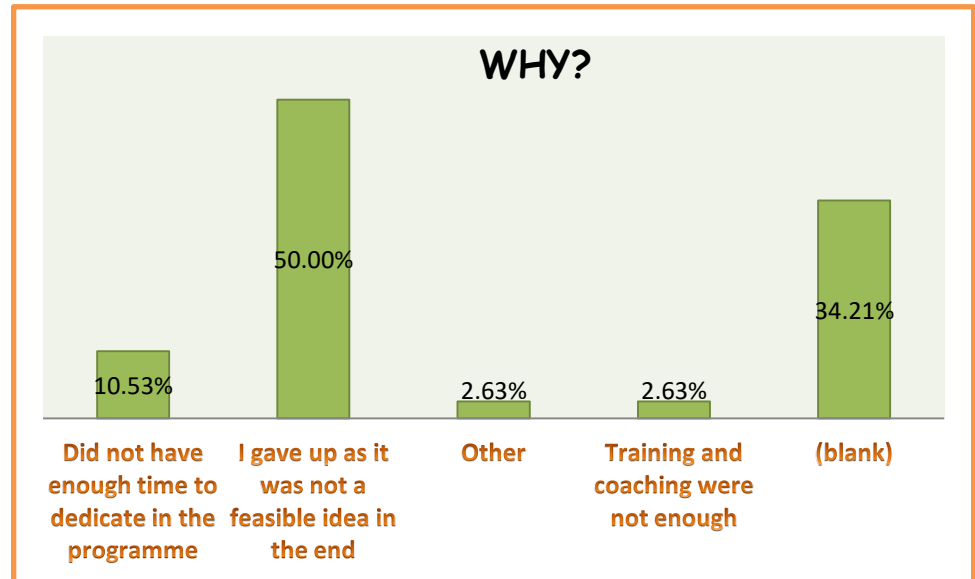
Incubatees Performances



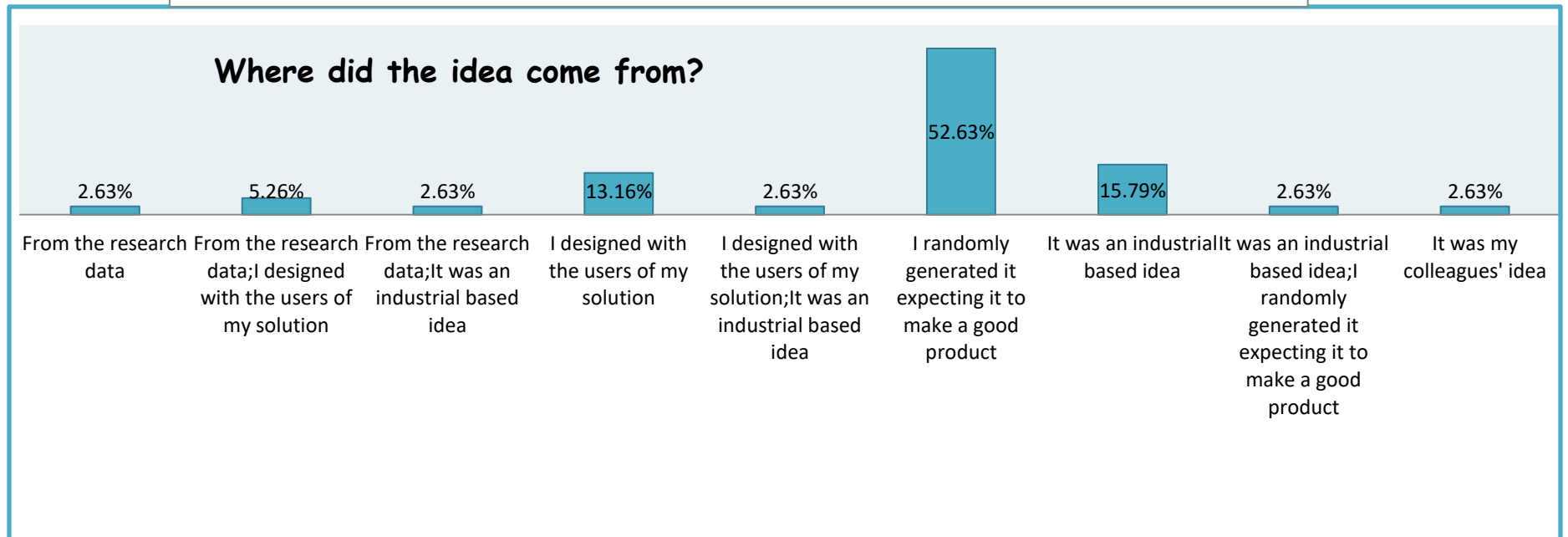
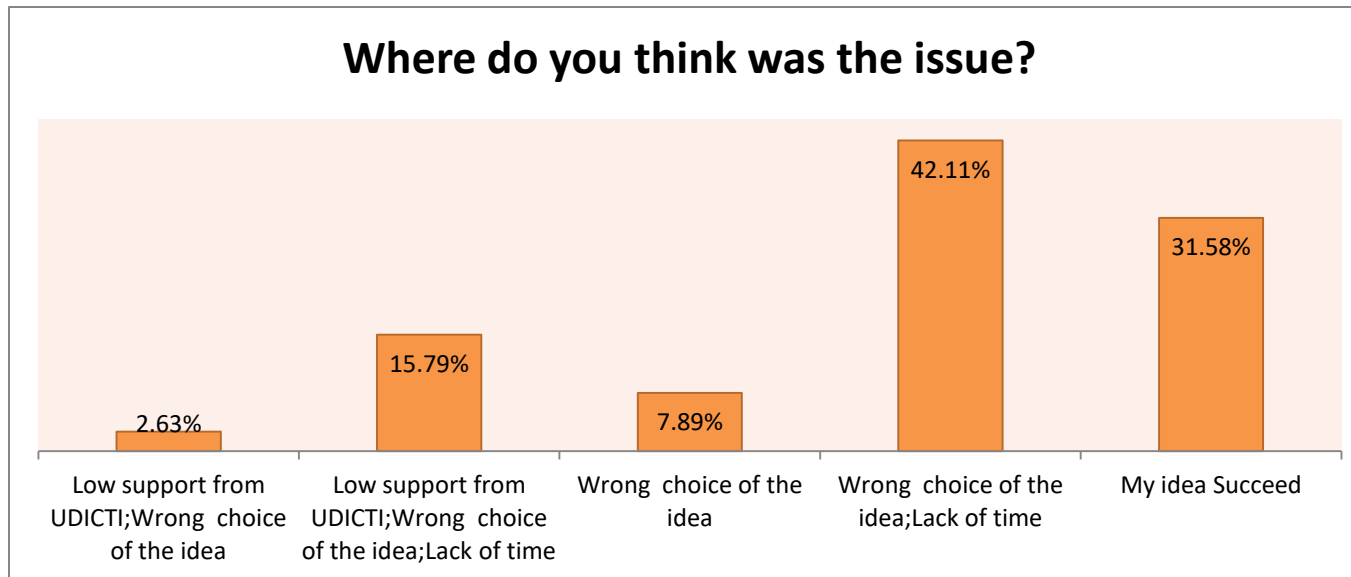
❑ 65% Developed no product/service

How far did incubatees go with the program?

- ❑ 28.9% Ended up in idea generation (?)
- ❑ 21 % In coaching and training stage



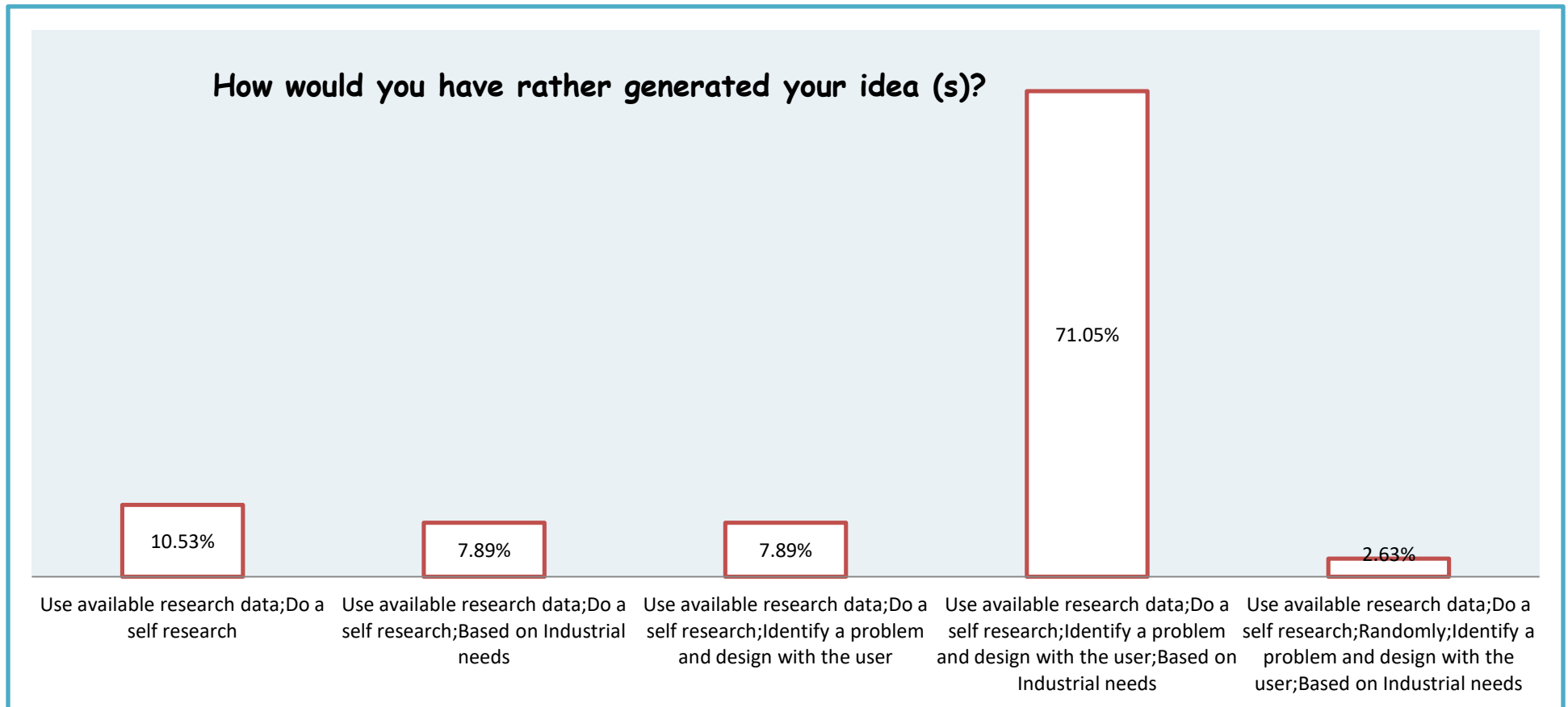
Problems/ Sources of ideas



- More than 50% of ideas not based on research/data failed!
- And 100% of incubatees with no product success think wrong choice of the idea was the problem
- Research contribute to good choice of ideas?



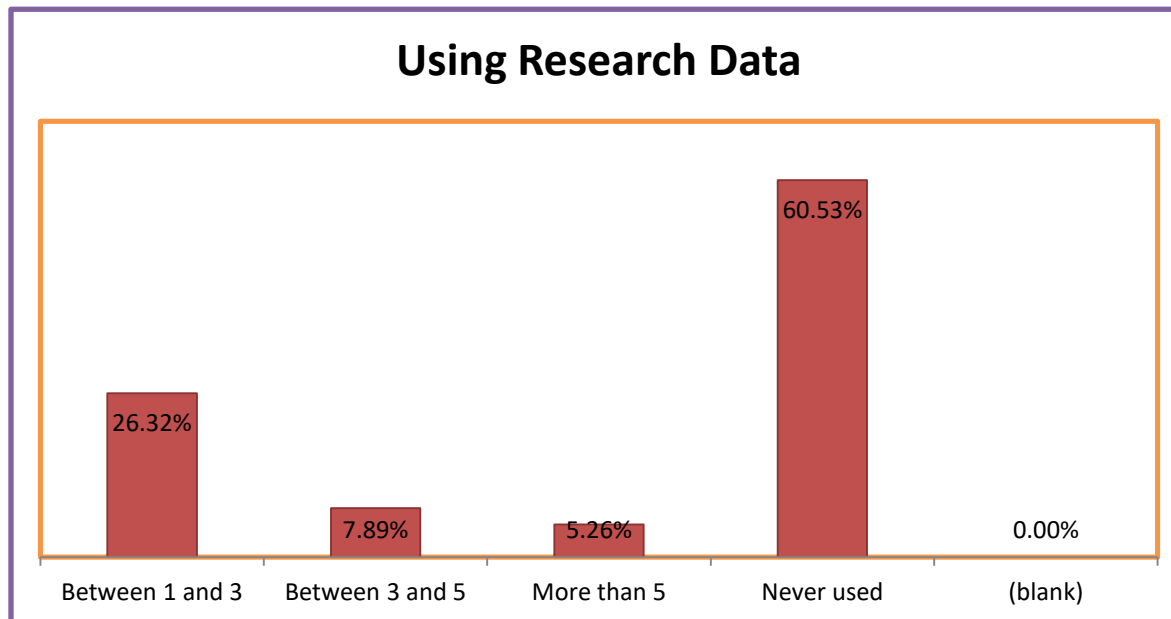
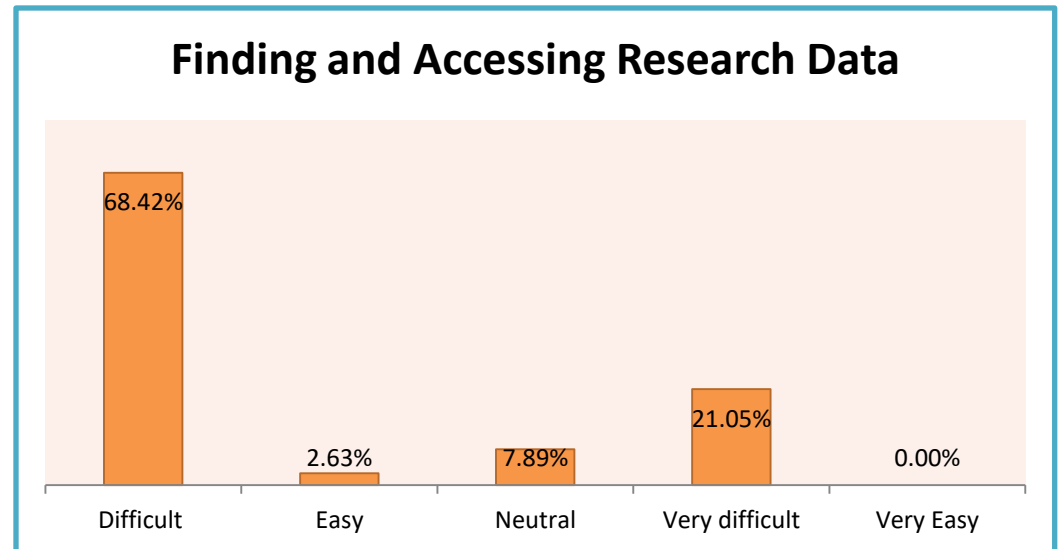
Incubatees preferred ideas data source



Incubatees think research is the Way, so are the studies elsewhere

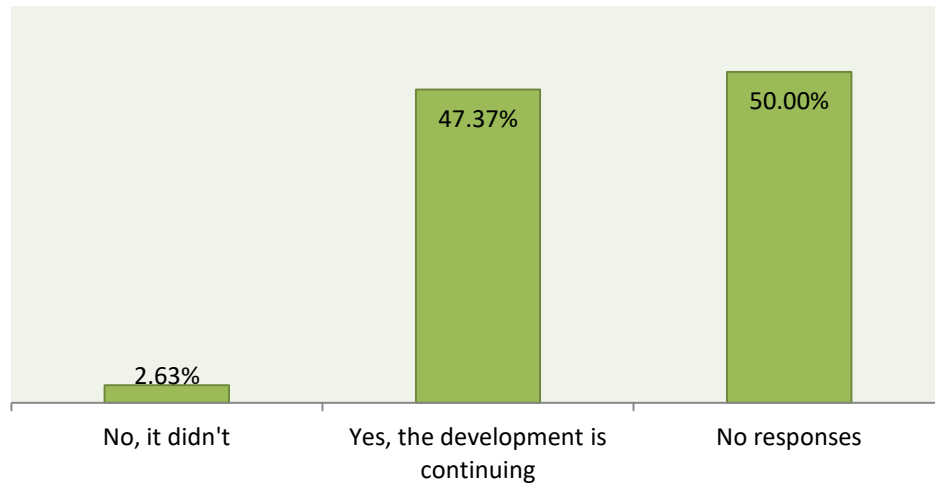
Research data availability (and use) to/by Incubatees

- ❑ Research results are not made open to students, even in the academic institutions



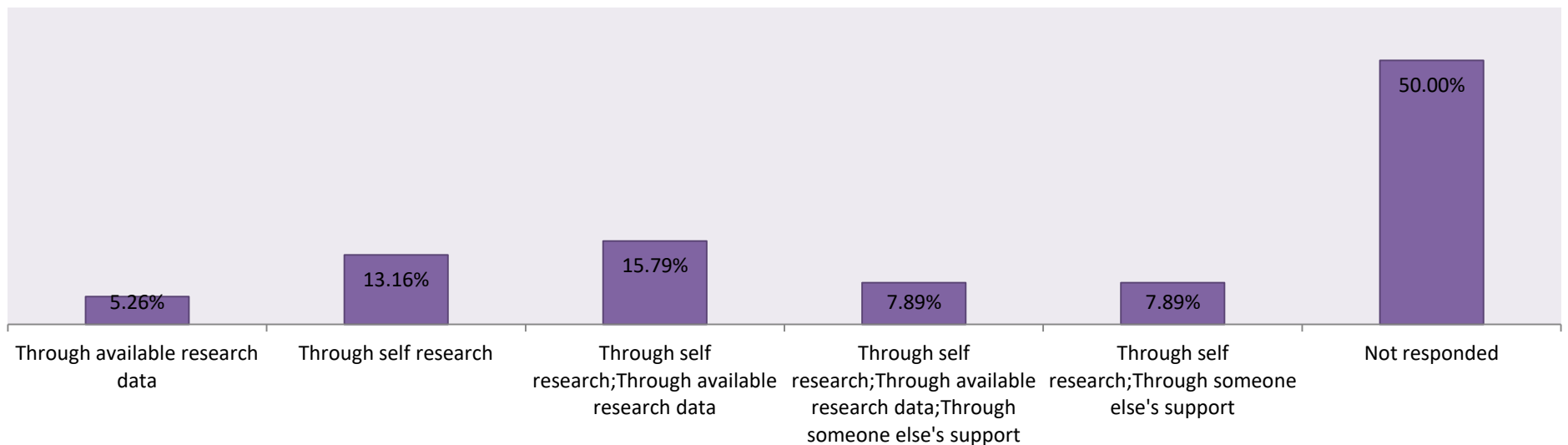
Other Ideas (using research data)

Embarked on another idea?



☐ 94% Are succeeding/ On the path to success!

How did you shape the idea?



UDICTI Challenges

- Financial
- Incubatees' Access to curated Research results for commercialisation (IPs/ Readiness to share (Open Data)
- Lack of a platform that brings the stakeholders together to foster innovation
- Students coping with University Timetable
- Contribution to students assessment to motivate them

Measures

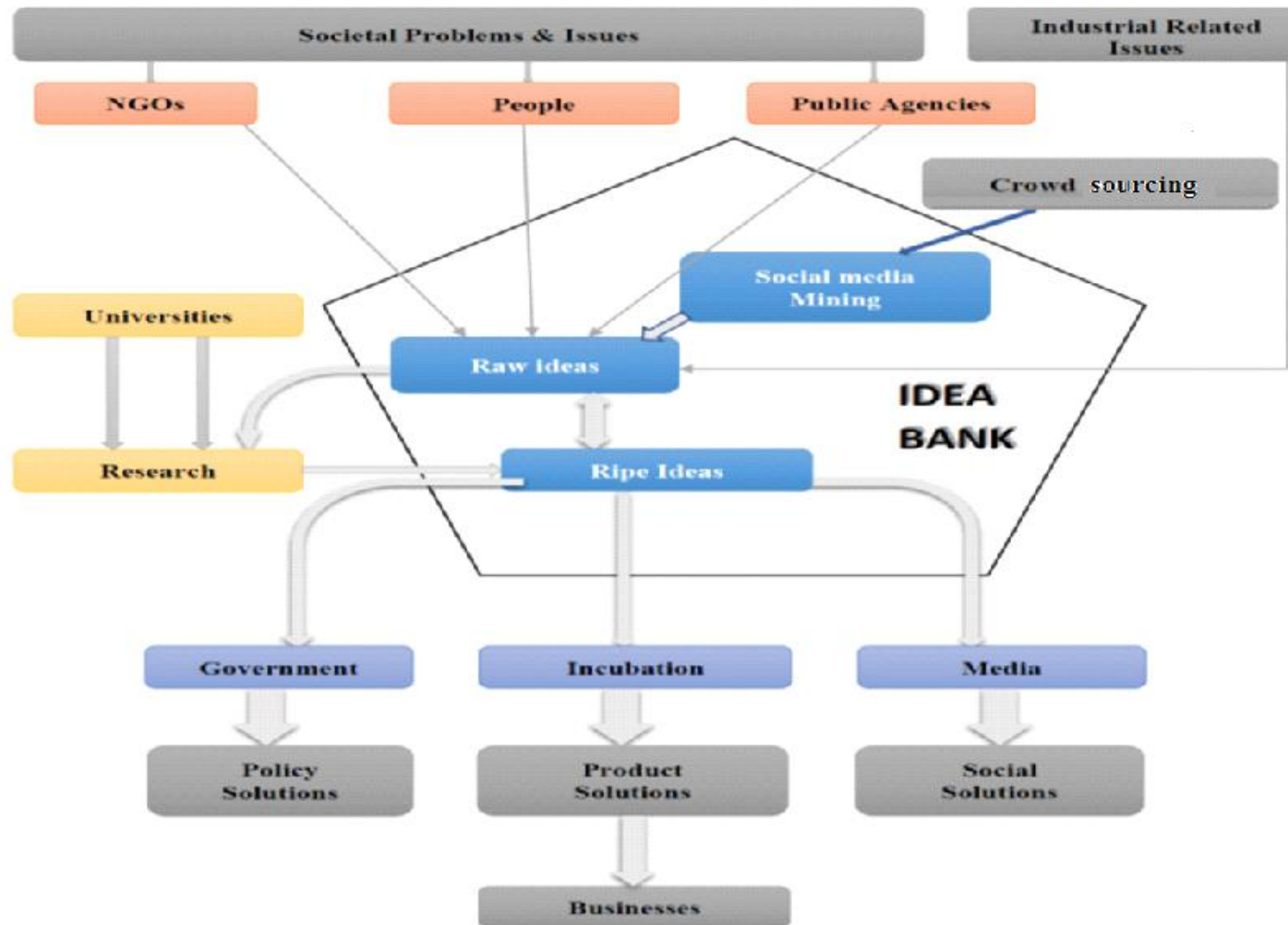
- ❑ Introduction of UDICTI in UDSM timetable , 2015/16
- ❑ Introduction of HCD through UNICEF Innovation Hub and integrating it to FYP curriculum
- ❑ Creating a platform to leverage on Open Access initiative by the University
- ❑ Looking forward to get it contribute to CA starting this year

Ideas Bank Model

- Considering different sources of data for innovation (from literature and UDICTI experience); the platform focuses on:-
 - Problems
 - Sources of such data
 - Platform to combine/Accessing data (More than a repository)
 - Data refinery for specific consumers
 - Linking to consumers
 - Measuring the outputs (Through research again!)

- Combining them into this.....

Proposed IDEAs Bank model



Way forward

- ❑ Bringing the stakeholders together to agree on the framework
- ❑ May be we will have a platform then, for inputs.

CONCLUSION

- ❑ UDICTI model is one of the ways innovation can be brought to academia
- ❑ There is a need to make research output available and coordinated and curated for relevant consumers for uptake
- ❑ A proposed model will be one of the firsts (if not the very first) in the country
- ❑ Leverage on already OD initiative can bring quick success