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Herdsmen-Farmers Clashes in Nigeria and its Effect on Food Security

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Abstract

Farming is the process of cultivating the soil and growing seed plants that are for human and animal consumption which can be used for human consumption and the raw material can also be used for processing of other items that are used for human and animal. Most of the things that are used are from the farming.

Herdsmen are those agriculturists that are involve in mainly keeping of livestock especially cattle, they keep herds of cattle through the nomadic method which involve the roaming from one place to another in search of pastures and drink for the cattle.

Agriculture involve the food cultivation and breeding of animals for food thereby the farmers and the herdsmen are working towards achieving same goal for mankind. The worries are why the clashes between the two groups.

"Food security [is] a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life".

This paper will study the history of these various agriculturist and the causes of their clashes in Nigeria and how the clashes has affected access to sufficient food, safe and nutritious food that meet the dietary needs for an active and healthy life and some possible actions to put in place to reduce the effect on food security in Nigeria.

Keywords: *Food, Farmers, Herdsmen and food security.*

Introduction

Researchers still believe that farming as an agricultural system which has been modernized and improve through different techniques has been in existence about 12,000 years ago. According to the creation of Mankind farming of food has been in existence since man came to be in the world. Food has been the sustenance of mankind for nutrition, health and growth, Man has been sustaining since existence through food and most of this food is being cultivated.

Food from the soil is been eaten by men and animals in the world. Animals are known to eat food as it grows from the soil, while mankind eat the food in the same manner but as evolution system progresses man learnt to transform the crops to different form of food for easy preservation and consumption. Man, also learnt to integrate the different food in order to have a more nutritious and balanced food for improving human health.

Farming is the process of cultivating the soil and growing seed plants that are for human and animal consumption which can be used for human consumption and the raw material can also be used for processing of other items that are used for human and animal. Most of the things that are used are from farming.

Herdsmen are those agriculturists that are involved in mainly keeping of livestock especially cattle, they keep herds of cattle through the nomadic method which involve the roaming from one place to another in search of pastures and drink for the cattle.

The herdsmen in Nigeria are known as the Fulani's, they are called the Fulani- herdsmen, which are known to have spread from the Juta Jalon mountains of West Africa, just as their name implies they don't have a base they keep moving from one place to another due to the search for green pastures for their cattle and drink. In this regard, they have spread to different part of West Africa including Nigeria.

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Farmers are known for the cultivation of food crops and they have been of significance importance to the growth of the nation and has made the food accessible in different locations to allow for human consumption in different place in the country.

Food accessibility has made it possible for Mankind in a different location to have access to food that is important and nutritious to health even if it is not cultivated in the area. Accessing the sufficient and required amount of food for consumption at a particular time and place for human consumption. Farmers have contributed immensely to food accessibility globally through their various activities.

The final report of the 1996 World Food Summit states that food security "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"

These agriculturist clashes when there is conflicts of interest in their various activities which they do not consider the effect on the mankind and animal which are their major factor in all their activities, due to this insensitivity the clash has affected both mankind and the animals and has created a huge impact on food accessibility and security.

The purpose of this research work is to study the effects of the farmers and Herdsmen clashes on food accessibility and food security.

Theoretical framework

Food are all consumables that are nutritious for health and are cultivated or rather processed in other forms for all living creatures. Food is needed by all living creature to keep life and remain healthy for the growth and proper body development.

Food farming in Nigeria

Nigeria as other West African countries are known for fertile and rich vast land that is fertile for farming and this has been traced back to Nigerians being dominant farmers, they live and survive through the cultivation of crops for food. Nigerian soil is blessed with fertile soil that is rich to grow different types of crops for food.

In the ancient days in Nigeria, every family relies on the cultivation of crops to survive the economy, the whole members of the family are all involved in the production of crops that lead to the desire for a large family size because the larger your family the large the number of workforces to be used for the production of crops for food.

Farming in Nigeria has taken a dramatic turn to a better direction in recent years, creating jobs and opportunities for entrepreneurs who dare to go into the farming business. Millionaires are currently being made every year through farming in Nigeria and there is certainly no end to the prospects of creating more wealth through farming in the coming years.

Nigeria has a huge population of over 200 million people, twice more than the populations of Zimbabwe and South Africa combined. The entire population of Nigeria depends on staple foods produced from farms and another farm produces for their daily meals and sustenance. More than 80 percent of Nigerians buy their farm produce from the market.

Nigeria has large expanses of fertile farmlands laying fallow across the nation. Nigerian land area, when measured in sq. km is about 910,770. The land area of any country is the country’s total area, excluding areas that are considered to be water bodies. So, Nigeria has one of the biggest expanses of Land in Africa of which 70 percent is available for farming.

Nigerian Government is seriously turning its attention to promoting farming in Nigeria to help boost food productions in the country and minimize food importation. The government is willing to assist any would be farming entrepreneur/investors with the necessary supports and logistics.

Nigerians boast the highest purchasing power in Africa, far more than any other indigenous Africans. We buy things here and we pay cash. Talk about parties, Nigeria is the most merriment people on earth. The food used for parties and merriment in Nigeria can feed four other African countries.

By the time Nigeria attains its full capacity utilization is agriculture, farming will become a great foreign currency earner more than the oil. The implication is that Nigerian farmers will be able to earn in Naira and in Dollars as well as other foreign currencies.

Nigeria government in its recent policies has really developed policies to boost the farming the system in order to transit from the traditional system to modernize the system of farming which will increase the productivity of farm produce.

Government has mapped out funds and program that have been seen encouraging and effective which has attracted the educated and professional farmers to engage in modern farming, the policies has shifted a lot of businessmen and white -collar job earners to be involved in farming, it has also encouraged every civil servant to be involved in farming.

Some workers have seen to resign of their duties and are fully engage in farming and this has improved productivity in farm produce.

Most young graduates are willing ready to involve in farming as they are being encourage in that area and they have seen it lucrative. Data has shown that some of the biggest farm in Nigeria are owned by young farmers.

Herdsmen in Nigeria

A herder is a worker who lives a possibly semi-nomadic life, caring for various domestic animals, in places where these animals wander pasture lands.

Herdsmen are the owners or keepers of domestic animals. Most of the herdsmen in Nigeria are still done in the traditional way and are mostly Fulani's that have migrated in to the country, they are mostly nomadic farmers that are not based in a particular place, they are known to be moving from one place to the other in search or pastures and drinks or the animal.

Fulani herdsmen or Fulani pastoralists are nomadic or semi-nomadic Fulani people whose primary occupation is raising livestock. The Fulani herdsmen are largely located in the Sahel and semi-arid parts of West Africa, but due to relatively recent changes in climate patterns, many herdsmen have moved further south into the savannah and tropical forest belt of West Africa.

The herdsmen are found in countries such as Nigeria, Niger, Senegal, Guinea, Mauritania, Mali, Burkina Faso, Ghana, Benin, cote d'Ivoire and Cameroon. In Senegal they inhabit northeastern Ferlo and the southeastern part of the country. In many of these countries the Fulani's often constitute a minority group.

Fulani pastoralists started migrating into northern Nigeria from the Senegambia region around the thirteenth or fourteenth century. After the Uthman dan Fodio jihad, the Fulani became integrated into the Hausa culture of Northern Nigeria. Thereafter, during the dry season when the tsetse fly population is reduced, Fulani pastoralists began to drive their cattle into the Middle Belt zone dominated by non-Hausa groups, returning to the north at the onset of the rainy season. But while managing the herd and driving cattle, cattle grazing on farmlands sometimes occurs, leading to destruction of crops and becoming a source of conflict.

Nigeria's implementation of the land use act of 1978 allowed the state or federal government the right to assign and lease land and also gave indigenes the right to apply and be given a certificate of occupancy to claim ownership of their ancestral lands. This placed the pastoral Fulani in a difficult position because most did not apply for lands of occupancy of their grazing routes, and recurring transhumance movement led to encroachment on the properties of others.

Herdsmen in Nigeria are mostly the Fulani's, who move around in different part of the country, they are mostly immigrants that have moved into the country through the borders in search of food for their cattle. Their activities are mostly not control by the government of the country because they don't have a base and not ready to settle in a particular place.

They are always seen by the road side and inside the cities sometimes obstructing traffic as they move their cattle from one area to another.

Herdsmen and farmers clashes in Nigeria

Agriculture is the cultivation and breeding of animals, plants and fungi for food, fibre, biofuel, medicinal plants and other products used to sustain and enhance life.

Agriculture involve the food cultivation and breeding of animals for food. Thereby the farmers and the herdsmen are working towards achieving same goal for mankind. The farmers that cultivate food crops is for mankind and also processed for the feeding of the animals which is also in turn for mankind

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consumption. The plants are hereby used and processed in different form for human consumption, industry (products also used by human) also some plants by products are consumed by animals which is also used to keep the livestock that will also be sold for human consumption and some of it parts processed for used for mankind, the Fresh milk is gotten from cows, meat and the skins and bones are further processed in the industry for various uses by Mankind, the dungs are also used to nourish the plants for growth.

The BIG question is WHY the CLASHES? As the plants are for the Mankind and animals and also the dungs from the animals are also for the plants.

These clashes have been stirred from ethnic clashes to what it is called today since 1999 areas like Taraba states, Benue states and Plateau states have been engage in clashes that seems to be ethnic and has recorded a lot of human lives.

Most often, the arguments that trigger the violence result over the grazing of farmlands by livestock. The dangerous trend with each crisis is that our security agencies fail to fish out the perpetrators. Under such Hobbesian conditions, the perpetrators often see themselves as avenging warlords for whatever ethnic interests they may be defending. What is more, with such warlords walking the streets free, younger otherwise law-abiding youth are misled by such impunity into believing there are no consequences for bad behaviour.

Indeed, since the Fourth Nigerian Republic's founding in 1999, farmer-herder violence has killed thousands of people and displaced thousands more in Africa's most populous country not limited to Nigeria, various communities has been affected in the country.

These clashes have been extending from the North to the South and to the East and has been involving different communities in Nigeria. There are different version of the story and the clashes which has move from community clashes to terrorist clashes that involve the dead of human being and the destruction of various community settlement which has led to displacement of human and the fear of poisonous meat and farm produce, these clashes are sometime mixed up and people has different interpretation for the clashes. The majority of farmer-herder clashes have occurred between Muslim Fulani herdsmen and Christian farmers, exacerbating ethnoreligious hostilities.

The question. Are these clashes under the quest of farmland for pasture and for food cultivation or rather had the clashes been hijacked by some terrorist group as a platform to accomplish their desired attack? The Nigeria security system are doing their best to control the various attack and to make sure that communities are being protected.

Causes of the herdsmen and farmers clashes

The research has shown that some factors are the main causes of the clashes which are

1. Destruction of farmland: The Herdsmen in search for pasture for the animals allow the cattle to fed on farms thereby destroying the food crops in the farm, the farmers has device a method of controlling the effect by building barbwires as a form of protection on the food crops. Herdsmen will also destroy the barb and allow the cattle to graze on the Farm.
2. Harassment of Herdsmen by youth: The destruction of farm crops which has causes a lot of scarcity and had cause some hardship to farmers whose main occupation and source of livelihood is farming in the quest for revenge had set up youth to harass the herdsmen as there are trespassing into their territory.
3. Loss of Cattle: The herdsmen have suspected the loss of some of their cattle to the community and had traced it to act of revenge for the destruction of farm produce.
4. Sexual harassment of women: Women had been reported missing and being sexually harassed in the farms which has been traced to the act of taking control of farm by the herdsmen.
5. Killings and sudden disappearance of farmers: The frequent disappearance of farmers and killing which is at the high rate have been traced to the retaliations of the herdsmen as the reaction of the response of the harassment received at their end.

These quest for retaliation and revenge has gone so deep that the various group has extended it to loss of lives and it has affected human even more than the farm and the animals.

No, this regard power to take away life and property as human being are more valuable than animals and crops because is human that has the dominion over them and has the power to maintain and keep

them so life should not be destroying. Life should be Preserve in order to keep and grow the animals and crops. Socio-economic effects of the conflicts led to reduction in crop yield and income of farmer's/nomad's displacement of farmers, loss of lives and properties and loss of products in the storage.

Food security and food accessibility

Being able to reliably obtain, consume and metabolize sufficient quantities of safe and nutritious foods, is essential to human well-being.

1996 World food summit

"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."

World Health Organization (WHO)

"Food security means that

1. All people at all times have both physical and economic access to enough food for an active, healthy life;
2. The ways in which food is produced and distributed are respectful of the natural processes of the earth and thus sustainable;
3. Both the consumption and production of food are governed by social values that are just and equitable as well as moral and ethical;
4. The ability to acquire food is ensured;
5. The food itself is nutritionally adequate and personally and culturally acceptable; and
6. The food is obtained in a manner that upholds human dignity.

Similarly, **Community Food Security** has been defined as follows

"Community food security exists when all citizens obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone." - Public Health Association of British Columbia (PHABC)

Food security

The FAO provides this well-accepted definition of a state of food security: "*Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life*."[1]

Components of food security

Availability of food

Availability is one of the four components of food security and it addresses the supply side. The phrase refers to the physical inflow and presence of safe and nutritious food at a given time and in a given place (e.g. at a local market or in a country). Food availability relates to the supply of food through production, distribution, and exchange. It constitutes all the necessary factors that allows human being to have readily food at any given time. Crop production allows growing of crops as food for mankind. This makes availability of food possible to mankind. Man has device means of growing food in and out of season in order to make sure food is available to mankind at any time through the use of water and irrigation system where water is channel through irrigation to provide necessary water for crop production. Food is made available at all time through different stocks / storage and preservative measures that allows crops to be available for human consumption round the year. When the stocks are kept, trading is use to make the food available through the act of buying and selling.

Access to food

Access, one of the four components of food security, concerns itself with whether or not an individual or household is able to gain access to (and therefore eat) available food. It addresses the ability to purchase or exchange goods for foods, as well as foods that are given and other social mechanisms that

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affect access (e.g. unequal distribution of food among the members of a household). Here, an individual will be able to access the food through availability of income. Here income determine the kind of food that an individual can access. An individual can only access the available food by considering the prices of food that he/ she can afford. The availability of market is another factor that plays an important part in the accessibility of food, whereby an individual/ household cannot access some markets due to some infrastructures they will have difficulty accessing food that are grown in that part of the country. Inability to transfer food crops to some areas can bring about difficulty in accessing such food in an area where they are not grown.

Utilization of food

Utilization is one of the four components of food security. It addresses the body's ability to make the most out of the nutrients in food that is consumed. Utilisation of food can be affected by factors such as poor storage, spoilage, cooking practices, food safety, and diseases (such as worms, or HIV/Aids) that might affect sufficient consumption and digestion of food. There should be knowledge shared on preparation of food to promote preparing nutritious food which will help build healthy body and system. Different crops that are grown should be use in other to put a healthy and well balance diet on our table at every given meal. Household should be exposed on different food crops and the different nutrients. Knowledge on handling of different food crops should be shared to avoid food poisoning.

Stability

Stability is one of the four components of food security. It cuts across and affects all the other components. Food may be available and accessible to people who are able to utilise it effectively, but this state of affairs needs to be enduring and so stable over time, rather than being a temporary state that is subject to fluctuations. To put all factors in place in relation to the components of food security as they work concurrently in other to have a stable food security.

Malnutrition

Malnutrition undermines a person's ability to lead a healthy life and occurs when a person is not able to obtain the right variety of nutrients in the right amounts from their diet. It is an umbrella term that includes over nutrition (an excess of food energy), undernutrition (a lack of food energy and macronutrients such as protein), and micronutrient deficiencies (insufficient micronutrients such as iron, vitamin A or iodine).

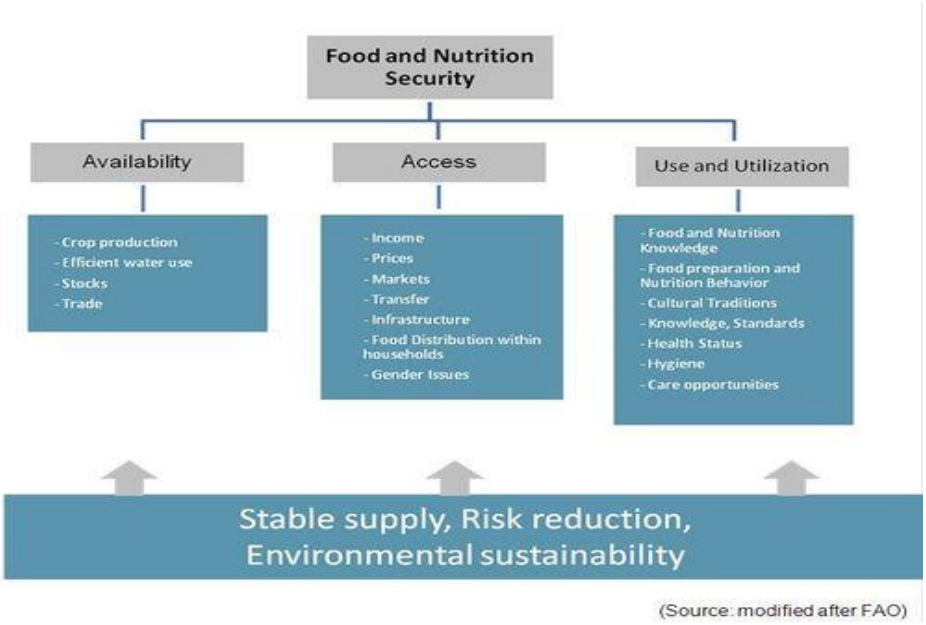

Figure 1

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Importance of food security

Everyone has to eat: It goes without saying that we all need food to survive, and if there is food security, then everyone can worry about things other than from where to get food or how to get it.

Food is considered a basic human right. Every person is entitled to food, and food security means that everyone can execute this right without too much hassle.

Food security is the backbone of the economy. As long as there is food security, the economy has a chance to grow. Many people are involved in all forms of food production, and it is one of the industries that cannot fail.

Good food is necessary for people's good health. As we have mentioned before, food security is when people have access to good food that keeps them healthy. When there is food security, all people get necessary nutrition and keep their health in check.

If a person cannot pay for food, they should not go hungry. Even if someone cannot afford to buy high quality foods, they should at least be able to have access to nutritious food, and when there is food security, they have that ability.

Country that cannot provide food for its people is at mercy of those who can. If a country is struggling to feed its citizens, the only thing it has to rely on is the mercy of other countries. It is a very unstable option, and it can be used against the country in need.

Hunger is an issue for many Nigerians. As a result of constant conflicts, many people from the Northern Nigeria go hungry because of limited staple harvests, poor labour opportunities and high food prices.

Herdsmen-farmers clashes in Nigeria and its effects on food security

The clashes had caused a lot of loss to the Nation but we will concentrate on the effects on food security for the purpose of this paper.

Food security is the measure of availability of food (nutritious and healthy food) for human consumption and being able to access it.

Food Availability: A number of cases has been recorded on crop destruction by the herdsmen, some of the seedling that was stored for farming have been destroyed in the farm by the cattle. this has affected food security in that food crops are limited for human consumption thereby causing non availability of food in some area.

Men and women are discouraged from farming as it poses fear of losing their lives by the herdsmen, hence causing an increase in scarcity of food as food production is being discouraged.

Trading becomes very discouraging as there are no or little food crops for exchange. People have to travel to another community in search of food crops for exchange which has brought about increase in price as little are being supplied irrespective of the demand in the market.

Food Accessibility: The herdsmen and farmers' clashes has affected the prices that are tagged on the available food crops, the prices are increases as little food are available for the people. Some of the income earners has invested their income on farming in return for profit but was recorded as wasted investment as the seedlings were destroy by the herdsmen. Most investors are afraid to invest their income on farming.

Due to the killings and some cases of disappearance of people, it has made transfer of food crops difficult as the places that are not affected by the clashes find it difficult to move around as they fear kidnap and being harassed.

In the act of retaliations, some of the cattle are being killed and sometimes poison, these in the other hand has brought about the increase of price of cow meat in the area and the avoidance of such as people fear the meat are not healthy for human consumption.

The clash has caused the non-availability of some nutritious food crop that are used within the community to boost the healthy system of the people. some crops that are grown for healthy and nutritious needs are lacking within the community and has affected what is obtainable in a household meal that constitute balance diet for healthy and active life.

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Recommendations

1. A public forum involving the actors in the decision making and to be permitted to take part actively in related issues. Representatives of the host communities and Fulani herdsmen should be conveyed under the planning procedure of restoring peace to most of the affected communities
2. Participatory planning process that involves all stakeholders (herdsmen and farmers) in the dispute resolution mechanism should be adopted.
3. Ranching method of cattle rearing should be adopted at rearing location across the country while the herdsmen should be given needed training for effective and efficient management of the ranching.
4. There is need for proper re-orientation of the essence of social interaction irrespective of the religious and ethics background
5. Government should be firm and fair in its resolution and implementation of decisions.

References

[1]. https://thebftonline.com/2019/business/agribusiness/fruitful-agricultural-transformations/.
[2]. https://www.wealthresult.com/agriculture/top-10-farming-in-nigeria.
[3]. https://en.wikipedia.org/wiki/Fulani_herdsmen.
[4]. http://www.thisdaylive.com/articles/killings-in-benue-plateau-and-taraba-states/211068/.
[5]. https://www.foreignaffairs.com/articles/2015-08-21/my-land-not-your-land.
[6]. https://www.degruyter.com/downloadpdf/j/jesr.2018.8.issue-2/jesr-2018-0024/jesr-2018-0024.pdf.
[7]. https://nifa.usda.gov/topic/global-food-security.
[8]. https://www.foodsource.org.uk/building-blocks/what-food-security.
[9]. https://www.eufic.org/en/healthy-living/article/the-determinants-of-food-choice.
[10]. https://www.legit.ng/1163922-importance-food-security-nigeria.html.

Impact of Communication Styles and Social Influence on Major Decisions and Emotional Well-being: A Review Article

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Abstract

Background: The crux of human life lies in making decisions from minor to major. However, one's positive development is highly contributed by interpersonal relationships with one's family, friends, and the surroundings which eventually altogether lead to collective decision making based on mutual choices, beliefs, and values about the social world. But sooner or later, a decision maker confronts a situation to set priorities for self and society both; meanwhile visualizing the consequences of a good or bad decision. This turmoil as a result of belongings observed in decision-making process suggests for literature to be reviewed in-order to understand the interaction of cognitive, emotional, meta-cognitive, neuro cognitive and other factors with the psycho-social realm. Objective: To analyze the historical and recent data on 'how one's way of communicating and influence by close relatives, peers, and other influencers knowingly or unknowingly impact one's major decisions related to career, habit formation, and relationships.' Conclusion: Critical evaluation of social cognition, social support together with communication styles affecting major decisions and emotional-wellbeing is discussed. Two reactions 'Rebel or Surrender' by people towards social influence is presented. The scope of exploratory questions synthesized from research gap is introduced.

Keywords*: Social Cognition; Emotions; Major Decisions; Interpersonal Communication; Influence.*

Introduction

"Be miserable. Or motivate yourself. Whatever has to be done, it's always your choice"– Wayne Dyer.

My decision to follow a conversational style of writing to give words to historical research work can be perceived differently. Why did I make this choice? What do you think? Is it a desire to prove non-conformity to speed up my potential? Is it a neurotic need to show superiority? Is it a drive to deliver my message to a layman who avoids academic research papers because of excessive use of jargons? What could be my reaction if I fail to influence the reader? How prepared am I to accept the failure? Am I ready to take responsibility of my own decision? Will I be able to manage my pain of being rejected? Why do I want to influence? Is social influence a survival need? Before we plan to study my intentions of making this decision, let us find out the answers of few easier questions. How many decisions have you taken till date? Do you remember all of them? Which decision made you feel proud? Which decision made you feel regret? Before you proceed with further reading, it would be best to write the answers of these questions on a sheet of paper. Will you do this mental effort to think about these questions?

Why do we prefer short-cuts?

How easy our life would have been if each beautiful thing had happened effortlessly. Perhaps that's why short cuts are used to lighten mental work to draw conclusions about the social world quickly. In other words, we call it heuristics (Kunda,1999). Each day begins with a decision. Sometimes we do careful analysis depending upon the expected goal and other times we make choices based on learned pattern or belief systems (Bodenhausen, 1988). Which dress to wear in a party? Which assignment to complete first? With whom shall I go for date? What to prepare for dinner? Which shoe to buy? We clear out such puzzles every day habitually without being consciously aware of it. Gigerenzer & Gaissmaier (2011) state that heuristics are efficient cognitive processes, conscious or unconscious, that ignore part of the information. And social cognition has some business with brain regions including medial prefrontal cortex (MPFC), superior temporal sulcus (STS), temporal parietal junction, and

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precuneus among others, forming a connection with mental state inferences, impression formation, spontaneous trait inferences. Time required to solve these everyday questions is based on the surroundings.

Can surroundings be ignored?

"Life doesn't make any sense without interdependence. We need each other, and the sooner we learn that, the better for us all". Erik H. Erikson.

Why did I bring Erikson to answer this question? Because we feel ensured to find an evidence which supports our propositions. Though human intelligence is having an innate knowledge of interdependence which justifies our needs, yet it is great to be conformed by the systematic work of the concerned pioneers. Parents and Family, Peers and Neighbors, Schools and Mass Media in other words agents of socialization which accelerate growth and learning. Fulfillment of Human needs i.e. physiological, safety, love and belongingness, self-esteem and self-actualization are positively correlated with our surroundings. However, Erikson and Maslow have spread their views in two different plates, but we can perceive a sense of similarity in the context of human development. Maslow focused on individual motivation for personal growth whereas Erikson put emphasis on the external social factors which excites or inhibit development. That means happiness lies in positive development and development is highly contributed by interpersonal relationships with one's family and friends.

Can collective decision making and positive development walk together?

Why not? Certainly, it is determined by maturity, self -esteem of a given group and the environment. "The best years of your life are the ones in which you decide your problems are your own. You do not blame them on your mother, the ecology, or the president. You realize that you control your destiny." – Albert Ellis, pushed cognitive development by sharing the side-effects of irrational beliefs system in interpreting of an activating episode through ABC Model (A-activating event, B-belief, C-consequences). On the other hand, B. F. Skinner firmly believed in environmental conditioning stating that "I have to tell people that they are not responsible for their behavior. They are not creating it; they are not initiating anything. It is all formed somewhere else. That's an awful lot to relinquish". Lev S. Vygotsky, a developmental psychologist, uttered "Through others we become ourselves". Contrary to this, Rollo May existential psychologist focused on individual awareness claiming that "The opposite of courage in a society is not cowardice, it is conformity". Alfred Adler pointed out "It is always easier to fight for one's principles than to live up to them".

Are you confused? My motive to collect the opinions of various psychologists is not to confuse you, rather it is an effort to make you understand the importance of considering different perspectives to find clarity before determining a choice. Afterall psychosocial realm itself suggests an interaction of different psychological approaches to understand the association of cognitive, emotional, metacognitive, neurocognitive and other subjective factors towards decision making. However, the consequences of interactions of social participation, social communication, decision making and subjective emotions vary with person to person. How would it feel like to do team work with those whose schemas about the world are outdated? Though society has started opposing collective decision making. Philip Tetlock (2002) pointed out that participants in most laboratory studies on decision making don't feel accountable to others for the decisions they make. In contrast, our decision making in everyday life is strongly influenced by the social and cultural context in which we live. If the social context is important, accountability should influence decision making. Simonson and Staw (1992) in a study of sunk-cost effect (i.e. individuals who have invested effort, time, or money to a little tend to invest more resources in the hope of justifying), told participants that their decisions would be shared with other students and instructors (high-accountability condition), whereas others were told their decisions would be confidential (low accountability condition). Participants in the high-accountability condition were more likely to continue with their previously ineffective course of action and thus showed a stronger sunk-cost effect. This occurred because they experienced a greater need to justify their previous decisions. A comparative study of India and the United States investigated the high-low context communication constructs in terms of individualistic and collectivist values and self-construals.

As expected, Indians rated themselves as more collectivist, having more interdependent self-construals, and preferring silence and indirect communication than Americans (S. Kapoor et.al, 2003).

How to differentiate in between good or bad decision?

The best part of social cognition is common sense phenomenon. It will guide people to make sense of the people around. Based on social guidance and information about social world, it can be said that each decision will bring its consequences. An engineer decides to jump in arts, this may sound stupid to the bystander. Similarly, a Doctor wants to marry a home-maker, which may appear to be impractical decision according to family, friends and others. In both cases, their common action is breaking role expectancy and social order. What influenced these two characters to make this decision? Why did doctor avoided doctor to marry? Why engineer did not want to work as an engineer in spite of completing his degree successfully? It could be irritating to invest time to look for the answers of these assumed questions, because we make choices based on pleasant and unpleasant feelings at the moment. Indeed, many psychological scientists assume that the emotions are the dominant driver of the most meaningful decisions in life (e.g., Ekman 2007, Frijda 1988, Gilbert 2006, Keltner & Lerner 2010, Keltner et al 2014, Lazarus 1991, Loewenstein et al 2001, Scherer & Ekman 1984). Once the outcomes of our decisions actually occur, we often feel new emotions (e.g., elation, surprise, and regret, Coughlan & Connolly 2001, Mellers 2000, Zeelenberg et al 1998) that makes emotion and decision-making go hand in hand.

Will it be a good decision to say 'no' to close relatives?

"The supreme happiness of life is the conviction that we are loved". - Victor Hugo.

All close relationships share one common characteristics: interdependence. This term calls attention to an interpersonal association in which two people consistently influence each other's lives (Holmes, 2002). They often communicate their thoughts and emotions with one another and regularly engage in joint activities. Interdependence takes place across age groups and covering different kinds of interactions.

I feel guilty to say 'NO.' or Most times I find myself as a consequence of making a choice. I wonder whether my choice was the result of an impulse or my inability to be assertive towards social pressure. What internal questions may reach in your mind before saying 'No.'

a) Will it shutter the confidence of parents if I say 'No' to them?
b) If I say 'No,' will my friend feel hurt or rejected?
c) Will he think I am self-centered or at least cold-hearted?

How many types of communication styles are?

"Whatever words we utter should be chosen with care for people will hear them and be influenced by them for good or ill" – Budha.

Jackson and Smith have shown four patterns in communication i.e.

1. Assertive- bold and direct. You take no- nonsense approach.
2. Animated- enthusiastic and energetic. You make everything fun.
3. Attentive- Caring and Compassionate, you listen as much as you speak.
4. Accurate- Precise and detailed oriented, you are always on the ball.

Newton being influenced by Bourne (1995) wrote five styles. Passive Communication Style reminds me of the characters who have developed a pattern of avoiding expressing their opinions or feelings, protecting their rights, and identifying and meeting their needs. They believe in pleasing others to avoid conflict. They often feel anxious, depressed, resentful, confused as life is getting out of control. Aggressive Communication Style such communicators are generally not appreciated because of their commanding, criticizing, blaming and frustrating nature. This style is about winning – often at someone else's expense. An aggressive person behaves as if their needs are the most important, as though they have more rights, and have more to contribute than other people. They often feel superior, bossy and dominating. Passive Aggressive Communication Style users appear passive on the surface, but within he or she may feel powerless or stuck, building up a resentment that leads to seething or acting out in

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subtle, indirect or secret ways. Most passive-aggressive communicators will mutter to themselves rather than confront a person or issue. They have difficulty in acknowledging their anger, use facial expressions that don't correlate with how they feel and even deny there is a problem. They often feel alienated. Manipulative Communication Style is scheming, calculating and shrewd. Manipulative communicators are skilled at influencing or controlling others to their own advantage. Their spoken words hide an underlying message, of which the other person may be totally unaware. They often feel envious and ingratiation. Assertive Communication Style is most wanted communication in which individuals clearly state their opinions and feelings, and firmly advocate for their rights and needs without violating the rights of others. These individuals value themselves, their time, and their emotional, spiritual, and physical needs and are strong advocates for themselves while being very respectful of the rights of others.

Analyzing the impact of one's communication style and influence by close relatives, peers, other influencers on one's career and emotional well-being.

Will it be helpful to rely upon parents for career selection?

An individual's exposure to the world of work begins in childhood. And world is full of influencers. Parents have consistently been reported as main source of positive and negative information both, followed by part time jobs, peers and others (Levine & Hoffner, 2006; Millward, Houston, Brown and Barrett, 2006). The role of the family in career development has been proposed by many theorists (Fan, Cheung, Leong, & Cheung, 2014; Hartung, Lewis, May, & Niles, 2002; Palos & Drobot, 2010). The family, especially, parents are known to implicitly or explicitly influence the decision-making of an adolescent. Do parents generalize their mental framework in the context of career decision making? Parenting schemas can be maladaptive because they are too rigid or simple, involve inappropriate content, or are dominated by negative affect. Azar, Nix & Makin-Byrd (2005) suggested to modify schemas to promote more optimal functional among parents. Alika & Henrietta (2012) designed to investigate the relationship between parental and peer group influence on career choice in engineering profession among adolescents. The results showed that there was no significant relationship between parental and peer group influence on career choice in engineering among adolescents. Earlier there was no awareness in gathering trustworthy career information (Julien, 1999). The first trigger of anxiety among parents and adolescents comes from career related conflicts. Parents unknowingly look for the reasons to inflict their kids on counselors believing that children and counselors would join hands together to do effective team work, Amatea, Daniels, Bringman, &Vandiver, 2004. Most people develop opinions after hearing words from other people. In which age do people really start thinking about career? Thoughtful tract to cross career barriers at initial stage of development produces positive effects on student's academic performance, college completion and professional development. Career counselors feel compelled to guide parents (Niles & Harris-Bowlsbey, 2005).

When do we begin to think about career?

Answer lies in the realization of need to develop identity. A person's identity develops as a consequence of the upbringing, personality, experiences. Individuals who have adequately resolved the conflicts inherent in the prior stages bring into adolescence (13-19) a growing sense of self-identity. Current thinking about vocational identity has been shaped primarily by Erik H. Erikson's theory of psychosexual development. Analyses revealed that the quality of family relationships (i.e., degree to which family members are encouraged to express feelings and problems) played a small, yet significant role in predicting career planning attitudes of adolescents (Hargrove, Inman & Crane, 2005).

Identity formation is a dynamic process of person–context interactions, and part of this context are parents, even in late adolescence. Parenting and identity formation are dynamically interlinked, and underscore that parents keep being an important source of socialization for their developing children, even in late adolescence (Beyers and Goossens, 2008).

Does thoughtful planning provide a route towards happy career?

"The strongest principle of life lies in human choice." – George Eliot, 19th century novelist. Students have started quitting obtaining a degree within their first year (Bradburn & Carroll, 2002).

Psychological distress can be the reason of career indecisiveness (Fouad et.al). Strictly adhering to well-planned career decision making for happiness is being criticized now-a-days (Savickas, 2011). As it is thought that life-circumstances brimming with new career opportunities with multiple dimensions may anytime open an exciting page of life (Gadassi, Gati & Dayan 2012). Our mind is always in motion which does not indicate cognitive deformity rather it is based on neural dependency of decision confidence that keep moving from one extreme end (low confidence) to another extreme end (high confidence) explained by Kiani et.al. Meta cognition appears to be graded and continuous in just the same manner as the underlying decision process. "Self-belief does not necessarily ensure success, but self-disbelief assuredly spawns failure". – Albert Bandura.

Who are the others' influencers in one's career development?

Entrepreneurship is a gift to students belonging to low-socio-economic background and whose parents are not entrepreneurs. Social Influence in this context is uplifting job opportunities (Easley & Wang, 2017). Flouri and Buchanan (2002) explored the impact of family, gender, age, socio-economic status (SES), career role models, academic motivation, and work-related skills. Arulmani (2012) in the cultural accommodation model also highlighted the importance of family in the career decision-making process in collectivist societies. 'Follow your heart but take your brain with you' Adler. Since the propaganda of following passion is in its full swing, transparency in temporary interest and passion is must. Integral emotions as bias, can degrade decision making. Once integral emotions attach themselves to decision targets, they become difficult to detach (Rozin et al, 1986). Prior reviews have described myriad ways in which integral emotion inputs to decision making, especially perceptually vivid ones, can override otherwise rational courses of action (Loewenstein et al 2001). Ana-Maria & Corina Ciolca (2014) supported in other words claiming that Choice of job satisfaction comes from a realistic career decision and a thorough grounding in this regard. Although family i.e. parents and other family members primarily geared and transformed the behavior of the children in multiple ways, however; peer influence is an asset for developing career opportunities and decision making among youth (Naz et.al, 2014).

Analyzing the impact of one's communication style and influence by close relatives, peers, other influencers on one's habits and emotional well-being.

Who is quicker in learning healthy habits through conformity and compliance?

"By exercising control over a few healthy habits, people can live longer, healthier lives, and slow the process of aging" - Bandura. Exercise habits of people are associated with one's own exercise habits, though this relationship may vary depending on perceived support. Attention should be paid to women's exercise habits, since they are less likely to exercise than men (Darlow & Xu, 2011). Contrary to this, females reported receiving greater support for their diet and exercise actions than did males. They reported getting more encouragement to exercise, practice good dietary habits, and watch their weight from friends and peers than did males. Gender differences in terms of composition of friends and peers also were found. Females received significantly higher levels of support for exercise, good dietary habits, weight loss, and higher criticisms about their exercise habits when their peer groups were at least half or mostly all male. By contrast, male students report their highest levels of support when their peers were mostly or all female (Gruber, 2008).

Which group runs faster in acquiring unhealthy habits through conformity and compliance?

Research has consistently shown that adolescent smoking is related to friends' smoking, yet smoking in the context of adolescent peer groups (friendship cliques) has been little studied. There was intraplaque homogeneity and interclude heterogeneity in current cigarette smoking, confirming that smokers tend to be in cliques with smokers and nonsmokers tend to be with nonsmokers (Ennett, Bauman & Koch, 1994). Emotion regulation dysfunctions are assumed to contribute to the development of tobacco addiction and relapses among smokers attempting to quit. Interestingly, changes in cigarette craving were positively associated with regulation of emotional arousal irrespective of emotional valence. These results suggest that heavy smokers are capable to regulate emotion via deliberate reappraisal and smokers' cigarette craving is associated with emotional arousal rather than emotional

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valence (Langdan, et.al, 2015). Smoking habits and related attitudes were assessed in a sample of 4059 11- to 16-year-olds who also identified their best friends from among their fellow respondents. Subjects' responses were directly collated with those of their friends and indicated a clear covariation of smoking status (controlling for sex and age) as anticipated from previous research in which adolescents have been asked to report on the smoking habits of their friends. Such covariation, however, was not specific to smoking habits, but generalized to related measures of attitude and normative beliefs, alcohol use, health locus of control, school performance, spending habits and socio-economic status. Similarities on these other attributes were much the same, whether or not friends shared each other's' smoking habits (Eiser et.al, 1991). A study on college students based on Asch's classic paradigm of conformity showed that alcohol-marijuana users were less assertive and more compliant than "hard" drug users (Williams, Scott & Stout 1981).

How social influences control emotional and physical health?

A level of acceptance for the lack of activity performed was also expressed as were feelings of resentment and envy for those who maintained previous activity habits. Parenting and partner roles were considered most influential on PA-related behavior and were constructed in ways that had both positive and negative influences on activity performance. Parents, however, were empowered to construct strategies to resolve conflicts between social role performance and being active (Hamilton & White, 2010). Here, we focus on the influence of children and partners on the social habits of women at different stages of their lives and on synchronization within the family. One hundred and seventy-nine women participated in the study and were allocated into four groups: women without children, pregnant women without children, pregnant women with children, and non-pregnant mothers. This study suggests that children have a strong influence on their mother's lifestyle and sleep-wake rhythm, far beyond the first months of life, and that children are a more important social factor than the male partner (Leonhard & Randler, 2009)3.

How communication happens to be a weapon in controlling the learning of unhealthy habits?

"Fortunately, most human behavior is learned observationally through modeling from others". Bandura. Sometimes it may be unfortunate if peer pressure holds majority. Healthy communication style suggests an appropriate application of facts, feelings and figures, if available. Sending a convincing text with positive picture may change the mind of your friend to understand the reason of discomfort. Some people believe in using aggressive communication style by utilizing 'tit for tat' psychology. Getting the work done with aggressive communication is easy, if lethargy observed, but at later stage it starts projecting its negative impact in personal relations.

What if a persuader doesn't want to hear 'no'?

Some people find assertive communication as 'patience testing' especially before an aggressive person who is inducing you continuously. You deep down inside try to be firm at assertiveness, but part of you might murmur, saying, he wouldn't listen. Certainly, it depends upon age as well. Adolescents believed to have higher aggression which makes them straight-forward and honest, but many times they hurt one another out of aggressive communication style (Panisoara et. al). There is a strong need to create an orientation towards interpersonal communication for success in the future and for the formation of human society. Sometimes it becomes tedious to stabilize positive thinking while being critically aware of the environment. Power and Assertiveness don't complement each other most of the times. People are not bad. It is simple as with great power comes great emotional intelligence. Emotionally Intelligent people are highly assertive because assertiveness technically does not recommend a verbose, rather it demands management of anger and nervousness at the moment.

Analyzing the impact of one's communication style and influence by close relatives, peers, other influencers on one's relationships and emotional well-being

Mother or father! who loves you more?

Such tricky questions should not be asked from kids, but we do. We are just in to communication pattern transferred from one generation to another. "If the parents speak in an opened and efficient way,

there are better chances to develop in young person's proper ideas and convictions" Cramaruc, in Panisoara, 2011 A newly borne baby does not comprehend academic world where most researchers are thinking about coming generation before their birth. To a child, the first beautiful memory is non-verbal communication with mother as both communicate and reinforce the action of one another (Murray& Trevarthen, 1986; Trevarthen 1993). There is even evidence that a mother's "baby talk" is "incredibly systematic and rhythmical" - much like that found in poetry and song lyrics (Miall & Dissanayake, 2004; Selim 2004). And father's role is required too. Contribution of father`s warmth and regulation are more significant for being satisfied with a family, than mother`s upbringing style (Todorovic, Matejevic, et al. 2012).

What is the probability of family planning in couples?

This qualitative study was conducted to explore the influence of social network on couples' intention to have their first child in urban society of Mashhad, Iran in 2011. Findings from data analysis demonstrated four major categories about social network's influence on couples' intention to have their first child including 1) perception of fertility relevant social network, 2) occurrence of various types of social influence, 3) subjective judgment to the benefits of social network and its fitness to personal life, and 4) couples' interaction with social network (Khadivzadeh et.al, 2013).

At person-level, personal socioeconomic status rather than national socioeconomic characteristics predicted individual parents' prioritization of child independence and obedience; higher social class predicted greater likelihood of endorsing independence and not endorsing obedience (Park & Lau, 2016). Adolescents' global agreement with parents and global beliefs about their obligation to obey predicted in adolescent.

What is the role of family in communication?

Family communication behavior and family beliefs about how family members should communicate with one another are closely related and combine to create family communication patterns in the context of conversation orientation and conformity orientation (Koerner, Anne, 2016). As a step-in learning more about aggressive communication in families, this study investigated the similarities between three aggressive communication traits (argumentativeness, assertiveness, and verbal aggressiveness) of young adults and their parents. Results showed that similarities existed between mothers and their daughters and sons for all three traits;

However, no significant relationships between fathers and their daughters and sons for the traits were found. (Martin & Anderson, 1997). A pilot study of 172 married couples reveals significant contrasts in patterns and degrees of communication and the efficacy of a measuring device for marital communication.

How communication styles influence relationships?

Elements differentiating between good and poor communication in couples are the handling of anger and of differences, tone of voice, understanding, good listening habits, and self-disclosure. Factors contributing to poor communication are nagging, conversational discourtesies, and uncommunicativeness. Findings are relevant for understanding components of healthy communication in marital interaction (Bienvenu, 1970). Eustice K. K. (2000) found that parenting aggressive communication style is related to the aggressive communication employed by the child in relation with his/her siblings. Myers (2009) examined sibling communication satisfaction, with a specific focus on interpersonal solidarity, individualized trust, and self-disclosure.

Results indicate that interpersonal solidarity is the largest predictor of sibling communication satisfaction, followed by individualized trust, and self-disclosure. Through a comparative study regarding communication styles of the students, Panisoara et.al, 2015, found girls to be more persuasive than boys. Harte (2009) found that the auditors with initially extreme attitudes were affected differently by a speaker's evidence than were those with initially neutral attitudes and suggests that the role which evidence plays in persuasion may be related to the particular "game" a communicator plays with his audience. "Power in Language" examines a variety of empirical studies, theoretical positions,

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methodologies, and substantive issues as they pertain to the use of language for generating influence and control, Hung et.al (1993).

Williams & Warshal (1981) examined the relationship between the assertiveness, conformity, and internal-external locus of control of 30 university students who were exposed to a series of 10 conformity tasks based on Asch's classic paradigm. One-way analyses of variance revealed that high-conformity students were less assertive than low-conformity students. No differences in students' locus of control were found.

How unhealthy relationships disrupt communication styles?

What could be the emotional health of a person who is suffering from heart issues. Changing social structure has also motivated women aggressiveness as if we are subconsciously trying to take revenge from men for the sake of personal identity.

As a consequence of this, emotional well-being of young generation going down. On the other hand, relationship of women in low social economic status is still same. Rudd et.al (1994) selected 115 abused women who were seeking refuge from abusive spouses in temporary shelters for battered women. The results suggested that battered women most frequently reported using indirect strategies. Aversive Stimulation (i.e., pouting sulking, crying) and ingratiation (i.e., manipulation in the form of affection or favor-doing) were the top two strategies reported.

Conclusion

A big pack of books are being written to aid students, budding professionals as if communication style has never been taught to us., Let me pen down my understanding of communications styles together with social influence.

“Most people don’t mean what they say, but what they say ultimately that matters the most”.

This proposition reflects different meanings of social communication. Firstly, people expect responsibility from others to use words carefully. Secondly, people are aware of the sarcastic humor and spontaneous dialogues passed unintentionally. Thirdly, people many times believe and make commitments based on what they hear from people.

“Two reactions of Robots: Rebel or Surrender”.

Yes! I have employed a sarcastic expression to denote the togetherness of social influence and individual factors. We influence others and get influenced knowingly or Unknowingly. What matters the most is the impact! What could be the psyche of a person who realized the value of decision making at later age. Some people get benefitted having the privilege of social influencers with social support and they learn to surrender happily towards society and some feel exploited.

Those who feel exploited and become victim of society, get conditioned to ignore the guidance of society in future. It is hard to estimate the amount of impact people feel being influenced by social influence tactics. After making a wrong choice, people can recall the memories what triggered them to make a choice as metacognition theory suggests, But attribution theory being supported by psychoanalytic perspective strongly supports the repression of painful memories, as people conveniently find a defense and or in other words attribute the reasons of their failure to external events. More work is required in training of emotional intelligence. As we take hard time to manage the negative impact of making a wrong choice.

Probably, we have not learned to be positive while being critically aware of the surroundings and mutual needs. It invites an open invitation research to do more work in to this domain to fathom the truth. I suggest a comprehensive exploratory research model on ‘the impact of interplay between communication styles, social influences affecting one’s major decisions and emotional well-being’, by the virtue of it, wise decision-making and social maturity may be enhanced.

“Immaturity is most perceived but a least realized”. Bhawna Suri.

References

[1]. Ana-Maria V., Ciolca C. (2014). Students Perceptions on Career Opportunities. DOI: 10.1016/j.sbspro.2014.02.28.
[2]. Argyropoulou, K., & Kaliris, A. (2018). From career decision-making to career decision-management: New trends and prospects for career counseling. Advances in Social Sciences Research Journal, 5(10), 483-50. DOI: 10.14738/assrj.510.5406.
[3]. Azar S.T., Nix R.L., Makin-Byrd K.N. (2005). Parenting Schemas and the process of change. 31(1):45-58.
[4]. Baron R. A., Byrne D., Branscombe N. R. (2007). Social Psychology, Eleventh Edition. New Delhi: Pearson Prentice Hall. 654pp.
[5]. Beyers, W., & Goossens (2008). Dynamics of perceived parenting and identity formation in late adolescence. Journal of Adolescence, 31(2), 165-184. 16.07.2007.
[6]. Bienvenu, M. (1970). Measurement of Marital Communication. The Family Coordinator, 19(1), 26-31. DOI:10.2307/582142.
[7]. Bourne E. J. (2015). The Anxiety & Phobia Workbook, Sixth Edition. Oakland: New Harbinger Publications. 471pp.
[8]. Chope R. C. (2006). Assessing Family Influence in Career Decision Making.
https://www.counseling.org/knowledge-center/vistas.
[9]. Darling N., Cumsille P., Martinez M.L. (2006). Adolescents' as active agents in the socialization process: Legitimacy of parental authority and obligation to obey as predictors of obedience. Journal of Adolescence, 30(2): 297-311, DOI: 10.1016/j.adolescence.2006.03.003.
[10]. Darlow S.D., Xu X. (2011). The influence of close others' exercise habits and perceived social support on exercise. 12(5), 575-578, DOI: 10.1016/j.psychsport.2011.04.004.
[11]. Diener ED D. K., Schwarz N. (2003). Well-Being: The Foundation of Hedonic Psychology. New York: Russell Sage Foundation. 593 pp.
[12]. Drive D. (2019). Dark Psychology: How to Use the NLP Secret Methods of Manipulation for Social Influence, Emotional Pursuation, Deception and Mind Control – A Guide Based on Hypnosis and Brain Washing Techniques. Amazon.Com: Kindle Edition.
[13]. Eesley C., Wang W. (2017). Social Influence in career choice: Evidence from a randomized field experiment on entrepreneurial mentorship. Research Policy, 46(3), 636-650. DOI: 10.1016/j.respol.2017.01.10.
[14]. Eiser J.R., Morgan M., Grammage P., Brooks N., Kirby R. (1991). Adolescent health behavior and similarity-attraction: friends share smoking habits (really), but much else besides. 30 (Pt 4):339-48.
[15]. Ennett S.T., Bauman K.E., Koch G.G (1994). Variability in cigarette smoking within and between adolescent friendship cliques. 19(3):295-305.
[16]. Eustice K.K. (2000). Aggressive Communication, Parental Communication, and Sibling Communication https://pdfs.semanticscholar.org/c8d1/9b08b039063623d72ed3e07edf615046a230.pdf.
[17]. Eysenck M. W. (2012) Fundamentals of Cognition, Second Edition. New York: Psychology Press. 489 pp.
[18]. Forgas J. P., Williams K. D. (2016). Social Influence: Direct and Indirect Processes. New York: Routledge. 367 pp.
[19]. Gazzaninga M. S. (2011). Psychological Science, Fourth Edition. New York: W.W. NORTON & COMPANY. 362 pp.
[20]. Gertner J. (2003). The Futile Pursuit of Happiness. https://www.nytimes.com/2003/09/07/magazine/the-futile-pursuit-of-happiness.html.
[21]. Glassman W. E., Hadad M. (2009). Approaches to Psychology, Fifth Edition. New Delhi: Tata McGraw Hill Education Private Limited. 590 pp.
[22]. Gruber K.J. (2008). Social support for exercise and dietary habits among college students. 43(171):557-75.
[23]. Guess C. D. (2004). Decision Making in Individualistic and Collectivistic Cultures. Online Readings in Psychology and Culture, 4(1). 18pp, DOI: https://doi.org/10.9707/2307-0919.1032.
[24]. Hamilton K., White K.M. (2010). Understanding parental physical activity: Meanings, habits, and social role influence. Psychology of Sport and Exercise, 11(4): 275-285, DOI: 10.1016/j.psychsport.2010.02.006.
[25]. Hargrove, B.K., Inman, A.G. & Crane, R.L. J Career Dev (2005) 31: 263. 10.1007/s10871-005-4740-1.
[26]. Harte T.B. (2009). The effects of evidence in persuasive communication. Central States speech journal, 27(1): 42-46, DOI: 10.1080/10510977609367865.

DOI: 10.21522/TIJAR.2014.SE.19.02.Art002
ISSN: 2520-3088

[27]. Jackson J., Smith L. B. (2013). Leveraging Your Communication Style: Enhance Relationships, Build Bridges and Reduce Conflict. e Book ISBN: 978-0-9884306-00: Jessup Press. 1458 pp.
[28]. Joseph L. L. (2012). The Impact of Family Influence and Involvement on Career Development. Electronic Thesis and Dissertations, 194 pp, https://stars.library.ucf.edu/etd/2210.
[29]. Khadivzadeh T., Roudsari R. L., Bahrami M., Taghipour A., and Shavazi J.A. (2013). The influence of social network on couples' intention to have the first child. Iranian Journal of Reproductive Medicine, 11(3): 209–218.
[30]. Koerner F.A., Fitzpatrick M.A. (2016). Understanding Family Communication Patterns and Family Functioning: The Roles of Conversation Orientation and Conformity Orientation. Annals of the international communication, 26(1): 36-65, DOI: 10.1080/23808985.2002.11679010.
[31]. Krogerus M., Tschappeler R. (2019). The Communication Book: 44 Ideas for Better Conversations Every Day. Switzerland: Penguin Business. 191.
[32]. Khazan Olga (2016). The Best Headspace for Making Decisions.
https://www.theatlantic.com/science/archive/2016/09/the-best-headspace-for-making-decisions/500423/.
[33]. Lee V. K., Harris L. T. (2013). How social cognition can inform social decision making. Frontiers in Neuroscience. DOI: 10.3389/fnins.2013.00259.
[34]. Leonhard C., Randler C. (2009). In sync with the family: children and partners influence the sleep-wake circadian rhythm and social habits of women. 26(3):510-25, DOI: 10.1080/07420520902821101.
[35]. Lerner J. S., Valdesolo P., Kassam K. S. (2015). Emotion and Decision Making. Annual Review of Psychology. 66(1), 799-823. DOI: 10.1146/annurev-psych-010213-115043.
[36]. Lorr M., More W. W. (1980). Four Dimensions of Assertiveness. Multivariate Behavioral Research. 15(2), 127-138. DOI: 10.1207/1532790bmbr15021.
[37]. Martin M. M., Anderson C.M. (2009). Aggressive communication traits: How similar are young adults and their parents in argumentativeness, assertiveness, and verbal aggressiveness. Western Journal of Communication, 61(3): 299-314, DOI: 10.1080/10570319709374579.
[38]. Myers S.A. (2009). Sibling communication satisfaction as a function of interpersonal solidarity, individualized trust, and self-disclosure. Communication Research Reports, 15(3): 309-317, DOI: 10.1080/08824099809362127.
[39]. Naz A., Saeed G., Khan W., Khan N., Sheikh I. and Khan N. (2014). Peer and Friends and Career Decision Making: A Critical Analysis, 22(8):1193-1197, DOI: 10.5829/idosi.mejsr.2014.22.08.21993.
[40]. Newton C. (2011). The Five Communication Styles. http://www.clairenewton.co.za/my-articles/the-five-communication-styles.html
[41]. Onder C. F. Colakkadioglu O. (2013). Decision-Making and problem solving as a well-being indicator among adolescents. Academic Journals, 8(11), 720-727. DOI: 10.5897/ERR12.151.
[42]. Panisoara G., Sandu C., Panisoara I. O., Duta N. (2015). Comparative Study Regarding Communication Styles of The Students. Procedia- Social and Behavioral Sciences, 186, 202-208, DOI: 10.1016/j.sbspro.2015.04.066.
[43]. Park H., Lau A.S. (2016). Socioeconomic Status and Parenting Priorities: Child Independence and Obedience Around the World. Journal of Marriage and Family Therapy, DOI: 10.1111/jomf.12247.
[44]. Rudd J.E., Burant P.A., & Beatty M.J. (2009) Battered women's compliance gaining strategies as function of argumentativeness and verbal aggression. Communication Research Reports, 11(1), 13-22, DOI: 10.1080/08824099409359936.
[45]. Slaten C. D., Baskin T. W. (2013). Examining the Impact of Peer and Family Belongingness on the Career Decision-making Difficulties of Young Adults: A Path Analytic Approach. Journal of Career Assessment, 00(0), 1-16. DOI: 10.1177/1069072713487857.
[46]. Smith M. J. (1975). When I Say No, I Feel Guilty: How to Cope Using the Skills of Systematic Assertive Therapy. New York: Bantam Books. 325 pp.
[47]. Solomon R. C. (2007). True to your feelings: What Our Emotions Are Really Telling Us. Switzerland: Oxford University Press. 286 pp.
[48]. Strle T. (2012). Metacognition and Decision Making: between First and Third Perspective. University of Ljubljana, Slovenia, Interdisciplinary Description of Complex Systems, 10(3), 284-297, DOI: 10.7906/indecs.10.3.6.

[49]. Williams J. M., Scott A. J., Stout J. K. (1981). The relationships between Assertiveness, Conformity and Drug Use. Journal of Drug Education. 11(1), 47-51, DOI: 10.2190/38Q0-GBM6-RQKC-7RUT.
[50]. Williams J. M.., Warchal J. (1981) The Relationship Between Assertiveness, Internal-External Locus of Control, and Overt Conformity, The Journal of Psychology, 109(1), 93-96, DOI: 10.1080/00223980.1981.9915291.
[51]. Willis D. P., Manaugh K. & Geneidy A.E. (2015). Cycling Under Influence: Summarizing the Influence of Perceptions, Attitudes, Habits, and Social Environments on Cycling for Transportation, International Journal of Sustainable Transportation, 9:8, 565-579, DOI: 10.1080/15568318.2013.827285.
[52]. Wu L., Winkler M.H., Wieser M.J., Andreatta M., Li Y., Pauli P., (2015). Emotion regulation in heavy smokers: experiential, expressive and physiological consequences of cognitive reappraisal. Frontiers in Psychology, 6:1555, DOI: 10.3389/fpsyg.2015.01555.
[53]. Yeung N., Summerfield C. (2012). Metacognition in human decision making: confidence and error monitoring. Phil. Trans. R. Soc. B, 367(1), 1310-1321. DOI: 10.1098/rstb.2011.04.

WhatsApp in Action: An Exploration of Time Use by Academics

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Abstract

The digital revolution has permeated and impacted immensely on almost all walks of life and professions; the academia included. The global use of social media platforms such as, Facebook, Twitter, YouTube, WhatsApp and others, are revolutionizing the way people communicate, interact and socialize. This article, with attention to the use of WhatsApp as a social media platform, concentrates on the issue as to when the academics use WhatsApp, particularly on the issues of the patterns of submissions of responses, times between the submissions, and the periods of submission. With a Google Form-based questionnaire, data was collected through sharing a link on WhatsApp to 127 academics. With a response rate of 55%, data was analyzed using Microsoft Excel. It was found out that the that the more the days pass, the less the number of submissions; it was also found out that the more the days passed, the more time it took between submissions; additionally, it was found out that the time for attending the WhatsApp was mainly in the evening between 18:00 hours and midnight. The paper recommends that in order to make effective use of WhatsApp when communicating with Academics, the evening hours are used; additionally, as there is tendency not to attend messages three days and above old, a reminder is necessary, if more submissions are desirable.

Keywords*: Social media, WhatsApp, Academics, research*

Introductory background

The social media has permeated and it is impacting a lot on almost all walks of life and professions, the academia included (Boateng & Amankwaa, 2016). According to Boateng & Amankwaa (2016, p. 2), social media is "the application that allows users to converse and interact with each other; to create, edit and share new forms of textual, visual and audio content, and to categorize, label and recommend existing forms of content". In the same vein, but with more emphasis on the technology behind social media Kaplan (2015, p. 197) defines social media as a "group of internet-based applications that build on the ideological and technological foundations of Web 2.0 that allow the creation and exchange of user generated content". Social media is nothing other than simply interactive pathways on the internet to perform relationships and network with others without leaving one's desk (Rogers, 2019).

The global use of social media platforms such as Facebook, Twitter, YouTube, WhatsApp, LinkedIn, and others are revolutionizing the way people communicate, interact and socialize; with the different social media platforms, users share and exchange information and ideas in virtual communities, making it possible for people to network with others who share similar or common interests, dreams and goals (Sharma & Shukla, 2016). As Rogers (2019, p. 5022) puts it, "a key theme for social media is engagement". The use of social media platforms is on the increase. Masele & Magova (2017, p. 37) point out that while in 2012, the users were 1.41 billion, they have continuously risen to 1.61 billion in 2013, 1.82 billion in 2014, and 2.99 billion in 2015. According to (Rogers, 2019, 5022), there were 3.397 billion users as at the beginning of 2019. Social media platforms, with the strong foundation of the ICT technologies, have capacity to acquire and spread information faster on so many domains, such as business, entertainment, science, politics, education. Not only can social media, through analytics, support researchers to answer their different research questions (Stieglitz, Dang-Xuan, Bruns, & Neuberger, 2014), but also can save isolated researchers who are disconnected

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from their research communities due to physical barriers, unfamiliar research topics, diversity, and the nature of the supervisory relationship (Reeve & Partridge, 2017).

One of the fastest growing social media platform is the WhatsApp, a smartphone and web-based instant message application that allows users to exchange information using a variety of media including text, image, video, and audio messages (Sahu, 2104). According to Irfan and Dhimmar (2019, p.573), WhatsApp had 200 billion monthly active users in April 2013, 500 billion monthly active users in April 2014, 800 billion monthly active users in April 2015, and 1300 billion monthly active users in July 2017, and it was over from 1 billion monthly active users in February 2016



Figure 1. WhatsApp worldwide users 2013-2017

It is free, easy to use, fast, convenient, personal, and user-friendly with groups (Gasaymeh, 2017, p.1). Not only is it widely used in the fields of health services, tourism, and business, but also in education whose use effects are viewed differently. For instance, Ahad and Lim (2014) found that WhatsApp is popular among undergraduate students, and that they use it on a daily basis due to its ease of use, speed, real-time messaging, and low cost. Students use WhatsApp to create immediate connections, encourage reflection, and facilitate coordination in informal and formal learning (Gachago, Strydom, Hanekom, Simons, & Walters, 2015); for Tarighat and Khodabakhsh (2016), WhatsApp was useful in language assessment when students recorded their speech and shared them with their teachers and other students. Additionally, in determining the effectiveness of using a WhatsApp Messenger as one of mobile learning technique to develop students' writing skills, Fattah (2015) found out that in terms of punctuation marks, sentences structures and generating ideas, the WhatsApp technique yielded significant effects on students' writing skills compared to those who were taught through textbooks.

Negatively, Yeboah and Ewur (2014) in a Ghanaian environment argued that the use of WhatsApp by students took much of their study time, brought in procrastination related problems, destroyed students' spellings and grammatical construction of sentences, led to lack of concentration during lectures, led to difficulty in balancing WhatsApp and academic preparation, and distracted students from completing their assignments and adhering to their private studies time table. In the same tone, Ahad and Lim (2014) argues that much as young men and women perceive WhatsApp as a convenient communication, it is also brings about distractions and exposure to unregulated messages or information.

It is very difficult to get statistics about WhatsApp in Tanzania. However, it is assumed that the users are growing with the growing Internet coverage, as is elsewhere in the world. According to Digital Tanzania (2019), 23 million people are Internet users; the active social media users are 4.9

million people. Of these active 4.9 social media users, 4.4 million people are active on social media through mobile phone devices. The local social media platforms, apart from Facebook, WhatsApp, YouTube, LinkedIn, Blogs, and Instagram, include, for instance, Michuzi blog, Milard Ayo blog, Bongo 5 blog and other. The growing use of social media in Tanzania is premised on the adoption on mobile broadband technologies of the 3G (40%) and 4G (4%); with the 25.2 million mobile phone subscribers, there are around 11 million mobile Internet subscribers sharing the internet penetration of 18.5% (Okeleke, 2019, p. 7-8). The mobile service providers in Tanzania and their market shares are Smile (1%), Smart 91%), TTCL (1%), Zantel (2%), halotel (9%), Airtel (26%), Tigo (29%), and Vodacom (32%) (Idem p. 7)

There are some studies that have linked the use of WhatsApp to education. For example, a study by Mwakapina, Mhandeni, and Nyinondi (2016) found out that the use of WhatsApp when blended in the grammar course helped students in learning English interactively and collaboratively. In a recent study to explore the use of WhatsApp by the lecturers and ICT students, it was found out that WhatsApp was used for sharing study materials in the form of links, notes, assignments, and coursework and to enhance communication between teachers and students; students, on the other hand, used WhatsApp to help one another and to cater for anywhere anytime learning; the identified benefits included staying up to date, facilitating collaborative problem solving, increasing motivation to learn and reducing the cost of material production; the challenges encountered were mainly lack of privacy due to limited options, misuse of the group due to the lack of rules, and exclusion of students without smart phones (Mzomwe & Mazana, 2018)

The issue

Interestingly, though, while there are lots of studies in the education realm that link students to the use of WhatsApp in terms of the different aspects of use and effectiveness, for example, there is hardly research that brings out the different aspects of use and effectiveness with regard to the academics at the tertiary educational institutions. As WhatsApp use continues growing, the time of use by its different categories of people becomes critical to know, and hence the inevitability of research on when the academics use WhatsApp for this paper. The academics refer to the people who are involved in educational and management matters at the tertiary educational institutions of Tanzania. Particularly, the paper focuses on the exploration of the preferred period to use Whatsapp, specifically on the patterns of submissions of responses, times between the submissions, and the periods of submission.

Methods

Data for this study was collected by use of a questionnaire, prepared on Google Forms and distributed on Whatsapp. Sedoyeka (2016) used this method in his study to establish the current usage of Internet, activities, quality perception, issues that Internet users found important. The potential participants were all tertiary education academicians who were participants in two Whatsapp groups for academics in Tanzania. The purpose for forming these groups was to communicate academic issues. A first message was sent to them, requesting for their availability and participation in the survey. For those who wished, they would respond to the questionnaire and those who did not wish, they simply would decline filling in the questionnaire. A link with the questionnaire was shared on WhatsApp to 127 academics. The responses from the filled in Google Forms (submissions) were downloaded in a CSV format, saved to a Microsoft Excel format, ready for descriptive statistics.

The data used to explore the preferred time use by the users of WhatsApp comes from a survey that was launched on the 29th of August 2019 at 10:30 hours and the final questionnaire was received was on the 07th of September 2019 at 16:19:20 hours. The survey aimed at finding out the types of social media that are used by academics, the purposes for which they use them, the benefits, and the challenges of using such social media. Parallel to the data on these issues, however, there was more data regarding the time when the respondents submitted the responses of the online questionnaire. This is the data that is core to this paper.

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Tanzanian academics and whatsApp use

Respondents' profile

Most academics were male (72%). The biggest proportion of these academics was composed of ages between 30 and 49 (88%); again, the biggest proportion of these academics was composed of Assistant Lecturers and Lecturers (70%). Table 1 summarizes the profile of the respondents.

Table 1. Profile of the respondents

	Variables	Frequency	Percent
Sex	Male	20	28
	Female	51	72
Age	Between 20 & 29	3	4
	Between 30 & 39	30	42
	Between 40 & 49	33	46
Position	Above 50	6	8
	Tutorial Assistant	5	8
	Assistant Lecturer	33	47
	Lecturer	16	23
	Senior Lecturer	8	11
	Professor	7	10
	University manager	1	1

Submissions per date

Table 2 and Figure 2 present the number of submissions per day during the survey period. The survey was closed on the tenth day, with the response turn up of 55%. The actual days of submission were 5. The first two days were active with the total submissions of not less than 87% (more than 45% for the first day and 41% for the second day). The number of submissions reduced drastically to 8% on the third day. No submission was made on the fourth day, and around 3% happened on the fifth day. From the sixth to the ninth day, nothing was submitted till the tenth day when there was a submission of only one. From the data, the submission trend is that the more the days pass, the less the number of submissions

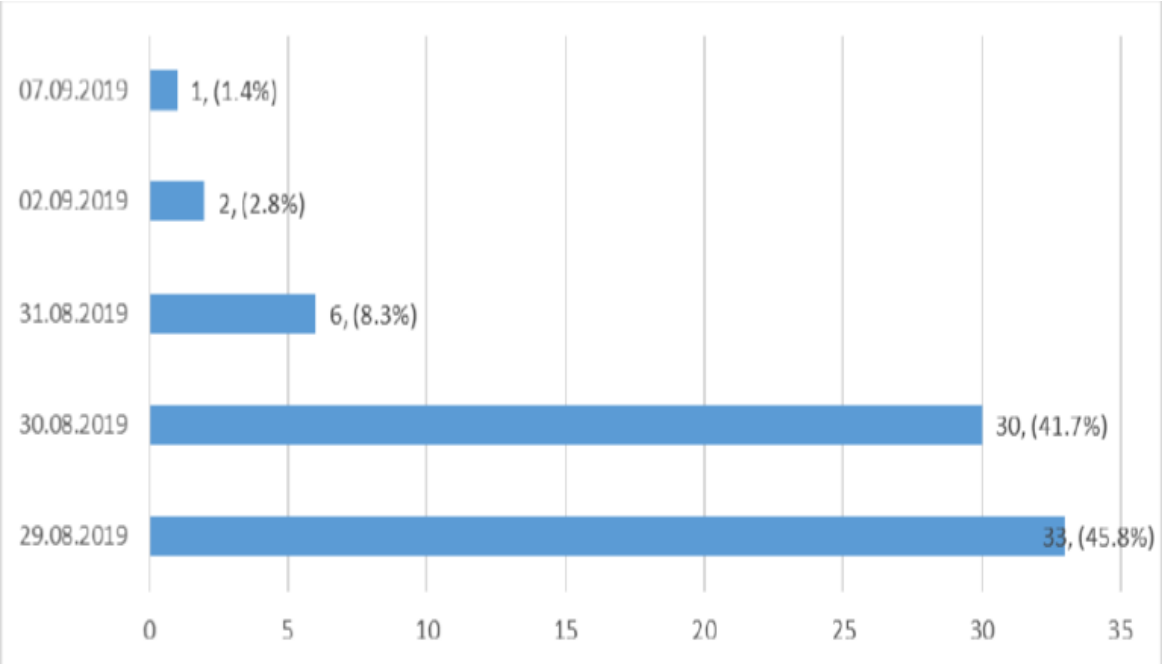

Figure 2. Submission per date

Time taken between submissions

Table 3 presents the differences of time taken between the first and the last submissions of the day. According to the data, while it took 385 minutes to make 33 submissions in the first day an average of 12 minutes per submission, the submissions went on taking more time as far as an average of 1,407 minutes in the tenth day. Hence, the more the days passed, the more time it took between submissions.

Table 3. Time taken between submissions in a day

Date	Start time	Finish time	Number of submissions	Time taken (minutes)	Average time per submission (minutes)
29.08.2019	15:53:44	22:19:02	33	385	12
30.08.2019	0:44:36	23:52:26	30	21388	46
31.08.2019	23:52:26	22:10:29	6	1338	223
02.09.2019	13:25:25	17:50:24	2	265	133
07.09.2019	16:52:39	16:19:20	1	1407	1407

Periods of submission

Most of the respondents (54.2%) did their submissions between 18:00 hours and mid night, most of them being males (36.1%). Significantly, there were also many respondents (27.8%) who submitted between mid-day and 18:00 hours in the evening, most of them being men (20.8%), as well. Hence, the time for attending the WhatsApp was mainly in the evening between 18:00 hours and midnight. Table 4 and Figure 4 summarize these findings

Table 4. Period of submissions

Date	Between 06:00 & 11:59	Between 12:00 & 17:59	Between 18:00 & 23:59	Between 00:00 & 06.59
29.08.2019	0	3	30	0
30.08.2019	5	13	7	5
31.08.2019	2	1	2	1
02.09.2019	0	2	0	0
07.09.2019	0	1	0	0
Total	**7 (9.7%)**	**20 (27.8%)**	**39 (54.2%)**	**6 (8.3%)**

This pattern is similar to a pattern established by Rosenfeld, Sina, Sarne, Avidov, and Kraus (2018, p.11) who found out that most messages are sent between 12:00 hours and 23:59 hours. Similarly, Hussain, Mahesar, Shah, and Memon (2017, p.18) in their study that establishes the periods of choice to use WhatsApp by students, among other issues, show how the numbers of WhatsApp users continuously increase from afternoon to evening, and they are at the peak at night.. The evening and night hours are moments when people are out of professional activities, and hence they have some time to attend WhatsApp messages.

Conclusion

How do academics attend WhatsApp messages in terms of time? Data has shown that the more the days pass, the less the number of submissions; the more the days pass, the more time it takes between submissions, and; the time for attending the WhatsApp is mainly in the evening between 18:00 hours and midnight. Hence, academics tend to attend WhatsApp between evening and mid-night and they tend to take their time to respond or ignore completely three days and above old messages.

In order to make effective use of WhatsApp when communicating with Academics, the evening hours are recommended. This is because most of them will be off formal/official work and attending private issues, among which WhatsApp messages. As there is tendency not to attend messages three days and above old, a reminder is necessary, if more submissions are required.

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References

[1]. Ahad, A. D., & Lim, S. M. A. (2014). Convenience or nuisance? The 'WhatsApp'dilemma. ProcediaSocial and Behavioral Sciences, 155, 189-196, 155(2014), 189–196.
[2]. Boateng, R. O., & Amankwaa, A. (2016). The Impact of Social Media on Student Academic Life in Higher Education. Global Journal of Human- Social Science, 16(4), 1–8. Retrieved from https://globaljournals.org/GJHSS_Volume16/1-The-Impact-of-Social.pdf.
[3]. Fattah, S. F. E. S. A. (2015). The Effectiveness of Using WhatsApp Messenger as One of Mobile Learning Techniques to Develop Students' Writing Skills. Journal of Education and Practice, 6(32), 115–127.
[4]. Gachago, D., Strydom, S., Hanekom, P., Simons, S., & Walters, S. (2015). Crossing boundaries: lectures' perspectives on the use of WhatsApp to support teaching and learning in higher education. Progressio, 37(1), 172–187.
[5]. Gasaymeh, A.-M. M. (2017). University Students' use of Whatsapp and their Perceptions Regarding its Possible Integration into their Education. Global Journal of Computer Science and Technology, 17(1), 1–10.
[6]. Hussain, Z., Mahesar, R., Shah, R., & Memon, N. A. (2017). WhatsApp Usage Frequency by University Students: A Case Study of Sindh University. Engineering Science and Technology International Research Journal, 1(4), 15–20.
[7]. Irfan, M., & Dhimmar, S. (2019). Impact of WhatsApp Messenger on the University Level Students: A Psychological Study. 6(1), 572–586.
[8]. Kaplan, A. M. (2015). Social Media, the Digital Revolution, and the Business of Media. International Journal on Media Management, 17, 197–199. Retrieved from https://www.tandfonline.com/doi/full/10.1080/14241277.2015.1120014.
[9]. Masele, J. J., & Magova, G. B. (2017). Towards social media usage for promotional activities in Tanzanian pension schemes. A Factor Scores Regression Analysis of Perceived Factors. Business Management Review, 38–52. Retrieved from http://journals.udsm.ac.tz/index.php/bmr/article/view/1062/983.
[10]. Mwakapina, J. W., Mhandeni, A. S., & Nyinondi, O. S. (2016). WhatsApp Mobile Tool in Second Language Learning: Opportunities, Potentials and Challenges in Higher Education Settings in Tanzania. International Journal of English Language Education, 4(2), 70–90. Retrieved from https://www.researchgate.net/publication/305078134_WhatsApp_Mobile_Tool_in_Second_Language_Learning_Opportunities_Potentials_and_Challenges_in_Higher_Education_Settings_in_Tanzania.
[11]. Mzomwe, Y., & Mazana, M. Y. (2018). Social media in the classroom: WhatsApp a new communication tool for enhanced class interactions. Business Education Journal, 2(1), 1–8.
[12]. Okeleke, K. (2019). Digital transformation in Tanzania. The role of mobile technology and impact on development goals. Retrieved from https://www.gsmaintelligence.com/research/?file=783bb9b0ab8e6e53361607a838d25dcb&download.
[13]. Reeve, M. A., & Partridge, M. (2017). The Use of Social Media to Combat Research-Isolation. Ann Entomol Soc Am, 110(5), 449–456. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5846695/.
[14]. Rogers, J. (2019). The use of social media and its impact for research. Bioresources, 14(3), 5022–5024. Retrieved from https://bioresources.cnr.ncsu.edu/wp-content/uploads/2019/05/BioRes_14_3_5022_Editorial_Rogers_Social_Media_15669.pdf.
[15]. Rosenfeld, A., Sina, S., Sarne, D., Avidov, O., & Kraus, S. (2018). A Study of WhatsApp Usage Patterns and Prediction Models without Message Content. Demographic Research, 39(22), 647–670. Retrieved from https://arxiv.org/pdf/1802.03393.pdf.
[16]. Rungta, S. (2015). WhatsApp Usage Differences Amongst Genders: An Exploratory Study. Indian Journal of Marketing 45(5):27-37, 45(5), 27–37.
[17]. Sahu, S. (2104). An Analysis of WhatsApp Forensics in Android Smartphones. International Journal of Engineering Research, 3(5), 349–350.
[18]. Sedoyeka, E. (2016). Tanzanians Online – Current Trends 2016. International Journal of Computing and ICT Research, Vol. 10, Issue 2, 10(2), 90–107. Retrieved from http://ijcir.mak.ac.ug/volume10-issue2/article5.pdf.
[19]. Sharma, A., & Shukla, A. K. (2016). Impact of Social Messengers Especially WhatsApp on Youth: A Sociological study. International Journal of Advance Research and Innovative Ideas in Education, 2(5), 367–375. Retrieved from

http://ijariie.com/AdminUploadPdf/impact_of_social_messengers_especially_whatsapp_on_youth__a_sociological_study_ijariie3111.pdf.
[20]. Stieglitz, S., Dang-Xuan, L., Bruns, A., & Neuberger, C. (2014). Social media analytics: an interdisciplinary approach and its implications for information systems. Business & Information Systems Engineering, 6(2), 89–96.
[21]. Tarighat, S., & Khodabakhsh, S. (2016). MobileAssisted Language Assessment: Assessing speaking. Computers in Human Behavior, 64(409413).
[22]. Yeboah, J., & Ewur, G. D. (2014). The Impact of Whatsapp Messenger Usage on Students Performance in Tertiary Institutions in Ghana. Journal of Education and Practice, 5(6), 157–164.

ICT for Effectiveness and Job Performance of Staff in the Universities in Nigeria.

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Abstract

The study investigated the influence of ICT for effectiveness of staff job performance in two Universities in Oyo State, Nigeria. The descriptive survey research design was employed to collect the requisite data. The data collected were analyzed using statistical measures of Mean, Standard deviation, Pearson Product Moment Correlation. A total of nine hundred and four secretariat staff was used for this study from the two universities. Two hundred and twenty-eight were purposively used for this study. A structured questionnaire was used. The overall reliability coefficient was established at 0.76 using Cronbach Alpha. The data collected were analyzed using frequency counts, percentage scores, mean, Pearson product moment correlation analysis. The study revealed that availability of ICT facilities, in-service training and constraints were significantly related to the use of ICT effectiveness and job performance of staff in the two institutions. Recommendation showed that there should be constant ICT training for the staff in order to provide them with necessary new skills in usage of ICT gadgets. Government should provide the necessary infrastructures like power supply, Wi-Fi for internet connectivity, conducive environment which are needed for effectiveness and efficiency in their job performance which will motivate staff to develop their skills in the usage of ICT.

Keywords*: Information and Communication Technology, availability, in-service training, facilities, effectiveness and staff development.*

Introduction

The history of secretarial profession shows that there were no secretaries until the Romans started it when they were using some people as scribes who took dictations from their bosses (Olayanju, V. T. 2018). The profession of secretary became much prominent in Nigeria in the 1990s when women were employed to assist some bosses in their day to day activities. However, there were few secretaries in the early 1990s because there were no institutions to train and retrain secretaries. There were typists and stenographers who were playing the role of secretaries. These 'secretaries' were trained in road side institutes. These institutes were makeshift ones and they did not have adequate machines and qualified trainers. In view of this their competence was doubted. In the late '90s, the states and federal government of Nigeria started institutes to train competent secretaries in Lagos and Kaduna. Admission requirements to these institutes were low. Later with the establishment of Polytechnics in Nigeria, they started training secretaries. In most Polytechnics now the departments that train secretaries are called Office Management Technology or Administrative Science. Previous researchers stressed that new skills in the use of computer-based digital technology among secretaries is drastically altering the way things are done administratively in their day to day activities in an organization and the improvement in technology tools is enhancing university education delivering in terms of administration, service and approach, and also the introduction and development in Information Communication Technology (ICT) have changed the methods and procedure of doing office work by the secretarial staff. (Margaret Moronke Dosunmu *et.a. l*, 2018; Kayode, 2016)

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Many secretaries are now respected within the academic environment because they have improved themselves by acquiring university degrees in secretarial administration and this has added value to the profession.

Abosede and Akintola (2015) described a secretary as a person who has acquired the basic secretarial skills of shorthand and practical experience acquired in the office work, to be able to cope adequately with some office jobs such as typing of letters, filing, reception duties, keeping records, preparing itinery, answering of telephone calls and so on. They opined that a secretary does not only handle the typewriter/computer and writes shorthand but can also serves as an executive of an organization. The secretary has to be well equipped to meet the present challenges and the challenges of the future in a contemporary office. The previous studies collaborated and concluded that there will be dramatic changes that will reshape the office, and work environment with information and communication technology, work habits, impact on the personal lives of professionals and the way they work (Igbinedion, 2010; Onifade, 2009Boladele, 2002;). Ekula (2010) also opined that in offices, computers, database management and other accessories are being used to organize and control records. Secretaries, who are officers in charge of office records and correspondences, are expected to operate the computer using database, spreadsheet, graphic designs and word processing packages. Essentially to be abreast of the use of these packages, secretaries are to go for training on the use of these packages in order to possess the mastery of the use of office related application packages.

The technology age has changed the ways things are done now. Most things including office duties are carried out online. Instead of the use of office files, most secretarial functions everywhere in the world have undergone technical changes, as a result of the introduction of many new offices technological equipment. Kayode (2016) said the use of technology and paper based used by secretaries has allowed organizations to get prompt information, communicate with each other, and also have an overall effect on the educational environment using computer tools or digital equipment positively. The International Professional Secretaries (PSI) at its meeting in 1998, in the United States described the secretary as “an individual who possesses the mastery of office skills, demonstrate the ability to assume responsibility without direct supervision, exercises initiative and judgment, and makes decisions within the scope of assigned authority”. This new technology has increased access to information; there is no field of study that cannot be accessed through the internet.

The secretary has access to information at his or her disposal as a result of information technology tools. Also, it brings about convenience and flexibility; information could be processed with ease with the aid of technology utilization unlike the old method of using the typewriter. At the same time information could be processed and retrieved at any point in time with the help of new technologies. Most organizations resort to computerized means to save their records; hence secretaries must acquire the required skills to be able to adapt to the work environment (Dangata, Odesanya, & Baba, 2012). However, these new developments brought by technological challenges require even more knowledge and skills beyond being a professional secretary. For the secretary to be abreast with the changing times, face the challenges and overcome the old ways of doing things he/ she needs training requirements in recent times to help meet organizational objectives. The effectiveness of these functions depends largely on the availability, the needed competencies and skills acquired by the secretary in the modern office practice. Therefore secretaries who have not acquired the required skills, competencies, knowledge and abilities required for the use of these applications find it difficult to manage the new technology and as such left behind and become irrelevant thus render them redundant or thrown out of the job.

The evolution of Information Communication Technology (ICT) has had a large effect on the present-day world and innovations in telecommunications have affected every aspect of human enterprise all over the world. James (2013) say that technology has been a significant tool in almost all human endeavours. Appah and Emeh (2012) and Adedoyin (2010), also corroborated that information technology has affected every profession positively in the last twenty years. The integration of ICT in businesses and organizations has resulted in enhanced organizational performance both in developed and developing countries. Information and Communication Technology are anchored on communication gadgets, equipment or facilities which improve and

enhance the manner in which message is shared, relayed, disseminated, preserved and recalled for meaningful communication purposes (Akinyemi (2001).

The present world is a technology driven age and is now a global village. This integration gave rise to new distinct technologies, which radically change ways of administration, and part of the advantages in administration includes phenomenal growth of information and new ways of conducting business through the use of information communication technology. Das (2019) elaborated that Information and Communication Technology (ICT) has revolutionized the educational sector with emphasis on improved methods and efficiency in the management of educational sector.

Information communication technology is simply a way of processing, storing, and sending information electronically. In this way information is much more quickly processed and as earlier pointed shared, relayed, disseminated, preserved and recalled for meaningful communication purposes. Bradi et al (2008) believe that obtaining high efficiency and effectiveness in organizations requires investment in major technology components such as computers, internet, etc. Transmission of message is no longer a monotonous process rather it speeded up and it takes little time in terms of the urgent need of time and space. It has also affected the old patterns of communication whereby letters are no more sent by post, faxes have replaced telegrams, computers are now in use than typewriters and the old style of the use of darkroom has been overtaken by digital photography; saving cost and hours.

The emergence of ICT, as earlier pointed out, has transformed the way office is run and also affected secretarial efficiency and has made accessibility of information easy. According to Fagbamiye (2000),

The relevance of job performance is very crucial to the long-term growth of any occupational system around the world. It probably ranks alongside professional knowledge and skills, center competencies, educational resources as well as strategies, in genuinely determining career success. Performance is the ability to carry out a responsibility in accordance with laid rules. The rate and degree of performance is determined through evaluation which is the systematic way of estimating the worth, quality, importance and relevance of a program with a view to rating, correcting, improving or changing the system or program. It is frequently expressed that job performance is a function of ability and technology. Performance can be regarded as almost any behavior, which is directed toward task or goal accomplishment. The importance of technology, its impact on employee performance and motivation, are recognized by many human resource practitioners and organizations today.

Almost all organizations employ the use of Information Communication Technology (ICT) as a means to develop and introduce value adding and efficiency-enhancing innovations in the organizations thus leading to enhanced performance. Performance is a measure of how well ICT achieve its purpose and it has many different aspects to it. Effectiveness and efficiency are the two fundamental dimensions of performance. Adams et al. (2002) refer to effectiveness as the extent to which stakeholder requirements are met, while efficiency is a measure of how economically the firm ‘s resources are utilized when providing a given level of stakeholder satisfaction.

On the basis of what has been enumerated above, one can conclude that Information Communication Technology has created an environment that brought in impressive changes and revolution which affect the status of secretaries.

The duties of the secretarial staffs such as typing, mailing of letters that usually take time has to be done in seconds with high speed and accuracy. As opined by Nwaokwa and Okoli (2012), many secretaries lack the communication technology skills required in the various offices and this has greatly affected their performance.

What has been said above about job performance, efficiency and effectiveness in terms of organization could also be said about tertiary institutions. Modern day higher institutions also need to be highly technologized, that is they must employ ICT in the management of the universities hence they need to be ICT driven just like any organization as enumerated above. The purpose of this study is to find out the ICT effectiveness and job performance of Secretarial Staff in University of Ibadan and Ladoke Akintola University of Technology, Nigeria.

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The study examines the facilities available on the use of ICT tools of secretarial staff. The study also investigates whether in-service training on ICT tools has influence on job performance of secretarial Staff. The study also determines the constraints in the usage of ICT on job performance of Secretarial staff. The following research questions will be examined

1. Research question 1. What is the availability of ICT tools in the two universities?
2. Research question 2. Does in-service training improve the job performance of staff?
3. Research question 3. What are the constraints in the effective utilization of ICT and job performance of staff?

As the population of both students and staff increases in the Universities, there is the need to computerize the system of the university in order to meet modern day best practices of the management of the institutions in the two universities. It seems most of the available computers in some faculties, departments of these institutions are not sufficient and are not connected to the server and there is unstable Wi-Fi and these might hinder the effective use of Internet facilities to aid staff job performance.

Despite the great changes that technology has brought to modern world, the use of ICT tools has not been utilized effectively in the management of the University of Ibadan, Nigeria and Ladoke Akintola University of Technology, Nigeria. The administrative staff in these two institutions has not undergone rigorous training in the use of Information Communication Technology (ICT).

Therefore, the competence in the use of computer which is not available in the performance of secretarial duties in these institutions demands some attention and this research is meant to address this shortcoming. This is the reason why there is the need to conduct research into ICT effectiveness and job performance of secretarial staff who are responsible for effective and efficient delivery of their duties.

There have been solutions proposed to these problems and they include the availability of ICT tools in the universities, constant power supply, training and retraining of staff in order to make them to handle modern state of the art ICT tools Ojohwoh, (2014). All these are important but the most vital one is the availability of constant power supply Egbokhare, (2011). This is important because without constant power supply the staff cannot perform their work effectively and efficiently. The secretary supplies the boss with information both from the telephone calls and the visitors, as such the secretary is termed the “house keeper of the office”; that is why some bosses are disorganized when their secretary is absent from work.

All these functions and responsibilities could be done better and faster with modern office automation and ICT tools. Many scholars and experts opined that coping with today’s ICT challenges require better development of secretaries’ abilities to tackle complex mental tasks, doing well beyond the basic reproduction of accumulated knowledge of the writing of shorthand and typewriting skills using the new skill computer-based tools. Efforts should be made by them to improve in developing the ICT competencies which involve cognitive and practical skills, creative abilities and others (Margaret Moronke Dosunmu et.al, 2018).

It has been observed that availability and adequacy of ICT resources for OTM (Office Technology and Management has imparted secretarial duties positively in their day to day activities and made today’s office look more sophisticated and more interesting place of work (Amiaya, Anita Ogheneovo, 2013).

In spite of huge benefits of modern technology, there are still challenges faced by secretaries. These challenges are - inadequate availability of ICT equipment due to lack of fund to purchase the equipment in these two universities. Because of this little modern equipment is purchased and this is supplemented by obsolete ICT tools. This makes the work of secretarial staff not at a high optimum level. As earlier pointed out above, constant power supply is needed for the use of these ICT tools.

The study was restricted to two public universities in Oyo State, Nigeria. The study was restricted to the secretarial staff of university of Ibadan, Nigeria and Ladoke Akintola university of Technology Ogbomoso, Nigeria. They are in the same geographical area which is the south west of Nigeria. In the future the research could be extended to other areas in order to know the extent to which ICT is being utilized.

This study has revealed the extent to which ICT and its gadgets are been used effectively among the secretarial staff in the two universities in Oyo State, Nigeria. This has contributed positively to the growth of goals and objectives of each university making administrative tasks effective and efficient using their new skills to administer their day to day activities with the digital tools unlike olden days of using typewriter. Secretarial staff of this digital age has moved beyond the old system to new digital age of using ICT gadget for their operation in their various offices.

Methods

The descriptive survey research design was employed to collect the requisite data. A total of nine hundred and four secretariat staff was used for this study from the two universities. Two hundred and twenty-eight were purposively used for this study. For the purpose of obtaining the internal consistency of the instrument, Cronbach Alpha reliability method was used in which the co-efficient value of 0.76 was obtained. The data were analyzed using descriptive statistic of mean and standard deviation for the research questions

Results

Research question 1. What is the availability of ICT tools and job performance of staff in the two universities in Oyo state, Nigeria?

Table 1. Pearson product moment correlation of availability of ICT tools effectiveness and job performance of secretarial staff

Variable	N	r-cal	r-tab
Availability of ICT tools	**228**	**0.040**	**0.179**
Job performance	**228**		

P<0.05

The table above shows positive and very low relationship between availability of ICT tools and job performance of secretarial staff in the universities. The result obtained from the analysis shows that the value of r-calculated (0.040) was less than r-table (0.179).

This shows that the result was not significant. Therefore, the null hypothesis was accepted. This means that there was no significant relationship between availability of ICT tools and job performance of secretarial staff.

Research question 2. Does in-service training improve the job performance of staff of the two universities in Oyo State, Nigeria?

Table 2. Pearson product moment correlation of in-service training and job performance of secretarial staff

Variable	N	r-cal	r-tab
In-service training	**228**	**0.427***	**0.179**
Job performance	**228**		

P<0.05

Table 2above showed positive and moderate relationship between in-service training and job performance of secretarial staff. The result obtained from the analysis shows that the value of r-calculated (0.427) was greater than r-table (0.179).

This shows that the result was significant. This means that there was significant relationship between in-service training and job performance of secretarial staff. It also reveals that most universities do send their staff for training and retraining which has greatly contributed positively to the performance of staff and it has impacted on the efficiency of staff and the goal and objective of the universities.

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Research question 3. What are the constraints in the effective utilization of ICT tools in the two universities in Oyo State, Nigeria?

Table 3. Constraints in the effectiveness of ICT tools in the two universities

SN	Items	Agree		Disagree	
		F	%	F	%
1	Lack of internet connectivity	146	64%	82	36%
2	Irregular supply of electricity	164	72%	64	28%
3	Inadequate ICT facilities	174	76%	54	24%
4	Inadequate knowledge of some software packages	173	76%	55	24%
5	Lack of in-service training of staff on the usage of some ICT	171	75%	57	25%
6	Virus attack	176	77%	52	23%

In the table above, any score above 50% was a constraint to the use of ICT among secretarial staff in the two universities. Table 3 above revealed the challenges of using digital technologies by the respondents as constraints to the effective use of gadgets tools in their day to day activities. It showed in the table above that 64% of the respondents agreed that lack of internet connectivity is a constraint to the effective use of ICT tools as against 36% of the respondents who did not agree that lack of internet connectivity was a constraint for the effective use of ICT tools by the secretarial staff of both universities.

The table also showed that 72% of the respondents agreed that the challenge of irregular supply of electricity has been an issue in their efficient and effective use of ICT tools in their daily activities and their job performances as against 28% of the respondents who did not agree that irregular supply of electricity was a constraint to their job performances. This shows that some secretarial staff makes use of other alternatives such like generators to power their computers for electivity to carry out their day to day activities.

The table further showed that 77% of the respondents agreed that the challenge of inadequate Computer gadgets hindered the effective utilization of digital tolls by the secretarial staff of the universities as against 23% of the respondents who disagreed that inadequate ICT facilities was a challenge to the effective utilization of ICT tools by the secretarial staff of these universities. This further shows that some secretarial staff still depended on old modern system like typewriters to carry out their duties in their various offices.

The table 3 above also shows that 76% of the respondents agreed that the challenge of inadequate knowledge of some software packages served as constraints to the effective use of e-tools among secretarial staff of University of Ibadan and Ladoke Akintola University of Technology as against 24% of the respondents who disagreed that inadequate knowledge of some software packages was a challenge to the effective utilization of ICT tools by the secretarial staff of these universities. This shows that since majority of the secretarial staff of these universities do not have adequate knowledge of most software packages, this means that the old facilities (i.e. typewriter) were being used by these secretarial staff to carry out their day to day activities. Hence adequate training and retraining on these new skills in technology is required by these secretarial staff.

The table further showed that lack of in-service training of staff on the usage of some ICT was a constraint to the effective use of those facilities by the secretarial staff in the Universities in Oyo State. This was agreed upon by 75% of the respondents against 25% of the respondents who did not agree that lack of in-service training of secretarial staff on the effective use on ICT gadgets was a challenge. This shows that some of the secretarial staff still depended on their personal efforts to use the ICT in carry out their daily activities. Therefore, the secretarial staffs of these universities need training and retraining to acquire new skill in ICT in order to effectively carry out their assigned duties.

Lastly, the table showed that the challenge of virus attack was a constraint to most computers use among the secretarial staff as agreed, by 77% of the respondents as against 23% the respondent who disagree that virus attack was a constraint to the effective use of Computer tools by the secretarial staff of these universities. The table further showed that virus attack was a major constraint to most

application packages and since there is no alternative, the use of current anti-virus is important so that the secretarial staff of these universities can be able to use ICT tools and its facilities to carry out their day-to-day activities effectively.

Discussion

The results of the study were discussed based on the general questions raised and the hypotheses. The study was designed to explores that relevance of computer facilities moderately available in some department, units and it revealed that lack of electricity, internet facilities, lack of in-service training, inadequate knowledge has been of constraints in the use of ICT technologies effectiveness does not have negative effects in their job performance. Armah (2015) supported that advent of the ICT gadgets has helped to improve the performance of secretarial profession. Aromolaran (2003) said that the usage of ICT gadgets has greatly enhanced the performance of secretarial staff. He further explained that the impact of computer-based tools used on job performance of secretarial staff depends on the degree of technology or automation that is introduced with necessary and stable facilities, the secretarial staff is less weakness as the machines feeds itself, inspects its work, adjust it when the operation is unperfected and makes minor repairs.

Also, the result reveals that there was significant positive relationship between in-service training and job performance of secretarial staff. The need for a continuous pragmatic and systematic staff development program of an organization cannot be over-emphasized. Therefore, there should be capacity building often for secretarial staff in all the universities. This was in support of Bukhala (2004) who explained that the need to provide substantial, adequate and relevant training and retraining of secretarial staff was imperative for better performance.

This finding was also supported by Zymelman (2000) who outlined a number of benefits to be gained by training and retraining of employees. He reiterated that orientation and induction training programmes for instance, provide new employee the general information that they need about the new technology that will make them perform better on their jobs. Obayan (2005) in another related study also affirmed that investment in employees (staff training) is necessary to promote fluency in information technology and further opined that the training should be a career long process.

It tested the relationship between availability of CBMIS and Job performance of secretarial staff was accepted. Findings of this study also show that there is no significant relationship between availability of CBMIS and job performance of secretarial staff. However, this finding negates the findings of Nwosu (2000) who in their submission reported that for secretarial staff to contribute meaningfully to the achievement of the organizational goals and objectives, computer-based technology is as part of the facilities in carrying out routine jobs which must be readily available which will ultimately lead to better performance.

This view is also supported by Obilor (2008) who viewed perceived usefulness of computer-based management information system and its availability as being related to individual impacts because, such improved individual productivity. Also, Onasanya (2000) corroborated this assertion when he maintained that a committed secretary with required skills and such tools on CBMIS available will be able to take on the challenges and excel to the level of expertise in her profession.

Lastly, the result also showed that a positive relationship between constraints in effective utilization of ICT and Job performance of secretarial staff. This is as a result that several inhibiting factors have hindered the development of ICT tools.

The poor and inadequate facilities in the Universities will definitely affect the productivity of secretarial staff in these two institutions. Also, irregular supply of electricity and inadequate computer-based management system all makes the usage of this technology stressful to the secretarial staff. This result is corroborated by Obi (2003) who reported that all these inadequacies will lead to stress which is the reaction of individual to the characteristics of work environment and pose a threat to psychological capabilities of man. Akinyemi (2001) also affirmed that the functions and effectiveness of the secretarial staff in every business organization or institutions depend on the availability of office technologies as well as skills and competencies of the staff.

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Conclusion

Based on the findings and results of this research study, the researchers concluded that secretarial staff must be conversant with the modern use of ICT tools in order to improve their competence in the performance of their job. It is also important for the secretarial staff to be up to date in this globalized world to know the use of ICT for effective performance of their job. And this applies to the two universities that have been researched.

References

[1]. Adedoyin, T. (2010). "I.T. Productivity Tools for Managing the Accounting Function", The Nigerian Accountant, 43(4): 30-36.
[2]. Appah, E. and Emeh, Y. (2011). "Information Technology and Internal Auditors' Activities in Nigeria", Asian Journal of Information Technology, 10(6): 201-208.
[3]. Armah, E. D. A. (2015). The Impact of Office Information and Communication Technology on the Performance of the Professional Secretary at the Ghana Ports and Harbours Authority, Takoradi. International Journal in Management and Social Science, 3(1), 365-373.
[4]. Aromolaran, E.A. (2003). An Evaluation of the Continuous Relevance of Secretaries in the Automated Office. Business Education J. 4 (1): 63-70.
[5]. Boladele, Y. (2002) Secretarial Efficiency in an Automated Office: Journal of The School Vocational and Technical Education (THE VAS JOURNAL), 7 (1): 123-134.
[6]. Bradi, M., Fellenz, M. & Brooks, R. (2005) "Researching the role of Information Communication Technology (ICT) in contemporary marketing practices", Journal of Business and Industrial Marketing, vol. 23 No. 2. Pp. 108 -114.
[7]. Dangata, J.N., Odesanya, T.A. & Baba, M.M. (2012). Emerging challenges in the integration of ICT with the curriculum of Office Technology and Management. Book of Readings (ABEN), 2(1), 17-22.
[8]. Deeter-Schmelz, D. and Kennedy, K. (2004)" Buyer-fellow relationships and information sources in an e-commerce world", Journal of Business and Industrial Marketing, vol. 19 No. 3, pp. 188-196.
[9]. Egbokhare, F.O. (2011). Challenges of secretarial administration in a globalized world. The Professional Secretary. Journal of the University Secretarial Staff Association (USSA)2(2), 1-5.
[10]. Ekula, I.O. (2010). Repackaging secretarial/office education curriculum towards achieving the objectives of vision 20:20:20. Journal of Vocational and Technical Education ABU Zaria 5 (1), 23-26. Government of South Australia.
[11]. Fagbamiye, E.O. (2000). Teachers remuneration condition of service; job satisfaction, attitude to work and job performance in Lagos State. In Fagbamiye, E.O. &Durosaro, D.O. (Eds.) Education and Productivity in Nigeria, Ilorin: Haytee Publishers & Co.
[12]. Geiger, S., and Turley, D. (2005) "Personal selling as knowledge-based activity: communities of practice in the sales force", Irish Journal of Management, vol. 26 No. 1, pp. 61-71.
[13]. Gichoya, D. (2005) "Factors Affecting the successful Implementation of ICT projects in Government", The Electronic Journal of e Government, vol. 3, No. 4, pp. 175-184.
[14]. Igbinedion, V.I. (2010). "Knowing the Graduate office Secretary", Ozean Journal of Social Sciences, 3(1): 116-120.
[15]. Iwe, J. (2005) Enhancing women's productivity in the library and Information sector in Nigeria" The Electronic Library vol.23 pp. 319 -332.
[16]. Jaiyeola, R. (2007). "Information Communication Technology as a Tool for Effective Performance of Chartered Accountants", The Nigerian Accountant, 40(1): 48-49.
[17]. James, B. (2013). Effects of Information Communication Technology on Secretaries' performance in Contemporary Organization in Bayelsa State, Nigeria.Journal of Information and Knowledge Management, vol.3, No. 5. ISSN 2224-896X (online).
[18]. Kombol, M. (2006). An Assessment of the pattern of ICT use among Nigerian Media Practitioners: Implications for Media relations Practices in Public Relations. Public Relations Journal 14 (1),11-27.
[19]. Obayi, A. U. (2007). ICT and economic empowerment: The challenges. A lead paper presented at the 4th Annual National Conference on Repositioning Technical and Vocational Education. EhaAmufu: Federal College of Education, 5-8 June.

[20]. Ojohwoh, R. (2014). Emerging challenges in the use of new technologies in implementing office technology and management programme in polytechnic. Nigeria Journal of Business Education 1 (3), 333-340.
[21]. Onifade, A. (2009). "The third millennium Secretary and Information and Communication Technology: Nigerian Experience", International Journal of Management and Information System, 13(2): 39-48.
[22]. Sayyed, M. A., Zahra, M., Zahra, S. E. Mohsen, K. B. (2011) An Assessment of the effect of Information Communication Technology on Human Resource Productivity of Mobarekeh Steel Complex in Isfahan (Iran). Science Direct. Procedia Computer Science 3 pp. 1321-1326.
[23]. Olayanju, V. T. (2018). THE CHALLENGES OF NEW TECHNOLOGIES ON SECRETARIAL PROFESSION. Nigerian Journal of Business Education (NIGJBED), 3(2), 77-85.
[24]. Kayode, A.E. (2016). Impact of Computer-Based Information Technology on Job Performance of Secretarial Staff in Nigeria" International Journal of Academic Research.www.texilajournal.com/academic-research/article/415-impact-of-computer-based.
[25]. Das, K. (2019). The Role and Impact of ICT in Improving the Quality of Education: An Overview.
[26]. Margaret M. D., Abolaji O. B, Olugbenga A., Akintola O. (2018). Influence of Office Automation on Secretarial Administrators' Effectiveness in Ogun State-Owned Universities.
[27]. Amiaya, Anita Ogheneovo. (2013). Adequacy of Information and Communication Technology Resources for Office Technology and Management Programme in Delta State Polytechnics. International Journal of Education and Research, Vol. 1.No. 11.
[28]. Zymelman M. (2000). The economic Evaluation of Vocational training Programmes: Baltimore & London: The John Hopkins University Press. P. 101.

Human Trafficking

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Abstract

Humans are the ultimate creation of God. We are social animals with a well-developed and defined brain. As humans we tend to "play and use" other humans resulting into anti-human activities e.g. Human Trafficking. Human trafficking is the trade of humans for the purpose of forced labour, sexual slavery etc. Human trafficking can occur within a country or trans-nationality. It is crime against the person leading to violation of victim's rights through coercion and because of their commercial exploitation. Traffickers profit by controlling the victims and exploiting them for sex, labour etc. Poverty, lack of education immigration policy, broken homes, lack of good job opportunities etc. are causes of human trafficking. According to International Labour Organization, in 2012, 21 million victims were trapped in modern day slavery, 68% were exploited for labour, 22% were sexually exploited. Child workers, minorities and irregular migrants are at risk of extreme form of exploitation. In 2013, the UN designated July 30 as World Day against trafficking in person. Government of India applies Criminal Law and Sec 370 and Sec 370A which defines human trafficking and provides stringent punishment for human trafficking, any form of sexual exploitation, trafficking of children etc. Regional Task Force implements SAARC convention on prevention of trafficking of women and children. UN office on Drugs and Crime has assisted many NGOs in their fight against human trafficking. It is duty of every citizen to fight against anti-human activities and have respect for every other human being.

Keywords*: Human Trafficking, exploitation, coercion, United Nations, labour, children, women, sex, July 30, Government of India.*

Introduction

According to Trafficking Protocol, human trafficking is defined as the recruitment, transportation, transfer, harbouring or receipt of persons, by means of threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal, manipulation or implantation of organs; Trafficking of persons is a serious crime and grave violation of human rights. Thousands of women, children etc. fall in hands of traffickers. e.g. for sexual exploitation, forced labour etc.

It can happen in any community and victims can be of any age, race, gender or nationality. It is thought to be one of the fastest growing activities of trans-national criminal organizations. In other words, trafficking is a process of enslaving people, coercing them into a situation with no way out, and exploiting them. People are trafficked for many different forms of exploitation such as forced prostitution, forced labour, forced begging, forced criminality, domestic servitude, forced marriage, and forced organ removal.

Human trafficking has international implications as recognized by United Nations in "Protocol to prevent, suppress and punish trafficking in persons" especially women and children. It is first global, legally binding instrument on trafficking. Its purpose is to facilitate international cooperation in investigating and prosecuting the trafficking. Per International Labour Organization's report in 2014, forced labour alone provided $150 billion in annual profit. In 2012, ILO estimated that 21 million victims are trapped in modern day slavery, of these 68% were exploited by labour, 22% were sexually

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exploited. Trafficking in Person's report of 2016 states refugees and migrants, migrants, religious minorities, people with disabilities etc. are the most at risk for human trafficking.

Trafficking of persons is broad spectrum with few examples as

Trafficking of children

It involves their recruitment, transportation, commercial, sexual exploitation, prostitution, child pornography, slavery, trafficking for early marriages.

Sex trafficking

It involves coercing the persons into sexual acts without their consent. E.g. forced Prostitution, forced marriage etc.

Labour trafficking

Movement of persons for the purpose of forced labour and services. It involves bonded labour, domestic servitude and child labour. It mostly happens within the domain of domestic work, construction, agriculture.

Organ trade as trafficking

The Victim is compelled into giving up an organ of his. He agrees to sell an organ in exchange of money and goods. Victims are usually migrant workers, homeless people, illiterate persons etc.

Methods

The factors that make human trafficking real in nature are various and few among them are

1. Poverty and globalization
2. Political and institutional changes
3. Commercial demand for sex, labour

In a wider sense, push and pull factors lead to trafficking of persons. In the society the head of any racket plays important role in running human trafficking, which includes recruiting the staff who conduct the business. They lure people in terms of providing jobs, money and carry forward the business. They pull people from society to get involved in these anti-social rackets mainly human trafficking. The push factor involves the poor, women, children etc. who are lured and they fall prey to this vicious circle. These two factors act simultaneously in the society. And it leads to consequences which effects the victim psychologically, morally, emotionally, physically with impact on health and economy.

The various methods that human traffickers apply for doing this crime are

Personal social networks

Personal social networks and relationships are a powerful recruitment tool. Traffickers commonly recruit friends of family members, friends of other girls they have trafficked, and others in their neighbourhood. They recruit in malls, schools etc. especially associated with the minors.

Romantic relationships

Many traffickers engage in romantic or physical relationships with the recruits to appeal to their victims' emotional and economic needs.

Online advertisements

Online advertisement about alluring career in foreign land, online job portals, websites make the vulnerable people to fall in trap of the traffickers

Luring for wealth

The traffickers offer the victim economic security. For traffickers, prominently displaying their wealth is key to recruiting with many citing their outward displays of wealth as a primary means of attraction for victims.

Lies about educational or travel opportunities

People are lured for exciting opportunities to study aboard and the people fall prey of traffickers. Same thing happens with the people who travel. They are given the exciting offers for travel and become the victim.

Abduction

Kids, women etc are kidnapped or abducted for the trafficking to foreign land in return traffickers get good amount. They are sexually exploited and used as domestic help.

Sale by family

In rare cases, parents sell a child out of greed and receive a monthly income due to poverty. These families often build relationships with traffickers and will misrepresent the nature of the work to entice other families to sell their children.

Poverty, illiteracy, unemployment, displacement, lack of knowledge or experience, broken homes, cultural practices etc.

These are important factors which also important factors that lead to human trafficking.

According to modern Feminists, women and girls are more prone to trafficking also because of social norms that marginalize their value and status in society. By this perspective females face considerable gender discrimination both at home and in school. Stereotypes that women belong at home in the private sphere and that women are less valuable because they do not and are not allowed to contribute to formal employment and monetary gains the same way men do further marginalize women's status relative to men.

Results or impact of human trafficking on victims

Given the nature of trafficking, the consequences are hidden and difficult to notice. Trafficked persons often do not have unlimited access to basic necessities such as safety, food, sleep, hygiene, and medical care. The effects of trafficking vary depending on the type of trafficking and the specific situation.

Given that trafficking is based on the exploitation of individuals, all victims of trafficking are subject to physical, psychological, and social impacts. Victims of trafficking experience harsh physical impacts due to excessive work or the use of force by traffickers. They are exposed to serious health risks, such as HIV/AIDS, as well as serious mental health risks. Anxiety, insecurity, fear, and trauma are all products of trafficking. Several studies indicate high levels of Post-Traumatic Stress Disorder (PTSD) in formerly trafficked persons. Trafficking leads to cognitive impairment, memory loss, depression, and even suicide. Trafficked persons are isolated from their social circles, leaving individuals unable to engage socially or reach out for help. Victims may also be trafficked internationally, and therefore may not be able to engage others due to a lack of linguistic capability or geographic and cultural familiarity. Individuals specifically trafficked for sex are facing stigma and other negative responses during and after their trafficking experience, especially from friends and family members.

Conclusion

Several UN agencies and international non-governmental organizations (NGOs) have collaborated to produce data sources on the profiles of victims of human trafficking, the prevalence of human trafficking, and on related phenomena such as forced labour and forced marriage.

UN office on drugs and crime (UNODC) global report on human trafficking

(UNODC) surveys governments on trafficking victims identified in their respective countries using a common questionnaire with a standard set of indicators, and then aggregates the results. The most recent global report was produced in 2016. Over two years, this exercise produced data on approximately 63,251 identified victims of trafficking from 106 national governments.

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The 2017 global estimate of modern slavery: forced labor and forced marriage.

This estimate is produced by the International Labour Organisation (ILO) and the Walk Free Foundation (WFF) in collaboration with IOM. The new 2017 report estimates that 40 million people were victims of modern slavery in any given day in 2016. Out of these, approximately 25 million people were in forced labour and another 15 million people were in a forced marriage

The international organization for migration (IOM)'s global database on victims of human trafficking

Through IOM's provision of direct assistance to victims of trafficking, it has developed the largest database of victim of trafficking case data in the world. The database contains over 50,000 individual cases, with approximately 5,000 new cases added each year. IOM currently assists between 7,000 and 9,000 victims annually, collecting a unique source of data on victims of trafficking that is international in scope.

The global report

The recorded victims of 137 different nationalities detected in 142 countries between 2012 and 2016, during which period, 500 different flows were identified

In India, the trafficking of persons for commercial sexual exploitation, forced labour, forced marriage and domestic servitude is considered as organized crime. The Government of India applies criminal law as well as Sec 370 and 370A of IPC which defines human trafficking and punishment. Additionally, Regional Task Force implements SAARC Convention on Prevention of Trafficking in Women and Children. A government web portal is launched called as Anti-Human Trafficking Portal where complaints can be registered etc. Anti-Human Trafficking Units are established for the implementation of comprehensiveness scheme in 335 vulnerable police districts through India.

Human trafficking continues to grow in staggering numbers around the world. The effects of this injustice are far reaching, impacting all individuals involved, their communities, and generations that follow. While the causes and effects are varied and multifaceted, sustainable change can happen if survivors are rescued and their perpetrators are arrested. The more dangerous human trafficking becomes for traffickers, the less likely they will continue exploiting others.

When it comes to prevention of human trafficking, we must first of all pay attention to the causes that lead to the situation of trafficking. Poverty, unemployment or domestic violence as causes of human trafficking come from different social spheres, reflecting the nature of economic, political, family and other relationships in a community.

Discovering causes is the first and essential step in creating functional and effective responses both to the very existence of the causes, and to the restoration of their consequences. It is necessary to continuously monitor these issues and further research, given that the causes, types of exploitation, structure of the victims and the relationship of victims and general population toward human trafficking change with the changes of wider social circumstances, but also given the variable (lack of) success in identifying the causes and elimination of consequences.

Following are the few solutions to human trafficking that can lead a big and different change.

1. Volunteering time and effort to an anti-trafficking organization is a great way to contribute to the fight against human trafficking. In addition to helping the organization itself, the more volunteers there are, the greater the outreach can be. Raising awareness for human trafficking can also get more people involved and interested in joining the fight. It can create a chain reaction, leading to more people lobbying, fundraising and educating themselves
2. Be aware of the signs of human trafficking. Being educated on signs that could indicate someone is a victim of human trafficking increases the likelihood of reporting and could give a voice to victims who do not feel comfortable speaking out for themselves.
3. Meeting with or reaching out to local, state and federal representatives informs them that their constituents are passionate about fighting human trafficking, and brings the issue to their attention. This increases the likelihood that they will do something about it.

4. Donate clothes and other goods to shelters for victims of human trafficking. Also, encourage businesses to give jobs to survivors, helping them get back on their feet and get a fresh start. If applicable, offering legal advice to survivors allows them an opportunity to not only move forward but to gain justice. Helping survivors and contributing to their recovery stops the cycle of trauma in its tracks and ensures it won't repeat itself.
5. Enforcing stricter validity checks on websites like these and offering jobs through more reliable online platforms is attacking the problem at its root, and stopping human trafficking before it even begins.
6. Provide jobs, internships, skills training, and other opportunities to trafficking survivors.
7. The media plays an enormous role in shaping perceptions and guiding the public conversation about human trafficking and spreading awareness.
8. Bring awareness to your social circles so your friends and family know more about trafficking.
9. Consider volunteering with a local counter-trafficking organization
10. Donate money to an organization that works on the front lines
11. Be a friend to someone who's alone and vulnerable

We all have a role to play in creating a free world. Our organization focuses on working with local police to find and free modern slaves and arrest traffickers, but there are numerous ways WE can help fight human trafficking in your own community. No action is too small. Never underestimate the difference you can make in someone's life through one small act of kindness.

Because **Together We Can, We Will Make Difference.**

References

[1]. Wikipedia: https://en.wikipedia.org/wiki/Human_trafficking.
[2]. Anti-Slavery International: https://www.antislavery.org/slavery-today/human-trafficking/.
[3]. PACT: https://pact.city/5-common-trafficking-recruitment-methods/.
[4]. https://www.stopthetraffik.org/about-human-trafficking/types-of-exploitation/.
[5]. Human trafficking search org: https://humantraffickinghotline.org/what-human-trafficking/human-trafficking/victims.
[6]. Exodus Road: https://blog.theexodusroad.com/causes-effects-of-human-trafficking.
[7]. Migration data portal: https://migrationdataportal.org/themes/human-trafficking.
[8]. The Borgen Project: https://borgenproject.org/top-10-solutions-to-human-trafficking/.
[9]. https://www.traffickinginstitute.org/the-root-cause-of-trafficking-is-traffickers/.
[10]. http://www.endslaverynow.org/learn/slavery-today.

An Assessment of Humanitarian Response to Internally Displaced Persons: The Case of South West Region of Cameroon

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Abstract

The magnitude of the Anglophone crisis and its impact on the population requires a multi-sectorial and multi-dimensional response that includes humanitarian, resilience and development components. Only coordinated and harmonized actions can mitigate human suffering and address the root causes of this crisis. However, the response has been minimal, while the precarious situation on the ground has worsened. The study carried out an assessment of the different challenges of internally displaces persons (IDPs) in the South West region, with a survey which was administered to 155 households and the health record of 1930 IDPs. This study identifies the major challenges faced at hand through an assessment with percentages and with the support of Middle Upper-Arm Circumference (MUAC) as well as informant interviews of internally displaced persons (IDPs). The study results show that there is a significant deterioration of the situation of IDPs in the domain of healthcare, nutrition, WASH and food security. On the other hand, the results also indicate that they are leaving deplorable situations even with the creation of the centre for humanitarian assistance plan in SW region. The assessment has also identified several levels of household hunger, reaching severe levels among some households. They lack a diversity of food intake and difficulty of households to a balanced diet. In combination with delayed supplementary feeding for infants and unreliable quality of water further aggravates the already precarious situation.

Keywords: *Assessment, humanitarian response, internally displaces persons, healthcare, nutrition, food security, South West region, Cameroon.*

Acronyms

FCS	-	Food Consumption Score
GAM	-	Global Acute Malnutrition
HFIS	-	Household Food Insecurity Score
HHS	-	Household Hunger Score
IHC	-	Integrated Health Centre
MAM	-	Moderate Acute Malnutrition
MUAC	-	Middle Upper-Arm Circumference
NSAG	-	Non-State Armed Groups
OCHA	-	United Nations Office for the Coordination of Humanitarian Affairs
RNA	-	Rapid Needs Assessment
SAM	-	Severe Acute Malnutrition
SW/NW	-	South-West/North West regions
WASH	-	Water, Sanitation and Hygiene
WFP	-	World Food Program

Introduction

Internal displacement in Cameroon was already in the headlines five years ago, when one thousand five hundred people died and several thousand became internally displaced during the Boko Haram attacks in the Far North in 2014. Cameroon has over the past two years seen a dramatic increase in social and political violence. The country has experienced a combination of humanitarian crisis due to the instability in the South West and North West. The Anglophone crisis at the crossroads since October 2016, protests and strikes related to sectorial demands have escalated into a crisis over the economic

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and political marginalisation of Cameroon's Anglophone minority. The crisis in the two English speaking regions of Cameroon has been on-going and has seen several episodes of deterioration, the most recent following the elections in October 2018. Given the political situation, security aspects and access issues, the humanitarian response has thus far been limited. These have resulted in the loss of lives and sustained injuries, with many affected communities displaced from their homes and thus prone to starvation and destitution, burning of homes, schools and hospitals. The UN agencies only activated the clusters in October 2018, declaring a level two emergency due to the worsening situation in the regions a few months after Only few international NGO are intervening most of which respond through a local partner which are already on the ground.

Military operations have been recorded in more than one hundred villages in the Southwest and Northwest regions since October 2017. Most if not all of the inhabitants of the villages targeted have fled, and around 80 per cent are thought to have sought refuge in the forest, where they have no access to shelter, water and sanitation. Education has been severely disrupted as many schools have been shut down as part of the initial protests, and armed groups have banned them from reopening. They have also burned some schools down, and threatened others who did not comply with the ban. Around 42,500 children are thought to be out of school as a result, and the figure is expected to rise to 311,000 at end of 2019.

The South West region is saturated with a plurality of active non-state armed groups, and on-going operations by the armed forces bring about violence and insecurity. The armed conflict has affected an estimated 1.3 million people, of which roughly 437,500 people forced to flee their homes (246,000 in South-West region). With the first assessments completed, the image arises of a steadily worsening humanitarian situation though data is sparse. Violence has resulted in the interruption or complete disappearance of many basic services including health care, education and access to functioning markets. Livelihoods have been disrupted and agricultural production been reduced. The first victims of violence are children and vulnerable populations that see their protective environments crumble, exposing them to risks and violations. The recently activated clusters indicate that priority areas for intervention are Protection, Food Security, WASH, Shelter and Healthcare, addressing the needs of vulnerable individuals and IDPs in the buss, improvised settlements, with host families or new rental accommodation. This study therefore carries out an assessment on the needs and to understand the challenges of IDPs in the SW region.

Background of the study

Violence erupted in 2016 in the North-West (NW) and South-West (SW) regions, prompting security clampdowns. The crisis shifted into armed conflict with the proliferation of non-state armed groups (NSAG) and deployment of military forces to the regions. In late 2017, and in response to the violence and loss of life, humanitarian organizations were reporting that families were fleeing the two affected regions. Displacement was further compounded by limited access to education for children due to a ban and attacks on schools by the non-state armed groups.

The crisis has worsened considerably in the past six months due to several factors including: anticipation of periods of high insecurity (the start of the school year, the 1 October anniversary and the 2018 presidential elections) movement restriction in the two regions (curfew extended in the North-West, "No Movement" declaration by non-state actors, and increase of both official and informal checkpoints).

The socio-political situation remains tense. There has been a proliferation of non-state armed groups and intensification of confrontations between NSAG and the armed forces. Punitive actions are also reported to have taken place on civilians perceived as associated with parties to the conflict. Since 8 November 2017, the date of the first clash between NSAG and the State armed forces, confrontations between the two parties have displaced around 350,000 people (246,000 in SW and 104,000 in NW), triggering an unprecedented crisis in the two regions.

The humanitarian crisis has a growing impact in the bordering West and Littoral regions. Clashes have hit neighbouring areas, particularly in Menoua division in the West region. In the run up to the elections, Littoral and the West regions saw the number of internally displaced persons rise (85,000 as of October 2018). While some have returned, many remain displaced. The population of NW and SW

regions regularly face protection issues such as threats from armed elements, being caught in crossfire, restriction on freedom of movement due to multiple official and unofficial check points, arbitrary arrests and confiscation of personal documents, etc. Teachers, students and Government workers who do not adhere to the armed groups' education boycott have been threatened. The Government has tightened security, limiting the movement of people and goods through curfews.

Even though efforts are being made to distribute humanitarian assistance to IDPs in the SW and NW regions, the people are still suffering. They lack basic necessities and leave under deplorable conditions. This motivated the researcher to carry out an assessment on healthcare, nutrition, food security and WASH to IDPs in the SW region.

With the creation of the centre for the humanitarian assistance plan in the SW and NW region, the government urged the coordinators to guarantee the aid gets to targeted groups of IDPs. Since the creation of these emergency humanitarian plan centres, national and international response has been massive but the condition of IDPs has not changed. The distribution of this aid to the victims of the socio-political unrest in the two Anglophone regions is a series of efforts deployed by the government to reduce the pains of the thousands of people affected by the crisis but they still leave under deplorable conditions.

The aim and objective of the study

Aim

The aim is to identify the challenges faced by IDPs through a multi sectorial assessment, with the support of Middle Upper-Arm Circumference (MUAC) and on food security, nutrition, Water, sanitation and hygiene (WASH).

Objectives

1. To assess the needs and priorities of IDPs in the South West Region.
2. To understand the nutritional status of the affected population in the area. The data collected also serves to provide information to other actors for the general support of the humanitarian response, which is struggling with sparse data.
3. To provide information on the wellbeing of IDPs to government and humanitarian organisations.

Statement of problem

The humanitarian assistance is usually in urgent need by the IDPs anywhere they are located in the world and this was the case in the SW region, but they are hardly delivered on time, due largely to a very weak and non-agile supply chain and poorly coordinated logistics and supply chain management system.

IDPs visited in the SW region in the course of this research, live under deplorable conditions due to none or late arrival of humanitarian assistance that is in most cases insufficient. The problem is so serious that some IDPs especially the children and the elderly were looking severely unkempt, malnourished, and ill and in some cases appeared to be dying gradually. It is however necessary to know under which conditions IPDs are living? Do they have access to nutrition, healthcare, WASH and food security? What are the challenges they faced?

Literature review

Humanitarian supply chains consist of a network of interaction between donor governments, international and locally based agencies, suppliers and numerous other stakeholders that co-ordinate the flow of supplies, services, finances and information for the purposes of responding to beneficiary needs (Howden, 2009: 5).

The movement of supplies and materials should be cost effective and therefore proper planning and control is essential (Hermann, 2007: 20). Humanitarian logistics involves a set of supply chain activities carried out during disaster operations with the aim of attaining co-ordinated logistics excellence. It is necessary that all the humanitarian events occurring before and after a disaster are appropriately conducted in order to meet the needs of the affected communities.

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This can be achieved when the factors influencing relief operations are taken into account during such operations (Minnich & Maier, 2005: 34).

Factors to be considered in designing humanitarian supply chain frameworks

Humanitarian organisations and the state face various challenges during relief operations. The movement of supplies and materials should be cost effective and therefore proper planning and control is essential (Hermann, 2007: 20). Humanitarian logistics involve a set of supply chain activities carried out during disaster operations with the aim of attaining co-ordinated logistics excellence. These activities involve the task of transporting large volumes of supplies and materials that are essential during relief operations (Tatham & Pettit 2010: 611; Thomas & Kopczak 2005: 226; Tomasini & Wassenhove 2004: 438).

It is necessary that all the humanitarian events occurring before and after a disaster are appropriately conducted in order to meet the needs of the affected communities. This can be achieved when the factors influencing relief operations are taken into account during such operations.

Two key issues have been identified to impact on the success of any supply chain which is closely linked. Those are the flow of accurate information on the needs of IDPs and effective and accurate demand management.

The flow of accurate information within any supply chain is a critical factor and influences response efficiency (Pettit & Beresford, 2009: 458) as accurate demand chain management, which governs the success of the operation, and covers a set of practices with the goal of managing the entire demand chain from the end customer and working backwards to the suppliers of raw materials (Heizer & Render, 2014: 339).

The initial period after a natural disaster occurrence is characterised by a sense of panic with the communities usually having inadequate resources available to initiate appropriate and correct response operations. As they usually occur without prior warning, there is no time to conduct needs assessments (Tatham & Spens, 2011: 17) which leads to difficulties in accurately determining the number of affected people, their geographic location, and type of and number of relief supplies required. With the affected governments and relief organisations not being in a position to appropriately assess the damages (Balcik, Beamon, Krejci, Muramatsu, & Ramirez, 2010: 28) and with little or no demand information available, the respondents usually transfer supplies to the affected areas within the hope that such supplies will be adequate to meet the needs of those affected by the disaster (Kovacs & Spens, 2007: 104).

This often leads to a congestion of the supply chain with unwanted and inappropriate supplies, as donors and relief organisations respond by transferring supplies into the supply chain, without having accurately determined the actual beneficiary needs (Murray, 2005: 3).

Humanitarian operations are often conducted in areas with destabilised infrastructure, including improper transportation channels, such as airports, road networks and railway lines (Kovacs & Spens, 2007: 100). These conditions affect the success of disaster operations exacerbating the accessibility of the affected areas.

The majority of humanitarian disaster operations are usually under-funded, which results in most organisations not prioritising the adoption of key supply chain concepts. This affects and compromises the success of their disaster operation efforts (Moe & Pathranarakul, 2006: 400).

Another key variable in disaster relief operations is the availability of supplies. This includes supplies of sanitary medical products, foodstuffs and water plus clothing and shelter equipment, all of which need to be procured and distributed during operations (Pateman et al. 2013: 93). Lead time is commonly used as a measure of efficiency with most customers preferring that the period between placing an order and receiving it is kept at an absolute minimum.

Due to the unexpected and extraordinary nature of the disaster event relief organisations require supplies, to be delivered from either their donors or suppliers within the least possible time (Chopra & Meindl, 2013: 328) in order to alleviate the hardship of the people affected by the disaster. A key expectation from relief organisations is to source their supplies on a shorter lead time basis (Sheu, 2006: 687).

Humanitarian organisations can draw practical lessons from prior research on how the concept of agility in relation to how it has been implemented in different organisational operations. As a result, an explanation of how agility has been implemented through postponement, virtualisation and co-ordination is appropriate.

Humanitarian response

In the 1990s conflict and drought in Somalia caused an influx of Somali nationals seeking refuge in Kenya. Similarly, political instability and the victimization of political opponents by the Mugabe regime in Zimbabwe since 2007 and a cholera outbreak in 2008. triggered a massive exodus of Zimbabwean nationals into South Africa to seek a place of safety. Article 14 of the 1948 Universal Declaration of Human Rights recognizes the right to seek asylum in another country, a gesture that the Organisation of African Unity Convention of 1969 qualifies as a "peaceful and humanitarian act". A refugee-receiving country, particularly one that has ratified the refugee conventions, is bound by the obligation to provide humanitarian assistance to persons who seek refuge in the country. In the event that such a country is unwilling or incapable of providing such assistance, humanitarian agencies are mandated to intervene to provide the necessary response.

Owing to the humanitarian imperative, the Humanitarian Charter recommends three rights-based core values by which humanitarian response must be guided: "the right to life with dignity, the right to receive humanitarian assistance and the right to protection and security. The fact that victims of emergency situations are guaranteed these rights means that they are ipso jure recognised as right-holders. By implication, legal and moral obligations are imposed on the state and humanitarian agencies respectively to ensure that these rights are respected, protected and fulfilled.

Implication for the future of humanitarian response

When human rights are contravened in humanitarian emergencies, it negatively impacts the well-being of the persons whose precarious situation of the humanitarian response is intended to ameliorate. This lays a risky precedent for the future of humanitarian work as humanitarian assistance may lose its significance and therefore defeat the purpose of trying to serve humanity. Transgressing human rights in emergency situations implies that the core values of humanitarian response, which are principally human rights-based, have also been contravened.

The researcher argued elsewhere that no intervention on the pretext of protecting the human rights of IDPs or of serving humanity is justified if it renders the situation worse than it would be without the intervention.

Essentially humanitarian response is intended among other things to alleviate human suffering, which means every humanitarian action is supposed to improve conditions for persons affected by humanitarian emergencies.

Humanitarian aid would serve no purpose if victims, who in the context of this paper include IDPs and the local population, are subjected to almost the same circumstances that caused them to flee from the community of origin.

The situation of the IDPs in the Far North region illustrates the manner in which the human rights of victims of humanitarian emergencies have been dealt with. Humanitarian emergencies are not only becoming increasingly frequent but more severe, resulting in increased human casualties, damage to property, and displacement of people.

As indicated earlier on, humanitarian action imposes the **rights-based duty to protect and the needs-based duty to assist**, which ultimately need to converge in order to advance the humanitarian imperative to alleviate human suffering.

In this regard, unless humanitarian planning is properly conceptualized, victims will continue to suffer contravention of their inalienable human rights. By humanitarian planning, the researcher refers to the process of policy-making, program-designing and on-the-field operations in response to a humanitarian emergency. This process needs to take an integrated approach to combining the needs-based and rights-based approaches as we have endeavoured to illustrate in the table 1 below.

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Table 1. An integrated approach to humanitarian response, combing the needs-based and right-based approaches.

Integrated Approach to Humanitarian Response		
Needs-Based Approach	**Rights-Based Approach**	**Humanitarian Response**
Beneficiaries deserve humanitarian assistance as an act of charity	Persons affected by a humanitarian crisis are entitle to assistance, protection, and security as a matter of human rights	**Core values:** - Right to life with dignity, - Right to humanitarian assistance - Right to protection and security
The state ought to respond in humanitarian crises but no one has definite obligations	The state has a binding legal obligation towards affected persons to ensure the respect, protection and fulfillment of their human rights	**Guiding Principles:** ***Humanity:*** Affected persons are treated humanely and as right holders in every humanitarian emergency
Beneficiaries are seen as lacking the agency to take action and therefore need to be helped	Affected persons are by right active participants in humanitarian response programs	***Neutrality:*** May not take sides or engage in controversies of a political, racial, religious or ideological nature
When resources are scarce some beneficiaries may to be left out in the distribution of humanitarian aid	Every affected person has the equal rights to life with dignity, to receive assistance and to protection and livelihood security	***Impartiality:*** Non-discrimination in the provision of assistance based on most urgent need alone.
Certain groups have the technical expertise to meet beneficiaries' needs	Every person has the responsibility to play a role in ensuring the realization of the human rights of victims of humanitarian emergencies	***Universality:*** Humanitarian response entails equal responsibility towards persons in emergencies
Relief aid is provided to address specific immediate situations	Legislative and other measures are taken to ensure long term prevention of rights abuse	***Independence:*** Autonomy from political interference in the provision of assistance
Ownership of programs and projects usually belong to the implementing agency	Ownership of programs and projects belongs to the affected populations	***Do no harm:*** Avoid exploiting the vulnerability of affected persons to achieve other purposes

Indicators of vulnerability verified during the rapid assessment

Highlighted here are the key vulnerability indicators assessed and reported against in the current assessment. At times, reference can be made to additional questions included in the questionnaire.

Nutrition and health

Nutrition vulnerabilities we verified primarily through the following indicators

1. Prevalence of acute malnutrition among children under five (5) years in the accessed communities through proactive MUAC screening.
2. Morbidity analysis and measles vaccinations
3. Primary Health vulnerability criteria assessed during the RNAs include:
4. Household access to a health centre / service
5. Coping mechanism in case a household member falls sick

Wash

Indicators for vulnerabilities related to WASH, pertaining mainly to access to water and basic hygiene practices included

1. The primary source of drinking and cooking water
2. Water treatment before drinking
3. Hand washing practices observed
4. Morbidity of Water borne diseases in children under 5 years

Food security

Food Security vulnerabilities were only partially measured during the assessment. Vulnerabilities related to access and diversity in basic food needs was assessed through

1. Household Hunger Score (HHS)
2. Food Consumption Score (FCS)

Quantity and supply of food items were not directly address in the RNAs. Questions were included about priority needs and difficulties in access primary needs, not providing concrete data but rather indications of possibly influencing factors to the food security levels of the assessed communities.

Methodology

In order to collect primary data for this research, Structured Questionnaire and Direct Observations were used. In addition, the internet, Professional Journals, articles and text books on humanitarian assessment were referred to as secondary data from hospital sources to support primary data generated in this study.

Population and sample

The study population is made up of 155 household assessment and 1934 hospital cases of IDPs were consulted in the different communities.

Time of study

This study was conducted from August to September 2019

Technique of data collection

Data was collected only in the areas where access was obtained and security of the researcher could be reasonably assumed. The concrete collection of data took several forms, including informal interviews, household level Rapid Needs Assessments (RNAs) with IDP families, health facility assessments and MUAC.

The combination of several means of data collection needed to be flexible and adaptable to the volatile context. The majority of data was collected through direct interactions with the communities visited and from hospitals.

Procedure for data analysis

In this study questionnaires were designed in such a way that they will elicit unbiased responses from the study population. The data collected were analysed using percentages as a statistical tool to provide answers for the research questions.

Further observations were made of the households and hospitals while the questionnaires were administered. The whole process was designed to help in drawing definite conclusions from the data analysis

Presentation of study area

The southwest region of Cameroon is one of the ten regions in the country, with Buea as the regional capital. The region is divided into six divisions or departments: Fako, Koupe-Manengouba, Lebialem, Manyu, Meme, and Ndian.

These are in turn broken down into sub divisions. The region of southwest shares an international boundary to the west with Nigeria and three national and administrative boundaries with North West, West and Littoral regions as shown in the map 1 below

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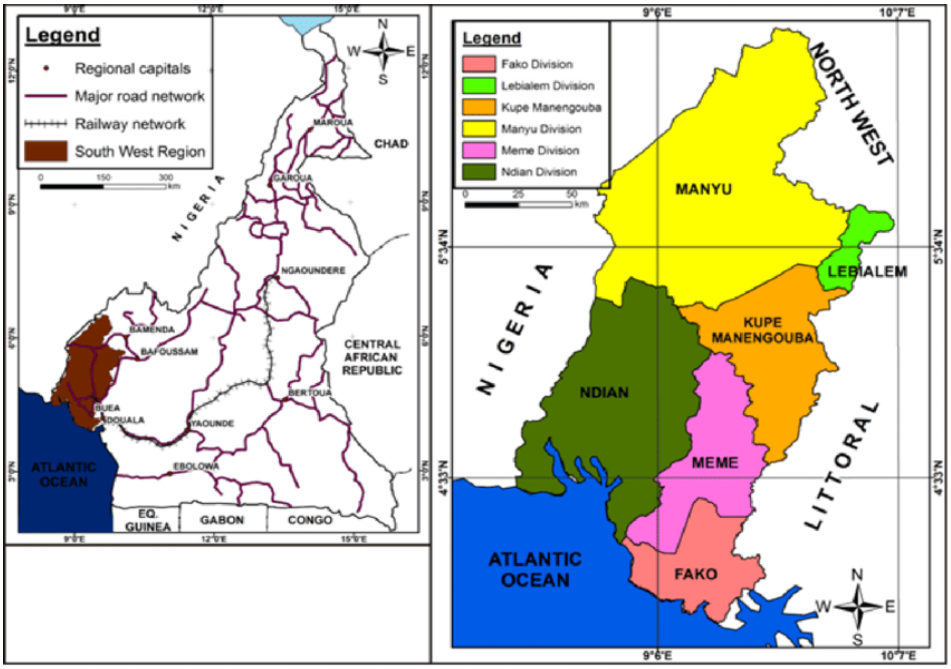

Figure 1. Map of Cameroon, SW region and its divisions.

Source.https://www.researchgate.net/figure/Map-of-Cameroon-showing-the-South-West-Region_fig1_271187139.

Data analysis and findings

Each locality clearly seems to be having their particular difficulties, with food insecurity being a larger issue in the Kumba than in Limbe or Tiko, and access to clean water being a priority in Mamfe rather than Kumba II.

On the other hand, we also observe some over-arching challenges including limited access to healthcare and high levels of morbidity among the assessed populations. When asked point-blank what their primary needs were; households systematically returned the same answers: Food, Health, Shelter, Water, Protection and Education. These self-identified needs were flowingly assessed through the RNA surveys, revealing similar areas of priority needs.

Nutrition and health

The prevalence of acute malnutrition among children U5 in the accessed communities through proactive MUAC

Malnutrition screening took place form 22 November 2018 to 24 September 2019. Out of the 1930 children 6-59 months screened for acute malnutrition, 1903 returned normal readings and 31 suffered wasting: 1.4% suffered from moderate acute malnutrition (MAM), and 0.26% suffered from severe acute malnutrition (SAM). SAM and MAM readings used the following cut-off points

SAM [≤115mm] = MUAC of below 115mm;
MAM [≥115mm; <125mm] = MUAC of greater than 115mm but below 125mm;

The results show GAM below emergency thresholds (>15%). The screenings only took place in the localities where access was granted. Nonetheless, at least one malnourished case was found in each locality, except for Mutengene and Bonadikumbo, areas where very limited screening was done as summarised in the table below. MUAC.

Table 2. Areas screened and MUAC results

Region	Division	Sub division	Village /town	No. of children MUAC screened	Children with "normal" nutritional status	% GAM (n)	% MAM (n)	% SAM (n)
South West	Fako	Tiko	Mutengene	12	12	0% (n=0)	0.00% (n=0)	0.00% (n=0)
South West	Fako	Tiko	Upper Costain, Camp Center, Motombolombo-Ekanje 1 & 2	236	232	2% (n=4)	1.27% (n=3)	0.42% (n=1)
South West	Fako	Limbe	Bonadikumbo / Mile 4	31	31	0% (n=0)	0.00% (n=0)	0.00% (n=0)
South West	Manyu	Mamfe	Mile1/ Egbekaw	38	36	5.30% (n=2)	5.30% (n=2)	0.00% (n=0)
South West	Manyu	Mamfe	Main street /Okoyong	211	205	3% (n=6)	2.37% (n=5)	0.47% (n=1)
South West	Meme	Kumba I	Kumba I - Cassava Farm, Mbonge road	204	201	1% (n=3)	1.47% (n=3)	0.00% (n=0)
South West	Meme	Kumba I	Mile 1 - Mbonge road - Kumba to Mbonge axis	654	647	1% (n=7)	0.92% (n=6)	0.15% (n=1)
South West	Meme	Kumba II	Kumba II – Fiango area - Akale, Bao, Paradise, Confidence, Farm.	169	164	3% (n=5)	2.96% (n=5)	0.00% (n=0)
South West	Meme	Kumba III	Kumba III -Apollonel/ Cemetery Street, Ntam, Mambanda	375	375	1% (n=4)	0.79% (n=3)	0.26%(n=1)
			Accumulative Total	1930	1903	1.66% (n=31)	1.40% (n=27)	0.26% (n=4)

Source: Research findings from field survey, 2019

Since the researcher could only manage to screen where access was possible, and during distributions only, rather than door-to-door, only a very small sample (2%) of the 6-59 months population in the South-West region was touched by the screening exercise as can be seen in the table 3 below

Table 3. Population screened

	Girls	Boys	Total screened	Population	Estimated population 6-59 months	Percentage sampled/population 6-59 months
TIKO	126	122	248	128,176	23,072	1.1%
KUMB	366	492	858	54,864	9,876	8.7%
MAMFE	124	125	249	10,371	1,867	13.3%
KUMBA II	51	118	169	54,864	9,876	1.7%
KUMBA III	237	138	375	54,864	9,876	3.8%
LIMBE	11	20	31	199,045	35,828	0.1%
TOTAL	**917**	**1,017**	**1,930**	**502,184**	**90,393**	**2.1%**

Source: Research findings from field survey, 2019

The Global Acute Malnutrition (GAM) rates measured as per the screening data collected are thus distributed as such following administrative partitioning as shown in figure 1 below

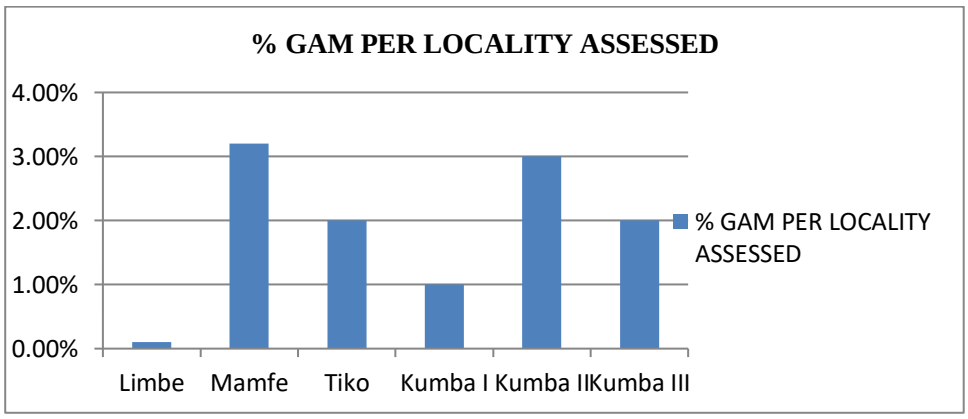

Figure 2: Percentage of GAM per locality assessed

The figure 1 above simply identifies the division where the highest percentages of malnourished cases were identified among the children screened. Limbe for example shows 0% GAM, yet only 31 children were screened, therefore limiting the validity of this percentage.

Among the identified malnourished cases, were four (04) cases with Severe Acute Malnutrition (SAM). One case was identified in each of the following localities

1. 1 case in Mamfe
2. 1 case in Kumba III
3. 1 case in Kumba I
4. 1 case in Tiko (with complications)

Each of the cases received treatment from the assessment team, which had left with a contingency stock supplied by UNICEF in the case where SAM children would be found. Each case was provided with one months' worth of Plumpy nut rations, as continued monitoring is not possible within the given context. The case identified in Tiko showed complications and was thus referred to the MSF hospital in Buea for further consultation and treatment.

Morbidity analysis and measles vaccinations

MUAC screening was accompanied by simple questions on illnesses observed in the last 15 days, feeding methods and vaccination status of the child. Based on these questions, the researcher tried to gain a primary understanding of the main morbidity challenges faced by the affected population. As can be seen represented on the figure 2 below, in the report's of 1930 children screened, 59% of them have been ill in pass 15 days.

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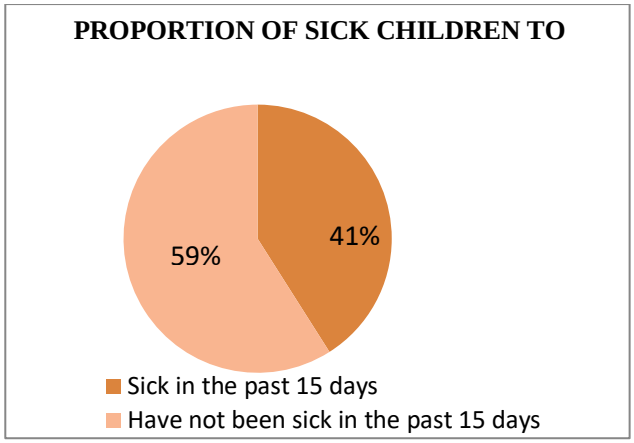

Figure 3

The following figure 2 below represents the proportion of sick children found in each health area during MUAC screening. Kumba 1 had the highest proportion of sick children registered with Kumba II, Kumba III, Mamfe and Tiko still being considerably high. With the compromised security, most health facilities in these health areas are non-functional and in the nearest future these values are likely to keep increasing as shown in figure 3 below.

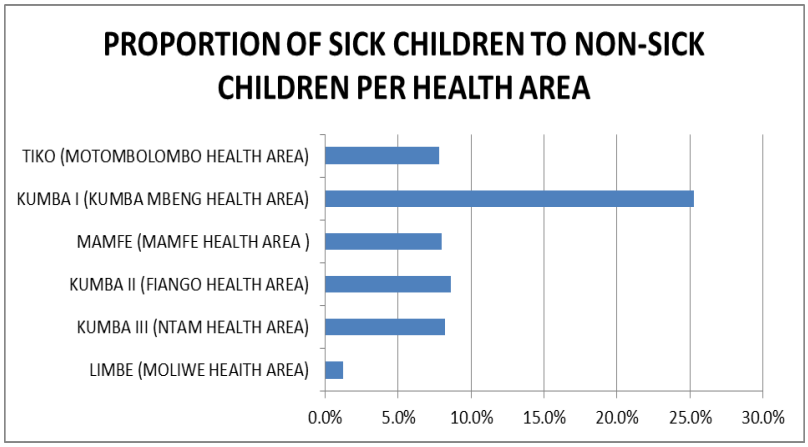

Figure 4

Children 6-59 months who had fallen sick in the last 15 days before screening in the areas assessed primarily suffered from respiratory tract infections, Malaria, diarrhoea and skin infections. The main causes of morbidity among the 59% ill children 6-59 months of age represented in the first figure are disaggregated here below. As also presented in figure 4 below, all the health areas showed a considerably high proportion of respiratory, malaria, skin and diarrhoea related diseases

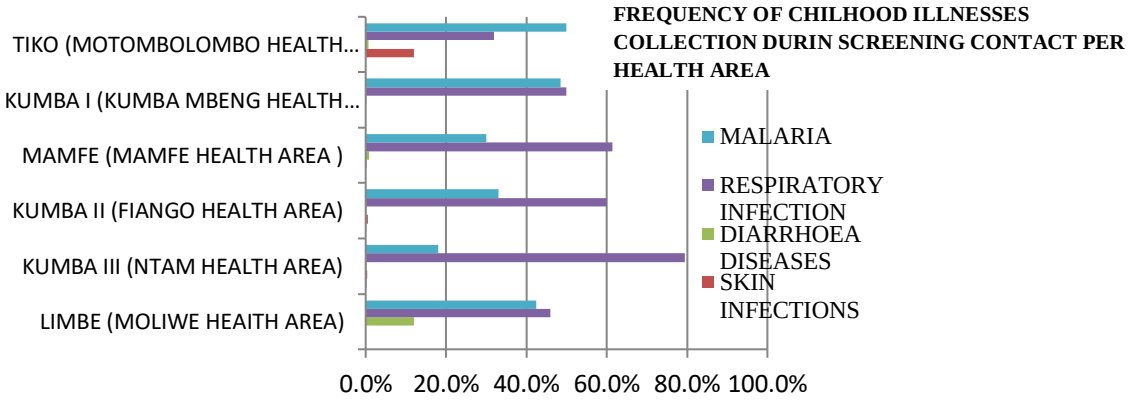

Figure 5

Interviews conducted with the District Medical officers and nurses, highlighted an increasing incidence of these diseases due to the cold period now in the SW region (for respiratory infections) as surveys were conducted during raining season where temperatures drop and rain is frequent. Other possible reasons towards illness could be the lack of adequate shelter, lack of long-lasting treated mosquito nets for most displaced homes (for malaria) and equally lack of potable water for the diarrhoea diseases and skin infections.

The figure 5 below shows the percentage of children from 9 months who received measles vaccine. MUAC screening questionnaires showed an overall coverage of measles vaccinations across the assessed areas at 73.1% coverage. While it falls short of the acceptable coverage rate of 80% as per the recommended health standards in the SW region, it is still within expectations. The majority of parents of children whom had not received their measles vaccine mentioned this to be due to their displacement. Compounded with the lack of operational health facilities, addressed here below, it could indicate that those not yet vaccinated will not receive their coverage in the near future either. All three health areas around Kumba I, II and III show low coverage in measles vaccination, as these areas are found at the core of highly compromised security that has led to the slowed primary health care services. Limbe and Tiko on the contrary have good vaccination coverage against measles of the children screened from the age of 9 months. This could be because public and para-public health facilities still have some control of their activities as shown in figure 5 below.

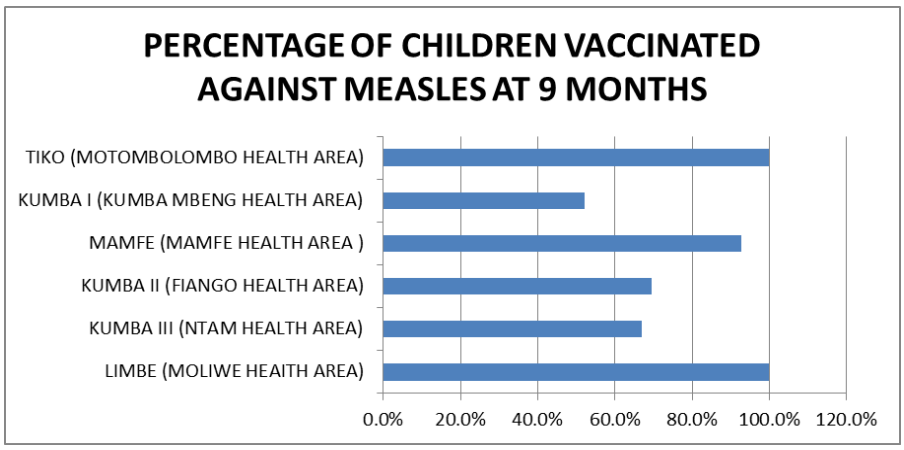

Figure 6

Access to a health centre / service

Secondary information initially indicated a weak health care infrastructure in the SW region, with the Health cluster reporting more than 40% of the 257 facilities in SW no longer providing vaccinations and disease surveillance being nearly non-existent. In their assessment conducted in July 2018, IMC also found that a significant gap in staffing at health facilities. RNA responses, as well as interviews conducted with health workers confirm these initial indications. The RNAs included questions on the access to health centres, on coping mechanisms for treatment of diseases and on general morbidity observed within households.

While some health facilities remain functional, access to said facilities is not always guaranteed. From the households surveyed, only 20 of 155 (13%) households mentioned having access to health facilities, inversely close to 90% does not have access to health facilities. The only locality where more than 20% had access to a facility was Kumba II, which probably without coincidence is where St. Johns clinic is operational. This clinic was ran by Caritas, a faith-based organization which had thus far ensured free consultations up until 2018. The main reasons for not having access to clinics include: (1) not being able to afford the costs of transport, treatment or drugs, (2) the distance to the clinics, (3) lack of supplies available at the clinic and (4) fear of using state facilities. As exemplified in the small survey above: many facilities are no longer functional since the communities are displaced, they have lost access to their livelihoods, possibly explaining the difficulties in affording transport, treatment and drugs. With displacement, also the distance to clinics becomes greater, especially since many clinics are closed. The few facilities that are open often struggle with supplies, with the government struggling

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to maintain supply chains of medicines. Facilities in more urban areas, such as Tiko often struggle less in their supplies than those in more remote areas, although none of the assessed facilities had a functioning ambulance service. During the interview with the general manager of St. John clinic, it became clear that ambulance services in the current context are extremely hard to ensure, with even MSF not being able to provide this service in Kumba at the time of assessment. Lastly, with serious threats by armed groups against all those who take help from the government, families have become hesitant to seek and/or accept state support.

Wash

The primary source of drinking and cooking water

The WASH cluster by the end of December 2018 estimated that over 700,000 affected people are in need of WASH assistance. Highlighted were needs of access to safe water and knowledge on treatment of unsafe water. However, as of yet no priority areas have been clarified. As of February 2019, an assessment reported shared by REACH Initiative, covering South West region indicated that access to water is a key challenge across the area, both in terms of quality and quantity. It further indicated that access to hygiene is very limited and that the overall sanitation situation is poor; with only few households have access to soaps or latrines. The RNA conducted by the researcher indicates open and unprotected wells to be the most frequent (35 HH) source of water at household level among the 147 responses recorded on water sources. This is closely followed by community taps (34 HH) and boreholes (32 HH). Unsurprisingly, boreholes and community taps seem to be the main sources of water for drinking and home use in the urban areas of Tiko and Limbe, whereas open unprotected wells and boreholes are used more in rural and semi-urban areas such as Mamfe and around Kumba

While the assessment team was not within the capacity to evaluate the water for quality, experience and field observations cast serious doubt over the quality of the water accessed, with prevalence of reported and observed diarrhoea as well as skin infections, as they were acutely aware of the bad quality of the water they were using.

Water treatment before drinking

With water sources varying in quality significantly, households were also asked to indicate whether they habitually treated their water before drinking. Among the surveyed, only 33/86 did indeed treat their water, whereas the majority 53 (or 61%) did not treat their water. In the cases where water was treated, this was done almost exclusively with liquid bleach. Only one household indicated boiling the water before drinking. Treatment was proportionally more frequent in areas where access to the local market was easier, such as in Tiko, than in areas with less direct access to markets such as in Kumba III. In Mamfe and Kumba III, only 28% and 22% of the assessed households treated their water as compared to 79% in Tiko.

Hand washing practices observed

To understand knowledge of basic hygiene practices, such as hand washing, households were asked five simple questions about the crucial moments during the day to wash hands. This question was only added after surveys in Mutengene and Limbe had already been completed, thus no data is available there limiting the responses to 86 respondents. Most homes in the semi-urban areas (Kumba III and Tiko) reported washing their hands after using the toilets (34 HH), but this practice is less observed in rural areas (such as Mamfe). Most households confirmed washing their hands before eating, be it in semi-urban, urban or rural areas.

The most two prevalent forms of morbidity among children under 5 are malaria and respiratory tract infections. It further indicates that the highest proportions of water borne diseases are found in Tiko and Kumba II, as compared to other localities. Morbidity of diarrhoea is most present in Tiko (6.7%). In Kumba II we observe 6% of skin infections, as in Tiko 11.3%, higher than in other areas. These are both areas where springs and open unprotected wells are the main source of water. Unclean water, and especially the lack of water treatment in places such as Mamfe, could significantly affect the prevalence of such illnesses, as compared to for example Kumba I, where water treatment is proportionally more practiced. Similarly, in Kumba II, where springs and open unprotected wells together make up the

majority of primary water sources, 6% of cases of morbidity are reported to be skin infection, which could indicate lack of access or quality water.

Food security

Household hunger scale (HHS)

As part of the questionnaire presented to IDP households during the distribution, the assessment aimed at identifying Household Hunger Scales (HHS). While not all participating households were able to complete the HHS questions, 143 out of 155 responded. The percentage share of households as categorized in three levels: from severe hunger experienced in the household (a score from 4-6) to little or no hunger experienced in the household (a score from 0-1). From the assessed, 87 out of 143 IDP households affirmed having experienced on of these three scenarios as least once in the last four weeks. 15% were facing severe food insecurity, and 36% were moderately insecure as shown in figure 6 below

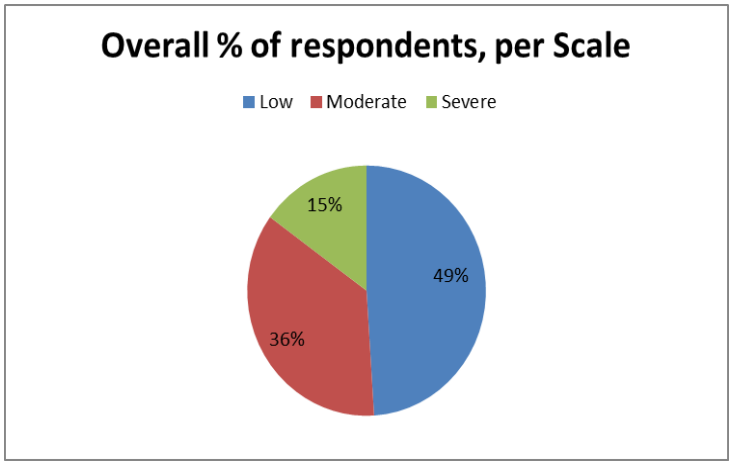

Figure 7.

The figure below details further the hunger scale per locality, with percentage shares of respondents per category. It is clear that household hunger, or food insecurity, is experienced relatively more in Kumba I, Kumba II and Mutengene, than for example in Tiko or Limbe. Kumba I, Kumba II and Mutengene clearly show the highest proportion of IDP households facing food insecurity, with each community having 78% of the assessed population either moderately of severely affected. Kumba II seems to host the largest proportion of IDP households with severe scores, at 33%.

While the data cannot be considered conclusive due to the limited number of participating households, it is clear that food insecurity is present among IDPs residing in each of the seven assessed localities, in some to a larger extent than others. Interesting to note also is that the three areas with the highest scores are all semi-urban settings, not too far from larger towns, but not urbanized as much as Tiko or Limbe**.**

Food consumption score (FCS)

Given the time it takes to conduct an FCS, and taking into account the security situation and assessment fatigue already witnessed, the researcher only conducts a limited number of FCS questionnaires among IDP families per locality. In total, 71 out of 155 conducted RNAs returned completed FCS forms, which are represented. The completed forms received provide indicative scores, which may not be exhaustive in their representation of food consumption of the locality as a whole, nor of the entire region.

The FCS questionnaires presented 9 food groups, asking each household which of the nine groups they had consumed in the last 24 hours. The majority of IDP households, regardless of the locality, reported consuming five or less food groups in the last 24 hours. In some localities, such as Kumba III and Kumba I, Mile 1, not one IDP household reported consuming more than 4 groups, possibly indicating a rather low diversity in food consumption**.**

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If we consider the diversity in food consumption, we can say that the more food groups consumed, the higher the diversity of consumption and thus diet will be. From the data collected, keeping in mind all the previously mentioned limitations, it can be considered that overall the diversity of food consumption is quite low.

The figure below illustrates the number of responses per category. Main food groups consumed included Cereals and tuber (starchy items) and fat groups. Following were protein and vegetable groups. Note, over 25% of households reported having consumed spices and condiments, such as tea and coffee; however, these should not be taken too much into consideration for they should be considered supplementary to, and not substitution for other core food groups.

Conclusions, recommendations and limitations

Conclusions

While malnutrition prevalence did not reach the emergency thresholds levels (>15% GAM prevalence) four out of seven localities assessed did reveal cases of Severe Acute Malnutrition. Nevertheless, given difficulty to access children, nothing can yet be concluded regarding nutrition situation. Compounded with the aggravating factors identified, such as food insecurity among a significant number of households, the lack of access to clean water, and clear gaps in access to primary health care facilities, limited access to the markets, and eroded livelihoods, it can be considered that the overall situation is at high risk for increased malnutrition.

Notably, the large number of illnesses recorded among IDPs households across all localities is worrisome, including diarrhoea, malaria, respiratory tract infections and skin rashes. The absence of trained health personnel and units to manage acute malnutrition at the primary, secondary and even tertiary levels within the South West region is cause for concern. In the occasion where the situation further deteriorates and malnutrition prevalence increases, current capacities are not able to provide the necessary coverage.

WASH indicators reveal limited access to clean and safe water in most localities assessed. In combination with limited practice in water treatment and hand washing, the use of unreliable water could result in higher occurrences of illness and possibly malnutrition. In terms of access to food and the diversity of food intake, localities score low across the board with 4/5 households reporting a dietary diversity of 61% of households experiencing severe food insecurity, according to WFP standards. Lastly, but certainly not least, with 87% of households not having access to health facilities, and a significant prevalence of morbidity among the assessed population, the lack in health care coverage is bleakly apparent. The Do No harm approach needs to be included as well (initial feedback from communities).

WASH kits received showed suspicion from parties in conflict, and led to beneficiaries being questioned. Given these risks, protection should be mainstreamed (staff training, referral, strong monitoring of action) in any short-term intervention. Nevertheless, some health facilities could still be supported (i.e.: St John clinic) and Mobile Health and Nutrition teams (implemented through CARITAS who has access to communities) would allow to provide services to populations without health access. Through improved understanding of context, initiate MHCP activities, which will allow continuing gain access and understanding of nutrition situation and care practices

Recommendations

The short-term calls for firstly, continued multi-sectorial (including MHCP aspects) assessments, screening of children (door to door as far as possible), needs mapping and more thorough analysis of the areas already covered as well as those not yet reached. Initial data clearly indicates that there is a wide range of needs, but the best possible response can only be oriented more suitably with more information available on IDPs in Cameroon and SW in particular.

In the middle term, the government and international organisations should support IDPs on food and livelihoods, providing the required means to vulnerable households to provide for their families and ensure an adequate and varied diet for themselves and their children. The central government in Yaounde also should approve cash-based interventions, which in the current context could provide quick and efficient relief. The creation of local centres for humanitarian assistance in every community

to take care of IDPs in the SW region and good logistics for quality food distributions, which should be based on the preliminary information and needs on the ground.

This crisis is expected to continue, given its complexity and the unwillingness of main actors to negotiate / discuss, for an extended period of time. Therefore, longer term multi-sectorial positioning could be considered, providing an integrated Health, Nutrition, WASH and food security approach. Such an intervention would probably focus on strengthening the healthcare system (based on accessibility of course) through Health Facility support in technical capacity and WASH, as well as working on areas such as MHCP, and Protection/GBV referral systems with more dialogue and bring peace and security in the SW and NW regions.

Limitations

Data was collected only in the areas where access was obtained and security of the researcher could be reasonably assumed due to high insecurity in the SW region. All data collected was limited to the localities where the researcher obtained access.

The concrete collection of data took several forms, including informal interviews, household level Rapid Needs Assessments (RNAs) with IDP families, health facility assessments and MUAC screening of children under the age of 5-years-old. As a result, not all types of assessments were conducted in each location or in each community to the same extent. The majority of the presented data was collected through direct interactions in the communities visited and from hospital statistics. The coverage of the screening at the sub divisional levels was very low that is 2.1 % due to accessibility issues as highlighted above.

The consistency of data is another limitation of the assessment conducted. The assessment was carried out by the researcher with limited experience in humanitarian assessment and time. It is suggested therefore that a further study be conducted and that other key stakeholders such as the beneficiaries are included, so as to have a plurality of perspectives. This could further evaluate the impact of humanitarian assistance to IDPs or supply chain management of humanitarian aids in Cameroon.

References

[1]. Balcik, B., Beamon, B.M., Krejci, C.C., Muramatsu, M.K., & Ramirez, B. (2010). Co-ordination in humanitarian relief chains: Practices, challenges and opportunities. International Journal of Production Economics, 126, 22-34.

[2]. Care International, (2014). “Learning from crisis: Strengthening humanitarian response since the 2004 Indian Ocean Tsunami”, Care International, p. 3.

[3]. Fritz Institute. (2010). Humanitarian Logistics White Paper. Available at: http: //www.fritzinstitute.org/researchCenter.htm. (Accessed: 12 September 2019).

[4]. IFRC World Disasters Report. (2007). Focus on information in disasters. Available from: http: //www.ifrc.org/publicat/wdr2005/ (Accessed 14 September 2019).

[5]. Khaire, H. (ed), (2011). Horn of Africa Annual Report 2011 Norwegian Refugee Council, pp. 10-11.

[6]. Kovacs, G., & Spens, K.M. (2007). Humanitarian logistics in disaster relief operations. International Journal of Physical Distribution and Logistics Management, 37(2): 99-114.

[7]. Ngang, C.C. (2014). “Reflections on the realisation of the right to development in Africa within the framework of international cooperation”, Conference paper presented at the International Conference on Law, Athens 14-17 July 2014 p. 24.

[8]. Norwegian Refugee Council, (2019). Global report on Internal Displacement. Internal Displacement Monitoring Centre 9-10 May 2019, available at: http://www.internal-displacement.org/sites/default/files/publications/documents/2019-IDMC-GRID.pdf. (Accessed: 21 September 2019).

[9]. COHEB, (2018). Pilot Project for Emergency Humanitarian Response to The Internally Displaced Persons in the Limbe II Sub-Division, available at: https://reliefweb.int/sites/reliefweb.int/files/resources/COHEB---LIMBE-IDP-PROJECT---First-report-of-activities.pdf. (Accessed: 21 September 2019).

DOI: 10.21522/TIJAR.2014.SE.19.02.Art006
ISSN: 2520-3088

[10]. Tomasini, R.M., & Van Wassenhove, L.N. (2004). Pan-American Health Organisations Humanitarian Supply Management System: Depoliticization of the humanitarian supply chain by creating accountability. Journal of the Public Procurement, 4(3): 437-449.
[11]. UNHCR, (2019). "Responding to the needs of IDPs and Cameroonian refugees in Nigeria: Cameroon situation, available at: http://reporting.unhcr.org/sites/default/files/UNHCR%20Cameroon%202019%20Supplementary%20Appeal%20%28March%202019%29.pdf. (Accessed: 11 September 2019).
[12]. UNHCHR, (2016). "Human rights in humanitarian emergency response: A contribution from the special procedures mechanisms", Office of the United Nations High Commissioner for Human Rights, available at: http://www.un.org/en/ecosoc/julyhls/pdf10/ohchr_leaflet_side_evnet_ecosoc.pdf (Accessed: 1 September 2019).
[13]. UNICEF, (2019). "Humanitarian Action for Children -Cameroon",
available at: https://www.uniceforg/appeals/Cameroon.html (Accessed 21 September 2019).
[14]. United Nations (UN) (2009). Strengthening of the coordination of emergency humanitarian assistance of the United Nations. Report by the Secretary General to the General Assembly Economic and Social Council. Available from: www.reliefweb.int/rw/RWFILES2009.nsf/FilesByRWDocUnidFilename/SNA-A7U67T3-full_report.pdf/$File/full_report.pdf. (Accessed 14 September 2019).
[15]. WFP (2011). WFP Policy on Disaster Risk Reduction and Management, building food security and resilience. Available from: https://www.wfp.org/disaster-risk-reduction.(Accessed 20 September 2019).

Investigating Financial Management Practices Towards Sustainable Growth. A Case Study of Small and Medium Poultry Enterprises in Kafue District Zambia

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Abstract

The research topic is titled" The Study of Effects of Financial Management Practices Towards Sustainable Growth of Small and Medium Poultry Enterprises in Kafue District, Zambia." Economic Value of Poultry contributes to the fast-growing industry, which employs a large of workers and provides animal food.

The Researcher has Seen a gap between Financial Management Practices and Small and Medium Poultry Enterprises and Sustainable Growth. The Future of Poultry Farming is not Certain.

Available Evidence has Shown that Financial Management Practices that affect Small and Medium Enterprises in Zambia Which has affected the Poultry Industry to Continue Growing.

However, the Small and Medium Poultry Enterprises have been Growing even though the Growth Rate is Slow. Hence the Need for the Researcher to Identify Financial Management Practices and their Effects on Small and Medium Enterprises respectively.

The Researcher is going to define the Key Words of the Study, identify the Financial Management Practices and their Problem. and the Best one will be Outlined. limitations and achievements with Sustainable growth to the Study Discussed.

The Finding will add to the body of Knowledge for other Researchers. The findings will be used by Researchers to Build Theories and Models of Sustainable Growth that Relate the Financial Management Practices Effects to Small and Medium Poultry Enterprises.

Keywords: *Financial, Management, Practices, Small and Medium Enterprises, Poultry, Sustainable, Kafue District, Zambia*

Definition of Keyword

Financial means related to money or how money is managed (Cambridge Dictionary)

Management is a social process involving responsibility for careful and effective planning and regulating of operating of an enterprise in the fulfillment of given purposes. It is a dynamic process consisting of various elements and activities.

Practices-a way of doing something that is the usual or expected move in a particular organization or situation. (Oxford Advanced Learners Dictionary)

Small and medium enterprises (SME's) are non-subsidiary, independent firms that employ fewer than a given number of employees. This number varies across countries. The most frequent upper limit designating an SME is 250 employees, as in the European Union. However, some countries set the limit at 200 employees, while the United States considers Small Medium Enterprises to include firms with fewer than 500 employees.

Some firms are generally those with fewer than 50 employees, while micro-enterprises have at most 10, or in some cases 5, workers. Financial assets are also used to define Small Medium Enterprises. Financially, small and Medium businesses are businesses that do not exceed EUR50 million. That of small enterprises (10-49 employees). Should not exceed EUR 10 million while that of micro firms (less than ten employees) should not exceed EUR 2 million. Alternatively, balance sheets for medium, small and micro enterprises should not exceed EUR 42 million, EUR 10 million and EUR 2million, respectively. (OECD, 2005)

Poultry can be defined as domestic fowls, including chickens, turkeys, geese, and ducks, raised for the production of meat or eggs, and the word is also for the flesh of these birds as food. The encyclopedia

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Britannica lists the same bird group but also includes guinea fowl and squabs (young Pigeons). (Encyclopedia Britannica 2013)

Sustainable means "able to continue over some time and to cause little or damage to the environment and therefore able to continue for a long time. (Cambridge Dictionary)

Growth is the process of increasing in size. In simple terms and regarding business, sustainable growth is the realistically attainable growth that a company could maintain without running into problems. A business that grows too quickly may find it challenging to fund growth. (sustainable Growth –Encyclopedia-Business Times/Inc.Com.)

Zambia

Background of Zambia

Zambia is a landlocked country in Africa. It is on a high plateau in South-Central Africa and takes its name from the Zambezi river. Which drains all but a small northern part of the country. Large parts of the country are thinly populated. Much of the population is along the line of railway.

Background of the poultry industry in Zambia

The poultry industry in Zambia contributes about 47 percent of the livestock Gross Domestic Product. About 5 percent of the National Gross Product. It has created over and over 80,000 jobs.it is the fastest growing sub-sector about 20 percent in the past decade (about 8 percent reduction during 2016). The industry growth is driven mainly by the broiler and layer subsectors. The Smallholder farmers-accounting still dominates secondary production for 65 percent while 35 percent is by medium, more significant, commercial, and corporate. Poultry development has also driven the growth of poultry feed subsector, soybeans, and grain.

Zambia's poultry sector has demonstrated tremendous progress regarding production, commercial, and technological factors. According to the Zambian government, Zambia's poultry sector contributes around 4.8 percent to agricultural gross domestic product (GDP).

Currently, poultry meat and eggs in Zambia is food by local people. Further to its growth, Zambia has now set up modern abattoirs for poultry processing to meet the growing demand for chicken in the country. The country's poultry industry contributes around 4.8 percent to agricultural gross domestic product (GDP), and livestock value addition is 48 percent.

According to the Zambian government, the sector generates direct or indirect income and employment for an estimated 80,000 people, 50,000 of which are permanent jobs, and 30,000 are seasonal jobs. Poultry is currently the main meat consumed in Zambia, totaling an estimated 50 percent of total meat consumption, followed by beef at 28 percent, pork and fish at 16 percent, and the other meat products at six percent.

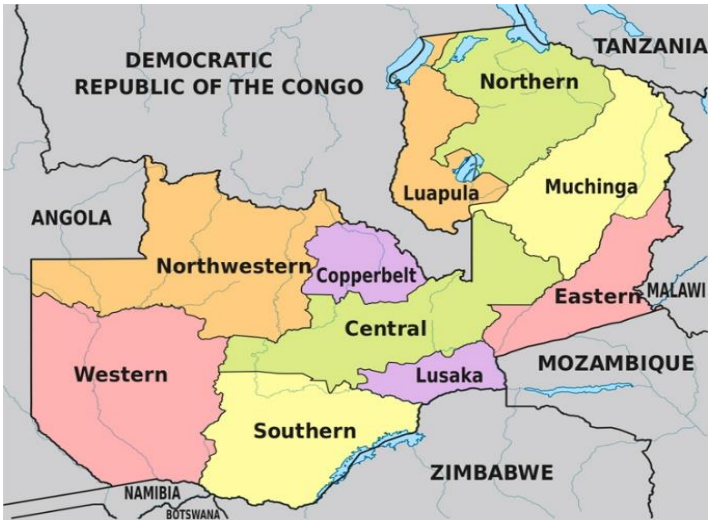

Figure 1. Map of Zambia

Source. Encyclopedia Britannica, Inc.

Kafue

Kafue is a town in the Lusaka Province of Zambia, and it lies on the north bank of the Kafue River. Kafue is at the south-eastern foot of a range of granite hills rising 200 meters and extending over an area of about 250 kilometers squared. Kafue occupies a shelf of land between the mountains and the river, just high enough to avoid its annual flood. The town extends along some shallow valleys between the hills.

According to the 2010 Zambia Census of Population and Housing, Kafue has a total population of 219,000, of which 108,939 are males, and 110,061 are females.

Agriculture and fishing are the traditional occupations of the area, and a commercial farming area extends along the edge of the Kafue Flats for 35 kilometers north-west of the town.

Small and medium poultry enterprises in Zambia

Medium/Small poultry farmers. There are about 1.1 million small and medium poultry farmers in Zambia and 0.1 commercial farmers. Small and medium poultry farmers produce the bulk of the poultry meat and eggs in Zambia. Poultry is in simple, open houses. Manual feeding is employed. The simple production technique was used during production. Some small farms produce maize and soy for stock feed. To reach the pace set by large scale producers, small scale farms must optimize their output in terms of feed efficiency to lower production costs. They can form production clusters to reap benefits accruing from the scale. Small and medium scale farms offer the most scope for improvement. They use simple manual equipment, small amounts of feed additives, drugs, and vaccines and do purchase small amounts of day-old chicks. The inputs are from local suppliers.

Financial management practices

Some of the financial management practices to be discussed in this study are as follows

Efficient utilization of fixed assets

Fixed assets are tangible long-term or non-current assets used in the course of business aid in generating revenue. These include real properties, such as land and buildings, machinery and equipment, furniture and fixtures, and vehicles. They are subject to period depreciation, impairments, and disposition. However, depreciated initial assets eventually reach the end of their usefulness.

Fixed assets Turnover (FAT) is an efficiency ratio that indicates how well or efficiently the business uses fixed assets to generate sales. This ratio divides net sales by net fixed assets over an annual period. The net fixed assets include the amount of property, plant, and equipment, less the effective utilization of investments in fixed assets to generate revenue. Leverage and profitability ratios are analyzed.

Fixed assets are the assets of permanent nature used in the operation of a business. The assets are earning assets and provide the basis for the firm's earning power and value. Due attention must be given to the management of fixed assets as they represent a sizable outlay and involve long-term financial commitment. A precise blending of current and fixed assets into a profitable combination is a challenging task for financial management. An analysis of the financing pattern and utilization of fixed assets is, therefore, vital for the management of business enterprises. (Keythman Bryan)

Generally, a high fixed assets turnover ratio indicates better utilization of fixed assets, and a low rate means inefficient or under-utilization of fixed assets. The usefulness of this ratio increased by comparing it with the proportion of other companies, industry standards, and past years.

Payback period techniques

The payback period helps to determine the length of time required to recover the initial cash outlay in the project. Naturally, it is the method used to calculate the time needed to earn back the cost incurred in the investments through the continuous cash inflows.

The formula to calculate it

Payback period = Initial outlay/cash Inflows

Accept-reject criteria: the projects with lesser payback are preferred.

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Budgeting

A budget is a formal statement of estimated income and expenses based on plans and objectives. In other words, a budget is a document that management makes to calculate the revenues and costs for an upcoming period based on their goals for the business.

There are different types of budgets. Some of the are short-term and long-term to department-specific. Management can make a budget for anything. The critical thing to remember is these budgets are just the management's future goals and plans for the business written down in the financial form.

Planning

Planning involves deciding beforehand what, when, how, and who is going to it. It is a mental process that lays down an organization's objectives and develops various courses of action, by which the organization can achieve these objectives. It chalks out exactly how to attain a specific goal.

In this case, Financial Planning (business) financial planning is the task of determining how a business will afford to achieve its strategic goals and objectives. Usually, a company creates a financial plan immediately after the vision and objectives have been set. The monetary policy describes activities, resources, equipment, and materials that are needed to achieve these objectives, as well as the timeframes involved.

Financial planning activity involves the following tasks

1. Assess the business environment
2. Identify the types of resources need to achieve these objectives.
3. Quantify the amount of resource (labor, equipment, materials).
4. Calculate the total cost of each type of resource.
5. Summarize the costs to create a budget.
6. Identify any risk issues with the budget set.

Financial planning and analysis (FP&A)

Financial planning and analysis (FP&A) are the budgeting, forecasting, and analytical processes that support an organization's financial health and business strategy. The FP&A discipline combines an in-depth analysis of both operational and financial data to help align business processes and procedures with financial goals and to evaluate progress toward those goals. It relies on statistical analysis to measure and plan business operations while forecasting on their financial impact. Taking into account internal variables but also broader demographic and economic trends, as well as subjective, qualitative evaluation.

Cash flow techniques

Cash Flow Analysis is the evaluation of a company's cash inflows and outflows from operations, financing activities,

Cash Flow Analysis is a technique used by investors and businesses to determine the value of overall companies. As well as the individual branches of large companies by looking at how much excess cash they produce. Cash Flows is a document that shows the actual money that came in and out during a specific period from investing activities, financing activities, operational activities, and other reports of the business.

Essential cash flow management techniques

The success of a business often depends on how healthy its cash flow is and how well it's managed. As a result, many wonders how to improve cash flow, ensuring they have enough incomings to balance with outgoings.

Plenty of working capital allows you to invest in more significant resources, increase production, and comfortably cover outgoings for smooth cash flow.

Below are some of the best methods to effectively manage your cash flow.

Keep track of it

First and foremost, you have to know the status of your cash flow to be able to handle it, in terms of expenditure and receivables.

Once you have a good idea of the business's general cash flow healthy, you can begin to plan ways to improve it. If you find any problems, such as a few significant expenses that mean more money is going out than coming in, then look for and apply a fix early on.

Cut out inefficiencies

You should locate any problems which are hampering your cash flow immediately, as even small ones can lead to significant losses. For example, monitoring overheads to see if you are spending unnecessary money on running the business, as well as having a clear picture of the overall state of your business.

It could also include selling assets that are outdated or no longer needed, as this can provide you with capital to finance more jobs or reinvest in the business.

Continue to invest in people and resources

Creating a smooth cash flow isn't all about cutting back costs. It may sound counterproductive, but investing in your business by hiring new staff and equipment will eventually lead to higher profits and more money coming into the market.

Investing in people in turn will ease cash flow problems and make them far easier to manage, which is a great help when it comes to running a business.

Such investments can help build up an emergency fund for cash flow problems. Investing in people could prove to be a lifesaver and a worthy investment further down the line, as it will prevent cash running out - which would grind your business to a halt.

Speed up payments

One of the most effective cash flow management techniques is speeding up payments. Speed up payments means encouraging the customer to part with their money before the end of the invoicing period.

It could include asking for an upfront payment before work has started or is completed, or offering incentives for early fees, such as a discount.

Use invoice financing

If you find cash flow challenges are affecting your short-term business finance, invoice finance services can help smooth out your cash flow. Our cash flow solutions here at Market Invoice make it quick and easy for your business to secure funding against your outstanding customer invoices.

Getting paid upfront means you'll have access to more cash for helping with things like business operations, paying employees, investing in growth, and more.

Managing your cash flow doesn't need to be an overly complicated process, provided you have the systems in place to effectively control it. There are plenty of options for financing cash flow, make sure to shop around. Here are a few examples

Overdraft is expensive and hard to access but is still often the first port of call for businesses in need of cash.

Short-term loan is a cheap method of borrowing and a quick way to access some money.

Credit cards. A lot of small businesses operate entirely from credit cards. Up to a specific size, this can be a relatively simple way of managing cash flow finance.

Peer-to-peer invoice finance. Increasingly businesses are using peer-to-peer finance for long-term debt, but also short-term cashflow funding secured against §outstanding invoices.

Financial management practices towards sustainable growth

Financial management practices to support sustainable development are dependent upon effective national policies that provide significant disincentives to unsustainable development.

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In today's capitalist marketplace, businesses are expected to act in their enlightened self-interest to manage regulatory risks while maximizing the returns to their stockholders. Absent of effect regulations against unsustainable practices, businesses may jeopardize work safety, businesses and environmental impacts with devastating long-term results

Methods

Area of study

The study was carried out in the Kafue district of Lusaka Province, Zambia. According to the Zambia Central Statistics (2010), Lusaka province has a population of 2,191,225 people as of the 2010 census. A majority of this population resides in the districts. Kafue district has a population of 120,415 (CSO, 2014). It has an area 197.5km squared. The district has eleven wards namely chikupi (1,036), chinsakane (8,547), Chiyaba (5,882), Kafue (8,285), Kambale (5,047), Kasenje (21,838), Lukolongo (3,140), Malundu (9,971), Matanda (10,923), Mungu (15,474) and Shabusele (30,527).

Research design

This study adopted a mixed Research Design. Both qualitative and quantitative approaches were used to determine the influence of financial management practices and performance of poultry Small and Medium Scale Enterprises.

Target population

The target population for this study was the poultry SME's in Kafue district, Lusaka province. The province has 65,213 agricultural households (central Statistics, 2010). Kafue region, on the other hand, has a total of 8,285 people as per the fundamental Statistics of Zambia. (2014).

Sample and sampling techniques

Two types of sampling techniques, namely stratified and purposive sampling, were used in this study. In stratified sampling, the researcher selected two hundred and twenty (220) respondents from each of the wards that make up the district. Twenty (20) poultry farmers were selected purposively from each of the eleven (11) departments who are engaged in SME, s that deal with poultry.

Data collection methods

Primary and secondary data collection techniques were used to collect data. Questionnaires, in-depth interviews, and participant observation were used to collect data in the field. Three focus group discussions whose participates from the urban, peri-urban, and rural areas of Kafue, and also two extension officers involved in the focus group were used. Secondary data, from financial statements of the farmers, business records, and reports, were used.

Data analysis and presentation

Data was being collected and analyzed using the research question "How the financial management practices used by SME's towards sustainable growth." How knowledgeable the poultry Small Scale Farmers were on the Financial Management Practices. Using both descriptive and inferential statistics. The tools for analyzing quantitative data were the statistical package of social sciences were the mean, mode, percentage, charts, and figures are displayed. On the other hand, qualitative data reported as it is from the horse's mouth (respondent) as they were talking.

Results

Demography of respondents

Gender of respondents

The men and women were in this study. This consideration was aimed at understanding the distribution of farmers per gender. The male poultry farmers are more than female poultry farmers. The findings are in the table below

Table 1. Demography of respondents

Gender	Frequency	Percent	Valid percent	Cumulative percent
Male	128	58.7	58.7	58.7
Female	90	41.3	41.3	100
Total	218	100.0	100.0	

Knowledge of financial management practices

The responses indicate that almost all the farmers do have experience with the utilization of fixed assets, payback period techniques, budgeting, planning, and cash flow techniques.

Table 2. Knowledge of financial management practices

Fixed Assets	Payback period techniques	Budgeting	Planning	Cash flow techniques
1.Land	1.Lesser payback Period	1.Short-term budgeting	1.Daily	1.keep track of it
2.Buildings			2.Weekly	2.cut out inefficiencies
3.Machinery	2.Longer payback Period	2.Long-term budgeting	3.Monthly	3.continue to invest in people and resources
4.Equipment				
5.Furniture			4.yearly	4.speed up payment
6.Fixtures				5.use invoice financing
7.Vehicles				

Effects of financial management practices towards sustainable growth an analysis

Effective utilization of fixed assets of the financing pattern and usage of fixed assets is vital for the management of business enterprises.

payback period techniques. most payback period is short for the poultry farmers; as a result, farmers can grow their businesses within a specific time.

Budgeting helps the poultry enterprises to estimate income and expenses based on plans and objectives.

Planning helps to decide the what, who, where, when, and how of a business to achieve its objectives.

cash flow techniques help to show the actual cash that comes in and out of the company during a specific period from investing activities and operational activities and operational activities, as well as few other reports.

Discussion

Understanding the distribution of farmers per gender. The findings are in the table below. The number of men involved in poultry farming in the Kafue Region is more than the females.

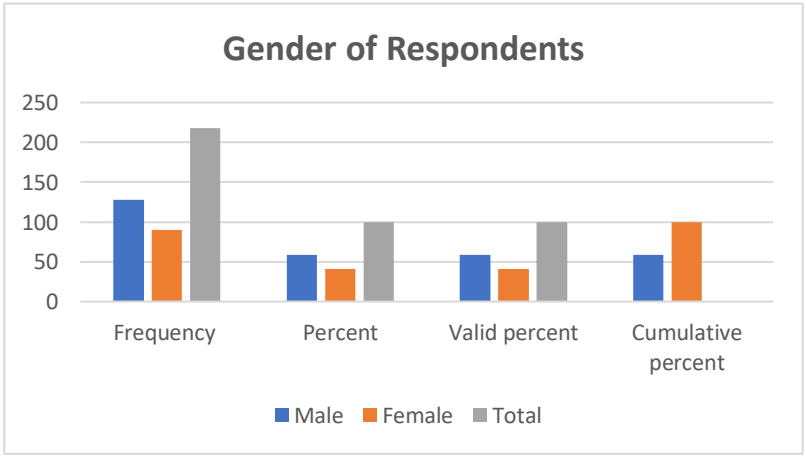

Figure 2. Gender of respondents.

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From the above diagram, 35% fixed Assets, cash flow techniques 25%, planning 20%, Budgeting 10%, and lastly, but not the listed payback period methods 20% are by the poultry farmers in Kafue district of Lusaka.

Financial Management Practices

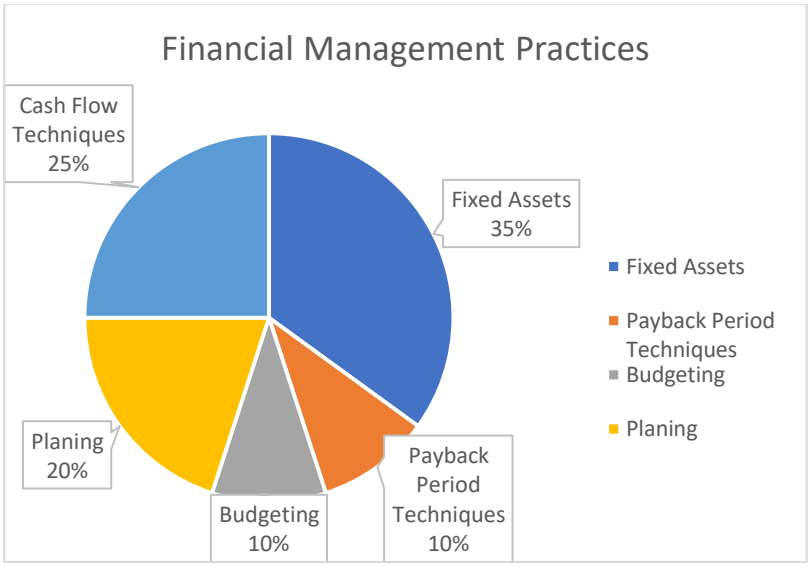

Figure 3. Financial management practices

Financial management practices identified

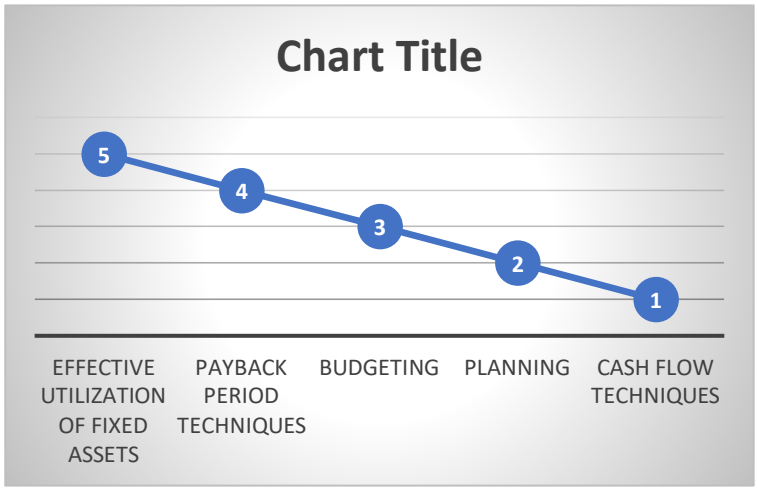

Figure 4. Financial management practices identified

Recommendations

The findings in this research show the effective utilization of fixed assets, payback techniques, budgeting, planning, and cash flow techniques are ranked in this order, respectively. Lack of cash flow is evidence from the lack of receipting for most poultry farmers.

Recommendations

Based on the findings of this research, the following areas of study were found to be appropriate for further research:

1. The role of Micro Finance Institutions in the growth of poultry businesses in the Kafue region.
2. The effects of government policies on the performance of Agribusiness towards sustainable growth
3. Challenge faced by poultry farmers
4. The role of agribusiness in the growth of the economy of Zambia.

Conclusion

The study was to examine the effects of financial management practices towards sustainable growth for the Small and Medium Poultry Enterprises of Kafue District in the Lusaka province of Zambia. Financial management practices have a positive impact on Small and Medium poultry Enterprises on sustainable growth. Cashflow techniques, fixed assets, and planning are the most used in financial management practices. While budgeting and payback period techniques are not used and understood by the Small and medium entrepreneurs in the poultry industry. Budgeting for Small and Medium Enterprises is challenging because of changing prices of feed and the fluctuating of the kwacha against the United States Dollar.

References

[1]. Abdulsaleh, A.M., &Worthington, A.C. (2013) Small and Medium-sized enterprises financing: A review of Literature. International Journal of Business and Management, 8(14), 36.
[2]. Arzeni, S, Cusmano, L., & Roban, V. (2015). Access of Finance for SMEs and Entrepreneurs. IJRDO-Journal of Business Management, 2(7), 45-64.
[3]. Crewswell, J (2014) 4th Ed. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. India: SAGE Publication.
[4]. OECD (2005) OECD SME and Entrepreneurship Outlook: 2005, OECD Paris, Page17.
[5]. Encylopaedia Britannica (2013) Poultry Inc June 6.
[6]. The American Heritage (2009) Dictionary of English Language. $th Edition. Houghton Mifflin Company.
[7]. Sustainable Growth –Encyclopedia-Business Times/Inc.Com https://www.Inc.com/encyclopedia.

Problem Based Learning in the Teaching and Learning of Mathematics for Pre-Service Teachers in Ghana: A Literature Review

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Abstract

Problem based learning (PBL) was first introduced in medical education and its success stories have led to its implementation in other disciplines. However, literature has not revealed its implementation and subsequent effectiveness in teacher education in Ghana. This paper reviewed past studies into PBL implementation in teacher education and Mathematics education relative to the traditional methods of teaching Mathematics at the Colleges of Education (COE) in Ghana. Through this literature review, it is largely noticed that PBL pedagogical strategy has proven to be more effective compared to the traditional methods of teaching. This implies that the strategy could contribute to effective Mathematics delivery at the Colleges of Education for pre-service teachers. Consequently, it is expected that learners will develop critical thinking and problem-solving skills in Mathematics at the basic schools where these pre-service teachers will be deployed to teach. The review has identified three research gaps that require further investigations.

Keywords*: Problem Based Learning, Mathematics, Pre-service teachers, Traditional teaching method*

Introduction

Effective teachers of Mathematics acknowledge pedagogy that inspires their learners and motivates them to successfully learn. Such teachers appreciate that for learners to effectively apply mathematics in real-life situations, they need to understand the concepts and become fluent with the skill taught. The paper will review PBL, an instructional pedagogy whose impact in Mathematics education for pre-service teachers in Ghana is yet to be established. A review of related literature is an important component of research. In addition to identifying gaps in the study, this aspect of the research process helps the researcher to gather relevant information and current developments about what has been done in a particular area. This paper is aimed at reviewing past studies into PBL implementation in teacher education and Mathematics education relative to the traditional methods of teaching Mathematics at the Colleges of Education (COE) in Ghana. The review will cover the theories underpinning the topic and a proposed conceptual framework. It will also look at PBL and teacher education, the traditional method of teaching, problem solving and PBL. Under PBL, the sub-sections shall cover a brief background and criticisms of PBL. Finally, the paper will examine previous studies into the effectiveness of the PBL strategy after which some research gaps will be revealed.

Theories underpinning PBL in mathematics education

The traditional method of teaching has been criticized as teacher-centred and learner passive (Freiberg, 1999). Some theories that can help resolve this phenomenon are Lev Vygotsky's theory of social constructivism, Piaget's theory and the theory of Constructivism. The theory of constructivism would serve as the overarching theory in this review. The application of Vygotsky's theory in education promotes interaction and discussion between a facilitator and a small group of learners. Additionally, peer collaboration is another educational application of the theory. In the PBL classroom, learners engage in social interaction, discourse, and Mathematics as an object of learning is made more meaningful when learners are given a minimum level of support and guidance. Zone of Proximal Development (ZPD) is Vygotsky's term for the range of tasks that are too difficult for the child to master alone but that can be learnt with guidance and assistance of adults or more children that are skilled (Vygotsky, 1978).This social constructivist theory and the zone of proximal development concept of Vygotsky relate PBL and these advocate for teaching and learning in small

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groups with learners playing active roles and teachers serving as facilitators. Again, Vygotsky further argues that interaction with peers is an effective way of increasing skills and strategies. He suggests that teachers use cooperative learning means where low learners develop with help from more skillful peers within the zone of proximal development. This is a teaching and learning strategy pre-service teachers are required to know and implement in PBL Mathematics classroom to improve understanding and performance. Education in Piaget's view simply defines the child's cognitive skills that have already emerged. Piaget also views the teacher as a guide, not a boss who provides support for children to discover their world and explore knowledge (Santrock, 2005).

The educational implication from Piaget's work and its use in the PBL classroom is that children learn but from concrete activities. If implemented in schools, the use of concrete objects significantly alters the role of the teacher and the nature of the learning environment. Piaget's view about PBL Mathematics classroom is that learners learn best by making discoveries, reflecting on them, and discussing them rather than blindly imitating the Mathematics teacher or doing things by rote, which impedes meaningful learning. The theory of constructivism is an integration of Vygotsky's theory and Piaget's theory. Constructivism is a theory about how to learn. Here, learners are active participants in the development of their understanding. In the PBL classroom, learners are allowed to construct their knowledge of Mathematics through schematization of the learning process in which previously learnt knowledge serves as the forerunner and anchor to the new knowledge.

Constructivism transforms the learner from a passive recipient of information to an active participant in the learning process in a collaborative environment. In constructivism, group discussions/group activities are emphasised and this forms the basis of PBL Mathematics classroom which pre-service teachers must be exposed to. The researcher argues that the tenets of constructivism must be the basis for the teaching of Mathematics from the known to unknown and this should characterise Mathematics classrooms. The views of Piaget and Vygotsky are somewhat intersecting and a collaborative effort in ensuring meaningfulness and schematization in the teaching and learning of Mathematics for pre-service teachers. There is therefore, the need for college tutors and pre-service teachers to identify a suitable educational theory and conceptualise it for effective Mathematics teaching.

Proposed conceptual framework

The proposed framework in figure 1 is underpinned by the above theories with the theory of constructivism being overarching. Vygotsky's and Piaget's theories are subsets of the constructivism theory and they culminate into a PBL. These tenets of PBL would be operationalized, defined contextually and measured in a PBL lesson. This further implies that any PBL lesson that is designed must measure these 5 tenets (learner-centred, cooperative, interactivity, small group work, and communicative skills) and this is expected to improve learning outcome.

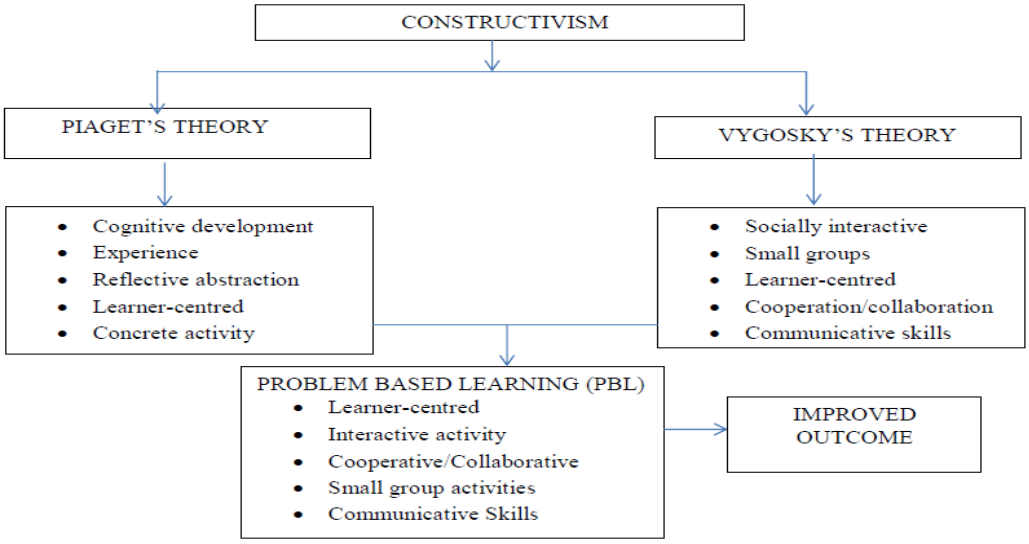

Figure1. Proposed conceptual framework

PBL and teacher education

Generally, the roles of teachers in schools are now changing from merely imparting knowledge to inculcating creativity, intellectuality, problem solving ability and critical thinking skills among learners. PBL requires pre-service teachers to work in groups to research on best practises and strategies that could be used to address real-world situations as beginning teachers. It is presented as a practical means to help pre-service teachers develop skills; they will need in teaching Mathematics before entering the teaching profession. In recent times, PBL has called for attention in the teacher education literature. Levin (2001) argues for the need and inclusion of PBL application in a teacher education course. Similarly, Dean (1999) viewed PBL as an important vehicle to convey the pre-service teacher to the situation that they are likely to encounter as professional educators. He asserted that employing a teaching and learning approach that captures the central tenets of constructivist and social constructivist learning theory should guide lesson delivery. Past studies into the use of PBL in teacher education programmes have shown that the approach supports pre-service teachers to acquire theoretical concepts related to practice.

The Traditional teaching method in teacher education grounded on the technical-rational model of development and knowledge have met serious scrutiny as an unsuitable means of supporting pre-service teachers to comprehend and relate theory to practical works (Korthagen, 2001). A more effective approach to teacher education will require the provision of pre-service teachers with opportunities to construct understandings of practice which draw on relevant theory to inform understandings of the teaching and learning process.

The researcher associates with the argument advanced by Dean and support the idea that pre-service teacher education must be backed by the theory of constructivism particularly in designing a Mathematics lesson. Besides, the course packages for pre-service teacher education must be redesigned to make learning more relevant and thought-provoking with PBL. This will help pre-service teachers perceive their profession as true profession worthy of their intelligence and passion. Existing pieces of literature on PBL have not specifically revealed its implementation in the teaching and learning of Mathematics at the pre-service teacher education level. Literature has it that in Ghana, PBL approach has been introduced in the medical schools at the University of Cape Coast and the University for Development Studies (Amoako-Sakye and Amonoo-Kuofi, 2015). Literature also points to PBL implementation at the Kwame Nkrumah University of Science and Technology, Ghana (myjoyonline.com). The approach could also serve as a catalyst to speed up the gradual shift from the traditional teaching method (teacher-centred) to PBL (learner-centred) approach in Mathematics education at the COE. The next section will review the traditional method, problem solving and PBL approach in teaching.

Traditional methods of teaching, problem solving and PBL

Different learning theories and teaching methods have dominated the educational system worldwide. The teaching methods are to a large extent determined by the characteristics of the learner, the facilitator (teacher) and the teaching and learning environment. This section of the paper will look at a review of the traditional method, problem solving and an overview of PBL in line with theories such as behaviourism, cognitivism and constructivism.

Traditional method

The traditional method is focused on the behaviourism learning theory. Ormond (1995) indicated that behaviourist teaching theories emphasises changing behaviours which results from learners' association with stimulus-response. The researcher added that, learning is a change in behaviour due to experience. This method is teacher-centred and teaching by telling is the dominant situation commonly used in Mathematics classrooms. This pedagogical approach of placing the primary focus on the teacher as a repertoire and transmitter of knowledge leading to some form of imitation by the learner portrays behaviourist theory.

Some previous studies have advocated for the use of learner-centered methods of teaching against the teacher-centered method. The researcher argues that since this method is based on stimulus-response association, little or no attention is giving to the cognition of the learner (learner becomes

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dogmatic) which does not encourage critical thinking in solving real-life problems. The ability of the learner to learn by rote and be able to poor and pass at the expense of meaningful learning is what this method seeks to achieve. Problem solving skills must be developed by both the learner and the facilitator.

Problem solving

Mathematics education predominantly seeks to teach how mathematical problems could be solved with ease. This calls for "Problem Solving", an important element of Mathematics education to be examined in relation to PBL. Problem solving which is a cognitivist learning theory helps students to develop a wide range of complex mathematical structures and gain the capability of solving a variety of real- life problems (Tarmizi and Bayat, 2012). Moreover, the Ministry of Education (MOE) and the National Council for Tertiary Education (NCTE) of Ghana have revised the course package for pre-service teachers to enhance their instructional competence and problem-solving skills (MOE, 2019).

Polya (1957) postulated a four-step approach to problem solving. These are stated as follows:

1. Understand the problem: it is impossible to solve a problem if you do not know what the problem is. What is known or unknown? What do the terms mean? This buttresses that assertion that understanding the question is part of the solution.
2. Devise a plan: this way helps to solve the problem using strategies as (a) Draw pictures (b) Use a variable and choose helpful names for variables or unknowns. (c) Be systematic. (d)Solve a simpler version of the problem. (e) Guess and check. (f) Look for a pattern or patterns. (g) Make a list. This helps to conceptualise and easy to recall.
3. Carry out the plan: If the plan does not seem to be working, then start over and try another way. Often the first approach does not work. No worries because an approach did not work. It does not mean you did it wrong. Impliedly, lack of an in-depth understanding and poor grasp of mathematical content worsen the situation; more time would be wasted just to find the way forward.
4. Look back: Did you answer the question? Is your result reasonable? Is there another way of doing the problem which may be easier? This approach is important as it can lead problem solvers to the path of success.

The researcher asserts that because problem solving is linked to the cognitivist theory, a shift from teacher-centred teaching to learner-centred teaching characterises this method of teaching. This contributes to a progressive attempt to make pre-service teachers understand the concepts of PBL in Mathematics education. There is therefore, the need for problem solving to be emphasised as part of PBL at the COE in Ghana. Problem solving is not the same as PBL and the latter is discussed in the next section.

Problem based learning

The Problem Based Learning teaching strategy was implemented for the first time in medical education at the University of McMaster, Canada, in the 1960s. The concept has since been embraced by other universities like the University of Maastricht, in the Netherlands; Newcastle University, in Australia and the University of New Mexico, USA. The University of Cape Coast School of Medical Sciences (UCCSMS) and the University for Development Studies School of Medicine and Health Sciences in Ghana have also adopted the use of PBL in their curricula (Amoako-Sakyi et al. 2015).

In PBL, learners have to build their understanding of every concept of mathematics in Mathematics education, so that teaching will not be viewed purely as explaining, lecturing, or attempting to convey mathematical knowledge, but creating situations for learners to promote their mental structures. Therefore, learning reflects a social process in which students would be required to engage in dialogue and discussion with themselves as well as others as they develop intellectually (Hanley, 1994). This method is the best method to move away from the traditional method or teacher-centre practices. The method empowers teachers and students both for better critical thinking and creating changes in old teaching methods (Sawada, et al., 2002). A key element in the PBL approach is the level of cooperation in small groups. Groups usually consist of 6-10 learners who meet 2 to 3 hours per session and mostly twice a week (Schmidt et al, 2007).

Small group discussions in Problem Based Learning enhance interaction among peers. Students answer a series of questions and give explanations and discuss the differences in opinions and understanding the concepts. These processes stimulate a deep knowledge of the subject. The cooperative work in small groups also increases the capacity to work in teams, an essential skill in professional practice (Norman and Schmidt, 1992).

This method is based on the constructivist approach which is learner-centred. In this approach, learners actively construct their knowledge and understanding by the guidance of their facilitators. Literature highlights that the likes of Jean Piaget and Lev Vygotsky glorified constructivism and its implementation in PBL and discovery learning in Mathematics education.

The researcher views this method as synonymous with discovery learning that is highly encouraged to help learners to understand the "how, why and what" of teaching and learning Mathematics. The ability of pre-service teachers to relate PBL and discovery learning sets the tone for constructivism in Mathematics education. Even though PBL has found its way in the Ghanaian curricula, its impact has not been felt in pre-service teacher education and Mathematics education. There is therefore, the need for teachers to embrace the tenets of the theory of constructivism and make lesson delivery self-directed and learner-centred. The much-trumpeted PBL has also faced criticism in one way or the other. This however, serves as an eye-opener and a guide in planning and implementing PBL in the teacher education curriculum. Some criticisms of PBL approach are discussed.

Criticisms of problem-based learning

Literature compiled by Zieber (2006) outlines some criticisms of PBL which are not intended to oppose the methodology in principle or practice but instead highlight the need for acknowledgment and further research. Criticisms of PBL centre on four areas: resources, the student experience, adulterated forms of PBL, and the question of efficacy.

Firstly, PBL is resource-intensive in terms of faculty time, space (tutorial rooms), teaching materials, and library resources (Azer, 2001; Johnson and Finucane, 2000; Morrison, 2004; Moust, van Berkel and Schmidt, 2005; Walsh, 2005; Wood, 2003). The development of suitable cases is time- consuming and requires staff development, current clinical practice and partnerships between education and health care institutions (Johnson & Finucane, 2000; Tan, 2004). Some colleges have found that due to fiscal and other resource limitations PBL is not sustainable. For instance, in medical education, if a PBL program is fiscally unable to maintain the high staffing ratios required the nursing program may decide to revert to a more traditional curricular approach which is more sustainable. There is therefore the need for PBL planners to do resource appraisal before its implementation.

Secondly, students experience stress and feel overloaded until they are familiar with the PBL process (Azer, 2001b; Johnson and Finucane, 2000; Tan, 2004; Wood, 2003). Other criticisms include the noticeable lack of a classroom role model as seen in traditional lecture-based programmes; Wood (2003) suggests such role models can be very inspirational for students. Also, the quality of learning in a PBL context is somewhat dependent on having a high functioning group (Azer, 2001; Walsh, 2005). I argue that the presence of the classroom teacher may not matter but the role in the facilitation process is what matters.

Thirdly, criticism centres on the numerous adulterated forms of PBL. Several years after the inception of PBL, it has been noticed that there exists a wide understanding of the nature of PBL in its pure form and that a range of adulterated forms of PBL exists (Baker, 2000; Butler et al, 2005; Camp, 1996; Tanner, 1999). Again, the implementation of PBL is influenced by pedagogies that underpin both curricula and the staff that implements it, which also contributes to modifying its essence (Savin-Baden, 2000). There is also the perception that PBL constitutes a relatively inefficient way to learn and that not as much content is covered as in traditional curricula, which also leads individual instructors to significantly modify the PBL process (Azer, 2001b; Johnson & Finucane, 2000; Moust et al., 2005). This third point informs the need for a PBL lesson to be backed by a framework. By this, the concept can be operationalized and be measured. This would help check the adulteration of the concept.

Fourthly, criticism about the efficacy of PBL as an instructional and curricular methodology has been addressed. High-quality evidence from existing literature regarding the effectiveness of PBL as

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an educational method is simply lacking (Newman, 2003). Besides, variables are often confounded because PBL is accompanied by other major curriculum revisions, such as staff development, and it cannot be determined if the results can be attributed to the use of PBL (Johnson & Finucane, 2000). Kirschner et al. (2006) criticised PBL as a minimally guided instructional approach and presents some negative findings related to its effects on content knowledge acquisition. However, Hmelo-Silver et al. (2007) had an objection to Kirschner et al criticism.

The researcher aligns with the above review and asserts that the criticisms enumerated above are a genuine basis for careful planning and effective execution of a PBL lesson. The views expressed on resource constraints, to some extent, defeat the purpose of constructivism but the feeling of stress and work overload characterises practicality which ensures meaningfulness in learning. On the issue of efficacy, literature has largely pointed to the fact that PBL is effective and this is explored next.

Previous studies into the effectiveness of PBL

In the late 1960s, PBL was added to the literature following a research study undertaken at McMaster University in Canada (Rhem, 1998). PBL is consistent with the constructivist theory by challenging the learners to take responsibility for learning (Coombs and Elden, 2004). PBL is an approach in which the process of constructing knowledge activates learners' prior knowledge and problem –solving strategy of ill-structured problems acquired through small in-group discussions and research (Koca-Koglu, 2010). Using a problem scenario in education differentiates PBL from other teaching approaches (Tan, 2010).

Van Loggerenberg-Hattingh (2003) discovered that the use of PBL is more effective in learning Science than the traditional method. Learners taught through PBL scored significantly higher than those taught with the traditional method. Selected questions were used for the post-test that were classified on Bloom's taxonomy as higher-order questions.

According to Lombard and Grosser (2008), it is clear that critical thinking skills and understanding of how to teach these skills are lacking among pre-service and in-service teachers. The results showing that PBL has a positive effect on critical thinking skills emanates mainly from medical literature (Tiwari et al, 2006). This makes this research remarkable in education, especially in Mathematics education.

Literature collated by Temel (2014) explored the effect of PBL on pre-service teachers' critical thinking disposition and perception of problem-solving ability was reviewed. The aim of the study was to determine the levels of critical thinking disposition and perception of problem-solving ability of pre-service teachers in the teaching of the acid-base topic. It was largely observed that pre-service teachers display a low level of critical thinking disposition and a medium level of perception of problem-solving ability. PBL and traditional method did not have different effects on the critical thinking disposition of pre-service teachers however; they had different effects on their perception of problem-solving ability. This showed that PBL was more influential in increasing the perception and problem-solving abilities of the pre-service teachers than the traditional method.

Furthermore, Baysal (2017) investigated the topic "The Problem-based learning process: Reflection of pre-service elementary school teachers". The aim was in two folds. The first was to identify the benefits acquired by third-year pre-service elementary school teachers participating in a PBL process in Social Studies education. The second aim was to identify the issue they encountered in the process and those they are likely to encounter in the process. The results showed that PBL reflections/benefits were positive to pre-service elementary school teachers in the areas of learning and skills acquisition in Social Studies classes.

Padmavathy and Mareesh (2013) conducted a study on the effectiveness of PBL in Mathematics. The findings of the study revealed that PBL had an effect in teaching Mathematics and improve students' understanding, ability to use concepts in real life.

In Ghana, literature reveals that PBL has been implemented as part of the curriculum at the University of Cape Coast School of Medical Sciences (UCCSMS), the University for Development Studies School of Medicine and Health Sciences and the Kwame Nkrumah University of Science and Technology. Amoako-Sakyi & Amonoo-Kuofi (2015) researched on the topic "Problem based learning in a resource-poor setting: Lesson from a medical school in Ghana". The authors assert that

the University of Cape Coast is located in a resource-poor setting, however, its medical school has used PBL curriculum since 2007. The author further argues that in spite of its cost implication, a PBL curriculum can be successfully implemented in resource-constrained settings.

Analysing from the forgoing literature on the effectiveness of PBL, the researcher is of the view that largely the effects of PBL are positive relative to other methods of teaching. The fields of medical education, Chemistry and Social Studies have had their fair share of PBL and have also added to the literature. In the field of Mathematics which is the area of interest in this review, Padmavathy and Mareesh (2013) revealed that PBL increases critical thinking.

In spite of the above literature and others gathered from other sources, no extensive literature has been found on PBL implementation in Mathematics education for pre-service teachers even though some literature points to Social Studies and Chemistry.

Research gaps for further studies

The literature reviewed in this paper identified three issues that have called for the need for further research in line with the subject under review. This will contribute to enhancing critical and problem-solving ability of pre-service teachers as they strive to grasp an in-depth understanding of Mathematics contents and methods at the COE in Ghana. Firstly, the literature review shows that the government of the Republic of Ghana does appreciate the importance of using learner-centred teaching method. Unfortunately, however, no mention was made of PBL implementation for pre-service teachers in Ghana. The importance of this PBL teaching method at the Colleges is the prevention of 'spoon-feeding' pattern of teaching that demotivates learners to think constructively when faced with Mathematics problems.

Secondly, the literature revealed that lack of resources could inhibit the implementation of PBL in the Ghanaian curricula. A case in point was the mention of PBL in poor resource settings at the University of Cape Coast, Ghana. Even though the literature did not reveal its adverse effect on PBL implementation, there would be a need for further research to be conducted into resource assessment and evaluation before its implementation for COE in Ghana.

Thirdly, total affection and affinity for traditional teaching methods has characterised the COE in Ghana. Interestingly, the call for a shift to a more learner-centred approach has not received the much-needed attention. Even though the literature mentioned three universities in Ghana that have bought into the idea, no mention was made of its implementation on pre-service teachers in Ghana. There is therefore, the need for further research to discover the motivation for its implementation and acceptance by COE. This will trigger a review of the entire curriculum to include PBL especially if teaching Mathematics since the subject appears difficult for a large number of pre-service teachers.

Conclusion

A brief literature review on PBL for the teaching and learning of Mathematics for pre-service teachers in Ghana has been discussed. The theoretical underpinnings and the conceptual framework for the study set the tone for the discussion. The review focused on some past studies on how PBL had dominated various fields of study including its impact on pre-service teachers and the teaching of Mathematics.

A brief review of PBL and teacher education was done and some criticisms of PBL were also shared to guide curriculum developers and implementers in the design and implementation of this strategy in the future. Again, clarity was attached to other teaching methods (traditional and problem solving) to make it distinguishable from the concept of PBL. Furthermore, a few success stories were reviewed on past PBL implementations across various fields of study. The literature also revealed three gaps that would require further studies. Firstly, it revealed that no mention was made of PBL implementation for pre-service teachers in Ghana even though the government of the Republic of Ghana appreciates a learner-centred approach to teaching. Secondly, it called for further research on the need for resource assessment and evaluation prior to the implementation of PBL at the COE in Ghana.

Finally, the high affection for traditional teaching method and the difficulty in embracing new method of teaching like in the case of PBL continue to baffle educational researchers. It is hoped that

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the government of the Republic of Ghana would embrace this learner-centred, cooperative, interactive, small group and communicative skills enhancing teaching strategy in the various COE for pre-service teachers.

References

[1]. Amoako-Sakye, D and Amonoo-Kuofi, H (2015). Problem based learning in resource-poor settings: Lesson from a medical school in Ghana. Accessed on 22/10/2019 https://www.researchgate.net/publication/286923030_Problem-based_learning_in_resource-poor_settings_lessons_from_a_medical_school_in_Ghana.

[2]. Azer, S.A. (2001b). Problem-based learning: challenges, barriers and outcome issues. *Saudi Medical Journal, 22*(5), 389-397.

[3]. Baker, C.M. (2000). Problem-based learning for nursing: integrating lessons from other disciplines with nursing experiences. *Journal of Professional Nursing, 16*(5), 258-266.

[4]. Baysal, Z.N (2017). The problem-based learning process. Reflections of pre-service elementary school teachers. *Academic journals: 12(4) pp.177-188.*

[5]. Butler, R., Inman, D., and Lobb, D. (2005). Problem-based learning and the medical school: another case of the emperor's new clothes? *Advances in Physiology Education, 29*(1), 194-196.

[6]. Camp, G. (1996). Problem-based learning: a paradigm shift or a passing fad? *Medical Education Online, 1*(2). Accessed on 22/10/2019 http://www.utmb.edu/meo/f0000003.htm.

[7]. Coombs G & Elden M 2004. Introduction to the special issue: Problem-Based Learning as social inquiry—PBL and management education. *Journal of Management Education*, 28(5):523-535. doi: 10.1177/1052562904267540.

[8]. Dean, C. D. (1999). Problem-based learning in teacher education. Paper presented at the Annual Meeting of the American Educational Research Association (Montreal, Quebec, Canada, April 19-23, 1999).

[9]. Freiberg, H. J. (Ed.). (1999). *Beyond behaviorism: Changing the classroom management paradigm.* Boston: Allyn and Bacon.

[10]. Hanley, S. (1994). On Constructivism. Retrieved from http://www.inform.umd.edu/UMS%2BState/UMDProjects/MCTP/Essays/Constructivism.txt.

[11]. Hmelo-Silver, C.E., Duncan, R.G. & Chinn, C.A., (2007). Scaffolding and Achievement in Problem-Based and Inquiry Learning: A Response to Kirschner, Sweller and Clark (2006). *Educational Psychologist, 42(2), Pp.99-107.*

[12]. Johnson, S.M.. and Finucane, P.M. (2000). The emergence of problem-based learning in medical education. *Journal of Evaluation in Clinical Practice, 6*(3), 281-291.

[13]. Kirschner, Paul A.; Sweller, John; Clark, Richard E. (2006). Why Minimal Guidance during Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching". *Educational Psychologist. 41 (2): 75–86.*

[14]. Koçakoğlu M (2010). Problem based learning: The epitome of constructivism. *J. National Educ. 188:68-81*.

[15]. Korthagen, F. (2001) *Teacher education: a problematic enterprise, in*: F. Korthagen & J.

[16]. Levin, B. B. (Ed.). (2001). *Using problem-based learning in teacher education.* Alexandria, VA: ASCD.

[17]. Lombard K & Grosser M 2008. Critical thinking: are the ideals of OBE failing us or are we failing the ideals of OBE? *South African Journal of Education*, 28:561-579. Accessed on 19/10/2019 http://reference.sabinet.co.za/webx/access/electronic.

[18]. Ministry of Education (2019). The National Teacher Education Curriculum: The essential of initial teacher education. Accessed on 12/9/19 http://www.ttel.org/files/docs/Learning%20Hub/Teacher%20education%20policies%20and%20protocols/The%20Essential%20Elements%20of%20Initial%20Teacher%20Education.pdf.

[19]. Morrison, J. (2004). Where now for problem-based learning? *The Lancet, 363*(9403), 174.

[20]. Moust, J.H.C., van Berkel, H.J.M., and Schmidt, H.G. (2005). Signs of erosion: reflections on three decades of problem-based learning at Maastricht University. *Higher Education, 50*(4), 665 683.

[21]. Mugenda, O. M. (2008). *Research Methods: Quantitative and Qualitative Approaches.* . Nairobi: Acts Press.

[22]. Newman, M. (2003). *A pilot systematic review and meta-analysis on the effectiveness of problem-based learning*. Newcastle: Learning & Teaching Subject Network (01).
[23]. Norman, G. R., & Schmidt, H. G. (1992). The psychological basis of problem-based learning: A review of the evidence. *Academic Medicine, 67*, 557-565.
[24]. Ormord, J. E. (1995). *Human Learning.* Englewood Cliffs, NJ: Prentice Hall, Inc.
[25]. Padmavathy, R.D and Mareesh, K (2013). Effectiveness of Problem Based Learning in Mathematics. International multidisciplinary e-Journal.
[26]. Polya, G. (1957). *How to Solve It.* 2nd edition, Princeton University Press.
[27]. Rhem, J. (1998). Problem based learning: an introduction. *The National Teaching and Learning Forum, 8*(1).
[28]. Santrock, J.W. (2005). *Educational Psychology Classroom Update*: Preparing for PRAXISTM and Practice Ta ta McGraw-Hill Publishing Company Limited New Delhi.
[29]. Savin-Baden, M. (2000). *Problem Based Learning in Higher Education: Untold Stories*. Philadelphia: Society for Research into Higher Education & Open University Press.
[30]. Sawada, D., Piburn, M. D., Judson, E., Turley, J., Falconer, K., Benford, R., & Bloom, I. (2002). Measuring reform practices in science and mathematics classrooms: The reformed teaching observation protocol. *School Science and Mathematics*, 102(6): 245-253. https://doi.org/10.1111/j.1949-8594.2002.tb17883.x.
[31]. Schmidt, H. G., Loyens, S. M. M., Van Gog, T., & Paas, F. (2007). Problem-based learning is compatible with human cognitive architecture: Commentary on Kirschner, Sweller, and Clark (2006). *Educational Psychologist, 42*, 91–97.
[32]. Tanner, J. (1999). Problem based learning: an opportunity for theatre nurse education. *British Journal of Theatre Nursing 9*(11), 531-536.
[33]. Tarmizi, R. A., & Bayat, S. (2012). Collaborative problem-based learning in mathematics: A cognitive load perspective. *Procedia-Social and Behavioral Sciences*, 32: 344-350. https://doi.org/10.1016/j.sbspro.2012.01.051.
[34]. Temel,S (2014). The effects of problem-based learning on pre-service teachers' critical thinking dispositions and perceptions of problem-solving ability. *South African Journal of Education; 34(1).*
[35]. Tiwari A, Lai P, So M & Yuen K 2006. A comparison of the effects of problem-based learning and lecturing on the development of students' critical thinking. *Medical Education*, 40(6):547-554. doi: 10.1111/j.1365-2929.2006.02481. x.
[36]. Van Loggerenberg-Hattingh A 2003. Examining learning achievement and experiences of science learners in a problem-based learning environment. *South African Journal of Education*, 23(1):52-57. Accessed on 20/10/2019
http://repository.up.ac.za/bitstream/handle/2263/5046/VanLoggerenbergHattingh_Examining%282003%29.pdf?sequence=1.
[37]. Vygotsky, L. (1978). *Mind in society*. Cambridge: Harvard.
[38]. Walsh, A. (2005). The tutor in problem-based learning: a novice's guide. McMaster University.
[39]. Zieber, M.P (2006). History, Philosophy and Criticisms of problem-based learning in Adult Education. Accessed on 22/10/2019.
http://scholar.ulethbridge.ca/sites/default/files/em_pijl/files/pblempijlzieber.pdf?m=1458144723
https://www.myjoyonline.com/news/2015/October-1st/knust-embraces-problem-based-learning-approach.php. Accessed on 28 October 2019.

Sexual Harassment against Women at Workplaces and Its Impact on their Motivation

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Abstract

Workplace sexual harassment against women is a recurring problem around the globe and is costly to workers and organizations. This is becoming a major problem and is being considered a gender-based violence issue which is leading to the number of working women being fewer leading to gender inequality. Different nations have taken measures to deal with the consequences of such a problem. Sexual harassment at work can have very serious consequences both for the harassed individual as well as for other working women who experience it second-hand and also impact their motivation. The consequences to the individual employee can be many and serious. Therefore, this report attempts to outline these impacts/consequences. This paper explores sexual harassment in the workplace within organizations in Zambia. Different articles and reports were reviewed to that purpose. This information is considered particularly timely as it reflects the current position in Zambia. The expected outcome of this paper is the development of policies and creation of awareness which will help to stop the perpetrators of sexual harassment against women in the workplace.

Keywords: *gender, inequality, violence, motivation, harassment*

Introduction

The main aim of this piece of writing is to outline the impacts of sexual harassment against women at workplaces and its impact on their motivation. It will begin by thoroughly defining the term sexual harassment in the workplace and its different forms, followed by an outline of the impacts it has on women's motivation.

A recent case in Zambia is still under investigations where two women are claiming being sexually being harassed by a named Permanent Secretary in the Government where they work. Local Government and housing Permanent Secretary (PS) Bishop Eddy Chomba's arrival at his new posting has been rocked by allegations of sexual harassment by two women spoken to by the news house. The Watchdog has heard from two women who describe a culture of abuse and sexual advances in exchange for favours by the Man of God. The two women who elected to be anonymous say Bishop Chomba repeatedly harasses them for sex in exchange for gifts, money and trips abroad on Ministerial duties.

"One day whilst in his office, he directly asked me for a sexual favour. I told him I'm qualified and experienced and I do not need to open my legs for him to seek any form of gratification. I then stood up to leave his office and left him stunned. He grabbed my hand and wanted to kiss me but I pushed him away," said one victim speaking on condition of anonymity.

"For me I'm fed up of his unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature that has explicitly affect my employment. The PS's conduct has unreasonably interfered with my work performance and has created a hostile and offensive environment," added another.

The two said they have decided to expose him in the hope that he would stop pestering them for sexual favours and tapping their backsides. The two victims allege that PS Chomba's sexual harassment at times takes a more subtle form. Instead of being propositioned for sex, the two victims have been receiving suggestive late-night texts or sexually-charged comments. "We know of a woman in another department where his invitations to meetings have somehow turned into dates. This man hides behind the Bible to take advantage of us.

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The former PS Amos Malupenga was never this promiscuous because he respected his females under his charge. This man is too randy for our proximity," another independent source in the Ministry of Local Government said.

Sexual harassment is unwelcome sexual behaviour, which could be expected to make a person feel offended, humiliated or intimidated. It can be physical, verbal or written. Sexual harassment is not consensual interaction, flirtation or friendship. Sexual harassment is not behaviour that is mutually agreed upon (Equal Opportunity Act, 2010). Sexual harassment is a form of discrimination that consists of three types of harassing behaviour; the first being Gender harassment, which is verbal and nonverbal behaviours that convey hostility, objectification, exclusion, or second-class status about members of one gender. Second, unwanted sexual attention which is unwelcome verbal or physical sexual advances, which can include assault and third, sexual coercion which is when favourable professional or educational treatment is conditioned on sexual activity. The distinctions between the types of harassment are important, particularly because many people do not realize that gender harassment is a form of sexual harassment (McCann, 2005).

Sexually harassing behaviour can be either direct (targeted at an individual) or ambient (a general level of sexual harassment in an environment) and is harmful in both cases. It is considered illegal when it creates a hostile environment (gender harassment or unwanted sexual attention that is "severe or pervasive" enough to alter the conditions of employment, interfere with one's work performance, or impede one's ability to get an education) or when it is quid pro quo sexual harassment; when favourable professional or educational treatment is conditioned on sexual activity (ibid).

It can also consist of undesired and unnecessary physical contact such as touching, caressing or assault. Furthermore, it entails compromising invitations, requests or demands for sexual favours, as well as explicit or implied threats of dismissal, and refusal of promotion, if sexual services are not granted (Wonani, 2010).

Workplace sexual harassment is costly to workers and organizations and is legally prohibited in more than 75 countries. Sexual harassment is covered in the workplace when it happens: at work, at work-related events or where people are carrying out work-related functions or between people sharing the same workplace. A single incident is enough to constitute sexual harassment – it doesn't have to be repeated. Men experience sexual harassment but it disproportionately affects women, especially in the workplace. The Australian Human Rights Commission reported that 1 in 5 women experience sexual harassment in the workplace at some time (Hersch, 2015).

According to a study conducted by Wonani (2010), on 'Awareness on Women Workers and their Rights in Zambia', the extent of sexual harassment is not known in the majority of organizations, because no one wants to talk about it or deal with it. Most organizations do not have a sexual harassment policy. Some organizations mentioned sexual harassment in their code of conduct, but this was not well defined, nor was the procedures for redress clearly spelt out. Study respondents did reveal that sexual harassment was going on in their organizations, and some of them were victims of this harassment. However, they were not willing to give further details because they felt it was embarrassing and it was a very sensitive topic.

It was noted that sexual harassment is experienced right from the point of seeking employment through to recruitment, promotion and contract renewal. Sexual harassment was more prevalent amongst male superiors and female subordinates, particularly those in the lower ranks who were desperate for survival and without a bargaining position. The greatest challenge that women workers have is when top management is involved in sexual harassment, because they have almost no room for recourse in the organization.

Sexual harassment is very difficult to report and prove hence the few cases being reported everywhere especially in rural areas as reported in the table attached.

In addition, Sexual harassment remains a persistent problem in the workplace at large. Across workplaces, five common characteristics emerge: Women experience sexual harassment more often than men do. Gender harassment e.g., behaviors that communicate that women do not belong or do not merit respect, is by far the most common type of sexual harassment. When an environment is pervaded by gender harassment, unwanted sexual attention and sexual coercion become more likely to occur; in part because unwanted sexual attention and sexual coercion are almost never experienced by

women without simultaneously experiencing gender harassment. Men are more likely than women to commit sexual harassment. Co-workers and peers more often commit sexual harassment than do superiors. Sexually harassing behaviors are not typically isolated incidents; rather, they are a series or pattern of sometimes escalating incidents and behaviors. (ibid). If it persists, this is what is eventually turning into Gender based violence and has now added to the list of sexual offences. Gender-based violence is defined as "any harmful act that is perpetrated against a person's will, and that is based on socially ascribed gender differences between males and females". (IASC, 2005). Gender-based violence limits participation of the victims in the development process at individual, community and national level.

This chapter presents information on various forms of gender-based violence cases prevalent in Zambia. The UN Declaration (CEDAW, 1979) defines violence against females as any act of gender-based violence that results in or is likely to result in, physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion, or arbitrary deprivation of liberty, whether occurring in public or private life.

Having looked at the definition and forms of sexual harassment against women in the workplace, it is imperative to outline the different impacts it has on their motivation. Sexual harassment at work can have very serious consequences both for the harassed individual as well as for other working women who experience it second-hand. The consequences to the individual employee can be many and serious. In some situations, a harassed woman risks losing her job or the chance for a promotion if she refuses to give in to the sexual demands of someone in authority. In other situations, the unwelcome sexual conduct of co-workers makes the working conditions hostile and unpleasant, putting indirect pressure on her to leave the job. Sometimes, the employee is so traumatized by the harassment that she suffers serious emotional and physical consequences and very often, becomes unable to perform her job properly.

According to data compiled by Equal Rights Advocates, a women's law centre in the U.S., 90 to 95% of sexually harassed women suffer from some debilitating stress reaction, including anxiety, depression, headaches, sleep disorders, weight loss or gain, nausea, lowered self-esteem and sexual dysfunction (Advocates for Human Rights, 2003).

The consequences to working women as a group are no less serious. Sexual harassment has a cumulative, demoralizing effect that discourages women from asserting themselves within the workplace, while among men it reinforces stereotypes of women employees as sex objects. Severe or pervasive sexual harassment in certain types of businesses creates a hostile or intimidating environment that causes women to leave their jobs and look elsewhere for work or discourages them from seeking those jobs in the first place. The effect on the morale of all employees can also be serious. Both men and women in a workplace can find their work disrupted by sexual harassment even if they are not directly involved. Sexual harassment can have a demoralizing effect on everyone within range of it, and it often negatively impacts company productivity on the whole (ibid).

Furthermore, when an employee has experienced an incident of sexual harassment, or worse a steady campaign of harassment, their output will be affected. Research closely associates sexual harassment with job dissatisfaction and disengagement. Extensive research shows that sexual harassment takes a toll on women's professional well-being. This is true across a variety of industries, from academia to the military to the Fortune 500. Studies have considered a range of professional well-being outcomes, in particular, job satisfaction, organizational withdrawal, organizational commitment, job stress, and productivity or performance decline. Other ways sexual harassment affects women in the workplace are tardiness, absenteeism, and project neglect as well as employee distraction. One study of 262 women who had reported being harassed found that nearly 75 percent of them felt that the effects of the harassment undermined their job performance.

In particular, these women cited decreased motivation to work and an inability to concentrate on their work due to the presence of sexual innuendos. Case material from the same study suggested common patterns of harassment behaviour and reactions to it. Incidents of sexual harassment typically threaten a woman's job security and violate her physical privacy. Mental and physical stress symptoms, as well as diminished productivity and self-confidence, are a common reaction (NCBI, 2005).

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Conclusion

Workplace sexual harassment is costly to workers especially women, as they are the most affected, and organizations and is legally prohibited in more than 75 countries. Women who are sexually harassed have lower job satisfaction/motivation and suffer a range of negative psychological and physical health consequences. Sexual harassment reduces individual and group productivity, yet survey evidence shows that workplace sexual harassment against women is quite common. It is also substantially underreported, in part because women are justifiably concerned that reporting may lead to retaliation and an even worse work environment. Strong workplace policies prohibiting sexual harassment, workplace training, and a complaints process that protects workers, especially woman, from retaliation seem to offer the most promise in reducing sexual harassment.

References

[1]. *Wonani, C. (2010*), Rapid Assessment on Raising Awareness on Women Workers and their Rights in Zambia; International Labour Organization, Lusaka.
[2]. *Ngo, J (2019),* Zambian Watchdog reports on Bishop Chomba, the case of sexual harassment in Zambia *Hersch, J. (2015*), Sexual harassment in the workplace; IZA World of Labour, Tennessee.
[3]. *McCann, D. (2005*), Sexual Harassment at Work: National and International Responses: International Labour Office, Geneva.
[4]. Minnesota Advocates for Human Rights (2003) http://hrlibrary.umn.edu/svaw/harassment/explore/4effects.htm, accessed [03/10/2019].
[5]. National Centre for Biotechnology Information (NCBI). (2005), Sexual versus nonsexual workplace aggression and victims' overall job satisfaction: a meta-analysis; U.S. National Library of Medicine, Rockville Pike**.**
[6]. https://humanrightscommission.vic.gov.au/home/our-resources-and-publications/eoa-practice-guidelines/item/562-guideline-sexual-harassment-complying-with-the-equal-opportunity-act-2010.

Artificial Intelligence (AI) Backed Cloud Resource Management Approach for Infrastructure as a Service (IAAS)

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Abstract

Cloud Computing (CC) and Artificial Intelligence (AI) marks the dawn of a new era of transformation, where customers can avail resources from service providers, that offer users or machines pay per use computers as virtual machines, raw (block) storage, firewalls, load balancers, and network devices enabling smart solutions; promptly, efficiently and economically. The resulting application from the twin-technologies of cloud computing and artificial intelligence could be combined to significantly enhance resource management services such as allocation, provisioning, requirement mapping, adaptation, discovery, estimation, and modeling. The conclusion that follows is scalability, quality of service, optimal utility, reduced overheads, improved throughput, reduced latency, specialized environment, cost effectiveness and simplified interface. This study aims to improve the performance of AI in cloud resource management for best optimization. The rest of the paper is organized as follows as Introduction to Artificial intelligence, cloud computing, Review of Literature, Resource Management in OpenStack, Issues and challenges and conclusion.

Keywords*: Artificial Intelligence, Cloud Computing, OpenStack, Resource Management*

Introduction

In today's business environment, Cloud Computing is viewed as a comparatively young discipline which is driven by practical advances, tendencies and applications to transform the traditional network communication architectures into a new singular model, aiming to improve agility and reduce operation costs. Although we find a great many research studies explore, solution and service oriented fundamental problems in cloud computing. Most of the cloud computing research struggles to adopt the principles of quantitative and/or qualitative paradigms in ubiquitous access to shared pools of configurable system resources and higher-level services that can be rapidly provisioned with minimal management effort, often over the Internet. However, due to the huge amount of data from storage, transactions and connecting devices that become new sources for competitive advantage to support and sustain in highly competitive environment, the cloud computing services often fail to provide full control on security, storage type and size. Some of the biggest challenge for a cloud provider are the issues of equipment failure, availability outages, loss of internet connection as well as provider outage. There is certainly a need for more research on cloud, considering the preparations of research patterns as well as the conjectural and trans-disciplinary foundations of cloud computing as a practical solution. Cloud Computing is a modern computing paradigm that is providing IT infrastructure and a very essential requirement for the IT companies. Cloud Computing providing essential service i.e.

1. Infrastructure as a Service (IaaS),
2. Network as a Service (NaaS),
3. Platform as a Service (PaaS),
4. Software as a Service (SaaS).

IaaS refers to a combination of hosting, hardware provisioning and basic services needed to run a cloud. PaaS refers to the provision of a computing platform and the provision and deployment of the associated set of software applications (called a solution stack) to an enterprise by a cloud provider.

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Software as a Service (SaaS) is a software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network. Cloud computing is a model for enabling ubiquitous, on-demand network access, to a shared pool of configurable computing resources such as network, servers, storage, applications, and services, that can be rapidly provisioned and released with minimal management effort. Cloud clients can access and use the services of cloud applications using browsers, mobile devices, while all the data as well as software is stored on servers at a remote location, which are also used to perform all the heavy duty processing.

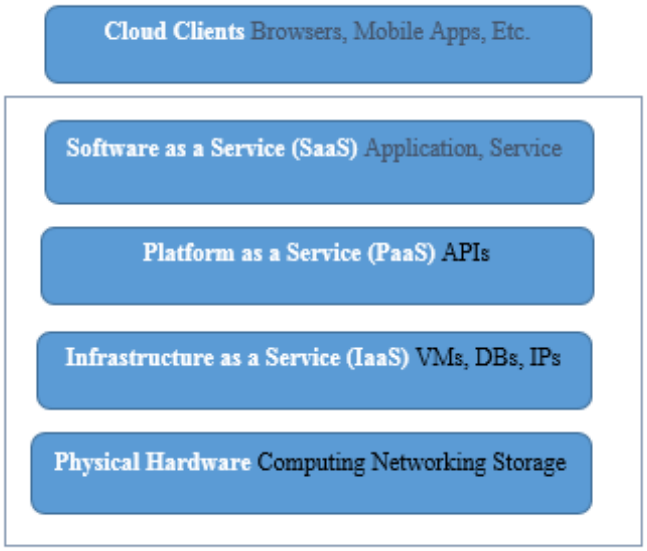

Figure 1. Cloud computing layered model

Literature

A significant number of papers have appeared in the literature examining IaaS for cloud computing, AI approaches on global applications and Cloud Resource allocation Issues and challenges for OpenStack. In recent years, extensive efforts have been put into the research of performance modeling, for virtualized systems presented a new resource management scheme, that integrates the Kalman filter into feedback controllers for dynamically allocating the CPU resources of multi-tier virtualized servers.

Sunil kumar S et al (2014) proposed a survey on resource management issues related with IaaS with cloud computing. In the recent times, AI has gained the critical-mass necessary for it to become the center of attention for technology investment and we see that bigger players are heavily investing in various AI technologies. Cloud computing and artificial intelligence technologies are introduced to various cloud platforms to improve performance, productivity and to increase satisfaction. Adopting these CC and AI technologies in telecom sectors poses a huge challenge in collecting of techniques inspired by natural intelligence. Nonetheless, using CC and AI will improve several areas performance and productivity, reduce costs, improve sustainability, and increase users' satisfaction, retention and loyalty in the long run. However, new threats may have to be taken care of, for example, security, privacy, legal conflicts and risky reputation, if it is used inappropriately.

Firstly, AI has languished itself as an "intangible brain in a jar", separated from the real world. Today we have reached the point where digital channels are becoming the standard; providing the brain with all the senses and members it needs, where customers and suppliers can communicate with each other electronically, substituting the human interface in the loop to make decisions. AI supports IT team, by detecting and predicting system failure, and thereby provides instant corrective action. Furthermore, AI can tackle customer service, with its highly complex computing skills, it can efficiently support instant online trouble shooting from a virtually remote station. Secondly, as data is made available and accessible when and where it is required, the new ("digital fuel") data pools are popping up everywhere and Application Programming interfaces (API)'s are crawling the internet

available to all who seek. But such access to streams of data, is generating a huge yet perceptive "digital exhaust".

In a research, it was found that 90% of companies are already on the cloud. This stat comes to show the cloud is already mainstream in 2019. Furthermore, experts say 60% of workloads will be running on a hosted cloud service in 2019. For reference, the cloud hosted 45% of workloads in 2018. (Source: Flexera). Forbes suggest that 83% of enterprise workloads will be in the cloud by 2020. The prediction is that 41% of enterprise workload will be run on public cloud platforms by 2020. Another 20% will be private-cloud-based, while 22% will rely on hybrid cloud adoption. Further data cited by Forbes, suggests only 27% of workloads will be on premise by 2020. This would spell a 10% drop in absolute terms in just one year – as the same number for 2019 is at 37%. Cloud adoption trends suggest there's an advantage to using both public and private cloud solutions as this gives more flexibility and variety of options. Just 22% use the public cloud exclusively, and only 3% use a private one exclusively. According to Right Scale's annual State of the Cloud Report for 2019, 91% of businesses use public cloud and 72% use a private one. Most enterprises actually utilize both options – with 69% of them opting for a hybrid cloud solution

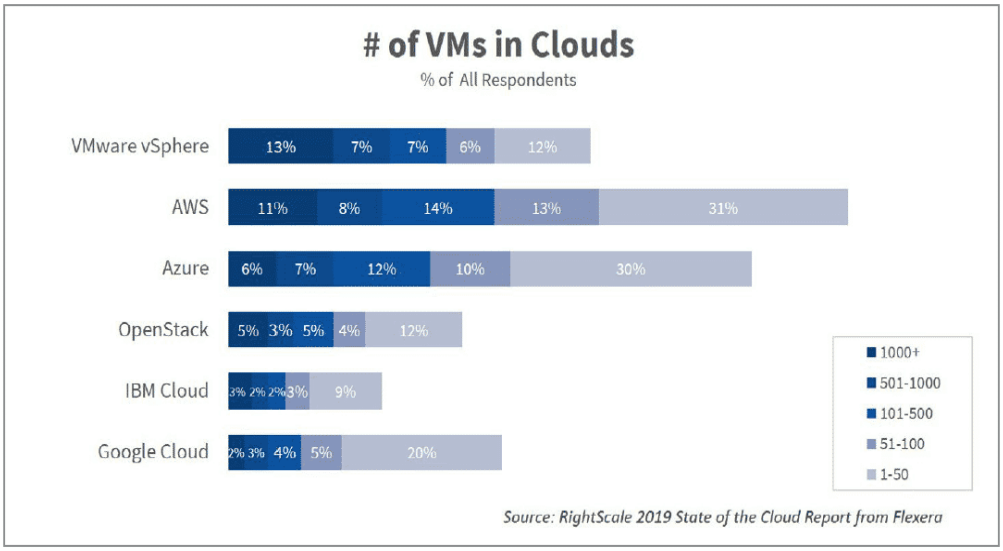

Figure 2. Cloud computing trends 2019

The service industry is currently struggling with various operational issues such as designing, maintenance and management, whereby with AI, industry stands to several benefits. Cloud computing service industry need intelligent decisions to manage their complex and dynamic operations. Through deep learning, machines can use existing training data in industry to analyze large amounts of data retrieved through data mining. AI gradually masters this data, as traffic increases, the accuracy of decision made also enhances. Using AI, system security has also increased whereby attacks can be detected automatically through machine learning. This has resulted in less attacks adding value to both the users and firms

Resource management in open stack

OpenStack is the fastest growing free open source software, announced in July 2010. OpenStack is a collection of open source software project that cloud computing technologist can use to setup and run their cloud computer and storage infrastructure. OpenStack mainly consist of three core software project which are OpenStack Compute Infrastructure (Nova), OpenStack Object Storage Infrastructure (Swift) and OpenStack Image Service Infrastructure (Glance). OpenStack open source software supports for creating private and public clouds, built and disseminated by a large and democratic community of developers, in collaboration with users. OpenStack is mostly deployed as Infrastructure-as-a-Service (IaaS), whereby virtual servers and other resources are made available to customers. The software platform consists of interrelated components that control diverse, multi-vendor hardware pools of processing, storage and networking resources throughout a data center.

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The cloud is mainly providing computing features for end users in a remote environment, where the actual software runs as a service on reliable, scalable servers, rather than on each end users computer. OpenStack give facilities for deploying virtual machines (VMs) and other instances which handle different tasks for managing a cloud environment. It provides horizontal scaling with ease, which means that tasks which benefit from running concurrently can easily serve more as well as less users on the fly, by just spinning up more instances.

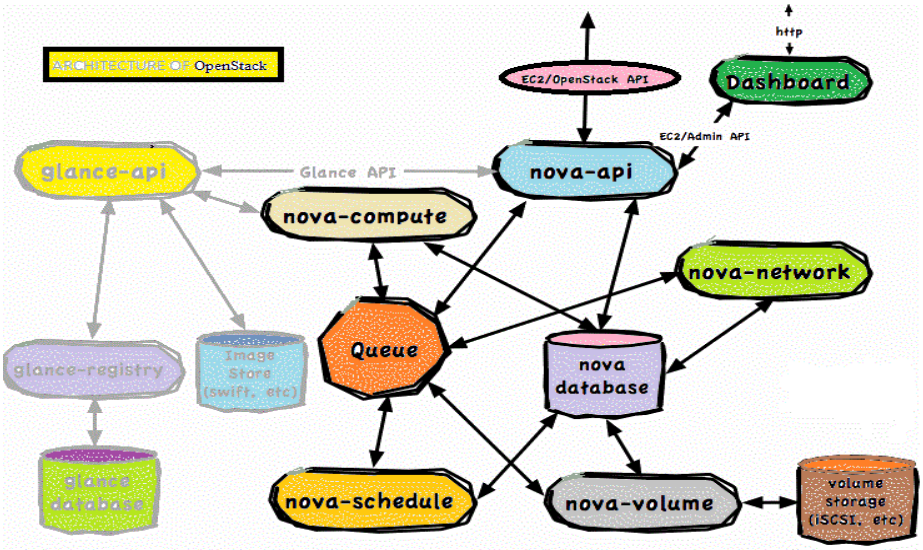

Figure 3. Open stack architecture

Components of open stack

1. Compute (Nova): OpenStack Compute (Nova) is a cloud computing fabric controller, which is used for deploying and managing large numbers of Virtual Machines and other instances to handle computing tasks.
2. Object Storage (Swift): OpenStack Object Storage (Swift) is a scalable redundant storage system for objects and files. Objects as well as files are written to multiple disk drives spread throughout servers in the data center, OpenStack software is only responsible for ensuring data replication and integrity across the cluster.
3. Block Storage (Cinder): OpenStack Block Storage (Cinder) is a block storage component, which is more analogous to the traditional notion of a computer being able to access specific locations on a disk drive as well as, it provides persistent block-level storage devices for use with OpenStack compute instances. In OpenStack, the block storage system manages the creation, attaching, detaching of the block devices to servers.
4. Networking (Neutron): OpenStack Networking (Neutron) provides the networking capability for OpenStack and it is a system for managing networks and IP addresses easily, quickly and efficiently.
5. Dashboard (Horizon): OpenStack Dashboard (Horizon) is the dashboard behind OpenStack which provides administrators and users a graphical interface to access, provision and automate cloud-based resources.
6. Identity Service (Keystone): OpenStack Identity (Keystone) provides identity services for OpenStack, for it is a central directory of users mapped to the OpenStack services they can access. It provides multiple means of access, and acts as a common authentication system across the cloud operating system and can integrate with existing backend directory services like LDAP.
7. Image Service (Glance): OpenStack Image Service (Glance) provides image services to OpenStack, discovery, registration and delivery services for disk and server images, it also allows these images to be used as templates when deploying new virtual machine instances.
8. Telemetry (Ceilometer): OpenStack Telemetry Service (Ceilometer) provides telemetry services, which allow the cloud to provide billing services to individual users of the cloud, it keeps a

verifiable count of each user's system usage of each of the various components of an OpenStack cloud.

9. Orchestration (Heat): OpenStack Orchestration (Heat) is a service which allows developers to store the requirements of a cloud application in a file that defines what resources are necessary for that application.
10. Database (Trove): OpenStack (Trove) is a database as a service which provides relational and non-relational database engines.

Issues and challenges

Resource scheduling is a hotspot area of research in cloud due to large execution time and resource cost. Different resource scheduling criteria and parameters are directed to different categories of Resource Scheduling Algorithms (RSAs). There are several problems to be considered while managing resources, such as, type of resource required physical as well as logical allocation, brokering, provisioning, mapping, adaptation. The major issues which is commonly associate with IaaS in cloud systems are virtualization and multitenancy, resource management, infrastructure management, data management, APIs, interoperability etc.

Virtualization and multitenancy

Virtualization is an essential technological characteristic of clouds, which hides the technological complexity from the user and enables enhanced flexibility (through aggregation, routing and translation). In a multitenancy environment, multiple customers share the same application, running on the same operating system, on the same hardware, with the same data –storage mechanism. The distinction between the customers is achieved during application design, thus customers do not share or see each other's data. In case of virtualization, components are abstracted enabling each customer application to appear to run on a separate physical machine

Related to the problem of resource allocation in VMs.

It provides a concise overview of various existing techniques for resource allocation in VMs. These can be helpful for developing detailed designs, specifications and performance evaluation techniques for VMs. However, this paper does not attempt to provide an exhaustive survey on the resource allocation/management techniques in VMs.

Multi-tenancy

It is a highly essential issue in cloud systems, where the location of code and/or data is principally unknown and the same resource may be assigned to multiple users. This affects infrastructure resources as well as data/applications/services that are hosted on shared resources but need to be made available in multiple isolated instances. Multi-tenancy implies a lot of potential issues, ranging from data protection to legislator issues. While hardware-based virtualization has many benefits, it lacks from a high level of scalability required to offer cost effective cloud computing for masses. Multi-tenant virtualization remedies this bottleneck by focusing on software-based virtualization.

Resource management

At any instance, resources are to be allocated to effectively handle workload fluctuations, while providing QoS guarantees, to the end users. The computing and network resources are limited and have to be efficiently shared among the users in virtual manner. In order to perform effective resource management, we need to consider the issues such as resource mapping, resource provisioning, resource allocation and resource adaptation. The lack of mature virtualization tools and powerful processors, have prevented growth of cloud computing. The main challenge is to determine the resource demand, of each application at its current request load level, and to allocate resources in most efficient way. Metering of any kind of resource and service consumption is essential in order to offer elastic pricing, charging and billing. It is therefore a precondition for the elasticity of clouds. The issue here is to see that the users are charged only for the services that they use for the specific period of time. Cloud computing alone will not help an organization to determine who will pay for what

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resource, but it can help provide a platform for an infrastructure ensign that establishes a charge-back model for metering and billing.

Network infrastructure management

Managing millions of network components (hubs, bridges, switches etc.) leads to unsustainable administrator costs, requiring automated methods for typical system management tasks. These automated methods need to deal with increased monitoring data size of several orders of magnitudes higher than current systems. Chiaraviglio and Matta (2010) have proposed cooperation between ISPs (Internet Service Providers) and content providers that allow the achievement of an efficient simultaneous allocation of compute resources and network paths that minimize energy consumption.

Security, privacy and compliance

They are obviously essential in all systems dealing with potentially sensitive data and code. To ensure adequate security in cloud computing, various security issues, such as authentication, data confidentiality, integrity, and non-repudiation need to be considered.

Data management

It is an essential aspect in particular, for storage clouds, where data is flexibly distributed across multiple resources. Implicitly, data consistency needs to be maintained over a wide distribution of replicated data sources. At the same time, the system always needs to be aware of the data location (when replicating across data centers) taking latencies and work load into consideration.

APIs and/or programming enhancements are essential to exploit the cloud features. Common programming models require that the developer takes care of the scalability and autonomic capabilities, whilst a cloud environment, provides the features in a fashion that allows the user, to leave such management to the system.

The important issues identified in resource management are resource provisioning, resource allocation, resource adaptation, resource mapping, resource modelling and selection, resource brokering, and resource scheduling. Their definitions are highlighted in Table 1. AI approach can play a vital role to resolve this issue.

Table 1

S. No.	Issue	Definition
1	Resource provisioning	It is the allocation of a service provider's resources to a customer
2	Resource allocation	It is the distribution of resources economically among competing groups of people or programs
3	Resource adaptation	Resource adaptation It is the ability or capacity of that system to adjust the resources dynamically to fulfill the requirements of the user
4	Resource mapping	It is a correspondence between resources required by the users and resources available with the provider
5	Resource modeling	Resource modeling is based on detailed information of transmission network elements, resources and entities participating in the network. It is a framework that illustrates the most important attributes of resource management: states, transitions, inputs and outputs within a given environment. Resource modeling helps to predict the resource requirements in subsequent time intervals
6	Resource scheduling	A resource schedule is a timetable of events and resources. Shared resources are available at certain times and events are planned during these times. In other words, It is determining when an activity should start or end, depending on its duration, predecessor activities, predecessor relationships, and resources allocated

Conclusion

The movement toward cloud computing has made a massive progress with most service provider companies aiming to transform legacy network to modernized network dependent on network function virtualization with software-defined networking to compete and sustain in competitive pressure of a fast-changing environment. Tech Giants are heavily investing in various AI technologies. These investments are quite strategic and went beyond simple R&D extensions of existing products. However, just moving to cloud is not enough, as intelligent decisions to manage complex and dynamic operations become necessary and impossible for humans. The monitoring tools currently available are inadequate to allocate more resources to provide administrative service without interruption or without shutting down. With AI, importance comes to add value to cloud, leading to better traffic classification, more accurate network fault predictions, time optimization and heightened customer services. The findings are based heavily on literature reading, analyzing results, relative comparisons of the results in different research papers, that conclude that the AI and cloud computing model fits well to analyze consumption pattern of resources by analyzing large amount of data to classify traffic, have more accurate predictions, and detect anomalies, leading to better decision making on resource allocation or upgradation operations at any given time.

References

[1]. Sunil Kumar S, Manvi A, Gopal Krishna Shyamb., 2014, Resource management for Infrastructure as a Service (IaaS) in Cloud Computing: A survey. Journal of Network and Computer Applications 41(2014) 424–440.

[2]. Rakesh Kumar, Neha Gupta, Shilpi Charu, Kanishk Jain, Sunil Kumar Jangir, 2014, International Journal of Computer Science and Mobile Computing, Vol.3 Issue.5, pg. 89-98.

[3]. Pieter-Jan Maenhaut, Hendrik Moens, Bruno Volckaert, Veerle Ongenae and Filip De Turck, 2017, Resource Allocation in the Cloud: From Simulation to Experimental Validation, proceedings of IEEE 10th International Conference on Cloud Computing.

[4]. Dr. Balamurugan E, Sathishkumar K, Dr. Sangeetha, 2018, A Survey on Software as a Service (SaaS) Cloud for High Level Language Computing. International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC). January 28 & 29, 2018.

[5]. S. Russell and P. Norvig, 2015. Artificial Intelligence: A Modern Approach, Prentice Hall, New York.

[6]. B. Jennings and R. Stadler, Resource management in clouds: Survey and research challenges, 2015 Journal of Network and Systems Management, vol. 23, no. 3, pp. 567 – 619, 2015.

[7]. Richars Layne, 2019. Artificial Intelligence and Cloud Computing, The Future of Scientific Research, https://www.tessella.com.

[8]. https://docs.openstack.org/ceilometer/latest/install/get_started.html.

[9]. https://thenewstack.io/how-openstack-provides-scalable-reusable-infrastructure-for-ai-ml-workloads/.

https://wiki.openstack.org/wiki/Gyan/TFiO.

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Artificial Intelligence (AI) Driven Solutions for Security Issues in OpenStack

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Abstract

Cloud computing is one of the most substantial and fastest growing field today whereas cloud service providers offer resources as virtual machines, raw (block) storage, firewalls, load balancers, and network devices. One of the most vital issues in cloud computing is security. AI is a combination of multiple technologies such as machine learning, Artificial Neural Networks and Deep Learning and its widely accepted by technologist and global IT giants. There were few AI driven security solutions have already found in traditional applications in next generation such as firewalls, automatic intrusion detection systems, encrypted traffic identification, malware detection, and so on, therefore it would also be very suitable and supportive for ensuring security on Cloud based computation. This paper focuses on some of the important aspect and possibility of AI driven security approaches for OpenStack cloud. It brings out an exhaustive survey of such techniques, and also put forth the open challenges for further research. The paper is organized as follows as Introduction to Artificial Intelligence, Cloud Computing, Review of Literature, Security Issues in OpenStack and Conclusion.

Keywords*: Artificial Intelligence, Cloud Computing, OpenStack, Security*

Introduction

An increasing number of businesses are preferring cloud services for flexibility, efficiency, cost-effectiveness and strategic values. All types of organization and all sizes of customers from simple to enterprises are enjoying its great advantages. Cloud computing can be classified based on the services

1. Infrastructure as a Service (IaaS)
2. Platform as a Service (PaaS)
3. Software as a Service (SaaS)

IaaS refers to a combination of hosting, hardware provisioning and basic services needed to run a cloud. PaaS refers to the provision of a computing platform and the provision and deployment of the associated set of software applications (called a solution stack) to an enterprise by a cloud provider. Software as a Service (SaaS) is a software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network. Cloud computing is a model for enabling ubiquitous, on-demand network access to a shared pool of configurable computing resources such as network, servers, storage, applications, and services that can be rapidly provisioned and released with minimal management effort Through cloud computing organizers are now able to extract business value by getting meaningful information. Moreover, test and development environment are one of the best usages of the cloud. With cloud computing, there are readily available environments that suit the needs. Another great advantage of using cloud is backing up data. While traditional backup systems can be a very complex and time-consuming operation, Cloud-based backup, on the other hand, can move data without worrying about security and availability issues to any location. Besides all these benefits, as it is evolving, few cloud service providers are providing services with unique nature of architectural infrastructure. Because it is comparatively new, it has several fundamental challenges that must be addressed and overcome to boost for adoption.

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One of them is OpenStack cloud security issue It is a great challenge because of the fact that a company might have share all its sensitive information to a third-party cloud computing service provider and there is a chance that hackers might have access to this information. Therefore, the intention of this paper is to mitigate the security threat in cloud computing

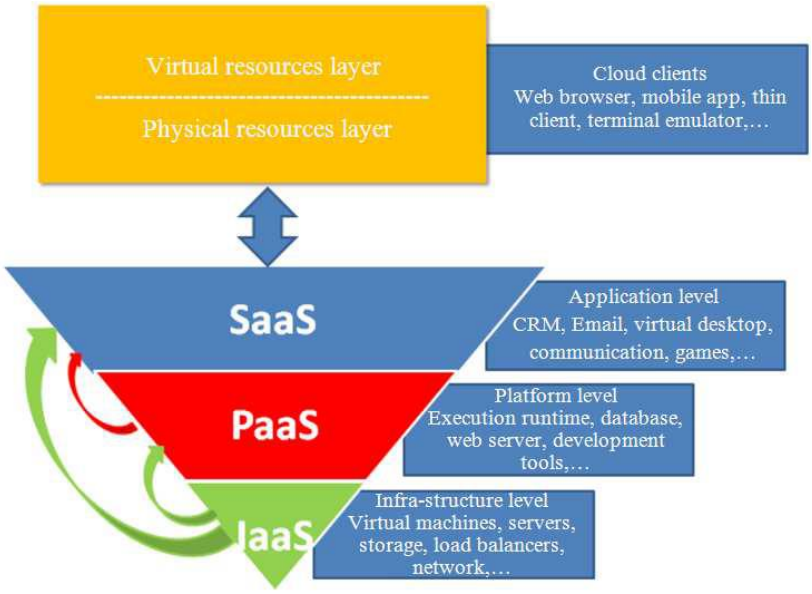

Figure 1. Cloud computing architecture

Literature review

Cloud computing

Cloud computing means, storing and accessing data and programs over the Internet instead of local computer's or servers hard drive kept in residence. Users can access all of the features and files of the system without having that system on their own computers. As Cloud services support people to consume the cloud resources on usage basis, therefore cloud computing ensures utmost use of resources. The use of Cloud services is increasing so rapidly that not only people are using this infrastructure for personal use but also businesses are increasingly using it to be able to access large amounts of data over a secure, online network connection.

Artificial neural network

Artificial Neural Network is the most considered technology in the last two decades that is used in various engineering applications because through its basic function it has the mimicking ability of human mind and effectively employs modes of reasoning and/or pattern recognition

Learning theory

Computational learning theory is the investigation of theoretical aspects of machine learning of what can and what cannot be learned from data. It is a multidisciplinary area which is brought together the techniques and approaches of computer science, statistics and applied mathematics. Learning theory leads to model selection methods by which we can choose automatically what model would be appropriate for a certain training set.

Training

The network is ready to be trained when the data set is ready. To achieve the learning process two approaches can be used: supervised or adaptive training. In supervised training, to monitor how well an artificial neural network is converging on the ability to predict the right answer both inputs and outputs are provided. For adaptive training, only the inputs are provided.

The neural networks benefit from continuous learning in order to face new situations and environments using self-organization mechanisms (SOM

Security Issues in OpenStack Cloud

OpenStack is an open source cloud-based operating system platform for public and private clouds that manages huge pools of compute, storage, and networking resources across a datacenter. Administrative controls are done through a dashboard while a web interface is used to support users in the provision of resources. RackSpace and NASA jointly started this project in 2010. Practically, modification of source code and sharing those modifications with the community is the key benefits of this model as the source code can then be checked by many people compared to proprietary code, which is restricted to its owners.

OpenStack is made up with lots of different moving parts. Everyone can add additional components to OpenStack to help as well as to meet their needs just because of its open nature. But we found that OpenStack society has jointly identified nine key mechanisms that are a part of the "core" of OpenStack, which are spread as a part of any OpenStack system and also officially preserved by the OpenStack community. In order to make a thorough analysis of the OpenStack software from a security viewpoint, first and foremost, we need to identify security-related issues that should be taken care of when using cloud computing solutions.

We have found several flaws in OpenStack; these threats may be addressed in the current releases of OpenStack (Slipetskyy, 2011; Cigoj and Klobucar, 2012)

1. Users cannot reset their passwords on horizon; regular users can only have their passwords reset by the administrator within the horizon interface. We do not currently know how this flaw will impact
2. The administrator of a project on horizon is automatically made the administrator of the whole system. OpenStack utilizes the concept of projects and tenants to group people into logical units for cloud computing. However, the administrator of a single project is granted managerial rights to all projects, not merely the project at hand, by the interface. The administrator's privileges, including the creation of new users and projects, have the potential to change other projects, remove items
3. Cleartext is used in the network API. OpenStack api endpoints encourage the use of cleartext and no SSL/TLS support is available right now. This allows for easy man-in-the-middle attacks and even "sniffing" passwords over the wire can be trivial
4. No authentication in the client-server system. It appears that any host with access to the db and to the AMQP system can act as a compute node and launch VMs
5. Usernames and passwords. Passwords and usernames that are used for accessing images will be stored in Cleartext in the db and in external storage. When glance stores images on swift, for example, the username and password of the swift account will be stored as Cleartext in the db together with the URL of the swift object. This could potentially allow the information of any swift user to be accessed and read from the db. This storage of information is unnecessary because the username and password are already stored in the glance configuration file

AI for traditional cyber security

We need AI in the cases where human expertise is absent and humans are unable to explain their expertise. Moreover, AI help to give better solution where solution changes with time and solution needs to be adapted to particular cases. Furthermore, AI is needed where Problem size is too vast for our limited capabilities. Analyzing these basic criteria, the following area of security can be beneficial by utilizing AI properly.

Threat detection.

Traditional security measures depend on specific firewall and antivirus software for detecting and preventing web-based security threats. As these software needs timely updating therefore the level of security of website depends on the security personnel's attitude. On the other side, algorithm-based AI can be used to detect threats and other potentially malicious activities timely fashioned. Moreover, where conventional systems simply cannot keep up with the sheer number of malware that is created every month, AI based security system can successfully step in and address this problem by using complex algorithms.

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AI can recognize these patterns through supervised and unsupervised training and hence identify even the smallest behaviors of ransomware and malware attacks before it enters the system and then isolate them from that system. Using predictive functions AI supported security system surpass the speed of success of traditional approaches.

Authentication

To provide user access of multi-factor authentication AI system also can be used. A Company might have different levels of authentication privileges for different users and these privileges might differ for different location where they are accessing the data. Managing these types of Authentication would be a nightmare if the organization has many users. On that scenario when AI is used, the authentication framework can be a lot more dynamic and real-time. It collects user information to understand the behavior of this person and make a determination about the user's access privileges and then it can modify access privileges based on the network and location of the user.

Minimizing human involvement

Typically, security personals are assigned to keep vigilant of a website or a connected group. Because it is difficult for cybersecurity expert to work for hours without break or holidays therefore there is scope of security breach within these breaks. Within this scenario, AI supported system can deal better with high risk task without ant concern because it does not require any break. So, it is evident that AI makes human life easier to an extent.

AI with open stack security

It is a fact that with the rapid growing of public cloud utilization, potential risk of security breaches of sensitive stuff, especially data is also growing. In contrast with many thinking, the main responsibility for protecting corporate data in the cloud lies not with the service provider but with the cloud customer. The technology is passing security transition period. And therefore, the focus of responsibility is shifting from the provider to the customer. Enterprises are spending huge amounts of time and money for figuring out if any particular cloud service provider is 'secure' or not and eventually it is not paying back virtually. Artificial Intelligence be helpful in this dilemma as it can provide organizations with an up-to-date understanding of cloud security concerns such as threat detection, authentication and minimizing human involvement. By doing so users of OpenStack cloud can make educated decisions regarding cloud adoption strategies.

Conclusion

Though cloud computing is a good solution for many businesses as it enables global access to mutual pool of resources, it has numerous challenges in security issues which should be addressed properly. OpenStack environment has Disparate Structures and Folders and it is Dynamic Environment in nature. Therefore, with traditional services OpenStack environment requires extensive human intervention. An AI-powered monitoring would actively monitor all of the components OpenStack deployment and IT operation team can get instant deep-level visibility into security services. As a result, the security of OpenStack in real time increases significantly. This Initial finding that AI based security model is best suited for OpenStack Cloud Computing is based on mainly literature reading and relative comparisons of the results in different research papers. Further research can be helpful to support this claim

References

[1]. Ishan Gidwani, Dasrath Mane, 2015, Security Issues in OpenStack, International Journal of Computer Science and Information Technology Research ISSN 2348-120X (online) Vol. 3, Issue 2, pp: 1147-1158.

[2]. Hala Albaroodi, Selvakumar Manickam and Parminder Singh, 2014, Critical Review of OpenStack Security: Issues and Weakness, Journal of Computer Science 10 (1): 23-33.

[3]. Sunil Kumar S, Manvi A, Gopal Krishna Shyamb., 2014, Resource management for Infrastructure as a Service (IaaS) in Cloud Computing: A survey. Journal of Network and Computer Applications 41(2014) 424–440.

[4]. Rakesh Kumar, Neha Gupta, Shilpi Charu, Kanishk Jain, Sunil Kumar Jangir, 2014, International Journal of Computer Science and Mobile Computing, Vol.3 Issue.5, pg. 89-98.

[5]. Pieter-Jan Maenhaut, Hendrik Moens, Bruno Volckaert, Veerle Ongenae and Filip De Turck, 2017, Resource Allocation in the Cloud: From Simulation to Experimental Validation, proceedings of IEEE 10th International Conference on Cloud Computing.
[6]. Dr. Balamurugan E, Sathish Kumar K, Dr. Sangeetha, 2018, A Survey on Software as a Service (SaaS) Cloud for High Level Language Computing. International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC). January 28 & 29, 2018.
[7]. S. Russell and P. Norvig, 2015. Artificial Intelligence: A Modern Approach, Prentice Hall, New York.
[8]. B. Jennings and R. Stadler, Resource management in clouds: Survey and research challenges,2015 Journal of Network and Systems Management, vol. 23, no. 3, pp. 567 – 619, 2015.
[9]. Richars Layne, 2019. Artificial Intelligence and Cloud Computing, The Future of Scientific Research, https://www.tessella.com.
[10]. https://docs.openstack.org/ceilometer/latest/install/get_started.html.
[11]. https://thenewstack.io/how-openstack-provides-scalable-reusable-infrastructure-for-ai-ml-workloads/.
[12]. https://wiki.openstack.org/wiki/Gyan/TFiO.

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