## POLYTECHNIC OF NAMIBIA

## CONTEMPORARY ISSUES

## $\operatorname{CIS610S}$

Assignment 4

# Sustainable Knowledge Economy in Namibia

Author: Rita LEONARDO Supervisor: Dr. James SMITH

May 6, 2014

## Contents

1	Intr	roduction	<b>2</b>
	1.1	Knowledge Economy	2
	1.2	Vision 2030	3
<b>2</b>	Kno	owledge Factors	3
	2.1	Global Change	3
	2.2	Education	4
	2.3	Information Technology	5
		2.3.1 Information/Knowledge Intensity	5
		2.3.2 Collective Intelligence	6
		2.3.3 Networked Knowledge	6
	2.4	Brain Drain	6
3	Cor	nclusion	6

## 1 Introduction

Developing countries need to catch up to developed countries, the gap between the economies of different states, different people within the country needs to be bridged. One of the ways a country could achieve this feat is to sustain its knowledge, otherwise known as a knowledge economy. Economical Development is largely dependent on the skilled workers that a country has and/or can produce. Namibia as a third world economy needs to take a hard look at its people and design a plan to sustain the knowledge that is being produced within universities as well as through employment. The ardent of vision 2030 as introduced by Former President Sam Nujoma in 2004, needs to be realized and in order for it to be realized, a workforce of skilled and knowledgeable individuals needs to be assembled and put to work moving the country towards the direction the forefathers saw.

#### 1.1 Knowledge Economy

A knowledge economy is an economy in which growth is dependent on the quantity, quality, and accessibility of the information available, rather than the means of production. The definition refers to essentially the use of knowledge to generate tangible as well as intangible value. A country needs this values to be generated in order to facilitate decision making. It is a matter of keeping information constant and available so that decision makers can make informed decisions that will benefit the whole country. Several advancements make use of technology to make this feasible, technology such as Artificial Intelligence plays a big role in the sustainability of knowledge. An information age that is led by innovation is busy transforming the agricultural economies and labor economy into an information economy. An economy where information is the product, and value is placed on the importance of it.

The questions asked of ourselves in this regards is, with all the information that exist in the world right now, how do we harness it and use it to our advantage? How do we store it for future use and with the boundaries of countries reduced to mere border, how do we transfer knowledge to people who are a distance away from where we are. These are important questions that have been tackled through centuries of technological development and the paper will take a look at several ways that knowledge economy can be used and sustained.

#### 1.2 Vision 2030

Vision 2030 is an informal document that was generated by the office of the president to outline the goals of Namibia and where it sees itself in the future. These goals were further integrated into the National Development Plan 4, A national document that states the vision of the country and where it sees itself in the future as far as national development is concerned. A national vision provides long term alternative policy scenarios on the future course of development in a country until 2030.

Several areas of development were outlined including the following:

- Inequality and Social Welfare
- Human Resources Development and Institutional Capacity building.
- Macro Economic Issues
- Population, health and Development.
- Natural Resources
- Knowledge, Information Technology.

Information technology is the biggest focus of this paper, it is the building block of information and knowledge generation as well as knowledge repository. The paper is going to take a look at several technological advances that can help Namibia sustain in knowledge economy.

### 2 Knowledge Factors

#### 2.1 Global Change

The way the world operates has drastically changed since the 19th century. The fall of the Soviet Union and the drastic rise of the Asian economies has caused upheavals in the world economies. The terrorist attacks on the United States as well as several other factors have placed great value on information. The United Stated immediately moved to upgrade their monitoring systems as well as other countries. It was deemed important to know what the other person is thinking in order to gain advantage in a continuously adversarial world.

The new economy is rapidly changing towards service oriented and knowledgeintensive industries. Technology companies such as Microsoft and Apple have overtaken brands such as Ford in the market and the trend is set to continue with the introduction of social media.

The paradigm shift to information economy is one that will and has affected business as well as countries and it is important that countries that are developing move with this paradigm shift. It is a shift that has seen an increase in small business turn into big businesses as well as the rise of entrepreneurship, a key to economical development.

Namibia in its regard has moved to set up opportunities for small businesses and this is a technique that might eventually rip the results of economical development but before this happens, a substantial number of small businesses need to be successful enough to become big businesses.

#### 2.2 Education

One of the drivers of knowledge creation is education and in order for countries to continue development, they need to train their people with skills necessary to the building of a nation.

One of the keys is the building of institutions that offer education such as schools and universities. Namibia currently has two major universities and several colleges. This is not nearly enough to support the growth of the economy that is expected as part of the National Development Plans. It is imperative that development is carried out to increase the capacity of institutions to offer internationally recognized degrees and produce graduates that can go out to industry and produced.

Institutions such as university are part of the information sharing model which can be used to sustain the knowledge economy of the country. Knowledge can be passed down to students from teachers as well as literature.

The ratio of skilled workers produced needs to be able to match the demand of the industry. Students that are coming out of universities also need to be able to perform adequately within the industry. In the knowledge economy, an individual is characterized as one who is computer literate and who are able to create innovative solutions to the problems facing the world today. The world's natural resources are depleting and there is a need for green infrastructure and a global demand on a border-less information world.

#### 2.3 Information Technology

Information Technology is by far the leading factor of the knowledge economy. The knowledge economy is intrinsically tied into how people use computers and how information travels around the internet and various other medias. The application of computers to store, retrieve, transmit and manipulate data is at the very core of information flow. Computers are often used to crunch data that is then compiled into manageable dockets for the users to use. System such as SAP are integrated heavily into business and they allow managers to make decisions about their day to day transactions and predict the future almost accurately about their businesses.

#### 2.3.1 Information/Knowledge Intensity

Silicon Valley in California is a place where information technology giants such as Google, Facebook and Twitter reside. All of this companies deal in information. Social Media has changed the way information flows around the world. People are connected to each other like they were never before. Knowledge can now travel at the speed of the wire over the internet without boundaries such as distance or quality to hinder communication.

Information is a currency on its own and it is changing along with information technology. As new inventions are introduced, the knowledge economy is also growing. Teachers in the United States and Europe are constantly making use of social media to enhance the teaching experience. Students and teacher can connect to each other outside the classroom with ease, removing the limitations of classrooms such as time constraint.

Developing countries such as Namibia need to find a way to harness the explosion of technological innovation and use it to their advantage. Connect with its human capital to engage them in National Development. The limitations of the internet speed in Africa will play a big role in the harnessing of technology. In order to get on par with other developed countries, the speed of the internet needs to go up and prices need to go down.

#### 2.3.2 Collective Intelligence

The use of media to collect intelligence within communities is an important factor in sustaining a knowledge economy. The use of social media once again will play a big role.

Projects such as crowd-sourcing will help elevate communities. Through the use of collective knowledge, other communities can benefit from the transferal of the knowledge.

#### 2.3.3 Networked Knowledge

The next phase of a knowledge economy is a networked knowledge. The internet has of course played a big role in that. Bringing people closer together despite the distance. The next generation networks such as Mobile Phones and LTE technology will bring the knowledge even closer.

Namibia needs to be able to harness all these resources and also prepare for future changes in the technological landscape.

#### 2.4 Brain Drain

Brain Drain is a phenomena whereby educated individuals leave their country of origin for other countries, usually looking for better opportunities. Several factors such as salary and work environments play a factor but it is the responsibility of a country to try and keep a hold of its educated human capital. It is even more imperative for developing countries to do so.

### 3 Conclusion

Etiam euismod. Fusce facilisis lacinia dui. Suspendisse potenti. In mi erat, cursus id, nonummy sed, ullamcorper eget, sapien. Praesent pretium, magna in eleifend egestas, pede pede pretium lorem, quis consectetuer tortor sapien facilisis magna. Mauris quis magna varius nulla scelerisque imperdiet. Aliquam non quam. Aliquam porttitor quam a lacus. Praesent vel arcu ut tortor cursus volutpat. In vitae pede quis diam bibendum placerat. Fusce elementum convallis neque. Sed dolor orci, scelerisque ac, dapibus nec, ultricies ut, mi. Duis nec dui quis leo sagittis commodo.

Aliquam lectus. Vivamus leo. Quisque ornare tellus ullamcorper nulla. Mauris porttitor pharetra tortor. Sed fringilla justo sed mauris. Mauris tellus. Sed non leo. Nullam elementum, magna in cursus sodales, augue est scelerisque sapien, venenatis congue nulla arcu et pede. Ut suscipit enim vel sapien. Donec congue. Maecenas urna mi, suscipit in, placerat ut, vestibulum ut, massa. Fusce ultrices nulla et nisl.

## References

[Figueredo and Wolf, 2009] Figueredo, A. J. and Wolf, P. S. A. (2009). Assortative pairing and life history strategy - a cross-cultural study. *Human Nature*, 20:317–330.