



FINANCE AND INNOVATION

The Case of

Micro &

Small sunflower oil processors

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INTRODUCTION

In developing countries, the growth of economy in terms of jobs and GDP is heavily dependent on the sustainable growth of a country's small business sector. (Chu et al, 2007).

In pursuing industrialization For Tanzania where agriculture is still the backbone of the economy, (74% employment, 15.5M hectares in cultivation) Agro processing MSEs stands a better chance in delivering the semi industrialize economy that Tanzania envisions

The growth and development of these agro-processers especially under the free market economy depends on their ability to compete and hence the importance of innovation.

Like other factors in production, innovation requires financing.

Financing to the small ventures can be inform of securities and derivatives, results-based financing mechanisms, voluntary contributions; and compulsory charges (Dalberg, 2014).

INTRODUCTION CONT...

The government of Tanzania has been pursuing various **financing options to expand opportunities** for growth of small agro-processing firms so that they play a more effective role in the economy.

These options include; supporting the development of agro-processing firms through **investment promotion, tax exemption** for agricultural raw-materials, providing **credit** and **training** to agro-processors in order to sustain firm's growth (Mwang'ombola, 2005)

But despite the effort put, and the importance of the sub-sector, Tanzania has not been able to translate the dominant agricultural sector into **agglomeration of agro-processing firms** (Deloitte 2011).

Growth of small agro-processing firms has failed since most of them collapse one to two years after being established and the few that survive do not grow (Mwang'ombola, 2005).

STATEMENT OF THE PROBLEM

Firms entering the market small often remain small-scale due to several constraints and barriers to growth (Coad & Tamvada, 2012).

Lack of proper financing which has frequently been highlighted as one of the major constraints facing Micro and Small enterprises in Tanzania, has most of the time not been discussed in parallel with innovation – of which is a pre requisite for competitiveness and growth.

There are not enough publications on issues surrounding financing of innovation in agro processing MSEs with a Tanzanian focus, indicating that there is a gap in literature that needs to be filled. This study uses a case of sunflower oil processing firms to fill this gap.

OBJECTIVES

Broad objective

- To find out the status regarding financing of innovation in Micro & Small sunflower oil processors

Specific Objectives

- To identify kind of finances that are available
- To identify the status of innovation in the MS processing firms
- To find out how financing available effect innovation
- To identify challenges of financing innovation in his subsector

CONCEPTUALIZATION OF INNOVATION

What is innovation?

successful creation, development, and marketing of new goods or successful application of new techniques or ways of working that improve the effectiveness (Archibugiet al 1994)

Innovation can be in form of **product** innovation, **process** innovation, **market** innovation as well as **organization** innovation.

It can also be a **radical** innovation or an **incremental** one.

This happen in a system we call **innovation system** (Giget 1997, Edquist 2001, Malerba, F. 1992).

Innovation system is a system of interconnected institutions to create, store and transfer the knowledge, skills and artifacts which define new technologies (Metcalfe, 1995).

Therefore Innovations are looked upon mainly as the result of interactive learning processes of pierces of knowledge that belongs to a number of players

CONCEPTUALIZATION OF FINANCE

Since the analysis of Schumpeter, finance has been seen as a vital part of Innovation processes (O'Sullivan 2005 ;Mazzucato 2013).

Financing is the act of providing funds for business activities, making purchases or investing

❖ It is one of the keys for unlocking the potential of small firms to innovate, upgrade and become more productive (OECD Secretary-General Angel Gurría).

Financing can be either formal or informal, Government financing or private financing and also Debt financing or Equity Financing

❖ Equity financing means exchanging a portion of the ownership of the business for a financial investment in the business.

❖ Debt financing involves borrowing funds from creditors with the stipulation of repaying the borrowed funds plus interest at a specified future time (Campello, 2006; Barnea, A., Haugen, R. A., & Senbet, L. W. 1981

CONCEPTUALIZATION OF FINANCE

Financing instruments

securities and derivatives

- ▢ Bonds and notes, guarantees, loan etc

results-based financing mechanisms

- ▢ Advanced market commitments, prizes and awards, development impacts bonds, performance based contracts, debt swaps

voluntary contributions

- ▢ Consumer donations

compulsory charges

- ▢ Taxes

Others are venture capital, Angel investors, government's grants, equity offering, initial public offerings and warrants

Sunflower processing sector in Tanzania

Tanzania is one of the top ten sunflower oilseed producers in the world (UNIDO, 2016).

There are at least 1,000 oilseed processors of sunflower seeds into crude oil

The amount of sunflower oil produced in Tanzania reached about 163,000 tons in 2012 compared to 52,000 tons a decade earlier(URT, 2016).

The sector contributes about 32% of national cooking oil in the country and 60% is being imported from outside while 8% is filled by other oil seeds (RLDC, report on 2012).

Sunflower sector in tanzania

Tanzanian sunflower oil producers are mostly focused on serving the domestic market.

It is estimated that the smaller oil processors currently use just above 20 % of their capacity, while the large oilseed processors are using between 25 % and 40 % of their installed capacity. (URT, 2016)

The government has put in place a Sunflower sector development Strategy (2016-2020)

Through this strategy, business case will be developed by TEOSA to support the sector through the TADB, and to establish a special preference for the sunflower sector for a production and processing financing mechanism

CONCEPTUAL FRAMEWORK

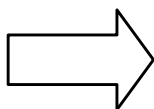
Production

Linkages

Financing

Innovation

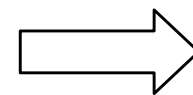
Small
&
Micro
Agro-
processing
Firms



Banks
R & D
Training
Institutions
Competitors
Input suppliers
SIDO
Local
government
users

+

Proper
mechanism in
-Commercial
Banking
-Micro-finance
-Government
grants/subsidies
-Angel Investors
-Venture Capital
NGOs



-Product
-Process
-Market
-Organizational

METHODOLOGY

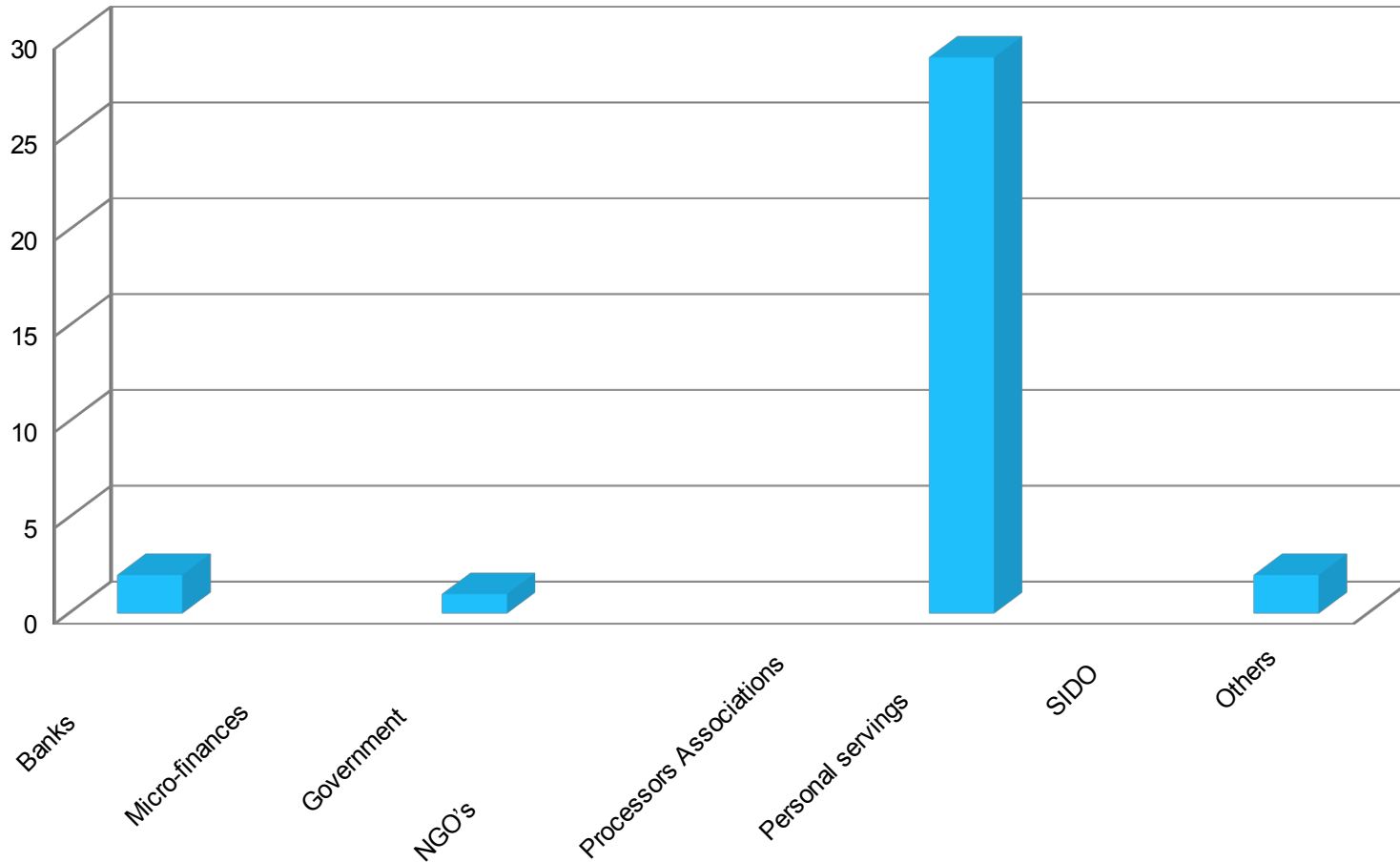
- ❑ Qualitative study
- ❑ Purposive sampling and snowball sampling were used in the mix so as to get different entry points along with key informant selection. This was done in order to and get a better representation of the small sample and reduce biasness
- ❑ 30 processing firms from Singida and Manyara were visited and 5 key informants were approached to give further information.
- ❑ Primary and secondary data were collected through structured and unstructured interviews, observation, brochures and various reports
- ❑ Data were analyzed using Content analysis

FINDINGS

CHARACTERISTICS OF THE FIRMS

age of the firm(yrs)			
Under 5	5-10	above 10	
15	12	3	
age of the owner/manager (yrs)			
Below 25	25-40	above 40	
-	4	26	
Experience in processing (yrs)			
no experience	1yr	2-5	above5
1	2	6	21
number of employees			
1-4	5-10	above10	
26	3	1	
Education of owner/manager			
primary	secondary	vocational	university
19	4	6	1

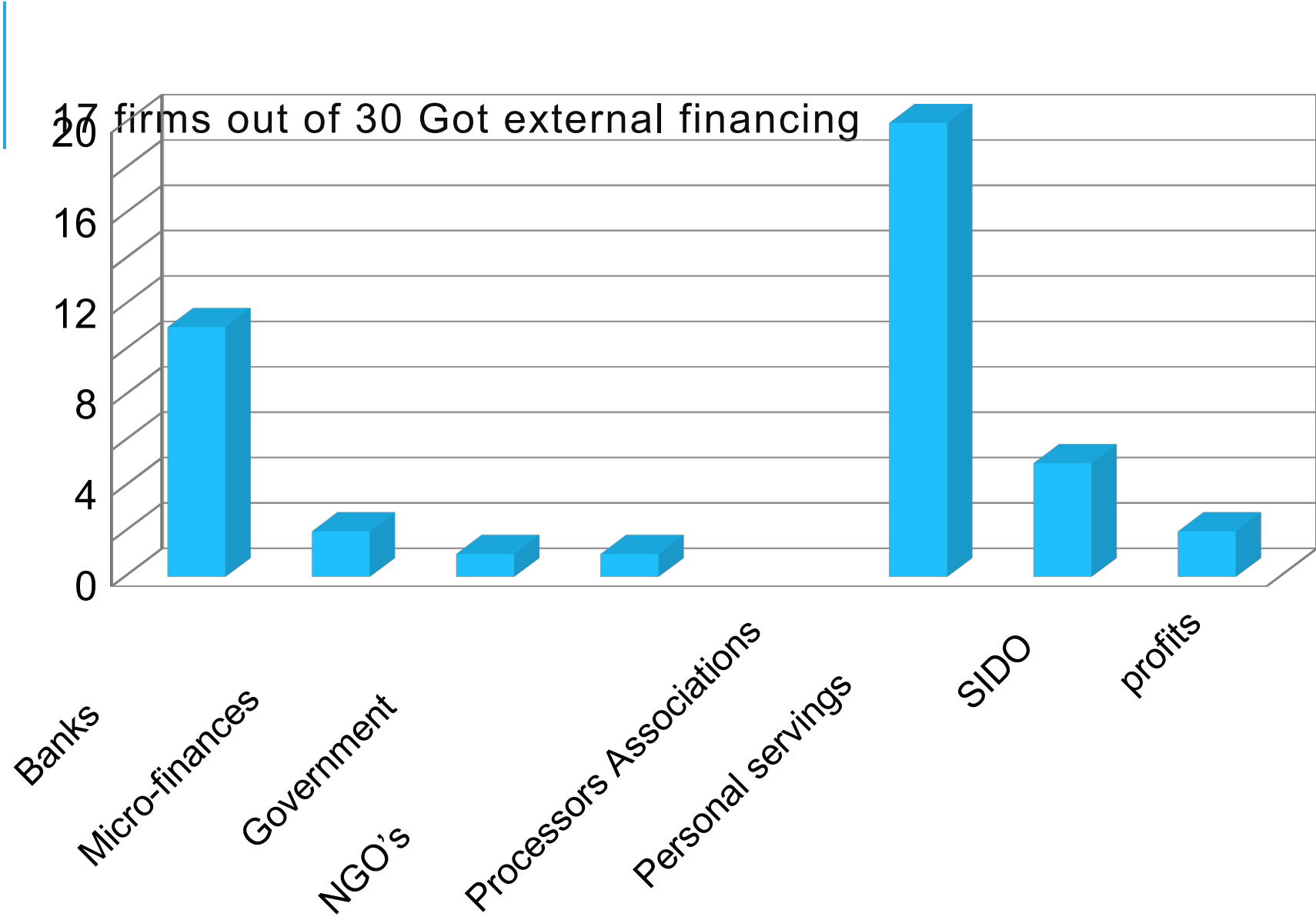
START UP CAPITAL



FINANCES FOR OPERATING

- ❑ Loans from banks
- ❑ Credit from SIDO
- ❑ SIDO (rent out space for lower charges)
- ❑ From international project by being a part of it.
- ❑ Sponsorship on trainings from SIDO, TFDA, TBS, VETA ,and NGO
- ❑ Government through the district council set out sunflower oil processors clusters that will be equipped with double refining machinery

FINANCE FOR OPERATING



OTHER ACTORS LINKING WITH THE FIRMS

- ❑ SIDO
- ❑ Banks
- ❑ Farmers
- ❑ Consumers (Local)
- ❑ Government agencies (TFDA TBS OSHA)
- ❑ International Organization

LINKAGES

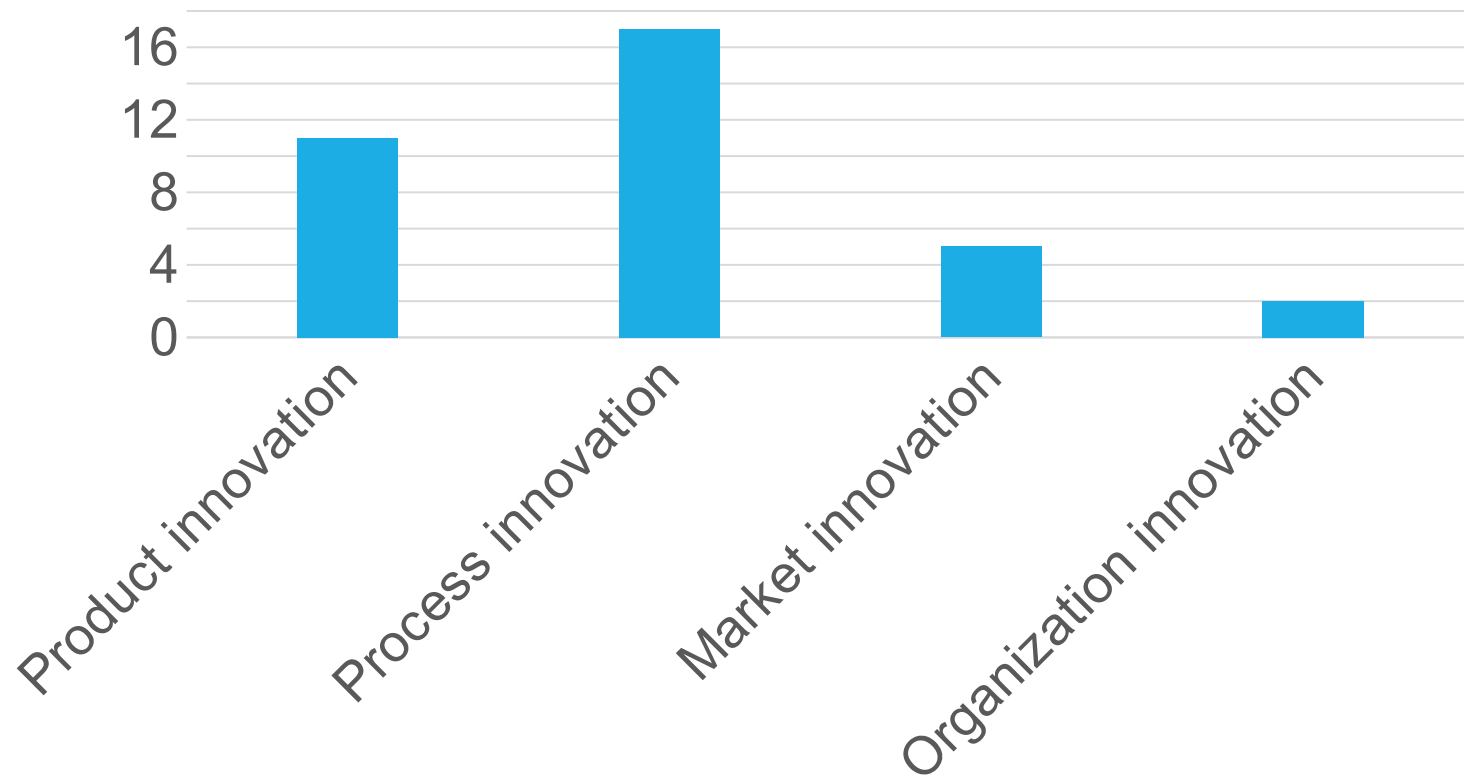
Actors	Not useful	Slightly useful	Moderate useful	Very useful	Extremely useful
Training institutions	5	2	23	0	0
Farmers	0	0	0	24	6
Consumers	0	6	18	2	4
Competitors	5	16	9	5	0
R &D	2	28	0	0	0
Banks	18	7	2	3	0
Workers	0	0	0	4	26
Government	0	0	22	8	0
International organization	8	20	0	0	2

CONT...

- ❑ The Banks-who were the most seen in financing this firms were the ones whose majority ranked them as *not useful*
- ❑ This indicates that although finance from bank were accessible but its effect in influencing innovative activities is rather limited
- ❑ Farmers and workers were ranked high in terms of their usefulness
- ❑ The rest of the actors were ranked moderately useful and below that.

INNOVATIONS

17 had preformed innovations while in 13 firms no new innovation were observed for the past 3 years



CONT....

Product-reduce odor and coloration

Process-new better working machines, modification of the knives, , locally made filters, mechanized system of transferring the by product

Market- branding materials like labels and containers and also enter new markets

Organizational- better storage of raw materials



PICTORIAL PRESENTATION OF INNOVATIVE ACTIVITIES AND RECEIPT OF FINANCE

CONT....

There were 17 firms that performed innovative activities

Those who got financed were also 17

Firms that acknowledged that the finance received had an effect on innovation were only 5.

Therefore,

12 firms that had the same chance of doing the innovative activities from the external finance did not innovate

while

12 of the 17 firms with no external financing did innovation activities

FEATURES OF THE INTERSECTION GROUP

In terms of **education** All managers had either vocational education, university level education or attended more than 3 trainings.

Apart from buying the seeds from the farmers they had their **own farms** where they cultivate sunflower.

They also showed **innovation activities in more than two** innovation types(product, process, market and organization

They had the **knowledge of the importance** of better working technology and **purposely** pushed for it while for with the rest of the firm the improvement came as a result of repeatedly doing the same task over and over.

CHALLENGES OF FINANCING INNOVATION

- ❑ Bank regulations are not user friendly for the innovation purposes
 - ❖ many of the firms do not have collateral
 - ❖ repayment period is short
 - ❖ banks finance on tangible asserts
- ❑ SIDO which is in charge of these firms has no enough resources to fulfill their mandate.
- ❑ Financial service from SIDO still do not differ much from the ones from banks in terms of requirements
- ❑ There is still low harvest of the sunflower seed to make the processing firms work to its full potential hence enhance innovation
- ❑ Micro and Small processors are fearing using banking services
- ❑ Trustworthiness of the beneficiaries

MISMATCH HINDERING FINANCING INNOVATION (PROCESSORS VS FINANCIERS)

Processors	Financiers
Limited amount of sunflower seeds causing unstable oil production	Financing goes to stable entities
Needs a lot of time before starting to repay the loan	Most of the time repayment of loan start immediately after being obtained
Have intangible asset (knowledge)	Intangible asset do not make a good collateral
They depend so much on SIDO to nature them	SIDO has no enough resources on their disposal to carry out their mandate effectively
Less trustworthy	Trustworthy is essential to financiers

CONCLUSION AND RECOMMENDATIONS

It is evident from the study that finance availability alone is not a panacea for stimulating innovation.

In order to enhance innovative activities ,financing should be strategically placed.

Specifically it is recommended that

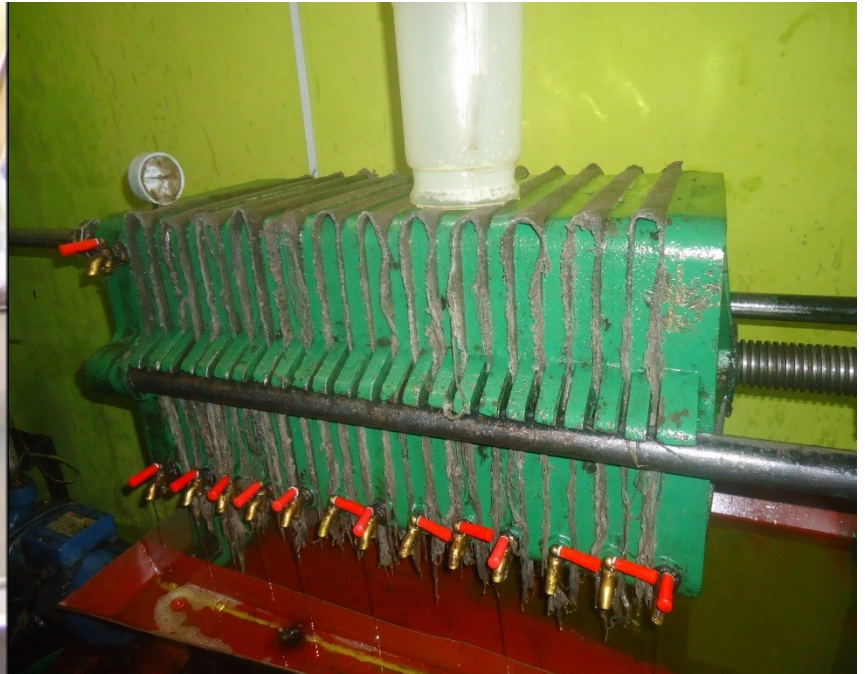
- ▣ Financiers should have products or schemes that specifically directed to innovation (example AFTA)

Along with this

- ▣ The government should also establish Guarantee scheme to private sectors that fund innovative activities
- ▣ The Government Innovation Fund should specifically target and name explicitly the activity to be funded (example trainings on innovation and technology management
- ▣ Programs that support innovation should explicitly be defined in the business case that is being prepared by TEOSA through the *Sunflower Sector development Strategy*



Filtration somewhere in the world
Tanzania



Filtration in

THANK YOU