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IMAGE: ACROPOLIS OF ATHENS, UNESCO WORLD HERITAGE

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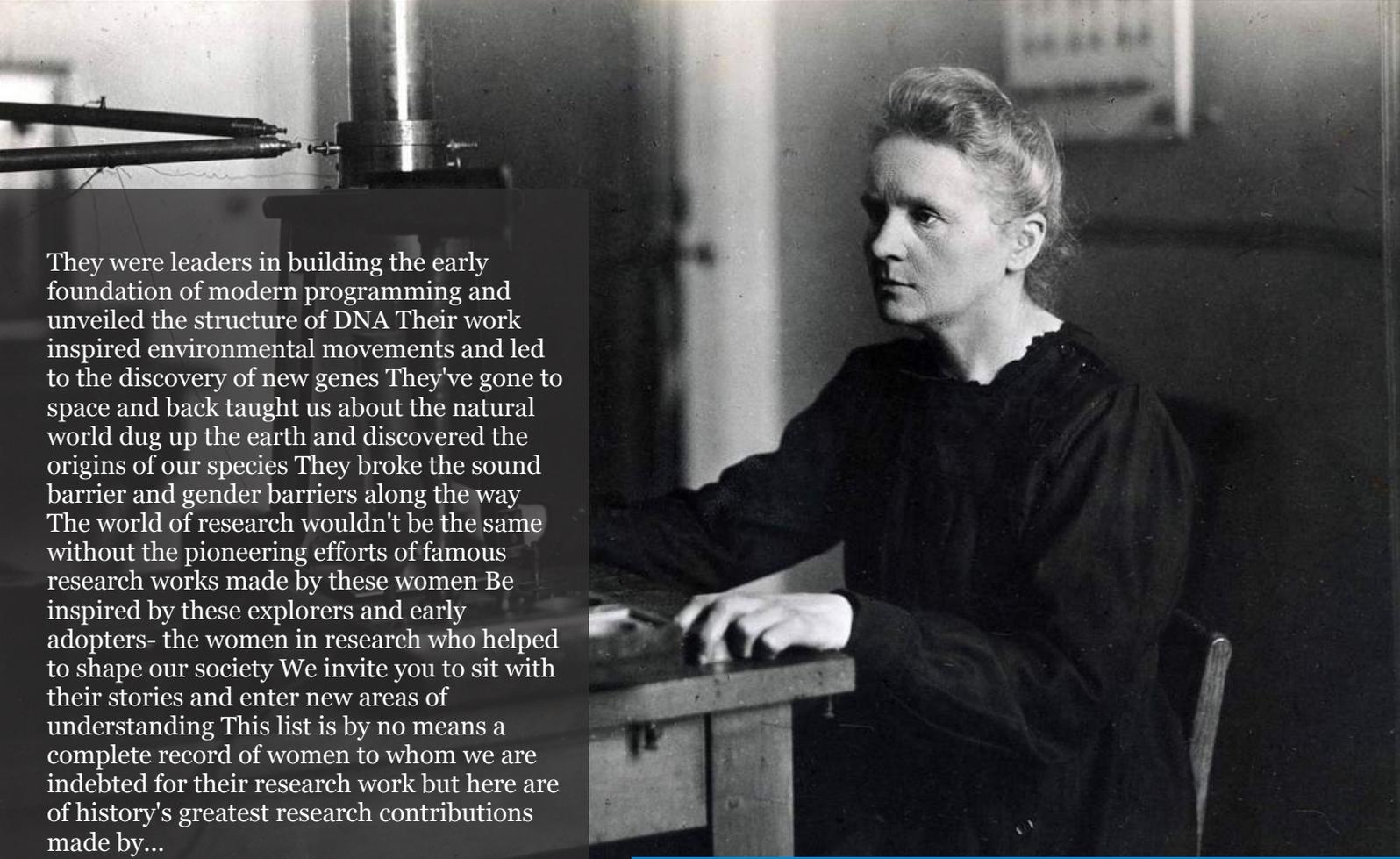
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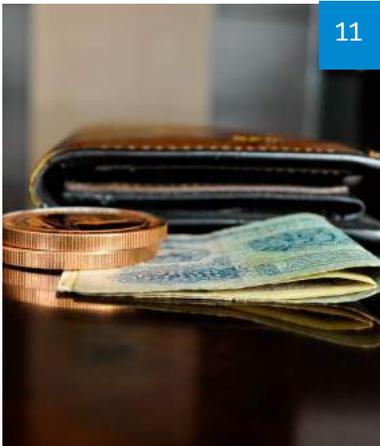
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Locus of Control as Mediator on Influence of Cognitive Behaviour Therapy and Logotherapy on Risky Sexual Behaviours Among Adolescents in Edo State, Nigeria

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ABSTRACT

This study examined the mediating role of locus of control on the influence of cognitive behaviour therapy and Logotherapy in reducing risky sexual behaviour among adolescents in public secondary schools in Benin metropolis, Edo State, Nigeria. The study adopted a quasi- experimental design, using pretest-posttest, non-equivalent control group. The population of the study is made up of all the SS II students in the (31) mixed public senior secondary schools in Benin Metropolis, Edo State. The sample of the study consisted of (135) senior secondary two (SSII) students. The study adapted the "Adolescent Sex Behaviour Inventory" developed by Friedrich (2004). The collected data were analyzed, using both descriptive statistics and inferential statistics. The findings of the study revealed that the interaction effect of treatment by locus of control in reducing risky sexual behaviours among adolescents in Benin metropolis is not significant.

Keywords: risky sexual behaviours, locus of control, cognitive behaviour therapy, logotherapy, adolescents.

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ABSTRACT

This study examined the mediating role of locus of control on the influence of cognitive behaviour therapy and Logotherapy in reducing risky sexual behaviour among adolescents in public secondary schools in Benin metropolis, Edo State, Nigeria. The study adopted a quasi-experimental design, using pretest-posttest, non-equivalent control group. The population of the study is made up of all the SS II students in the (31) mixed public senior secondary schools in Benin Metropolis, Edo State. The sample of the study consisted of (135) senior secondary two (SSII) students. The study adapted the “Adolescent Sex Behaviour Inventory” developed by Friedrich (2004). The collected data were analyzed, using both descriptive and inferential statistics. The findings of the study revealed that the interaction effect of treatment by locus of control in reducing risky sexual behaviours among adolescents in Benin metropolis is not significant. Therefore, it is concluded that the actor of locus of control is not too important in the effectiveness of the Cognitive Behaviour Therapy (CBT) and Logotherapy (LT) as treatment interventions in sex risky behaviours reduction. Based on the findings, it was recommended that parents and teachers should teach and discuss with their adolescent children sex education and sex related issues that are appropriate for adolescent stage to avoid the consequences of risky sexual behaviours.

Keywords: risky sexual behaviours, locus of control, cognitive behaviour therapy, logotherapy, adolescents.

I. INTRODUCTION

The adolescent population represents 31% of the total youth population and 31.7% of Nigeria's population; out of which in-school adolescents represent about 70 % (National Population Commission, 2009). Promisingly, they occupy a strategic and distinctive position and they are seen as the future of any nation. The special characteristics and attributes of adolescents include: rapid biological, physical, psychological, cognitive, social development and behavioural changes among others. Weiss, (2000) opined that adolescence marks the period when adolescents acquire unique set of beliefs and values in which they start to view their beliefs and values as autonomous, rational and moral agents. These sets of beliefs and values may shape the way adolescents may interpret the social world and conduct within it.

Adolescents' needs and interests sometime predispose them to participate in risk taking behaviours, such as engaging in alcoholism or drug use, violent attitude, dangerous driving, having multiple sex partners, premarital sex, rape, early sex, among others. Moreover, adolescents usually experience conflicting sexual thoughts and emotions in an attempt to derive pleasure, which may constitute risky sexual behaviours. Their yearning for belongingness coupled with their

peer group pressure could result in some behavioural problems and challenges likely to prevent them from attaining set goals in academics and other aspects of their lives.

Risk taking behaviours are the activities or behaviours that can have adverse effects on the overall development and wellbeing of a person. Such risky behaviours might prevent the individual(s) from reasonable and objective thinking, thus disrupting them from realizing the meaning and purpose of their life existence. Adolescents may respond to impulse rather than deep thinking and consider the temporary benefits they may enjoy rather than the unintended consequences of their decisions. Lack of awareness about the risks associated with certain sexual behaviours could result in unwanted pregnancies, abortion, and other sexually transmitted diseases (STDs), which can preclude an adolescent from enjoying typical adolescent events. Such events include attending and graduating from schools and developing close friendship with peers. The adverse effect of risky sexual behaviour could also lead to unwanted pregnancy, infections, diseases, untimely school dropout, social disorganization and even death. All these consequences are likely to affect the lives of adolescents and hinder them from achieving purpose and meaning of their lives. The concept of risky sexual behaviour may be attributed to whether someone's life is controlled by self or by others around them as well as their immediate environment.

The issue of risky sexual behaviour may be intervened by the factor of locus of control. Locus of control is the individual's perception about the underlying main causes of events in their life. Locus of control is conceptualized as a one-dimensional continuum, ranging from external to internal. People having high internal locus of control instinct are likely to be effective in the pursuance of their goal and ambitions. They are likely to cope with peer pressure, thus dissuaded from engaging in risky sexual behaviours. Locus of control among adolescents could be associated with different behavioural intention. While People having high external locus of control instinct are likely not to be effective in

the pursuance of their goal and ambitions. They are not likely to cope with the peer pressure arising from not being involved in risky sexual behaviours because they can be easily influenced by the opinion of other people. Adolescents with internal locus of control would prefer to perform cognitive tasks more internally, relying less on external influence. Conclusively, people with internal locus of control could be more prone to solving problem through learning. Adolescents with external locus of control tend to praise or blame external factors for their own faults. They also believe that they have little control over a lot that happen to them. Furthermore, they believe that their decisions and life are controlled by environmental factors, which cannot be influenced or occur by chance or fate. This may make it difficult for them to personally control their intention and decisions.

Risk taking behaviours, may be caused by those things that are intrinsic or extrinsic to the individual, which are related to Rotter's (1966) "locus of control" variables. This concept is about the perceived control over one's actions. It is the degree of the beliefs, which a person conceives that the events occurring to him/her is either controlled by him/her or by his/her environment or by others. Brincks and Feaster (2010) asserted that a person who has internal locus of control would believe that he/she can influence events and their outcomes, while someone with an external locus of control blames outside forces or other people for everything.

In order to help the adolescents to reduce the incidence of risky sexual behaviour, there is the need to introduce intervention strategies such as cognitive behaviour therapy and logotherapy. Cognitive Behaviour Therapy (CBT) according to Beck and Clark (2011) is to enable people to replace negative thought habits with more accurate thinking habits. It teaches a person to stop trusting in his automatic tendency to accept the contents of his thoughts as being an accurate assessment of reality. According to Beck and Clark (2011), the goal of cognitive restructuring is to start testing each thought for accuracy as soon as they emerge. Cognitive restructuring, is about changing a perception from a negative

interpretation to a neutral or positive one; making it less stressful (Hofmann & Smith, 2008). This process according to him is also called reappraisal, relabeling, reframing, and attitude adjustment. This therapy can be used to improve the constant discourse of the mind and is often described in four-stage processes, which are awareness, reappraisal of the situation, approval and substitution and evaluation. It also helps clients to think differently and objectively about a situation, events, and thoughts and beliefs, which could apply to anything done in a therapy session that could promote cognitive change.

Logotherapy (LT) on the other hand, is considered as an active treatment, which provides guidance to assist clients, especially in the stages of life crisis and this type of treatment is based on the premise that the meaning of life is unconditional, and that anyone, and at any time can find and discover this meaning (Frankl, 2006). Logotherapy broadens the scope of the eyesight of students to see the meaning and values that are hidden in tragedy and then, boldly they will be able to admit it or to fight it. Logotherapy analyses in a directive manner, the meaning and purpose of life. It can be indicated when the students are experiencing loss of direction, confused values, a shaken identity, personal alienation, boredom, meaninglessness, direction change and relationships change. Frankl's Logotherapy (1986) relied on the characteristics of man as meaning-seeking and meaning-making creatures. According to Batthyany (2014), Logotherapy is an internationally acknowledged and empirically based meaning-control approach to psychotherapy. Batthyany's assertion was evidenced in Frankl's "Man's search for meaning", where he pointed out that logotherapy indeed is a meaning control psychotherapy (Kriegler, 2014).

II. STATEMENT OF THE PROBLEM

Psychologists have used various strategies to assist the students to learn and assess risk, talk about values, encourage safe sex behaviours, keeping the line of communication open, role modelling, prevention programmes focused on risky sexual behaviour to reduce the risks associated with sexual behaviours and induce

positive change behaviours. These seem not to have effect on sex risk taking behaviours among adolescents. There are several counselling therapies which may enhance adaptive behaviours and eliminate other maladaptive behaviours. Among such therapies are CBT and LT.

The consequences of risky sexual behaviour are frightening; they include unwanted pregnancies among female students, abortion, which could lead to death or permanent deformity, sexually transmitted diseases and infections, disturbance in school attendance and subsequent withdrawal from school. These can truncate a child's life pursuit and derail the purpose of his/her life. In most cases, adolescents may not readily understand the consequences of their actions apart from the immediate pleasure they derive. Since mere awareness programmes may not be effective in reducing the growing tendency of adolescents' involvement in sex risky behaviours, it is therefore, imperative to explore the efficacy of the interventions of CBT and LT in reducing this psychosocial problem.

Risk taking behaviour among adolescents in today's world involves unprecedented intercourse, unprotected sex, early sexual activities, multiple sex partners, high risk partners, rape, and prostitution. These seem to be prevalent among youths generally and adolescents of school going age in Nigeria in particular. A study by the National Population Commission (NPC) in 2009 in some parts of Nigeria revealed that sexual interactions of various dimensions among the youths and adolescents have been on the ascendancy. Similarly, the Nigeria Centre for Disease Control and Prevention (2012) also raised an alarm over the increase in sexually transmitted diseases (STD), owing to prevalence of sexual activities and risk behaviours among adolescents. Furthermore, a study conducted by Omagie and Omagie (2013) on 24 focused discussion groups, in Oredo Local Government of Edo State showed that despite continuous education and awareness programmes, the rate of increase in youths' and adolescents' involvement in unsafe sex and other related practices that could expose them to infections and other sexually related danger is escalating. Adolescents may attribute their

intention/decision to luck or fate or not be able to understand why they engage in such behaviours (personality traits). Therefore, can the in-school adolescents' locus of control have influence on the interaction of the therapies on risky sexual behaviour? It is in this light that this study sought to investigate the mediating role of locus of control on the efficacy of Cognitive Behaviour Therapy and Logotherapy in reducing risky sexual behaviour among the in-school adolescents in Benin Metropolis, Edo State.

III. RESEARCH QUESTIONS

1. Is there any difference in risky sexual behaviour among in-school adolescents treated with Cognitive Behaviour Therapy, Logotherapy and the control group at post-test?
2. Is there an interaction effect of treatments by locus of control in managing risky sexual behaviour among in-school adolescents in Benin metropolis?

Hypotheses

1. There is no significant difference in risky sexual behaviour among in-school adolescents treated with Cognitive Behaviour Therapy, Logotherapy and the control group.
2. There is no significant interaction effect of treatment by locus of control in managing risky sexual behaviours among in-school adolescents in Benin metropolis.

Purpose of the Study

This study sought to investigate the influence of Cognitive Behaviour Therapy and Logotherapy on sex risky behaviour among in school adolescents, and the mediating role of locus of control in risky sex behaviour among the in-school adolescents.

IV. METHODOLOGY

The design of the study is quasi-experimental, using pretest-posttest, non-equivalent control group. In this design, intact classes were used because the design does not permit random assignment of subjects to the experimental and control groups. The treatment levels are Cognitive Behavioural Therapy and Logotherapy

for the experimental group; and a non-attention treatment for the Control group. Locus of control is of two levels, external and internal. The target population of this study is the SS II students in the (31) mixed public senior secondary schools in Benin Metropolis, Edo State. This group of students is considered appropriate for this study, because it is believed that students of this class are mainly adolescents who could be more vulnerable to risky sexual behaviours. Furthermore, this population is chosen because senior school students largely share similar sexual behavioural characteristics.

The sample for this study consisted of (135) participants drawn from the intact classes. Only the senior secondary two (SSII) students were involved in the study. This class was purposively chosen for the study, because the students were likely to be more vulnerable to risky sexual behaviours because most of them may have finally reached the puberty stage. The study adapted the "Adolescent Sex Behaviour Inventory" developed by Friedrich (2004). The questionnaire consisted of forty-two (42) items, self-report standardized instrument, developed to measure risky sex related behaviours, which could require therapeutic intervention. The researcher modified it to suit the culture of the adolescents. It measured risky sexual behaviours, non-conforming sexual behaviours, sexual interest and sexual discomfort in adolescents. The second instrument is an adaptation of the Rotter's (1966) "Locus of Control Scale", meant to categorize the participants into internal and external "locus of control" groups. To determine the reliability, the obtained data were correlated, using the Pearson's r coefficient statistics. The results gave r coefficients of 0.926 for Adolescent Sex Behaviour Inventory (ASBI) and 0.686 for Locus of Control Risky sexual behaviour Scale (LCSRTS). This indicated that the two instruments were reliable.

The instruments were administered to collect data at the pre-test to find out the initial equivalence of the groups to determine if there was a difference between the pre-test risky sexual behaviour and post-test risky sexual behaviours after treatment. This was followed by the treatment. The researcher was assisted by trained research

assistants to concurrently treat the three groups in their separate schools, to avoid participants' interaction. At the end of the treatment, both the experimental and the control groups were post-tested, using the same ASBI and LCSRTS, that were used for the pre-test. T-test and Analysis of Variance (ANOVA) were used to test the hypotheses.

V. RESULTS

Hypothesis 1: There is no significant difference in risky sexual behaviour among in-school adolescents treated with Cognitive Behaviour Therapy, Logotherapy and the control group at post-test.

Table 1: Descriptive Statistics of CBT and LT group on reduction of Risky Sexual Behaviour at Pre-test

Group	N	Pretest Mean	Std. Deviation
Cognitive Behavioural Therapy	55	67.87	16.81
Logotherapy	36	67.13	16.61
Control	44	68.00	11.38
Total	135	67.71	15.09

Table 1 shows the mean and standard deviation of the pre-test for the three groups. For the Cognitive Behaviour Therapy group (N= 55, mean= 67.8727, Standard deviation= 16.81386); the logotherapy (N= 36, mean = 67.1389, Standard deviation = 16.61351) and the control group (N= 44, mean= 68.0000, Standard deviation =11.38951).

Table 2: Descriptive Statistics of CBT and LT on reduction of Risky Sexual Behaviour at post-test

Group	N	Post test Mean	Std. Deviation
Cognitive Behaviour Therapy	55	64.09	16.64
Logotherapy	36	62.00	16.33
Control	44	75.05	19.72
Total	135	67.10	18.37

Table 2 shows the mean and standard deviation at the post-test for the three groups. For the Cognitive Behaviour Therapy group (N= 55, mean= 64.09, Standard Deviation= 16.64); the logotherapy (N= 36, Mean = 62.00, Standard Deviation = 16.33) and the control group (N= 44, Mean= 75.05, Standard Deviation =19.72). To test if there is a significant difference in the post-test among the three groups, the one-way ANOVA statistic was used.

Table 3: One-way ANOVA of reduction on Risky Sexual Behaviour at Post-test between the Groups

Group	Sum of Squares	Df	MS	F	Sig.
Between Groups	4212.09	2	2106.05	6.777	.002
Within Groups	41020.46	132	310.76		
Total	45232.55	134			

Table 3 shows a F-value of 6.777 and p-value of 0.002. Testing at the alpha level of 0.05, the p-value (0.002) is less than the alpha level 0.05. Therefore, the null hypothesis, which states that ‘There is no significant difference in risky sexual behaviour for in-school adolescents treated with Cognitive Behaviour Therapy, Logotherapy and the control group at post-test’ is rejected. Consequently, there is a significant difference in

risky sexual behaviour in the treatment groups (cognitive behaviour therapy and logotherapy) and the control group.

Hypothesis 2: There is no significant interaction effect of treatment by locus of control in managing risky sexual behaviour among in-school adolescents in Benin metropolis.

Table 4: T-test of Risky Sexual Behaviour at Pre-test for Locus of Control

	Locus of Control	Mean	Standard deviation	T	Sig.
Pre-test Risky Sexual Behaviour	Internal	67.3030	15.41299	-.529	.829
	External	68.8611	14.31912		

Table 4 shows the mean and standard deviation of risky sexual behaviour at pre-test for Locus of control. Internal (Mean= 67.30, Standard deviation = 15.41); External (Mean = 68.86,

Standard deviation = 14.32). The t-value and p-value are -.529 and .829 respectively. The alpha level (0.05) is less than the p-value of .829. Hence, the Ho is rejected.

Table 5: Descriptive Statistics of Locus of Control on Risky Sexual Behaviour Reduction

Group	Locus of Control	N	Mean	Std. Deviation
Cognitive Behavioural Therapy	Internal	43	62.65	16.54
	External	12	69.25	16.69
	Total	55	64.09	16.64
Logotherapy	Internal	28	61.79	17.45
	External	8	62.75	12.59
	Total	36	62.00	16.34
Control	Internal	28	74.57	19.39
	External	16	75.87	20.89
	Total	44	75.05	19.72
Total	Internal	99	65.78	18.32
	External	36	70.75	18.26
	Total	135	67.10	18.37

Table 5 shows that the Cognitive Behaviour Therapy group’s Mean, Standard deviation and Number of respondents are as follows for Internal locus of control (Mean= 62.65, Standard

deviation= 16.54, N = 43); External locus of control (Mean= 69.25, Standard deviation = 16.69, N= 12). In the Logotherapy group, the Mean, Standard deviation and number of

respondents are as follows for internal locus of control (Mean= 61.79, Standard deviation= 17.45, N = 28); External locus of control (Mean= 62.75, Standard deviation= 12.59, N = 8). In the control group, the Mean and Standard deviation and

number of respondents are as follows for Internal locus of control (mean= 74.57, standard deviation= 19.39, N = 28); External locus of control (Mean= 75.88, Standard deviation = 20.89, N = 16).

Table 6: One-way Analysis of Locus of Control Interaction Effect of CBT and LT on Risky Sexual Behaviour

Source	Type III Sum of Squares	df	MS	F	Sig.
Corrected Model	4643.709 ^a	5	928.742	2.952	.015
Intercept	452930.230	1	452930.230	1.440E3	.000
Group	3046.379	2	1523.189	4.841	.009
LOC	215.087	1	215.087	.684	.410
group * LOC	176.030	2	88.015	.280	.756
Error	40588.839	129	314.642		
Total	653125.000	135			
Corrected Total	45232.548	134			

From Table 6, the locus of control interaction effect has a Mean Square of 88.02, F-value of .280 and a p-value of .756. Testing at the alpha level of 0.05, the p-value (.756) is greater than the alpha level (0.05). Therefore, the null hypothesis, which says there is no significant interaction effect of treatment by locus of control on risky sexual behaviour among in-school adolescents in Benin metropolis is retained. Hence, it can be concluded that there is no significant difference in the treatment interaction by locus of control on risky sexual behaviour among in-school adolescents in Benin metropolis.

VI. DISCUSSION OF FINDINGS

With respect to hypothesis one, at the posttest, the F-value of 6.78 and P-value of 0.002 and testing at alpha level of 0.05 as contained in Table 3 showed that there is a significant difference between the treatment groups and the control group in risky sexual behaviours. By implication, the impact of the treatment therapies on the treatment groups could have brought about the difference between them and the control groups without treatment. No wonder the mean scores of

the treatment groups reduced at the posttest, while that of the control group increased as contained in Table 2. One can therefore suggest that the therapies were effective. Therefore, if a disorder is not attended to, it may worsen. This corroborates the findings of Hamideh, Samaliand and Zakieh (2013), where they concluded that when an unhealthy behaviour in an individual is left unattended to in due course, such could lead to a serious lifetime disorder, which could impede the sufferers achieving his or her life purpose.

The testing of hypothesis two showed that the interaction effect of treatment by locus of control on risky sexual behaviour among in-school adolescents in Benin metropolis is not significant. From Table 3, the locus of control interaction effect has a mean square of 88.015, F-value of .280 and a p-value of .756. Testing at the alpha level of 0.05, the p-value (.756) is greater than the alpha level (0.05). Therefore, the null hypothesis which states that ‘there is no significant interaction effect of treatment by locus of control on risky sexual behaviour among in-school adolescents in Benin metropolis’ is retained. Hence, it was concluded that there is no

significant difference in the treatment interaction by locus of control on risky sexual behaviour among in-school adolescents in Benin metropolis. This could imply that the therapies may not be locus of control biased. In other words, the therapies might not be functioning based on internal or external locus of control. As such, the treatment was equally effective for both types of locus of control. However, CBT and logotherapy were found to be more effective for adolescents with internal locus of control than those with external locus of control. This finding supports the finding of Ihekwa (2009), that found that those with internal locus of control are better able to cope with stress and more responsive to treatment than those with external locus of control.

VII. CONCLUSION

Based on the findings of this study, it is hereby concluded that Cognitive Behaviour Therapy and Logotherapy as therapeutic interventions were efficacious in managing risky sexual behaviours among in-school adolescents. In addition, the interaction effect of treatment by locus of control in reducing risky sexual behaviours among in-school adolescents in Benin metropolis is not too important in altering the efficacy of the treatments. In other words, the factor of locus of control may not be very important in altering the efficacy of the cognitive behaviour therapy and logotherapy as treatment interventions in sex risky behaviours reduction.

VIII. RECOMMENDATIONS

Based on the findings and conclusion, the study recommended the following:

- School counsellors and counselling psychologists should acquire the knowledge and skills of CBT and LT so as to be able to assist adolescents in resolving the problems of risky sexual behaviours.
- Guidance counsellors are saddled with the responsibility of managing students' maladjustment, therefore, it is pertinent for both Federal and State governments to ensure that they are well trained, especially on how to

employ some therapeutic treatments such as Cognitive Behaviour Therapy and Logotherapy.

- Early sex education and sex related issues must be taught and discussed in schools irrespective of the adolescent locus of control.

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Social or Economic Variables? Which One Reduces Poverty? A Causality Approach

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ABSTRACT

In this paper, we used the Social Progress Index (SPI) and the Global Competitive Index (GCI) as main variables, in order to identify the causal relationship between social and economic variables and the impact on poverty in the world. We used a powerful and recent econometric technique: Directed Acyclic Graphs, we conclude that SPI and GCI have an important causal relationship and is the GCI and the Gini Index the main causes of poverty, from here is possible to identify efficient public policies to eradicate poverty in the world.

I. INTRODUCTION

How do we measure development? This is still one of the most important questions in public policy analysis, if the main goal is to improve citizens' wellbeing in any country. We also wonder, what is the relationship between economic development and social progress? The general wisdom has been that economic development measured mainly by GDP per capita will lead to social progress, however this is not always the case. Also, we need to consider that sometimes social progress influences economic development.

In order to understand the relationship between economic development and social progress we used the Global Competitiveness Index as the summit of many economic variables on one hand, and the Social Progress Index as a social indicator on the other. Our main goal is to understand the relationships among these variables and their impact on poverty levels, for this, we used an econometric technique to identify causality: Directed Acyclic Graphs.

Directed Acyclic Graph methods are a new area of analysis that has emerged in the last few decades. These techniques may shed light on causality in applied econometrics. The basic or fundamental result from these efforts is embedded in the notion of *d-separation*, which formalizes notions of conditional independence between variables. The objective of this paper is to identify how Directed Acyclic Graphs perform in identifying causal relationships between economic variables, social variables and poverty levels.

This paper is organized as follows: In the first section, we present the concept of Directed Acyclic Graphs and *d-separation* and suggest why they may be used in causality. Section two describes the data used. In the third section, we present the results using a simple regression model and a Directed Acyclic Graph model, results show how the general wisdom may be misleading and how directed graphs can improve estimations of causal relationships. At the end we will give some general conclusions and recommendations.

II. DEFINITIONS

A Directed Acyclic Graph is a picture representing the causal flow among a set of variables. More formally, it is an ordered triple $\langle \mathbf{V}, \mathbf{M}, \mathbf{E} \rangle$ where \mathbf{V} is a non-empty set of variables, \mathbf{M} is a non-empty set of symbols attached to the end of undirected edges, and \mathbf{E} is a set of ordered pairs. Each member of \mathbf{E} is called an edge. Variables connected by an edge are said to be adjacent. If we have a set of variables $\{\mathbf{A}, \mathbf{B}, \mathbf{C}, \mathbf{D}, \mathbf{E}\}$: (a) the undirected graph contains only undirected edges (e.g., $\mathbf{A}-\mathbf{B}$); (b) a directed graph contains only directed edges (e.g., $\mathbf{B} \rightarrow \mathbf{C}$); (c) an inducing path graph contains both directed edges and bi-directed edges (e.g., $\mathbf{C} \leftrightarrow \mathbf{D}$), and (d) a partially oriented inducing path graph contains

directed edges (\rightarrow), bi-directed edges (\leftrightarrow), non-directed edges (o-o) and partially directed edges (o \rightarrow). A Directed Acyclic Graph is a directed graph that contains no directed cyclic paths (an acyclic graph contains no variable more than once).

Directed Acyclic Graphs are designs for representing conditional independence as implied by the recursive product decomposition:

$$pr(x_1, x_2, x_3, \dots, x_n) = \prod_{i=1}^n pr(x_i | pa_i) \quad (1)$$

where pr is the probability of vertices $x_1, x_2, x_3, \dots, x_n$ and pa_i is the realization of some subset of the variables that precede (come before in a causal sense) x_i in order ($x_1, x_2, x_3, \dots, x_n$). Pearl (1995) proposed *d-separation* as a graphical characterization of conditional independence. That is, *d-separation* characterizes the conditional independence relations given by equation (1). If we formulate a Directed Acyclic Graph in which the variables corresponding to pa_i are represented as the parents (direct causes) of x_i , then the independencies implied by equation (1) can be read off the graph using the notion of *d-separation* (defined in Pearl (1995)):

Definition: Let X, Y and Z be three disjoint subsets of vertices in a directed acyclic graph G, and let p be any path between a vertex in X and a vertex in Y, where by "path" we mean any succession of edges, regardless of their directions. Z is said to block p if there is a vertex w on p satisfying one of the following: (a) w has converging arrows along p, and neither w nor any of its descendants are on Z, or (b) w does not have converging arrows along p, and w is in Z. Further, Z is said to d-separate X from Y on graph G, written $(X \perp\!\!\!\perp Y | Z)_G$, if and only if Z blocks every path from a vertex in X to a vertex in Y.

Geiger, Verma and Pearl show that there is a one-to-one correspondence between the set of conditional independencies, $X \perp\!\!\!\perp Y | Z$, implied by equation (1) and the set of triples (X, Y, Z) that satisfy the *d-separation* criterion in graph G. In other words, given a causal graph G, the concept of *d-separation* will help to decide whether a set of variables X is independent of another set Y, given a third set Z. The criterion associates "dependence" with "connectedness" if a connecting path exists.

A path in a causal graph is defined as any consecutive sequence of arrows, disregarding their directionalities. A connecting path can be traced without traversing a pair of arrows that collide head to head, since arrows that meet head to head do not constitute a connection for the purpose of passing information. Following Spirtes, Glymour and Scheines we can view a causal graph as a pipeline carrying information flow (water). Each vertex (variable or set of variables) represents a valve, which is either closed or open. Consider three such vertices: X, Y and Z. A variable (or set of variables) is a collider if arrows converge on it: $X \rightarrow Y \leftarrow Z$. Here information on X cannot get through to Z, as the valve is closed at Y. The vertex Y is a collider and, X and Z are *d-separated*, given the null set. However, if we condition on Y, we open the valve and information is able to flow from X to Z. If information flow is characterized by diverging arrows, then the *d-separation* conditions are different. If we now have $A \leftarrow B \rightarrow C$. Here the unconditional correlation between A and C will be non-zero, as they have a common cause B. If we condition on B, the association between A and C disappears. Conditioning on common causes, blocks the flow of information between common effects. In an unconditional sense, A and C are *d-connected*, while conditioning on B, variables A and C are *d-separated*. Finally, if our causal path is one of a chain, so that D causes E and E causes F we have $D \rightarrow E \rightarrow F$. The unconditional association (correlation) between D and F will be non-zero, but the association (correlation) between D and F conditional on E will be zero. For causal chains, the end points (D and F) are not *d-separated*, while conditioning on the

middle vertex (E) makes the end points *d-separated*.

Spirtes, Glymour, and Scheines have incorporated the notion of *d-separation* into an algorithm (PC algorithm) for building Directed Acyclic Graphs, using the notion of *sepset*. Essential for this connection is the following result: If G is a Directed Acyclic Graph with vertex set V, A and B are in V, and H is also in V, then G linearly implies the correlation between A and B conditional on H=0 if and only if A and B are *d-separated* given H.

The PC algorithm is an ordered set of commands which begins with a general unrestricted set of relationships among variables and proceeds step-wise to remove edges between variables and to direct “causal flow.” The algorithm is described in detail in Spirtes, Glymour, and Scheines (1993, p. 117).

Advanced versions (refinements) are described as the modified PC algorithm, the causal inference algorithm, and the fast causal inference algorithm. As the basic definition of a *sepset* is used in all and PC algorithm is the most basic, we restrict our discussion to PC algorithm. Briefly, one forms a complete undirected graph G on the variable set V. The complete undirected graph shows an undirected edge between every variable of the system. Edges between variables are removed sequentially based on zero correlation or partial correlation (conditional correlation). The conditioning variable(s) on removed edges between two variables is called the *sepset* of the variables whose edge has been removed (for vanishing zero order conditioning information the *sepset* is the empty set). Edges are directed by considering triples X-Y-Z, such that X and Y are adjacent as are Y and Z, but X and Z are not adjacent. Direct edges between triples: X-Y-Z as $X \rightarrow Y \leftarrow Z$ if Y is not in the *sepset* of X and Z. If $X \rightarrow Y$, Y and Z are adjacent, X and Z are not adjacent, and there is no arrowhead at Y, then orient Y-Z as $Y \rightarrow Z$. If there is a directed path from X to Y, and an edge between X and Y, then direct (X-Y) as: $X \rightarrow Y$.

Fisher’s z is used to test whether conditional correlations are significantly different from zero, where

$$z(\rho(i, j | k)n) = 1/2(n - |k| - 3)^{1/2} \times \ln\left\{ \frac{1 + \rho(i, j | k)}{1 - \rho(i, j | k)} \right\}$$

n is the number of observations used to estimate the correlations, $\rho(i, j | k)$ is the population correlation between series i and j conditional on series k (removing the influence of series k on each i and j), and |k| is the number of variables in k (that we condition on). If i, j and k are normally distributed and $r(i, j | k)$ is the sample conditional correlation of i and j given k, then the distribution of $z(\rho(i, j | k)n) - z(r(i, j | k)n)$ is standard normal. PC algorithm and its more refined extensions are marketed as the software TETRAD V (Scheines et al., 1994).¹

Following this line of thought, Papineau described an asymmetry in causal relations. Consider three variables in Figure 1: X, Y and Z, where X causes Y and Z. Here the unconditional association between Y and Z is nonzero (as both Y and Z have a common cause in X), but the conditional association between Y and Z given knowledge of the common cause X, is zero: a common cause screens off associations between its joint effects. Let X be the level of health consciousness in the population, Y be the number of overweight persons in the population and Z be the frequency of heart disease. We can use the level of overweight persons to forecast the incidence of heart disease. That is since $P(Z|Y) > P(Z)$ we can say that Y helps in the forecasting of Z. However, if we are able to measure the level of health consciousness in the population, the influence of the variable “overweight” disappears in the estimation of diseases: $P(Z|Y,X) = P(Z|X)$ so we can estimate the direct relationship of X on Z, and we don’t need a proxy of Y. This is an example of the common cause screening off associations between the effects. We need to condition on X to get *d-separation*. The causal structure in Figure 1 is sometimes referred as a “causal fork.” We need to condition on the common cause of the fork to get *d-separation*.

¹ Notice that using the PC algorithm to define a later model to estimate could generate the problem of pre-test bias.

On the other hand, in Figure 2 we define the case where X and Z cause Y. Here the unconditional association between X and Z is zero, but the conditional association between X and Z given the common effect Y is not zero: a common effect does not screen off association between its joint causes. If we now define X as nutrition, Y as health and Z as exercise, and we assume that nutrition and exercise are independent events, i.e. $P(X|Z)=P(X)$, it is not useful to have information about exercise when we want to predict nutrition. However, if we know that the population has very poor health and that they exercise, we can say something about the level of nutrition, i.e. $P(X|Y,Z)<P(X|Y)$. Here we do not need to condition on Y to get *d-separation* between X and Z. The causal structure illustrated in Figure 2 is sometimes referred to as an “inverted causal fork.” We do not need to (or want to) condition on the common effect to obtain *d-separation*.

Hausman and Woodward suggest that it is false to say simply that common causes screen off their effects, and that what is relevant is to condition on all the parents of the effect. Also, in order to define the correct association between variables one needs the correct variables and the correct level of analysis. As an illustration of the problems created by not using the right variables, suppose that one finds the following results from a study of the effectiveness of a new treatment (taken from Hausman and Woodward (1999)).

From Table 1 we can see that treatment and recovery are strongly correlated, yet it could be the case that when one analyses the data further one finds the following. Among men and among women there is no correlation between treatment and recovery. The correlation in the aggregate data results from the fact that women are more likely to recover and that a larger proportion of the women than the men in the sample are treated. If the relevant cause of treatment -gender- had been included, there would be no conditional probabilistic dependence between treatment and recovery, as shown in Table 2.

The concept of conditional correlation was pointed out by Simpson and is now known as Simpson’s Paradox. Any statistical relationship

between two variables may be reversed or negated by including additional factors in the analysis. This means that a non-zero correlation between two variables could exist $Corr(X,Y) \neq 0$, but when we condition this correlation on another variable Z, this correlation becomes zero $Corr(X,Y|Z) = 0$. Simpson’s Paradox says that it is possible to have $P(X|Y) < P(X)$ and have at the same time both $P(X|YZ) > P(X)$ and $P(X|YZ') > P(X)$. This could be expressed as Y is unfavorable to X, but if we include in these analysis the effect of having Z and not having Z then Y becomes favorable to X.

For the case when we need to define the right level of analysis, consider an example due to Salmon (1985). A cue ball collides with two other billiard balls. Call the variable that measures whether or not a collision occurs C, the variable that measures whether or not the first ball goes into the corner pocket A and the variable that measures whether or not the second ball goes into the corner pocket B. Each variable can take values a, ~a; b, ~b; c, ~c. Because of the conservation of momentum, conditional on whether or not the collision (c or ~c) occurs, whether or not the first ball goes into a corner pocket (a, ~a) provides additional information about whether the second ball does (b, ~b). Hence, although C is a common cause of A and B and A and B are not related as cause and effect, C fails to screen off A from B. A more precise and informative specification of the collision event (call it C*) ‘the exact momentum of the cue ball on striking the two target balls’ will be a screening off common cause.

From the mathematical definition of cause and effect, we know that if we identify that X causes Y, then we can wiggle Y by wiggling X, while when one wiggles Y, X remains unchanged. Causes are viewed as levers that can be used to manipulate their effects, and it is also assumed that effects can be controlled through their causes.

A political or social scientist would be tempted to identify the causes that could guide to the desired effect in some economic or social variable. In fact,

economic theory tries to identify this relationship while the objective of government policy makers is to identify the causes in order to apply programs that directly affect consequences like poverty level. These programs or interventions need to satisfy certain requirements in order to be effective.

Hausman and Woodward identify the characteristics that an intervention on the cause must satisfy in order to be effective on the desired effect. In addition to causing a change in the variable X, an intervention on X must not directly change the value of Y. This seems obvious, if the intervention changes Y directly we don't need to identify the cause of Y, for example reducing poverty just giving money to all poor people. However, we can think of a situation where the program is designed to generate an indirect effect. In addition, the process that changes the value of X must not also cause a change in other causes of Y, and the change in the value of X must not be correlated with such changes. If these conditions are not met, a change in the value of X could be accompanied by a change in the value of Y even though X doesn't cause Y. So, we need to define the effect of Y only through X and not via some other causal route. It is important to remember that causal claims hold even when interventions are not feasible, or are not being carried out by human beings. Even though X causes Y, interventions that change the value of X 'too much' may cause the relationship between X and Y to break down. It could be real life situations that X causes Y, but in which there is no physically possible process that will satisfy the conditions for an intervention on X. Considering the advantage of the Directed Acyclic Graph method to identify causality among variables, we used it to identify causes of poverty from the economic and social perspective, the data is described in the next section.

III. DATA STUDIED

The *World Bank* offers poverty indicators from a large number of countries, however since our main interest is to find the causal relationship among the Social Progress Index and the Global Competitive Index and their effect on poverty

levels, we end up using a date set from 68 countries with available data. The list of countries studied is on Table 3.

The variables we study are as follows:

Poverty headcount ratio at national poverty lines (% of population). Source: World Bank. National poverty headcount ratio is the percentage of the population living below the national poverty lines. National estimates are based on population-weighted subgroup estimates from household surveys. Since there is not available data for all countries and all years, we estimate an average from 2005 to 2015.

Global Competitiveness Index (GCI). Source: World Economic Forum. As an economic indicator GCI "assesses the competitiveness landscape of 140 economies, providing insight into the drivers of their productivity and prosperity." We used date for 2015 and 2016.

Social Progress Index (SPI). Source: Social Progress Imperative. We used data for the year 2015. "The Social Progress Index offers a rich framework for measuring the multiple dimensions of social progress, benchmarking success, and catalyzing greater human wellbeing."

Happiness Index. Source: World Happiness Report 2016, The Sustainable Development Solutions Network from United Nations. "The World Happiness Report is a landmark survey of the state of global happiness, it describes how measurements of well-being can be used effectively to assess the progress of nations." We calculate data average from 2013 to 2015.

Gini Index. Source: World Bank. "Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the

line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality." The data available to use in this study is an average from 2005 to 2013.

GDP per capita, PPP (constant 2011 international \$). Source: World Bank. "GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates." In this case we used the average from 2005 to 2014, which is the data available.

Agriculture, value added (% of GDP). Source: World Bank. "Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. Note: For VAB countries, gross value added at factor cost is used as the denominator." In this case we used average data from 2005 to 2014.

Merchandise trade (% of GDP). Source: World Trade Organization, and World Bank GDP estimates. "Merchandise trade as a share of GDP is the sum of merchandise exports and imports divided by the value of GDP, all in current U.S. dollars." We used average data from 2005 to 2014.

Government Expenditure as a percentage of GDP. Source: World Economic Forum. This is an indicator on how important are the actions and the intervention of the government in the general condition of the economy. In this case, we used data for the year 2015.

There are many other social variables considered crucial by literature in order to explain poverty, some of them are undernourishment, illiteracy rate, life expectancy and child mortality, these variables are not explicitly analyzed here since they are already included in the SPI. Remember that our main goal is to separate social and

economic variables in order to identify, which one is more important to reduce poverty.

From a general analysis of the variables considered we notice many coincidences between SPI and GCI, for example: primary school enrollment, internet users, life expectancy, private property rights, corruption and number of globally ranked universities. However the correlation coefficient among this two variables is 0.68. This is not the highest correlation among the variables analyzed, the highest one is between agricultural value added and SPI with 0.81. The correlation matrix is in Table 4. The correlation matrix is an input in the TETRAD V, which uses directed acyclic graph to identify causation among variables.

IV. RESULTS

In order to analyze the relationship between social and economic variables and the impact on poverty reduction, in a statistical manner, we first use a simple regression method using poverty as dependent variable and agricultural, international trade, Gini index, government expenditure, GDP per capita, Happiness Index, Global Competitive Index and Social Progress Index as independent or explanatory variables. Our results show that the main variables related with poverty using this method are the Gini Index, Global Competitiveness Index and GDP per capita. The results are shown on table 5. We will focus our attention for the moment on the GDP per capita, is possible to jump to the conclusion that improvements on the general condition of the economy could decrease the percentage of population living in poverty, since there is a negative sign between this variables. Increases in GDP per capita reduces poverty, as it has been the general wisdom in the last few decades on poverty studies. Also, the results show that if inequality increases, measured by the Gini Index, the percentage of people living in poverty will increase. Finally, an improvement in the GCI is possible to reduce poverty. However we should remember that simple regression uses simple correlations among variables, the inclusion or deletion of some variables could change the estimate performance of the variable. This is the reason why becomes necessary to use methods

like Directed Acyclic Graph to identify causes of poverty from economic and social variables with the software TETRAD V.

As explained in the first section, and following the directions from Bessler (2004), TETRAD V begins with the complete undirected graph, every variable is connected, without direction, to every other variable in the set. Lines are removed by way of tests that the correlation between any two variables is not different from zero. If we cannot reject the hypothesis that a particular correlation is zero at some pre-determined significance level, we remove the line connecting the two variables. TETRAD V considers all possible correlations between our nine variables.

Edges that remain are said to survive zero order conditioning (as we conditioned on no other variable to remove edges at this stage). Edges (lines connecting variables) surviving these zero order tests are subjected to a series of first order conditioning tests. Here we condition edges between two variables on a third variable. If the conditional correlation between any two variables is not significantly different from zero we remove that edge, just as we did at zero order conditioning. Continuing on, edges surviving tests of first order conditioning are subjected to tests of second order conditioning. TETRAD V cannot remove remaining edges at higher order (i.e. third order and higher) conditioning. It directs edges using *sepset* arguments discussed above. The resulting pattern is given in Figure 3. Arrows indicate direction of causation and a sign indicates whether an increase in the causal variable will increase (+) or decrease (-) the effect. At 5% significance level.

Our expectation is that several variables will precede, or come before in a causal sense, the variables that we want to explain which are poverty and Happiness Index. In this analysis, we allow all the variables to precede in the causal sense the two last variables that we want to explain, is possible to specify this conditions on TETRAD V.

As we can see in Figure 3 there are some exogenous variables in the explanation of poverty,

this are international trade and government expenditure. In the case of the first variable we can infer that the degree of openness of the economy is not direct related with poverty conditions, although this conclusion could be very difficult to accept for an international trade specialist, we have to remember that we only have a sample of the total country number in the world with poverty indicators. The second variable could be more shocking in this result, even with many of the public policy programs used by governments in social aspects, there is no direct relationship with one of the most important wellbeing conditions of any population which his poverty. We can argue that government expenditure is directed to economic variables, like fixing market imperfections, in most countries.

The variables with direct impact on poverty are Gini index and Global Competitiveness Index (GCI), there is no direct causal relationship found between Social Progress Index (SPI) and poverty. However, we found a high causation between SPI and GCI, which can be interpreted as an indirect causal relationship from the SPI to poverty with a negative coefficient, which implies that SPI could reduce poverty in an indirect manner, as Hausman and Woodward pointed out in the characteristics of an intervention discussed in the first section. The main difference with a simple regression model is the lack of direct causation between GDP per capita and Poverty, this is a radical difference to the general wisdom on development theory, from this technique we make an inference that just an improvement in the general conditions of the economy reflected on the general population is not necessarily going to decrease poverty conditions.

There is a weak relationship between agriculture value added and GDP per capita, and there is a causal direct relationship between agriculture and SPI which is a direct cause on the Happiness Index with a positive sign, meaning that and increase in social conditions increase happiness as we can expect. The other direct cause on happiness is GDP per capita also with a positive sign.

V. CONCLUSION

In order to identify the relevance on poverty reduction by social or economic variables, we used the Global Competitiveness Index (GCI) and the Social Progress Index (SPI) with the econometric technique of Directed Acyclic Graphs. Our results shows that contrary to the general wisdom GDP per capita is not the main causation on poverty, the main causations are Gini Index and GCI. Also, there is a strong relationship between GCI and SPI which could be a good start for future research, is possible to disaggregate each one of the indicators of these indexes and their influences on poverty in the world. Another possibility is to analyze these variables by region; we will be able to prove the hypothesis that different states of the economy and social development, and different regions could generate causal impacts on poverty levels, from there is possible to propose efficient public policies on poverty reduction.

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Table 1: Treatment and Recovery

	Recovers	Does not recover
Treated	240	140
Untreated	260	350

Table 2: Treatment and Recovery by Sex

		Recovers	Does not recover
Women	Treated	200	60
	Untreated	100	30
Men	Treated	40	80
	Untreated	160	320

Table 3: Countries used

Albania	Guatemala	Nicaragua
Armenia	Guinea	Nigeria
Azerbaijan	Honduras	Pakistan
Bangladesh	India	Panama
Benin	Indonesia	Paraguay
Bolivia	Jordan	Peru
Bosnia and Herzegovina	Kazakhstan	Philippines
Botswana	Kenya	Rwanda
Brazil	Kyrgyz Republic	Senegal
Cambodia	Lao PDR	Serbia
Cameroon	Macedonia, FYR	South Africa
Chad	Madagascar	Sri Lanka
Chile	Malawi	Tajikistan
Colombia	Malaysia	Tanzania
Costa Rica	Mali	Thailand
Croatia	Mauritania	Tunisia
Dominican Republic	Mexico	Turkey
Ecuador	Moldova	Uganda
Egypt, Arab Rep.	Mongolia	Ukraine
El Salvador	Montenegro	Uruguay
Ethiopia	Morocco	Venezuela, RB
Georgia	Namibia	Zambia
Ghana	Nepal	

Table 4: Correlation matrix from the data used

	<i>pov</i>	<i>agri</i>	<i>gini</i>	<i>trade</i>	<i>SPI</i>	<i>GCI</i>	<i>Happy</i>	<i>gov</i>	<i>gdppc</i>
<i>pov</i>	1.00								
<i>agri</i>	0.34	1.00							
<i>gini</i>	0.41	(0.22)	1.00						
<i>trade</i>	(0.19)	(0.19)	(0.05)	1.00					
<i>SPI</i>	(0.49)	(0.81)	0.18	0.24	1.00				
<i>GCI</i>	(0.54)	(0.58)	0.08	0.25	0.68	1.00			
<i>Happy</i>	(0.27)	(0.61)	0.22	0.15	0.71	0.50	1.00		
<i>gov</i>	(0.28)	(0.35)	(0.11)	0.28	0.39	0.06	0.13	1.00	
<i>gdppc</i>	(0.54)	(0.76)	0.11	0.19	0.77	0.65	0.67	0.30	1.00

Where *pov* is poverty level, *agri* is agricultural value added, *gini* is the Gini index, *trade* is the percentage of trade in the country, *SPI* is the Social Progress Index, *GCI* is the Global Competitive Index, *Happy* is the happiness index, *gov* is the government expenditure as a percentage of GDP and *gdppc* is GDP per capita.

Table 5: Simple regression model

Dependent Variable: POV					
Included observations: 68					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
C	88.51073	21.45585	4.125249	0.000	
AGRI	-0.33297	0.20758	-1.604054	0.114	
TRADE	0.014168	0.053219	0.266228	0.791	
GINI	0.742396	0.140985	5.265798	0.000	significant
GOV	-0.18287	0.166866	-1.095913	0.278	
GDPPC	-0.000839	0.000342	-2.452943	0.017	significant
GCI	-12.27249	4.509167	-2.721675	0.009	significant
SPI	-0.373056	0.265198	-1.406704	0.165	

Where pov is poverty level, agri is agricultural Competitive Index, gov is the government value added, gini is the Gini index, trade is the expenditure as a percentage of GDP and gdppc is percentage of trade in the country, SPI is the GDP per capita. Social Progress Index, GCI is the Global

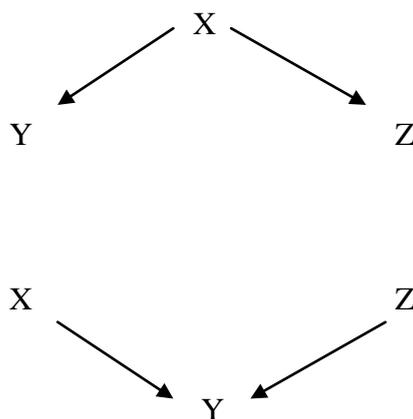


Figure 1: Causal Fork

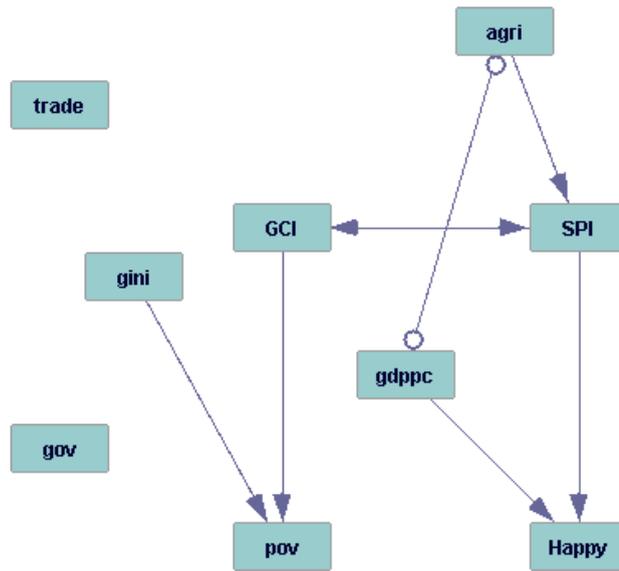


Figure 2: Inverted Causal Fork

Figure 3: DAG on nine social and economic variables

Where pov is poverty level, agri is agricultural value added, gini is the Gini index, trade is the percentage of trade in the country, SPI is the Social Progress Index, GCI is the Global Competitive Index, gov is the government expenditure as a percentage of GDP and gdppc is GDP per capita.



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How Income Level and Caste is Detrimental in Clearing Clat?

Pragyanshu Gautam

ABSTRACT

CLAT is a national level examination in India and is rigorous to clear in the first attempt. It is not because of its level of difficulty but the way it chooses to attempt the competitive exam. For Post-CLAT, In *Avinash Singh Bagri Ors. v. Registrar IIT*, the apex court adopted the need to provide additional support in university to students admitted via reservation. The Court wrote, “these socially and economically backward categories are to be taken care of at every stage even in the specialized institutions like IITs. They must take all endeavors by providing additional coaching and bring them at par with general category students”. Therefore, In the Pre and Post CLAT, it is the responsibility of the schools, law schools, government, and trust like IDIA (those who come forward) to immediately create support programs to first get ‘realize their full potential and promote social justice in the long run because no human brain is born to be degraded.

Keywords: education, caste, income, contemporary india.

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How Income Level and Caste is Detrimental in Clearing Clat?

Pragyanshu Gautam

SUMMARY

This article deals with the Pre-CLAT and Post-CLAT reality for the low-income level and low caste people such as SC, ST in India. It starts with the Idea of Justice by Professor Amartya Sen that people settle for immediate justice rather than the long one. In the context of CLAT- a national level examination, not because of the level of difficulty but the way it chooses to attempt the examination such as mandatory medium of instruction in English, required decent family income even for its application form. In middle, the article analyses the survey of IDIA on CLAT reality, lack of locational diversity, rural test-takers, high expenses for sources and materials. I have concluded from the IDIA Survey as well through my personal experie.

ABSTRACT

CLAT is a national level examination in India and is rigorous to clear in the first attempt. It is not because of its level of difficulty but the way it chooses to attempt the competitive exam. For Post-CLAT, In Avinash Singh Bagri Ors. v. Registrar IIT, the apex court adopted the need to provide additional support in university to students admitted via reservation. The Court wrote, “these socially and economically backward categories are to be taken care of at every stage even in the specialized institutions like IITs. They must take all endeavors by providing additional coaching and bring them at par with general category students”. Therefore, In the Pre and Post CLAT, it is the responsibility of the schools, law schools, government, and trust like IDIA (those who come forward) to immediately create support programs to first get ‘realize their full potential and promote social

justice in the long run because no human brain is born to be degraded.

Keywords: education, caste, income, contemporary india.

I. INTRODUCTION

“It is fair to assume that Parisians would not have stormed the Bastille, Gandhi would not have challenged the empire on which the sun used not to set, Martin Luther King would not have fought white supremacy in ‘the land of the free and the home of the brave’, without their sense of manifest injustices that could be overcome. They were not trying to achieve a perfectly just world (even if there were any agreement on what that would be like), but they did want to remove clear injustices to the extent they could”¹. Quoted by Economics Nobel Prize winner Amartya Sen in his book ‘The idea of Justice’ it is clear that distributive justice² and sustainable justice³ are needed in India. Because people in India mostly, settle down for immediate justice and not long term justice. I got one thing in my mind after writing this: a discussion in an online conference on the topic of ‘online courts and future of justice’ by Richard Susskind, a British author. He came to a conclusion after the discussion that short term predictions hugely overstates the impact and long

¹ Preface. (2009). In A. Sen (Ed.), *The theory of Justice* (p. 462). The Belknap Press of Harvard University Press Cambridge, Massachusetts. <https://dutraeconomicus.files.wordpress.com/2014/02/amartya-sen-the-idea-of-justice-2009.pdf>

² Fair and just means of allocating the resources.

³ Utilising resources presently in such a way that sufficient resources remain for future use.

term predictions hugely understates the impact.⁴ Prof. Amartya Sen quote is in the context of Economic or income level and Richard Susskind's one is related to access to resources such as technology, hardwares, etc that individuals face the most in clearing any competitive exams.

CLAT (Common Law Admission Test) is a national level examination for the five years law undergraduate course in India and is rigorous to clear in the first attempt. Not because of its level of difficulty but the way it chooses to attempt examination. Ways are: mandatory medium of instruction in English, required decent family income to pay for the CLAT application form fees, which is in itself so high and to provide sources and materials to study for this competitive exam or any other competitive exam in India. That's the reason why expensive coaching culture is a prerequisite for CLAT and other law entrance and national level exams. Also, that makes it mandatory here to give free access to most talented students of the bottom section of our society⁵. Another most sensitive issue is of Caste which is by birth. The point here is that of social backwardness and marginalised people, not of economic potential. Few questions arise in my mind after writing this. Why do people mostly ask the merits of SC/ST? Why not give first priority to the psychological feeling or inner feeling the person is facing? Why is exploitation of thousands of years on them compared to the level which the general category faces currently since India constitution adoption? Are all people who cleared exams like CLAT, IIT, Civil services and so on, through 'reservation' in education and jobs successful? For this purpose there is a judgement, In *Avinash Singh Bagri Ors. v. Registrar IIT*, the apex court adopted the need to provide additional support in university to students admitted via reservation. The Court wrote⁶, "these socially and

⁴Henry Jackson Society. (2020, February 4th). *Online Courts – a Case Study in the Digital Transformation of Public Services*. HJS Henry Jackson Society. <https://henryjacksonsociety.org/members-content/online-courts-a-case-study-in-the-digital-transformation-of-public-services/>.

⁵ Basheer, S., Krishnaprasad, K.V., Mitra, S., & Mohapatra, P. (n.d.). The Making of Legal Elites and the IDIA of Justice. In *The Indian Legal Profession in the Age of Globalization* (pp. 578-605). Cambridge University Press.

⁶ Id. at 588.

economically backward categories are to be taken care at every stage even in the specialized institutions like IITs. They must take all endeavors by providing additional coaching and bring them at par with general category students"⁷. The aim of achieving the goal is to be for long term not short term and this will remain until the last person standing extricates hatred from their mind. Development of real things is required. Why to act to get relief for the short term? No materialistic thing can buy education or forcefully act to behave in a civilised way and none of them give a 'permanent' cure to mindless things. That's why it started with Professor Amartya Sen quote which ends with to the "extent" they or we can remove clear injustices and that is needed and that should be supported by the idea to give all means psychologically or socially, and then economically.

II. EXTENSION OF INTRODUCTION (PRE AND POST CLAT REALITY)

Currently, there is a lack of diversity in NLU's (National Law University). When we look at the records of low income and low caste students studying in NLU's then that is considerably very low. For example, there were only 4-5 percent of the candidates who were admitted to the West Bengal National University of Juridical Science (NUJS) in 2013 and they belong to lower-middle class family⁸ (IDIA 2014). Same report of IDIA⁹ shows that 50 percent of that batch itself belongs to the upper-middle class family. Also, there is a lack of geographical diversity, people from Jammu and Kashmir, and North-east people were completely low.

Summary of the surveys¹⁰ conducted at nine of the leading national law schools (NLSIU-Bangalore, NALSAR-Hyderabad, NUJS-Kolkata, NLU-Delhi, NLU-JODHPUR, Dr. Ram Manohar Lohia

⁷ Avinash Singh Bagri & Ors vs Registrar Iit Delhi & Anr (2009), SCC 535.

⁸ Families with income less than INR 1 lakhs per annum.

⁹ Basheer, S., Krishnaprasad, K.V., Mitra, S., & Mohapatra, P. (n.d.). The Making of Legal Elites and the IDIA of Justice. In *The Indian Legal Profession in the Age of Globalization* (p. 585) Cambridge University Press.

¹⁰ Id. at 585.

National Law University-Lucknow, Chanakya National Law University-Patna, NLU-Odisha, and National University of Advanced Legal Studies-Kochi) in 2014 to highlight the parameters and their reason of lack of diversity, representations. Same concept applied for pre-CLAT as the foundation of the thinking is extremely important and that is disturbed from these compulsory parameters. These parameters are qualitative and locational:

1. *Medium of Instruction:* As written in the beginning that CLAT exam has compulsorily tough English as a medium to read, comprehend and answer the objective questions. A vast majority have not studied in English medium school or private school due to the low income level which ultimately is a hindrance towards the first step to go through the exam.
2. *Low Family Income:* This survey shows that majority of students studying in NLUs are from upper-middle-class-families¹¹(income more than 10 lakhs per annum) and there were only 7 percent those income was less than 10 lakhs per annum in these top NLUs.
3. *Lack of locational diversity:* Candidates having domicile of the state are higher in number in premier law school: for example, there are 8.22 percent karnataka domicile student studying in NLSIU, Bangalore and only one student from Jammu and Kashmir, Nagaland and no students from North-eastern states like Manipur, Arunachal Pradesh, Meghalaya, Sikkim, Mizoram, Tripura and Assam (IDIA 2014, 14-15).
4. *High Expenses:* CLAT requires in-depth preparation and training. For this purpose many expensive coaching institutes are taking advantage. Personal training and mentorship is far away from this which is much more economical and sustainable. For example, main coaching institutes of CLAT like LST and IMS charge around INR 85,000 per year (Economic times, 2009). Now, after a decade this charge would be much higher than that time. There is an increase in business with increase in demand.

¹¹ Id. at 586.

5. *Rural test takers:* According to IDIA survey in 2014, mere 1-3 percent were from rural areas those studying in these nine leading law schools.

Top 9 leading NLUs survey for general category representation is 69.11 percent and other category is given in table:

Table 3- Representation across reserved seats

Categories	Percentage of proportionate Representation
Scheduled Caste	11.65%
Foreign National	5.32%
Scheduled Tribe	5.06%
Non Resident Indian	3.54%
Physically handicapped	2.53%
State domicile	2.03%
Other Backward Class	0.25%
Kashmiri Migrant	0.25%
NRI sponsored	0.25%

Source: IDIA Diversity Survey results ¹²

III. Purpose To Get Into An Nlu: Recruitment Reality

According to the recruitment data collected by NLSIU, NALSAR and NUJS by IDIA in 2013. Summary of this survey was that¹³:

1. The caste has an important connection to recruitments. In these three law schools IDIA studied that, the percentage of students recruited from within the Scheduled Castes/Scheduled Tribe (SC/ST) community was extensively lower than the percentage of recruited from the general category¹⁴. For

¹² Basheer, S., & Sharma, G. (n.d.). *IDIA Diversity survey (2013-14): Analysis and Policy Recommendations*. IDIA Law. <https://www.idialaw.org/wp-content/uploads/2018/04/idia-diversity-survey-2013-14>.

¹³ Basheer et al., S. (n.d.). *The Making of Legal Elites and the IDIA of Justice*. In *The Indian Legal Profession in the Age of Globalization* (pp. 586-587). Cambridge University Press.

¹⁴ Scheduled Caste is often referred as Dalit which means broken/scattered in Sanskrit and is the lowest caste in the hierarchy of caste system in india. Scheduled tribe is referred to a tribal group who have been extricated from the mainstream society for a very long time. General category in

example, in 2010 out of the ninety-two students from NUJS whose survey was done in that none of the students from SC/ST community was recruited to the top law firms but twenty-five students of general category were recruited to the top law firms. Similar result data was for NLSIU and NALSAR (IDIA 2014).

2. Income level was not much detrimental during the recruitment process but it is during the building of the C.V. for recruitment purposes. As the person with low income would not be able to travel and afford stay expenses during their internships and would need financial support all time or during their process to achieve.

Concluding from the IDIA data would be true as the admitted students in NLUs, majority belong to upper-middle-class families and the rest of the poor sections of society are not able to admit due to the low income level, also unable to get 'basic information and consciousness' due to lack of access to resources.

From my personal or real life experience. Firstly, I belong to the Scheduled Castes Category and from an upper-middle-class family but I have kept listening throughout my journey of CLAT preparation: '*reservation hai toh ho jayega hi*' (*there is reservation so you will definitely qualify*). I took regular classroom coaching and took a correspondence course from second and also took test series from third coaching as I had taken a year drop for CLAT preparation and also to resolve my fear and excel. I had all the means but personally I feel that coaching doesn't help in overall development. In my case it degraded me, I was extremely sure that I would get into the top 3 colleges through CLAT, even sure before five-six months of delayed exams. Forget about pandemic, delays and emotional pressures but due to the consistent coaching and performance pressure it degraded me and acted me to work like a machine rather than using my brain voluntarily, in a cool and organised way. My opinion for the solution is

context of admission is used for those who do not belong to the SC/ST community and is 'general' in society who is never exploited in history and highest in the hierarchy of the caste system in India.

that perception and negative preconceived notions for each student should be changed from the viewpoint of the trainer. By writing this I remember reading about David B. Wilkins Sir, Faculty director of HLS Center on the Legal Profession whom I was honoured to meet two years back in the HLS Conference at New Delhi. I read that, "David Sir works to create a classroom environment that is safe and comfortable; that allows students both to learn and know that their success or failure is not a true measure of their worth¹⁵". But what if they are unable to be recognised at first instance and there is no consciousness? Therefore, it is necessary to take steps to 'diversify' the test takers of Pre-CLAT that is during the preparation and Post-CLAT during the college learning in terms of psychological and financial because nature and nurture plays a role and also a need of plural representation should be ethical in India.

IV. CONCLUSION

It is imperative that measures should be taken to promote access to marginalized groups that are low-income people. And, for the intake (at a time of CLAT) of underprivileged students SC/ST or recruitment data reality of post-CLAT which is extremely low. It is not because of less facilities access to these people or hiring bias from recruiters but 'it stems from their low grades beginning in schools, then college or anywhere'. Therefore, it is the responsibility of the schools, law schools, government and trust like IDIA (those who come forward) to immediately create support programs Pre-CLAT and Post-CLAT to first get 'realise their full potential' and promote the social justice in the long run because no human brain is born to be degraded.

¹⁵ Lawrence-Lightfoot, S. (1999). Inside the Classroom of Harvard Law School Professor David Wilkins. *The Journal of Blacks in Higher Education*, (25), 113-119. doi:10.2307/2999407.



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The Matengo Highlands and the German Memories; the Cross Preceded the Flag

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ABSTRACT

This paper investigated the memories of German in the Matengo Highlands from the 1890s to 1968. The periodization has been made deliberately in order to cover the period of the German rule and the Benedictine missionaries also from Germany. The German period is very special by considering the fact that the missionaries who established Christianity in the Matengo Highlands were Benedictine whose nationality was German. The work has investigated what were the circumstances which pushed the Benedictines to come to German East Africa and specifically the Matengo Highlands. Upon arriving in German East Africa, the study investigated the relationship that existed between the German colonial state and the Benedictine missionaries and how this relationship affected the Wamatengo people. The paper concludes that unlike the other parts of Tanzania the memories of Germans both missionaries and the colonial masters are all bearing some legacies in the Matengo Highlands to 1968. However, colonial administration was so short lived (1902-1916) and less entrenched. To the contrary, the cross preceded the flag in the sense that German Benedictine missionaries founded the first parish mission at Kigonsera in 1899.

Keywords: german rule, memories, Benedictine fathers, Matengo Highlands, missionaries, colonization.

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collection of data was done using a number of historical sources. Interview, oral histories and archival review methods and techniques were used for data collection, both primary and secondary historical sources were employed. The year 1968 was deliberately chosen in order to mark the end of German Benedictines influence upon conclusion of their ecclesiastical jurisdiction in the Peramiho diocese.

Keywords: german rule, memories, Benedictine fathers, Matengo Highlands, missionaries, colonization.

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I. INTRODUCTION - THE HISTORY OF THE MATENGO HIGHLANDS

The process of colonization of African lands has always been associated with forerunners including the missionaries, explorers and traders.¹ In this setting the colonial governments reciprocated through provision of protection to the missionaries and other agents of colonialism in Africa. Theoretically the Germans colonized Tanganyika *Deutsch Ostafrika* in 1885 after the conclusion of the Berlin International Conference. The German company had its capital at Bagamoyo from 1885 to 1890 and later the capital shifted to Dar es Salaam where it existed from 1890 to 1918.² However, the task of subjecting German sphere of influence into an effective occupation took much longer and indeed it was not very uniform. The coastal area and parts of north eastern highlands were put under effective control immediately due to the reasons of proximity,

¹ Historical Section of the Foreign Office, Tanganyika (German East Africa) Published by H.M. Stationery Office, London, 1920:27

² The Berlin Act

existence of bogus treaties secured by Carl Peters,³ easy accessibility and endowment of abundant resources.⁴ However, the process of effective occupation on the ground of the other parts of DOA was not a simple task. Some parts for reasons of remoteness, difficult communication, lack of resources and distance from the center of administration took very long to be effectively put under the colonial regime.⁵

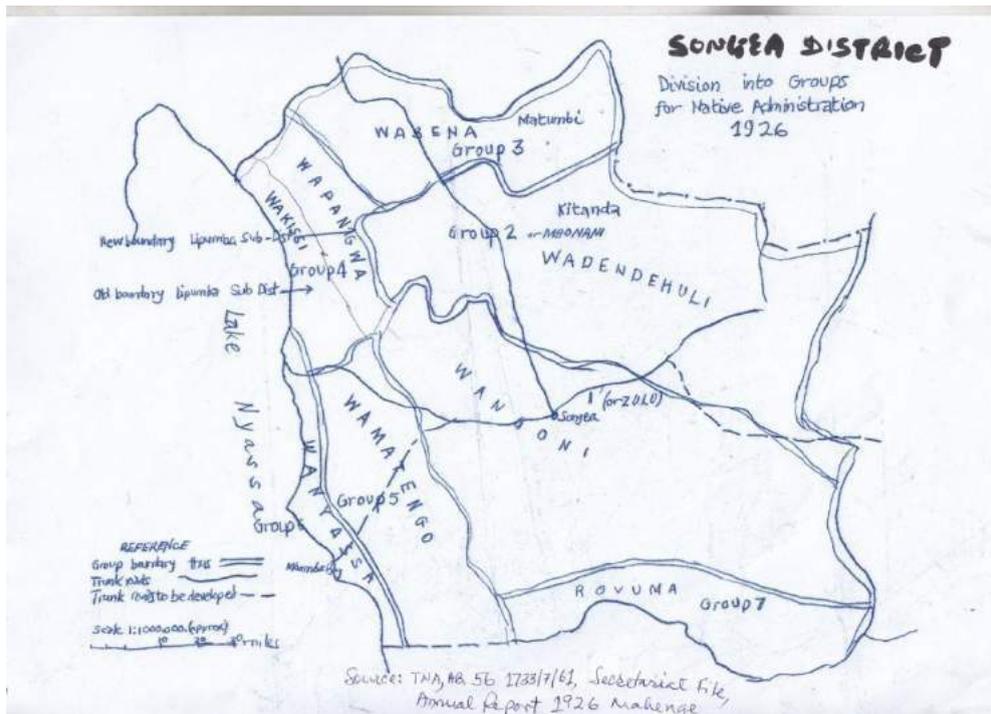
Among the areas which were hard to be reached was the Matengo Highlands in south western Tanzania. The Matengo Highlands is a geographical region in the South West of Tanzania.⁶ It is an area with people who have a unique history known as Matengo. The Matengo are Bantu-speaking people who occupy the highlands East of Lake Nyasa. This is an area located in the south western part of Tanzania forming the present Mbinga district in Ruvuma region. This is a mountainous area bordered by the Livingstone mountain ranges to the west, to the south is bordered by the lowlands of Msumbiji lands, to the north there are the Wamanda people and to the east the Wangoni as it is shown in map 1 below. In the map, Matengo Highlands is represented by group 5: Wamatengo.

³ E.Kienitz, *Zeittafel zur Deutschen Kolonialgeschichte*, Ficht-Velag/Munichen, 1941:79, Carl Peters had secured fake treaties with sultans of Msovero, Usagara, Ukami and Uluguru in 1884

⁴ Isaria Kimambo, *Penetration and Protest in Tanzania, The Impact of the World Economy on the Pare 1860 - 1960* Tanzania Publishing House, Dar es Salaam, 1991:46

⁵ Kimambo, *ibid.* :5

⁶ John Iliffe, *Modern History of Tanganyika*, 1979:117, cf. Egno Ndunguru, *Historia, Mila na Desturi za Wamatengo*, East Africa Literature Bureau, Dar, 1972:1



Source: TNA, AB. 56 1733/7/61, Secretariat File, Annual Report 1926 Mahenge Province

Map 1: Administration Groups of Songea District as at 1926

The incursion of the German colonialists in the Matengo Highlands met the people in the process of transforming themselves socially, economically and politically. It can be argued that the Matengo society was at the time of advent of colonialism transforming itself towards stratification. There was the beginning of inequality marked by differences in terms of access to political power as well as access to economic opportunities. The Matengo were living in the hill settlement in the highlands which had some implications on defense. From the hills the Matengo people were able to fight their enemies by just rolling big stones from the hilltop against the Ngoni enemies who were at the hill bottom. The mountain sites had a series of caves which the Matengo used as the hideouts against the Ngoni warriors. These caves were available at Litembo, Mitambo, Mbugu, Lubala, Nangomba, Hagati, Masiba, Mawindi and many others along the Mikiga mountain range which ran from Litembo westwards to Nzwasu which overlooks Lake Nyasa at Mkili.⁷

When the Germans occupied the Matengo Highlands, they found clusters of the clans' settlements circumscribing the Mikiga mountain range, the Likengema and the Kilanga Mountains. In each settlement broad status categories were based on birth, historical and ethnic criteria. When the German colonialists and the German Missionaries arrived they met the Matengo people organized along these clan structures.

With the advent of colonialism this area became part of Lungenburg district during the German period. In due course, the Matengo Highlands were put under the administration of the Litembo sub-station up to 1914.⁸ Later on the area was put under the administration of Lipumba sub-station up to 1926 when this station was officially closed down.⁹ The local administration was still in the hands of clan heads who did not really acknowledge the German administration in the real sense. This is also evident from the German Annual Report thus:

⁸ APA, Peramiho, cf. Iliffe op.cit. 117

⁹ Tanzania National Archives (hereinafter referred to as TNA) Acc. 155, SDB

⁷ Egno Ndunguru, *ibid.* 1972:1

“Although German rule is everywhere acknowledged, in the remote military districts of the inland especially in the mountainous areas the real influence of the authorities is still limited”¹⁰

II. THE GERMAN OCCUPATION OF THE MATENGO HIGHLANDS

The conclusion of the Berlin International Conference ended with the German nation proclaiming its sphere of influence in German East Africa. The Matengo formed part of the German possession. The occupation began with the occupation of Ungoni with a center erected at Songea in 1897. There was virtually no resistance to speak of among the Wangoni except the incidence of the *boma* massacre where the Ngoni chiefs were put under arrest and five Ngoni generals were killed.¹¹ To demonstrate their prowess, the Germans spread their flags across the villages in Ungoni. This actually marked the acceptance of German colonial over lordship by the Wangoni.

The approach of annexing the Matengo Highlands, however, was slightly different. Upon hearing of the presence of the Wamatengo, the Germans summoned Mandawa, the son of chief Kayuni Makita to the Germans center of Songea. When Mandawa came back, he hoisted the German flag he had brought from Songea. This flag signaled the initial German annexation of the Matengo Highlands.¹² In 1889, two Germans arrived at Litembo. They divided the Matengo Highlands into two parts. The Langiro area in the Hagati valley under *bambo* Howahowa Komba, was assigned to be under Unyanja in Langenburg *boma*. This section was administered from a distant Manda (Wiedhafen) station. The Litembo area of Umatengo was to be administered from Songea district *boma*. Sultanates were placed in charge of the subdivisions. Under the sultans,

¹⁰ Jahresbericht urber die Entwicklung Von Deutch Ostafrika (Annual Report on the Development of German East Africa) 1901/02

¹¹ Anold Temu, Tanzania Societies and Colonial Invasion 1875-1907, in Martin H.Y.Kaniki (ed.), *Tanzania under Colonial Rule*, London, 1980: 112

¹² John Iliffe, op.cit.1979:117

there were *jumbes* who were assisted by *nyapararas*.¹³ A sultan was responsible for maintenance of peace and order of his subdivision, clearing roads, constructing bridges, supplying labour, reporting offences, collecting tax and arresting natives who were charged for committing offences. He was also reporting the cases of immigrants wishing to settle in the country, reporting epidemics and generally supervising native affairs of his area.¹⁴ Fundamentally, the early years of the German rule were spent on an attempt to establish political legitimacy in the area and consolidation of colonial state power.

2.1 German Colonial Enterprise in the Matengo Highlands

In the Matengo Highlands, the colonial government issued orders to the *jumbes* to conscript labour which was to be used in the construction of the *boma* at Songea. In 1898 a tax was imposed to generate revenue for the colonial state.¹⁵ The Matengo natives were, therefore, obliged to pay hut tax, usually in foodstuffs, hoes or livestock, because they did not have cash. These items were taken to the German *boma* at Songea. The Matengo people were required to carry heavy loads of lime, *vigae* (roofing materials made from baked clay) and tiles from Umatengo at Mbugu and Hiso industrial sites to Songea, more than a hundred miles away. These materials were to be used in the construction of the Songea District *boma*.¹⁶

In addition to government services, the natives were required to perform duties for their sultans and *jumbes*. The services included hoeing the gardens, building and/or repairing huts, building schools, and contributing food. Disobedience was severely punished.¹⁷ The heavy hand and cruelty

¹³ Jahresbericht urber die Entwicklung Von Deutch Ostafrika, 1901/02

¹⁴ TNA, SDB. See also Harry W. Basehart, Traditional History and Political Change among the Matengo of Tanzania, *Journal of the International African Institute*, Vol. 42, No. 2 (Apr., 1972) :91

¹⁵ Hut Tax charged on an annual basis from one to four shillings per hut. See also J Ilffe, op. cit. 1979:133

¹⁶ Interviewed; Malekano, Mandiluli.

¹⁷ TNA, SDB MF 38 Volume I, Folio 27

the German government used to administer the natives made the Matengo people angry. In the execution of the administration there were a lot of excesses performed by the *askaris*, *jumbes*, *nyaparas*, *akidas* and the district officers. There were complaints by missionaries at Kigonsera,¹⁸ Lituhi¹⁹ and Litembo missions against excesses of the colonial officers. Some of the abuses included a repression campaign against the natives; this campaign was mainly conducted by the so-called *rugaruga*, ill-disciplined auxiliary troops. They abducted and abused women and children in order to force the Matengo to pay tax and provide labour for public works. They requisitioned food at will for their own use, they burned houses and crops and were quick at opening power at defenseless people. Other excesses included deplorable harsh working conditions including *bakora* slashing during public works. In the eyes of the missionaries these *rugaruga* were altogether the biggest bunch of robbers and permitted themselves in every regard violent encroachments against the people.²⁰ On 8th March 1902 Lt. Albinus sent a letter to the Kigonsera missionaries advising them not to work in Litembo village because he was planning to go back and punish the people. He also added that on this occasion he would not stop at the mission station.²¹

In March 1902 the German administrator in Songea by the name of Captain Richter (*Karonga*²²) sent a message to the Matengo ruler, Mandawa that he wanted to hoist his flag and collect tax from the Wamatengo.²³ But the Matengo people at Litembo refused to pay tax and set on fire the school opened by Benedictine Fr. Johannes in 1901.²⁴ They also refused to provide labour and when the *askari* entered Litembo in

March 1902 the people tore the badge off his uniform and sent him back to Songea.²⁵

Sergeant Muller was dispatched from Songea and arrived at Litembo with fifteen *askaris*. They found about eight hundred armed Matengo with arrows, spears, clubs and axes who withdrew to the nearby hill. Three days later, the German forces appeared and attacked Matengo during what was popularly known as the *Karonga War* of 1902.²⁶ The Matengo people were able to utilize the hilly landscape and the available caves at Ngwindi fortress against the enemy. They lost forty soldiers and finally conceded defeat. The *bambo* Mandawa was deposed and deported to the coast where it is alleged he died.²⁷ Bambo Howahowa of Langiro sultanate was captured and deported to Tukuyu where it is said he was assassinated.²⁸ It was out of this fact that the Matengo were able to withstand German might until 1904 when the Matengo were forced out of the hideouts as they faced a shortage of food.²⁹

Apart from tax collection and labour conscription for public works, the impact of German rule was hardly felt in the Matengo Highlands. This was because the Matengo Highlands was very far from the administrative posts of Songea and Tukuyu, but also transport and communication were poor. Even when the Germans introduced manufactured goods, it was difficult to find their way into the heart of the Matengo Highlands. Traders were unable to establish residences in the heartland of Umatengo. Instead, they established themselves at Mang'ua in Ungoni. From Mang'ua the small-time African and Asian itinerant traders traveled to Umatengo to sell their merchandise.³⁰

Private investors showed little interest in testing the potentials of the Matengo Highlands. Lemann, a German settler, and Henry Packham attempted to establish an estate at Ugano.³¹ Consequently, the German colonial government itself took over

¹⁸ APA, Diary of Peramiho Mission, Vol. 1, 1906.

¹⁹ Parokia ya Lituhi, *Jubilei ya Miaka 100*, 1912-2012, Peramiho Printing Press, 2012:26

²⁰ APA, Diary of Peramiho Mission, Vol. 1, 1907

²¹ Rev. Fr. Sebastian W Napachihi, S.Napachihi, *The Relationship between the German Missionaries of the Congregation of St Benedict from St. Ottilien and the German Colonial Authorities in Tanzania 1887 – 1907*: 157

²² *Karonga* was a nickname given to Captain Richter on account of his brutality unleashed to the local population.

²³ Interviews, Anton Kapinga Matanila,

²⁴ RC Litembo school 1901

²⁵ TNA, Acc. 155, District Book 1, Matengo

²⁶ John Iliffe, op.cit. 1979:117

²⁷ APA, Kigonsera Mission Diary, 1901-1904

²⁸ Interviewed; Howahowa Komba

²⁹ Iliffe, op.cit. 1979:117

³⁰ M.O.Kapinga, op. cit. 1993:61

³¹ TNA, Acc. 155/33. Cf. Anton Matanila Kapinga, interviewed Mbinga 2012

this work in view of future possibilities of white settlement. The government undertook to establish an experimental station for coffee growing at Lipumba which was the seat of the government. The crop failed because it was attacked by borers. Another government experimental center was established at Myangayanga. The plants died because they were planted on an open ground without irrigation.³² It was not very easy to force economic programmes onto the people whom they had not yet politically subdued. The problem was more compounded by lack of colonial manpower and poor transport and communication system. As such, the Matengo people were living an independent political life. Even the claim of the Ngoni to be the overlords of the Wamatengo was proved wrong. Furthermore, *Bambo Makita's* claim to be the paramount chief of the whole Umatengo was yet another myth. This is confirmed by Morgans, the British Officer at ... sometimes later:

*Makita does not govern his people, he left them alone without the Government, the Matengo would rapidly return to a state of savagery and unmanageable and unapproachable. ... It seems Matengo were partially subdued by Angoni.*³³

In fact, it is further alleged that the Germans were seriously short of staff to man the whole district. The few they had, concentrated at the district headquarters at Songea. Many of the sub-districts were manned by local authorities of the *liwali*, *jumbe* and *nyaparas*. They were assisted by the local *askaris* and other assistants. Under German colonial rule, the subordinates were not controlled from the district. Thus, they had freedom to administer excesses to the native population. Furthermore, most of the subordinates did not have the necessary expertise in running the modern administrative functions, like collecting tax and conscripting labour.

The problem of running the local administration was much serious in the stateless societies, the Wamatengo being one practical example.³⁴ That is why, as it was revealed in the preceding

³² TNA, SDB MF 40 Volume II

³³ Ibid. sheet 5-8

³⁴ Iliffe op.cit. :117

discussion, that the Germans did not at the outset (1897) occupy the Matengo Highlands physically. Instead, they summoned Mandawa, a village headman of Litembo village, to Songea where he was handed over a German flag. This situation tallies with the conclusion that the Germans did not actually rule the entire Matengo Highlands through the chosen headmen since they were not recognized by other clans. Each clan was paying allegiance to its clan head. Even the boundaries demarcating the sub-districts were not consistent and extremely fluid. Sometimes, you had a person from Kingua refusing to belong to Litembo when confronted by a tax collector; he could instead, claim to belong to Langiro. But when the reverse became the case, the same individual could claim to belong to the Litembo sub-district.³⁵

2.2 German influence in the Matengo Highlands

The colonial influence in the Matengo Highlands was conceived from the point of view of both ecclesiastical influences through the activities of the missionaries of Benedictine Fathers from Germany and from the German colonialists themselves. The German colonialists had a very short period of governing the Matengo Highlands from 1902 to 1916 when World War One erupted which ultimately ended into liquidation of German rule in the Matengo Highlands. Unlike the generalization made by Father Kevin Haule thus "In the case of Southern Tanzania German colonizers preceded the Missionaries."³⁶ This was not the case in the Matengo highlands where the cross preceded the flag.

Politically, at the time of the advent of colonialism and missionaries, the Matengo society was organized along a clan system. There was no centralized political structure with one person commanding power at the apex of the political hierarchy.³⁷ The approach the Benedictines used

³⁵ TNA Songea District Book MF 40 Sheet 6F, cf. M.Kapinga, op. cit.1993:69

³⁶ Kevin Haule, Mission und Kolonialherrschaft with special reference to the German Benedictine Missions in Southern Tanzania, Paper read to the participants of the Workshop on 100th Anniversary of Maji Maji war, Wuppertal, November 5, 2005 p. 3

³⁷ TNA, Acc. 155 Songea District Book

was that of top down system. Norbert Weber the Abbot Superior for the Benedictine Fathers of St. Ottilien put it thus:

*"The work of missionary Benedictines was not only to convert individuals, but whole peoples"*³⁸

This meant that they had first to convert the ruling class then the rest of the people to follow suit. This system which fared very well in Ufipa,³⁹ Buganda, Rwanda and Burundi by White Fathers missionaries⁴⁰ and utilized very well by Benedictines in Ungoni, did not find a conducive environment in a non-centralized Matengo society. Even the myth that Makita was the paramount chief did not attest to the objective political structure of the Matengo society.⁴¹ The Matengo people were scattered from the East bordering the Ngoni and to the west bordering the Nyasa. This was quite a vast area with a chain of mountain ridges (*lupimbi or ntambo*) to be easily controlled from a single point of either Litembo, Langiro or Lipumba. Each clan occupied a *lupimbi* which was their economic, social and political unit under a clan head. The truth is that the creation of the paramount chief was a British creation in 1926 when an indirect rule system was introduced in the Matengo Highlands.⁴²

In many parts of Africa where missionaries opened enterprises, they normally started by creating settlements of destitute including freed-slaves and orphans.⁴³ This was the case in Ungoni where Fr. Cassian Spiess used to ransom slaves from Arab traders.⁴⁴ This was also the case with the founding Benedictine monastery of Pugu where freed-slaves and orphans became the first

converts.⁴⁵ To the contrary, in the Matengo Highlands there were no slaves to ransom and show it as a demonstration so as to attract other followers. Outcasts and orphans were hard to find. In an event to destitute the structure of the society which was egalitarian and clan based, the society would care for their orphans at the clan level.

The data collected and presented in the preceding discussion suggested that the Benedictine missionaries arrived at the time colonialists were making their entry in the Matengo Highlands. The colonial masters showed severe brutality and harshness to the Matengo during the 1902 rising and during the suppression of Majimaji uprising of 1905. The cordial relationship between the missionaries and the colonial masters made the Matengo look at them as the same oppressors and exploiters.⁴⁶ There are incidences where this alliance between the two groups of Europeans was so pronounced. An incident is cited ; some people in Mkumbi killed a person wrongly. The killers went to confess at the Litembo mission but it came to be discovered that the missionaries reported the case to the Songea Boma. To their surprise, all of them were apprehended by the colonial *askari* and taken to the Songea Boma. They were taken to court charged for a murder case. Some were convicted for the offence and ordered to be hanged and others were sentenced to life imprisonment.⁴⁷

III. HISTORY OF EVANGELIZATION IN THE MATENGO HIGHLANDS BY BENEDICTINES

In the Matengo Highlands the Missionary Benedictines of St. Ottilien order, took the task of evangelizing the area. St. Benedict (480-547A.D.), the founder of the order, puts down three basic activities for such a monastic community namely, prayer (*ora*), work (*labora*) and study (*studia*). Hence the motto of Benedictines namely "*ora et*

³⁸Doerr, *Peramiho 1898-1998 In the Service of the Missionary Church*, 1998.:16. Cf. John Ilffe, op.cit. 218

³⁹Kathleen Smythe, 'The Creation of the Catholic Fipa Society', in Spear and Kimambo, op. cit. :129

⁴⁰ Thomas Spear, Towards the History of African Christianity, in T.Spear and I.N.Kimambo (eds.) *East African Expressions of Christianity*, Oxford, 1999::10-11

⁴¹ Harry W. Basehart, op.cit. 1972:91

⁴² TNA, Acc. 155 Songea District Book

⁴³ Roland Oliver, *Missionary Factor in East Africa*, (2nd ed.), Longmans 1965, :172

⁴⁴ Doerr, op. cit. 1998:15. Fr. Cassian Spiess ransomed former slaves from an Arab trader Rashid bin Masudi living at Mang'ua at 40 rupees per head. These are the first people who came and live in the young mission of Peramiho.

⁴⁵ Fr.Gerold Rupper, (ed.), *Pugu hadi Peramiho: Miaka 100 ya Wamisionari Wabenediktini katika Tanzania, Historia na Masimulizi*, Benedictine Publications Ndanda-Peramiho, 1988:29-30. Cf. Napachihi, op.cit. :84

⁴⁶ Napachihi, op.cit. 157

⁴⁷ Anton Matanila, interviewed by author, 2012

labora” or prayer and work.⁴⁸ Discussing Christianity in the Matengo Highlands, is in reality a discussion on the Missionary Congregation of the Order of St. Benedict (Benediktinerkongregation von St. Ottilien für auswärtige Missionen), with headquarters at St. Ottilien in Upper Bavaria since 1886, which was founded in 1884 in response to Carl Peter's plea for German missionaries in German colonies.⁴⁹

The introduction of Christianity in Southwestern Tanzania in general and the Matengo Highlands in particular is closely linked to the history of colonization of Tanzania by Germany. German East Africa was colonized by the Germans from 1885 to 1918 when the British took it over as a mandate territory in 1919.⁵⁰ During the German colonial era, the Benedictines of St. Ottilien from Germany introduced Christianity to the African population of South Western Tanzania, including the Matengo Highlands. The starting point was in November, 1887 when the first contingent of 14 missionaries left Rome and arrived in Dar-es-Salaam on 28th January 1888. They established their first monastery at Pugu in February 1888.⁵¹ This monastery was, however, destroyed by the Arab rising under Abushiri and Bwanaheri.⁵² From Dar-es-Salaam the Benedictines evangelized southwards to the Ruvuma River where Songea is located. In 1898, the Benedictines opened a station at Peramiho, a place where their Abbey is still in place.

From Peramiho, another station was opened at Kigonsera on 10th October 1899 in the border area between Ungoni and Matengo Highlands.⁵³ But the major interest of Fr. Jannes was to explore the possibility of setting up a mission station in the Matengo Highlands of chief Mandawa.⁵⁴ With this

idea in mind, Kigonsera mission opened up outstations at Litembo, Liparamba and Matiri. More specifically, the main interest of Fr. Maurus Hartmann, the Prefect Apostolic was to transfer the Kigonsera mission to Litembo which was heavily populated, endowed with fertile soil and cool climate.⁵⁵

The mission center or monastery which was established was an agent of change by establishing a spiritual department which was under a priest. This section of the monastery was assigned the work of evangelization so as to develop the convert spiritually to enhance the richness of the individual souls. The department of manual labour was put under the Brothers who were training the young natives in workshops, agriculture and animal husbandry. This section was also intended to supply the provisions for the monastery. The social service department was run by the Sisters/nuns who were running schools, hospitals and domestic science training for girls. This structure was supposed to enhance human development of an all-round person. Their monasteries were to become centers of development and modern civilization in South of Tanzania.⁵⁶

3.1 Benedictine Missionaries in the Matengo Highlands

From a very obscure beginning, the new Benedictine missionary congregation slowly grew from its first site in *Reichenbach* and then to *Emming*, later called St. Ottilien in Germany. The foundation developed into what we know now as the Congregation of the Benedictine Fathers of St. Ottilien. While still in *Reichenbach* Father Amrhein slowly included women in his foundation.⁵⁷ The Benedictines of St. Ottilien were given Papal permission in 1887 to work in the Southern half of the Apostolic Prefecture of South Zanzibar; in the same year the ecclesiastical

⁴⁸ www.peramiho.org/en/abbey/history.html

⁴⁹ Per Hassing, German Missionaries and the Maji Maji Rising: *African Historical Studies*, Vol. 3, No. 2 (1970), :374

⁵⁰ Versailles Peace Treaty 1919, Article 119

⁵¹ Fr. Gerold Rupper, *Wabedektini huko Pugu: Chanzo cha Kanisa Katoliki Dar-es-Salaam*, Ndanda-Peramiho: Benedictine Publications Ndanda Peramiho, 2005: 6-9

⁵² Bengt Sundkler and Christopher Steed, *A History of the Church in Africa*. Cambridge University Press, UK. 2000, :529

⁵³ Doerr, op.cit. 1998:19

⁵⁴ Ibid:19

⁵⁵ Archives of Peramiho Abbey, (hereinafter APA) Diary of Kigonsera Mission, Vol. I, 1901

⁵⁶ Method Kilaini, *The Church in Africa and Tanzania in Particular*, TEC, 1998:4 where examples of Ndanda and Peramiho monasteries are given.

⁵⁷ Sister Mary Bellarmine Bernas, OSB. Our Founder Father Andreas Amrhein, OSB

boundaries were changed to conform to the administrative boundaries of the colony.⁵⁸ The Benedictines started their work in Dar es Salaam in 1890 and gradually expanded until, by 1905, they were working in the following main centers: Kurasini (founded in 1894), Lukuledi (1895), Nyangao (1896), Tosamaganga (1897), Madibira (1897), Peramiho (1898), Kigonsera (1899), Kwiwo (1902), Rwiba (1903), and Lindi.⁵⁹

The German Benedictines did not question Germany's right to be in East Africa, and they appreciated the protection the government gave them and the improvements in communication it afforded. They too sought a trustful, confident cooperation with the administration while at the same time, trying to maintain their freedom and integrity. They stated plainly that, according to Catholic teaching, the purpose of the mission was to Christianize, not to Europeanize the Africans, and they took strong exception to the following statement by Carl Peters:

*“There are only two ways to deal with the black people. Either one submits to be their servant and makes them “happy” through schools and education. In this case one does not touch their country and founds no colonies in Africa. Or one seeks for oneself a home on the black continent and in that case, one trains the indigenous people through discipline and work, seeing oneself in principle as a conqueror. The latter was the way of Africa's rulers in antiquity, in our day it is the way of the Boers -- one way or the other! In any case it is fateful to choose the vagueness of the middle way, which, surely, will ultimately lead to massacres and destruction.”*⁶⁰

Basing on the monastic approach, the evangelization of the Matengo Highlands cannot be discussed without linking it to Peramiho where the Benedictine mission center was established in 1898. The usual practice of the Benedictines was to open up outstations to feed the monastery. One of its outstation was Kigonsera on the border

between the Ngoni and the Matengo people. However, the majority of the population was Wamatengo who were believed to have inhabited most of this area before the invasion of the Ngoni from Mozambique and Nyasaland. It did not take long; this outstation of Kigonsera was elevated to a full-fledged mission station with several outstations. The most outstanding outstations were Litembo, Matiri, Liparamba and Lituhi on the shore of Lake Nyasa. The founder of the Parish mission was Fr. Innozenz Handle OSB in 1899.⁶¹

The formation of Kigonsera parish was preceded by preparatory factors which essentially included political and ecclesiastical ones. On the political sphere, there was the agenda concerning the consolidation of German colonialism in the Matengo Highlands which was not yet effectively occupied. This consolidation was conducted by attempting to put to an end the Ngoni attacks over the Matengo people. It was envisaged by the Germans that in order to effectively govern Southwestern Tanzania they had to suppress the Ngoni war lords who were believed to be constantly harassing the tribes around there. For the Matengo to be organized for colonial enterprise, peace and order had to be established in the first place. As discussed in the above argument, there was very close alliance between the German Benedictines and the German colonial masters. It was not by accident during the suppression of the Matengo rising of 1902, the German troops on their way to Litembo, rested at Kigonsera mission and after punishing the Wamatengo, the troops again passed by Kigonsera mission where they were entertained by the missionaries.⁶² In such collaboration between the Benedictine missionaries and the German colonialists, the Matengo could not differentiate between them. The Matengo perceived all of them as oppressors and hence, hard to trust the Benedictine missionaries.

The other scenario was in 1905 when there was an outbreak of the Majimaji uprising which left both Peramiho and Kigonsera mission stations in

⁵⁸Franz Solan Schappi, *Die katholische Missionsschule im ehemaligen Deutsch-Ostafrika* (Paderborn, 1937), 177.

⁵⁹ *Die katholischen Missionen*, 34, 2 (November 1905), 50.

⁶⁰ Wehrmeister, *Vor dem Sturm*, 253; Wehrmeister quoted from *Deutsch Ostafrikanischen Zeitung*, June 17, 1905.

⁶¹ TNA, Annual Report 1901/02. Cf. see also Parokia ya Lituhi, *Jubilei ya Miaka 100 – 1912-2012*, 2012:8-9

⁶²Napachihi, op.cit. 157

ashes, missionaries were murdered coldblooded and the remaining missionaries escaped through Lake Nyasa to save their lives.⁶³ This Majimaji uprising was cracked by the German authorities,⁶⁴ an action which convinced scholars to be moved by speculation that these mission stations were attacked because there was no fundamental difference between the missionaries and the German rulers in the eyes of indigenous population.⁶⁵

The situation was restored to peace, and Major Johannes, the German commander, granted permission that missionaries could move to Songea by joining a military column going to Songea. Upon reaching Songea, they were assigned the building of a former government school as living quarters.⁶⁶ The government brought supplies to both Peramiho and Kigonsera missions which included food and mass wine. This again showed the strong relationship and affection that existed between the German colonial authorities and the Benedictine missionaries who were also from German. The missionaries on the other hand worked tirelessly to organize famine relief efforts by helping to buy food in Umatengo and Lake Nyasa. This food was sent to the heavily hunger stricken population in the areas where Majimaji had been fought, notably in Ungoni. In these areas, the German forces had used scorched-earth policy to deal with Wangoni warriors.⁶⁷ In this situation, the German forces used hunger as a weapon for suppressing the Wangoni resistance. They destroyed homes and food granaries, crops and animals were all burned, food stocks were confiscated, people were prevented from planting their fields.⁶⁸ The situation was very deplorable.⁶⁹ In the Matengo Highlands the situation was a bit different in comparison to Ungoni since the participation of the Wamatengo in the Majimaji uprising was very

minimal. The Matengo enjoyed relative peace, involved in production hence had reasonable supplies of provisions.

The second factor for the establishment of the parish mission at Kigonsera is found from the ecclesiastical point of view. By this, time the Matengo Highlands was free from any other religious denomination, neither Christian nor Islam.⁷⁰ However, along the Lake Nyasa shore, there was the UMCA mission operating there. It was therefore the intention of the Benedictines to check the expansion of the Anglicans into the Matengo Highlands. It was not, therefore, by accident that the Benedictines later in the year 1924 established an outstation at Nangombo as a buffer zone,⁷¹ a site in the mountain ranges very close to the UMCA station of Mbamba-Bay along Lake Nyasa which was very close to the UMCA headquarters at Likoma Island in Lake Nyasa.

The name Kigonsera is the name of a person who received the first missionaries.⁷² The missionaries who settled at Kigonsera included one priest called Innozenz and one Brother called Ivo. The Brother started constructing buildings using the locally available raw materials of trees, bamboo, tree ropes and grass thatch. Water supply was coming from a source at a nearby mountain. The first building was for housing the missionaries and the second building was for the church services. The local people provided labour in the construction work and in the garden which was part of the missionary enterprise at the mission. In 1902 a bigger church was needed due to an increase of the converts. At this juncture, the main raw materials were then bricks and tiles for roofing and the floor. Fortunately, Kigonsera was rich in clay soil which was used for bricks and tiles making. As a result of this innovation, in 1904 Kigonsera mission got a permanent church and school buildings.

⁶³ S.Napachihi, *ibid*: 170-172

⁶⁴ Jahresbericht urber die Entwicklung Von Deutch Ostafrika (Annual Report on the Development of German East Africa)1907/08

⁶⁵ Interview Anton Kapinga Matanila (86) interviewed on 27.08.2012 at Mbinga town

⁶⁶ Doerr, *op.cit.* : 50

⁶⁷ Napachihi, *op.cit.* :179

⁶⁸ Doerr, *op. cit.* 1998:55

⁶⁹ MB 11, 1906/07 :145

⁷⁰ Mihanjo, *op.cit.*:24, refers to the Matengo Highlands as 'a no man's land.'

⁷¹ Jimbo Katoliki, *Ustawi wa Enjili Jimbo la Mbinga Kuelekea Mwaka 2000*, Peramiho Printing Press, 1997:86

⁷² Parokia ya Lituhi, *op. cit.* 2012:8

In order to win followers, Fr. Innozenz effectively applied the Amrhein *Magna Carta* of 1883 which insisted on setting schools in all monastic mission stations.⁷³ A *Bush school* was opened at Kigonsera as means to change the mentality of the young people; older people were hard to change.⁷⁴ The school taught prayers, reading, religious instructions, manual work and good behavior. The education provided was very elementary with emphasis on conversion. That is why religious teachings played a very special role in the school; even the environment of the school was to impress the sense of religion to the school children. The school was decorated with crosses, pictures of saints and the behavior of teachers had to demonstrate holiness.⁷⁵ Presents in the form of cloth, sweets and other goods were given to the pupils to encourage them to attend school. There was a big expansion of the Kigonsera mission as is it revealed in the government annual report of 1902/03 which shows that there was one priest, two Brothers, eight Christians, 311 Catechumens, seven people were baptized, one school, 16 pupils, one boarding school, twelve pupils of boarding school and several catechists.⁷⁶ The number of pupils grew to 28 in 1903, and it further grew to 40 in 1904. In early 1905 the number was 113 pupils in the two schools.⁷⁷ Fr. Johannes opened a number of Bush schools at Litetema (Amni Makolo), Lihutu (Lipumba), Ndembo, Lukarasi, Muhurumusi, Mihango, Mahanda, Masimeri, Litorongi, Lihale, Kitai, Lupilo, Mkako and Ndolonela.⁷⁸

Fr. Innozenz faced a language barrier in communicating with the converts. To solve this problem, he took trouble to learn the vernacular Kimatengo language. In delivering his Christian faith instructions, Fr. Innozenz used Kimatengo in order to enable the local people to understand. In other instances, he had to employ interpreters who knew both Kiswahili and Kimatengo. In July 1901, Fr. Johannes replaced Fr. Innozenz as

superior of Kigonsera mission. He emphasized school expansion but also opened up outstations in the Matengo Highlands.⁷⁹ The most important ones were Litembo, Liparamba, Matiri and Lituhi along the Lake Nyasa shore. Bush schools, as a strategy of getting converts, were opened in all outstations. At Litembo with the approval of chief Mandawa, a church was opened together with a school in 1901.⁸⁰ A catechist Wilhelm was in charge of the school with the responsibility of giving catechism instructions.

The brief period of the outbreak of the uprising in Umatengo against the German invasion in 1902 and the Majimaji uprising in 1905 to 1907, halted the missionary work in the Matengo Highlands. Kigonsera was briefly put to a standstill, while the Litembo church and school were all demolished. The Missionaries of Kigonsera and those of Peramiho vacated their stations through Wiedhafen to Dar-es-Salaam. The missionaries came back after the German troops had succeeded to suppress the risings. The vigor that came after the Majimaji uprising succeeded in opening up new schools in Umatengo proper. The first school was opened at Mhagawa Asili in 1909 boasting 170 pupils under teacher Kilian Komba. Another school was opened at Kipapa in the same year. In 1910 another school was opened at Kindimba whose teachers were Yakob Pokela, Henrik and Paul Nombo Kandosa.⁸¹ The Matiri School was opened in 1911. Additional schools in the Matengo Highlands were built at Maguu and Mikalanga to forestall the advance of the UMCA mission from Lake Nyasa into the Matengo Highlands. The demand for the teacher – catechists - was so high because they were needed to staff the ever-increasing number of schools. In this situation, gifted pupils were spared at the mission in Kigonsera to get more instructions as future teachers.

To manage all these outstations in the event of the shortage of personnel, the superior devised a method of using the boys who excelled in the Bush

⁷³ The Missionary Magna Charta of Fr. Andrew Amrhein in Napachihi op.cit. 1998:65

⁷⁴ Napachihi, 1998:84 cf ibid.

⁷⁵ Napachihi, ibid. 1998:84

⁷⁶ Annual Report 1902/03

⁷⁷ Doerr, op. cit. 1998:31

⁷⁸ Eginald E. Mihanjo, op.cit. :30

⁷⁹ APA, 1901

⁸⁰ APA, 1901, Ibid.

⁸¹ Aloys Makupe Turuka, Manuscript of Parokia Litembo Historia na Maendeleo yake (n.d.)

schools as catechists. Bishop Gallus Steiger put it this way,

“It is quite obvious that we want first of all catechists i.e. people whose only is to convert non-Christians by their own example and by their instructions, further to instruct Christians, children as well as adults, in their religion, to visit the sick and take care that no one of them dies without the last sacraments, to watch over the discipline, the morals and the customs of the Christians: in brief to be the representatives of the missionary in the village. But all things taken into consideration ... what we want, is the teacher catechist”⁸²

The most popular catechists of Kigonsera mission included Yoseph Nchimbi of Litetema, Florian Mbena of Kigonsera,⁸³ Constantine Akitanda of Matiri⁸⁴ and Wilhem of Litembo.⁸⁵ In order to easily pay visits to these outstations, the Superior insisted the converts open their outstations by voluntarily constructing roads and bridges to facilitate communication.⁸⁶ In most cases, missionaries travelled on foot to offer services to the outstations or sometimes by donkeys or motorcycles. The terrain of the Matengo Highlands is not very friendly to the use of bicycles. During Christmas and Passover festivals, converts from all outstations assembled at Kigonsera for prayers.

The success of the Kigonsera mission was the founding of a new mission at Lituhi along the shore of Lake Nyasa. However, the most crucial achievement in the Matengo Highlands was witnessed on 28th July, 1914 when the Litembo outstation was elevated to the rank of a parish mission. The founding superior was Fr. Ludger Breindl. The choice of Litembo was justified by the following reasons. First, it was claimed by the missionaries to be in the center of the existing schools. The schools included Maguu, Mikalanga, Lundumato, Nangombo, Kindimba, Lihiso,

Mkumbi, Kipapa, Matuta, Lugari, Mbugu, Hagati, Ugano, Unyoni, Ngima, Magingu, Mapera, Mbuji, Mpapa, Manzeye and Litembo itself.⁸⁷ With this fleet of schools and outstations, the Litembo mission station was very strategic as a buffer zone against the expansion of the UMCA from the Lake Nyasa shore. Secondly, it is said that Litembo was the most densely populated area in the Matengo Highlands. Thirdly, Litembo had a healthy climate and fertile soil. There is also a claim going around that most of the places where the Benedictines established mission stations were rich in natural resources. That is why the parishes in Southwestern Tanzania have nicknames reflecting the type of available resources. Peramiho was referred to as the church of whisky, Kigonsera, Litembo, Liparamba, Tingi and Litumba were referred to as churches of gold. Lituhi was referred to as a church of diamonds, and Nangombo as a church of uranium and gold. Lundumato was popularly nicknamed a *chatu* church.⁸⁸ This suggests that, among other factors, for the choice of mission station, consideration of the available natural resources was very paramount.

The work of construction of the new station commenced with the focus on essential buildings which included the church and the house for missionaries. Because World War I had been declared in German East Africa by August 8, 1914, the Brothers from Germany could not come to assist Fr. Ludger in the construction work at Litembo mission station. According to Doerr, through the use of his energy, hard work and unskilled local labour, Fr. Ludger was able to accomplish a makeshift church and other important buildings using sun-dried bricks.⁸⁹ In reality, without the local people, the work of erecting a new mission station at Litembo would not have been possible without the commitment of the local people. The work of building Litembo station was labour intensive. The making of the

⁸² Quoted by Napachihi, 1998:87

⁸³ Parokia, *ibid.* 2009:9

⁸⁴ Benjamin Akitanda a retired teacher and a son of the late Constantine Akitanda (+1964) interviewed, 2013

⁸⁵ Doerr, *op.cit.* 1998:85

⁸⁶ Fr. Cassian Spiess used to come to Kigonsera to encourage people to voluntarily work for God.

⁸⁷ TNA, Acc.155/23/10, Mission schools, cf. Mihanjo, *op.cit.* 200:156

⁸⁸ Fr. Timothy Ndunguru is a parish priest of Kigonsera. He also served at the Abbazia of Peramiho in the early 2000s. cf. interview with Mzee Matanila who also subscribed to this reasoning.

⁸⁹ Doerr, *op.cit.* :80

bricks was quite a tedious work involving many people. The place where the bricks were made was some hundreds metres away. The other building materials included grass for thatching, tree poles, bamboo poles and tree ropes were not available within reach. The reeds - *matete* and the tree poles were obtained from Litembo about 1½ kilometres away from Litembo. The bamboo poles and *miyombo* tree ropes were at Kingua about 8 kilometres away from the Litembo station.⁹⁰ To get all these building materials, mobilization of labour was very crucial.

The work of construction of the mission station was coordinated by the Father Superior, but the real execution involved many people whose contribution cannot, in any way, pass without acknowledgement. The catechists from different outstations were very much committed to making this noble assignment well done. Under their catechists, all the outstations were supposed to contribute in the construction of the mission in materials and prayers. The schools were also involved in the construction by way of providing labour in the construction process. Among the lesson emphasized in the mission schools was manual labour, which, apart from making the pupils learn the different skills, they were also using their manual labour to assist in the construction to supplement their upkeep. They made the bricks, cleared the ground, carried building materials to the building site, gathered grass for thatching, drew water to the building site and made prayers for God to protect the project. The catechumens of the Litembo mission attended their Christian instructions at Litembo where they had to ‘camp’ for some months. Camps were a makeshift hut-residence (*lisekela*) constructed by reeds/*matete* walls with grass/*mapelele* thatch. The beddings (*mandupa*) which the catechumens used in the *lisekela* included beds which were made of wooden poles erected in rectangular shape; ropes were used as the supporting gear. Then a mat made of reeds (*ndengati*) was used as a bedspread and a bark cloth from *amtaba* tree (*ndenda*) or an animal skin were used as bed sheets. They came with their food of maize flour and beans and

stayed for a number of months. Apart from spiritual instructions, the catechumens provided labour for the construction of the mission station and other mission activities. To qualify for baptismal, communion or confirmation, a catechumen had to exhibit excellence, not only in spiritual instructions, but also to excel in manual work.⁹¹ During the feasts of Christmas and Passover, all Christians across the mission had to come to Litembo for prayers. Before communion, a Christian was supposed to make confession in front of a priest, who would finally instruct the convert to make *malipizi*/repentance in a form of prayers and manual labour which included working at the fields/*shamba*, construction site and gardens. The people around Litembo were also involved in, not only in the construction work, but also in other mission activities of keeping gardens, poultry, piggery, cooking and cleanliness in exchange with simple presents like second hand cloth, food stuffs, salt and other foreign goods.

The Superior of Litembo mission Fr. Ludger is remembered for introducing wheat growing at Litembo and spreading it to the entire Matengo Highlands. Fruit growing and tree planting were other inventions the Superior introduced in the Matengo Highlands. It is very common in the Matengo Highlands to hear such versions of European fruits such plums, peaches, passions, oranges, avocado, vines and *mioyo*.⁹² While the Superior of Litembo mission introduced the afforestation exercise around the mission station by planting different types of trees (eucalyptus, cypress, camellia, pines, and fir trees which were most common), the people around Litembo used to work in these fruit orchards and in planting and caring of the trees for small payments.

Evangelization was another challenge to Fr. Ludger at Litembo mission due to three major factors according to the Superior. The first problem was the lack of personnel to spread the message of God, taking into consideration the vastness of the area covering the Litembo mission. Litembo mission had a big number of outstations

⁹⁰ Cosmas Masingi interviewed at Kingua-Litembo, 2013

⁹¹ Cosmas Masingi, *ibid*.

⁹² Jacob Hyera, Kilimo Mbinga interviewed, 2013

and Bush schools under its jurisdiction. The second problem in facilitating evangelization was communication barrier in terms of language. The Superior did not understand Kimatengo while the Wamatengo on their side did not understand Kiswahili. There was also a transport problem to enable the Superior to visit the outstations and the schools. This problem was much more compounded by the nature of the Matengo Highlands terrain which is mountainous. The third problem, according to the superior, was conservatism and dominance of paganism and witchcraft in its original form among the people of the Matengo Highlands. In some areas the missionaries were refused permission to build their stations. A good example was when the missionaries were refused at Ngima then they proceeded to Mkumbi and Lundumato.⁹³

To solve the problem of personnel, there were people who were employed as catechists, cooks, cleaners and other helpers whose remuneration was by way of presents.⁹⁴ As for the language problem, Fr. Ludger embarked on rigorous study of Kimatengo language to allow him to communicate with his converts. The transport problem was solved by encouraging each outstation to voluntarily construct a road to connect with another outstation and vice versa. The problem of conservatism, paganism and witchcraft was difficult to solve. Until Fr. Ludger left Litembo in September 1916 when he was deported by the British, he showed frustration due to the people of the Matengo Highlands failing to cooperate with the missionaries.⁹⁵ This frustration was also shown by Fr. Johannes, the Superior of Kigonsera. The feeling of these two Superiors over the Matengo Highlands created an impression that the Matengo Highlands people were anti-Christian. To the contrary, there were young people who willingly followed the influence of schools and of the mission. These young people were allowed by their parents to follow up Christian instructions and finally joined the new religion. So, there was such an increase of

missionary activity in the Matengo Highlands. However, the outbreak of World War I in 1914 interrupted most of the Benedictine activities in the Matengo Highlands. In 1916 all German missionaries were interned and deported to Europe while the Litembo mission was used as the administrative headquarters of British administration. They left the 18 schools with 4000 pupils to the older pupils who were nominally paid. There were 500 Christians who were baptized, 300 communicants every Sunday and 2000 adults following instructions in the Christian faith.⁹⁶ The Catechists did a commendable work during the absence of the missionaries. Occasionally, the White Fathers were visiting them to provide spiritual services to the converts in the Matengo Highlands.

3.2 Benedictines Missionaries after majimaji

The focus of Benedictines in the post Majimaji uprising period appeared to be expansion into what was known as Umatengo proper with its center at Litembo. This was an area which boasted the following advantages.⁹⁷ It was firstly believed to be the center of existing mission schools of Litembo/Mhagawa, Kindimba, Kipapa, Matiri, Maguu and Mikalanga which by then were controlled from the Kigonsera mission.⁹⁸ The second advantage of this area was a site Fr. Johannes had constructed the first outstation in 1901 but was burned down by the 1902 uprising against the German invading forces. Thirdly, the Matengo Highlands were the most populated area of the country. Being mountainous, this location boasted of having a very cool and healthy climate suitable for European missionaries. The fifth advantage was the area having very fertile soil for production of a variety of crops. Lastly, it was suggested that the need to open up the Matengo Highlands was strategically aimed at countering

⁹³ Anton Matanila interviewed, cf. Fr. Alex Kenyata, *Maisha ya Wamatengo Kabla ya Ujio wa Wamisionari Wabenediktini*, 1999:30

⁹⁴ Benjamin Akitanda interviewed

⁹⁵ APA, 1914, *Chronicles of Litembo*, cf. Doerr, op.cit. 1998:81

⁹⁶ Doerr, *ibid.* :81

⁹⁷ Bishop Spreiter visited the Matengo Highlands and was very impressed the people, land and terrain

⁹⁸ Jahresbericht urber die Entwicklung Von Deutch Ostafrika (Annual Report on the Development of German East Africa) 1908/09 and also Doerr op.cit. :79

the advance of UMCA from their stronghold along the Lake Nyasa shore.⁹⁹

3.3 World War I in the Matengo Highlands and Benedictines activities

The evangelization expansion was, however, curtailed by the outbreak of the First World War in 1914. This war ravaged Litembo in September 1916 when the British troops arrived from Lake Nyasa.¹⁰⁰ The other thing worth mentioning among the Matengo was that World War I physically affected the Matengo. The British soldiers from Nyasaland invaded the German *bomas* and the mission stations in the Matengo Highlands area.¹⁰¹ The German priests at Litembo and Kigonsera mission stations were interned and finally deported. Kigonsera mission was made a military hospital and Litembo mission was made an administrative post for the British government.¹⁰²

Fr. Ludger, the superior of the Litembo mission was interned by the British authorities. He left back 18 schools with 4000 pupils and 2000 adults following instructions in the Christian faith.¹⁰³ The British established themselves in the mission centers changing the infrastructure into uses they thought of. Litembo mission in this aftermath became an administrative headquarters of the British administration, while Kigonsera became a British military post. On the other hand, the Benedictine station at Peramiho was made a British military hospital in South Western Tanzania.¹⁰⁴ German Benedictine Fathers at Litembo and Kigonsera mission stations in the Matengo Highlands were interned and finally deported to German after World War I, hence creating a serious shortage of missionary personnel.¹⁰⁵

The end of the First World War marked the end of German rule in German East Africa. In the

Matengo Highlands German rule ended in September 1916 when the British troops occupied Litembo and Kigonsera Benedictine mission stations. Concerning the German missionaries, their sphere of influence was safeguarded by an agreement of allies in France. Versailles Peace Treaty of 1919 resolved that ex-enemy missions should be replaced by the same denominations from the allied powers or neutral power.¹⁰⁶ The orphan Benedictine church in South Western Tanzania was now entrusted to the White Fathers; most of them were French nationals, Luxemburger, Dutchman, two Belgians and a Canadian.¹⁰⁷ Fr. Pierre Regent, a French member of Montfort missionaries, was at Peramiho as chaplain of a military hospital from September to December 1917. Fr. David Roy, a Canadian White Father, was a chaplain at Kigonsera military post from February to August 1917. Fr. Camile De Chatonville, a White Father, stayed at Kigonsera as superior up to 1919. Between September 1917 and April 1918 Fr. Camile stayed at Litembo but was frustrated by what he purported as lack of response by the Wamatengo.¹⁰⁸ A Dutch-born White Father Joseph Laane was appointed Apostolic Administrator of Dar-es-Salaam in 1917. In 1919 he was named as administrator of Lindi Apostolic Prefect and he was able to draw in other White Fathers to assist him to care for the Benedictine missions.

Father David Roy came back in April 1919 and stayed at Kigonsera before he moved to Litembo. He removed the British administrative post from the mission buildings and his consistent hard work was able to revive the Christian Community of Litembo. This was the most badly affected mission as a result of the removal of the Benedictine mission.¹⁰⁹

¹⁰⁶ Kamati, *ibid.* : 64. See also TNA AB.635, Secretariat File 1920. A telegraphic conversation between the Governor of Tanganyika Territory and the Foreign Office in London – Downing Street on the German Mission property.

¹⁰⁷TNA AB.4 (1733) Annual Reports Southern Area, Songea District Report 1920, Since this sphere was occupied by White Fathers, the British authority refused UMCA mission permission to have hill station in Litembo sub-District.

¹⁰⁸ TNA AB.4 (1733) Annual Reports Southern Area, Songea District Report 1920

¹⁰⁹ S.Rweyemamu and T.Msambure, *The Catholic Church in Tanzania*, 1989: 17

⁹⁹ TNA, AB.4(1733) Annual Reports Southern Area, 1919/1920. Cf. Mihanjo, *op. cit.* 2001,:24

¹⁰⁰Kamati *op.cit.* 1998: 62-63

¹⁰¹Kamati, *ibid.* 1998:63

¹⁰²Doerr, *op.cit.* 1998:84

¹⁰³ Doerr, 1998:81

¹⁰⁴ *Ibid.* 1998:84-86

¹⁰⁵ Doerr, cf. Kamati :66

3.4 Benedictine Missionaries during Post World War 1 Period

In 1922 the British authorities agreed to the return of all ex-enemy missionaries and getting back all their property. The Benedictines came back but they left the Vicariate of Dar-es-Salaam in the hands of Swiss Capuchins and the Consolata Fathers and went to the South where they had been working before the war. They concentrated on the Southern Highlands, notably in Ndanda and Peramiho.¹¹⁰ In 1922 the Swiss Benedictine Order were allowed to come back to South Western Tanzania (Prefect Apostolic Gallus Steigler and Fr. Xaver) to take charge in the abandoned German Benedictines missions.¹¹¹ The Swiss Benedictines worked hard to bring to life the already dilapidated church as an aftermath of the world war. Being a Swiss Benedictine and a Superior of the diocese who stayed very long and demonstrated politeness to the indigenous people, Gallus Steigler was likely to win the Matengo people. This was contrary to the German missionaries who usually demonstrated arrogance, prejudice and segregation to the indigenous people. That is why the German missionaries had always lamented the non-cooperation of the Matengo people because the Germans were not well received by the Matengo people who were culturally very inquisitive to strangers' behaviour. If a stranger showed arrogance, the Matengo would simply ignore him and would never at all cooperate.¹¹² It was very unfortunate to the Germans missionary to refuse to learn the socio-philosophical underpinnings of the Matengo society.

Though it is evident that Mandawa the Matengo chief showed acceptance to erect a mission station at his place, when the Prefect Apostolic Maurus Hartmann visited him in 1901,¹¹³ and a catechist was placed to start a school and to give

instructions in catechism, it turned out that the Matengo Highlands was not favourable for a mission.¹¹⁴ The reasons given for not being favourable are that there were succession disputes; there were mutual accusations of witchcraft and Fr. Johannes felt that the Wamatengo were not promising to be Christians. Further to these explanations, the British authority claimed that Wamatengo were exceedingly superstitious; they practice witchcraft and they often used poison ordeal and that Matengo witchdoctor ate human flesh by exhuming dead bodies or obtained his desire by murder. The mission at Litembo had strange stories of their behavior.¹¹⁵

The work of reviving the collapsing church was said to have involved the local catechists including Constantine James Akitanda of Matiri outstation¹¹⁶ and Petri Ndunguru at the Litembo Parish.¹¹⁷ The main task by this time was to revive the decaying schools since education was the major concern of the missionaries. "*Kusoma*" Christianity was a distinctive form of Christianity.¹¹⁸ But on the other hand, this enthusiasm was curtailed by the regulation imposed by the British administration that there could be no opening of new schools.¹¹⁹ The explanation for this regulation might be on the account that the Roman Catholic was so aggressive since education was to them synonymous to Christianity. This attitude posed a threat to the existence of the Anglican British missionaries in the Lake Nyasa region. This can be substantiated by the decision of the Songea District Political Officer J.C.Cassian who gave permission to UMCA to establish their schools in villages where German Berlin and Lutheran mission had schools.¹²⁰

¹¹⁰ S.Rweyemamu *ibid.* : 17. See also John Baur, *Two Thousand Years of Christianity in Africa*, Second Edition, Paulines Publications Africa 2009:233

¹¹¹ Kamati *op.cit.*: 72

¹¹² Fr. Timoth Ndunguru, Interviewed July 2013. Cf. Abbot Lambert, interviewed in June 2013 indicated that it is easier to live with the Matengo people than the Wangoni.

¹¹³ Doerr, *ibid.* :32

¹¹⁴ Jahresbericht urber die Entwicklung Von Deutch Ostafrika, 1901/02

¹¹⁵ TNA Acc. 155, Songea District Book

¹¹⁶ Interviewed Benjamin Akitanda a last born son of the catechist (August 2013)

¹¹⁷ Kamati *op.cit.* :74

¹¹⁸ Doerr , *op.cit.* :96

¹¹⁹ TNA AB.16 Part 1733/15, Annual Report – Songea District 1923

¹²⁰TNA *Ibid.*

3.5 The Missionary Work in the Matengo Highlands 1919-1950s

One observation to be made in the Matengo Highlands during this period is the fact that German missionaries were the sole providers of social services. This is testified by the 1900 Agreement between the German government and Bishop Maurus Hartmann which required the missions to educate the minor government officials and to expand and modify their curricula to meet the purposes of government to get officials. In return the government was not to establish schools where mission schools were already in place. Further, the government announced to support the mission schools which educated government officials by providing teaching equipment free of charge.¹²¹ World War I, therefore, hit Matengo very hard in terms of social services after the departure of the German missionaries. This is true because the German missionaries were not wanted by the British war victors and that is why they were interned and finally deported to Germany. All these challenges, notwithstanding, it is argued that during this period of British rule in the Matengo Highlands there was a phenomenal expansion of Christianity.¹²²

3.6 The Return of German Benedictine Missionaries

In 1926, the German Benedictines of St. Ottilien were admitted to come back to Tanganyika. During this phase the German Benedictines devoted much of their effort to rehabilitate the dilapidated infrastructures which were destroyed during their absence upon being interned by British authorities due to the First World War. The Tanganyika government agreed to the return of the ex-enemy and getting back all their property.¹²³ When the German Benedictine Fathers came back in 1926, they left the Vicariate

of Dar-es-Salaam to the Swiss Capuchins and the Consolata Fathers and went to the South where they had been working before the war. They concentrated on the southern Highlands and on the districts of Lindi comprising Peramiho and Ndanda.¹²⁴

The return of the German missionaries had the impact on the increase of personnel in the Matengo Highlands as is reflected in missionary social service provision.¹²⁵ The number of priests and brothers showed a steady increase in the Matengo Highlands. Moreover, the increase in personnel led to the increase of mission stations. In 1927 the Kigonsera mission embarked on the establishment of another station at Liparamba. The Litembo mission station undertook to establish a daughter mission station at Nangombo in the hills close to Lake Nyasa. The other important mission station was established at Mbinga in 1935. An additional mission station at this period was established at Matiri in 1937 from the Kigonsera mission. It is argued that at Matiri it was anticipated that the Benedictines would launch a large-scale gold mining in the area.¹²⁶ In the southern part of the Matengo Highlands Tingi was established as a separate mission station from Litembo in 1937.

These missions were founded from Kigonsera mission. Mbangamao in 1964 and St. Killian Mbinga in 1997 both were founded from Mbinga mission. The other missions at Nangombo 1933, Tingi 1937, Maguu 1949, Lundumato 1959, Mkumbi 1962, Kindimba 1998, Kitula 2005, Miyau 2011, Wukiro 2013 were founded from Litembo mission. Mpapa 1957 and Mikalanga 1966 were founded from Maguu. Mpepo 2002 founded from Tingi. Mpepai 1994 founded from Mbangamao.¹²⁷

Simultaneously with this development and expansion of Christianity in South-Western Tanzania, there was a phenomenal increase of

¹²¹Heinke, The Report of negotiation with Hartmann, November 23rd, 1900. Heinke, a Secretary for Schools and Mission Affairs in 1900 negotiated with Bishop Hartmann leading to Benedictine Agreement.

¹²² Doerr, op.cit. 1998:85

¹²³ The Paris Peace Treaty 1919, op.cit. cf. TNA, AB, No. 3197, op.cit.

¹²⁴Rweyemamu and Msambure, op.cit. :17.

¹²⁵ M.O.Kapinga, Religion and Development in the Matengo Highlands from 1899 to 198, PhD Thesis, UDOM, 2014:401

¹²⁶Doerr, op.cit. 134

¹²⁷Kamati ya Mawasiliano, *Jimbo la Mbinga na Askofu Mstaafu, Jubilei Pacha*, Peramiho Printing Press, 2012:21

Missionary Benedictine Sisters from 1926. In every mission station, the Benedictines opened and built hospitals and dispensaries to attend to the sick people around. Services in the health centers were offered by sisters who began work with prayers regardless whether the patients were Christians or not. Where there were serious cases of illness the sisters used to baptize the sick people lest they die before joining the kingdom of heaven. The Sisters were also in charge of kitchen, garden and general cleanliness of the mission centers. Together with the Sisters there were Brothers, who were in charge of the workshops; planned and designed mission buildings, supervised work in the fields and animal husbandry. Sisters and brothers on some occasions, assisted in giving religious instructions to different groups of converts. In the final analysis, the social services they provided served as a strategy of conversion of the pagans.

Due to the mistrust of the German missionaries by the British government, the Swiss missionaries had to shoulder all top administrative posts in South western Tanzania.¹²⁸ At the headquarters of the Abbey Nullius of Peramiho, Gallus Steiger, a Swiss national missionary, was the Abbot-Bishop. At the Abbey itself the prominent lieutenants were all Swiss nationals. The prior at the same time, Vicar General and Parish Priest, the Sub-Superior, the Procurator, the headmaster of the Peramiho schools and the Educational Secretary were all Swiss nationals. The Parish Superiors in the whole of Peramiho were to be of Swiss in origin and those of neutral missions from the allied powers, including French nationals.¹²⁹ Some of the Benedictines missionaries were exchanged with the Holy Ghost Fathers. The following Benedictines were transferred to the Moshi diocese from Peramiho Abbey Nullius: Elzear Ebner, Enhard Bundshuh, Ferrnand Fichtner Nathanael Biller, Wener Brodhun, and Bonaventure. From Moshi diocese, the following priests were transferred to Peramiho: Richard

Gillet, Alois, Joseph and Mcquire.¹³⁰ In 1968 when the German missionaries retreated to the Peramiho, Abbatia, leaving the church leadership to the indigenous clergy, the whole of the Matengo Highlands was heavily influenced by the German Benedictine teachings. It was true that the Matengo Highlands had never witnessed any other missionary order apart from the Benedictine Fathers. The Matengo Highlands was understood to be a no man's land in terms of ecclesiastical affiliation.¹³¹ It is therefore safe to conclude that the socio-economic development of the Matengo Highlands as attributed to the work done by the German Benedictine Order.

3.7 Benedictines and Socio-economic Development of the Matengo Highlands

When the Germans colonized the DOA, they had to establish an administration system which was charged with the maintenance of law and order through the state instruments such as the police, the courts, the army and the bureaucracy. In this regard, the German East Africa Company, a business company, was granted an imperial charter to rule the German sphere of influence in 1885. The company officials started arriving in 1887 to take up their administrative posts. The second function was that of providing social services to the population. These included sanitation, water, electricity, education, health services, roads, bridges, railways, telegraphs and transportation. The company invited the Benedictines of Bavaria to accompany the DOA in the administration of the colony. This invitation was intended to make the missionaries involve themselves in the provision of the social services and, in this way, the business company would not involve itself in the provision of social services. The logic here was that, being a commercial company, engaging in the provision of social services was tantamount to reducing the profits of the commercial firm. Besides, religious orders were experienced in the running of education and health services.

¹²⁸TNA, AB. 7 File No. 1733, Annual Report on Songea District 1921. The report blamed Roman Catholic Native Teachers employed by the Benedictine Missions in Songea District as being somewhat pro-German in their sympathies.

¹²⁹ Doerr, 1998, op.cit. :167

¹³⁰ Kamati, 1998, op.cit. :78

¹³¹Mihanjo, op.cit. :24

The DOA had to surrender and give up the administration of the colony for various reasons. The first was inexperience in running administrative functions, being a business Company. Consequently, the company officials turned out to be very unpopular among the people, amounting to the rising of the Arab landlords along the coast led by Bushiri and Bwanaheri. The people complained of the brutality, forced labour and heavy taxation imposed by the company officials. The other reason was that the company ran bankrupt on account that much of the profit accrued in the business was spent in running administrative costs. In 1891 the imperial German government had to intervene and took over the administration of the colony. However, the spirit of using the missionaries, as it was under the company rule, in the provision of social services in the colony remained unabated. This spirit continued even during the British period.

3.8 Development of Missionary Education in the Matengo Highlands

Missionary expansion in the Matengo Highlands up to World War I was slow as it is seen in Table 3.1 above. The opening of schools throughout the Matengo Highlands went hand in hand with conversion into Christianity. There were Bush schools which were established in the outstations where pupils were prepared for baptism. Besides, the pupils were taught other subjects such as hand crafts, singing and manual work. Koponen pointed to the fact that Roman Catholic and Germans stressed on the importance of manual farm labour as education for work.¹³² However missionary schools were for conversion, to mold the pupils while still young in the heathen interior. From 1900 to 1914, there was change in colonial education due to the change in colonial conditions. There was the emergence of the development imperative which demanded close collaboration between the state and the missionaries by restricting competition between missions and state schools and to share functions.

¹³² Johan Koponen, *Development for Exploitation, German Colonial Policies in Mainland Tanzania, 1884-1914*. Printed in Finland by Raamattutalo, Pieksamaki, 1994:355

The state supported mission schools in funds, books. School fees were paid through manual work by school children on the Benedictines' fields, gardens and grounds.¹³³

Though the German government had opened craftsman schools and Hinterland schools in the coastal areas and few hinterland districts, the Matengo Highlands was much more neglected. As such, the Benedictines were the sole providers of education in this area of the German protectorate. It is again argued that the children from South western Tanzania could not safely be taken to the government schools because of poor communication networks. There were no railroads, no good roads except those constructed by the followers of Christianity. Under such circumstances, the Benedictines embarked on construction of schools throughout the Matengo Highlands.¹³⁴

Looking at the content taught in these schools the bulk of what was taught were religious instructions with a little bit of reading, writing and counting.¹³⁵ The pupils were divided into three groups, the first group was that of the children, the second group included all Christians and the last group included those who were preparing for baptism, both children and adults. Those who excelled in their studies were recruited as catechists. The other component of the content that was taught were skills which were aimed at teaching manual labour.¹³⁶ This syllabus was in line with the Benedictine philosophy of *ora et labora*. But also, the German government in the protectorate during the governorship of Georg Albrecht Freiherr von Rechenberg between 04/15/1906 - 22/04/1912, came up with the policy of development. To implement his development imperative, the governor put emphasis on the collaboration between state and the missionaries. He restricted competition between the mission and state schools. Incentives

¹³³ Juhan Koponen, *Ibid.* 357

¹³⁴ TNA, 2286, Register of Mission Stations, cf. TNA, Acc. 155/23/10 Mission Schools for which no Right of Occupancy are Registered 1922-1926

¹³⁵ Kamati ya Historia na Habari Jimbo Kuu Songea, op.cit. :41-42

¹³⁶ Annual Report, 1901/02

in terms of funds and books¹³⁷ were given to the mission schools which taught German language and other subjects like handcraft as it was echoed in the 1908/09 Annual Report:

*As for the Benedictines ... the missions have done particularly gratifying work this year in the field of youth education work in handcraft, agriculture, horticulture and also in the sphere of medical auxiliary work.*¹³⁸

Kigonsera school was among the schools in which the German administration put effort to encourage it to adopt the German government education system more specifically, the teaching of German language apart from Kiswahili which was the medium of communication. Furthermore, sisters instructed girls in all kinds of work which girls are supposed to do. Like in the government schools, apart from learning subjects like Bible classes, reading, writing, arithmetic, singing and German, the pupils had to work in the fields and in the house in the kitchen and garden for four hours. Boys learned blacksmithery, joinery, bricklaying and how to sow seeds.¹³⁹

The mission stations based on the Benedictines' monastic approach acted as a source of employment. A monastery was supposed to be self-reliant in terms of provisions. In order to implement this philosophy, the Benedictines established a variety of projects like farms, workshops, gardens, and domestic activities. The personnel, as is presented in Table 3.1 above, were so limited to cater for all projects in the monasteries. The number of brothers and sisters was very small to perform all the duties by themselves in the entire monastery. This situation called for an extra massive labour force from outside the monastery. While the missionaries – priests, brothers and sisters - did the supervisory functions, the manual labour was to be performed by the neighbouring local population. The work of construction of churches, living houses, schools, health centers, infrastructure, tiles making and bricklaying called for an intensive labour supply. The real construction work of the buildings also

proved to be labour demanding. Looking at the type of gothic structures of churches they designed, intensive manual labour was highly demanded. The buildings, especially of the churches were very tall; especially the long naves or bell towers (*minara*) needed an abundant labour supply. This was more necessary because there was no technology of winch and cranes. The fields and the gardens also needed reliable sources of labour to attend them. This was true with the livestock keeping project. There was a demand for labour to attend the livestock which included pigs, chicken, cattle, and other available livestock in the mission centre. Furthermore, the workshops of carpentry, masonry, shoe making, sewing, blacksmithing and food canning called for intensive manual labour. Employment was also available in the houses of the missionaries for cooking, cleaning the houses, washing clothes, and attending to the missionaries as helpers.¹⁴⁰ The transport of missionary provisions from the coast involved enlisting of caravans in hundreds or thousands from the coast to the interior. For all these activities the missionaries needed the assistance of hundreds of Africans as a workforce.¹⁴¹ One observation ought to be made regarding the labour situation in the mission stations. The use of labour in the mission centers ended up using underage children who worked in fields for some hours daily in addition to school attendance.¹⁴² The catechumens who used to camp at Kigonsera and Litembo mission stations for religious instructions for some months spend most of their precious time working in the fields and construction work. The grownups were involved in making bricks and floor and roof tiles while the young ones used to move the bricks from one place to another as required by the brothers.¹⁴³

3.9 The Benedictines Medical Services in the Matengo Highlands

The medical services in the Matengo Highlands were not very well established during this period.

¹⁴⁰ Koponen, op. cit. 357

¹⁴¹ Roland Oliver, op. cit.: 69

¹⁴² Roland Oliver, Ibid. 357-358. Cf. interview with Cosmas Masingi in June 2013

¹⁴³ Cosmas Masingi, Ibid.

¹³⁷ Koponen, op.cit. 1994:509

¹³⁸ Annual Report 1908/09

¹³⁹ Annual Report, 1908/1909, Ibid.

It is well understood that there were two mission centers only in the Matengo Highlands. The mission of Kigonsera did not have enough sisters to run the medical center. The plan to bring some sisters from Germany did not materialize due to the outbreak of the Majamaji war in 1905, the year they planned to send sisters to Kigonsera.¹⁴⁴ The outbreak of the First World War in 1914 was another obstacle to the coming of the sisters. The war effects required that all German missionaries should leave the colony. In this situation, bringing in more missionaries was no longer possible. As a result of World War I, the sisters left Peramiho for the second time. Some went to South Africa, while others started other new mission fields. The Tanganyika Territory (as it was called at that time) was closed to German missionaries.¹⁴⁵ The second Litembo mission in the Matengo Highlands was still very young as it was established in July 1914 by a Benedictine Father Ludger and some brothers from St. Otilien. They gave medicine to the sick and started a local health centre.¹⁴⁶

3.10 *Benedictines and Construction of Infrastructure in the Matengo Highlands*

The German colonial government did not invest much in infrastructural construction in the Matengo Highlands. The focus was partly to connect the coast of Lindi and Kilwa with Wiedhfen on the shore of lake Nyasa which apparently was so strategic. As argued earlier, in the Matengo Highlands there was a typical case where the cross preceded the flag. Missionaries had occupied this area and established Christianity in the remote rural area of the Matengo Highlands. The already established two missions of Kigonsera and Litembo had established a series of outstations and Bush schools. The missionaries had to establish their own infrastructure which would enable them to visit their stations. The missionaries embarked on the construction of the road between Kigonsera and Matiri under the supervision of Brothers

Rainald OSB and Yustin OSB.¹⁴⁷ Catechist Constantine Akitanda played a very important role in the construction of this road and the bridges by mobilizing the faithful of Matiri to participate in the road construction.¹⁴⁸ Another road was constructed between Kigonsera and Litembo. Another big road was between Kigonsera and Liparamba outstation. There were many small roads which connected the mission station and the outstations and the chain of Bush schools. The good examples were the road from Litembo to Nyasa/Nangombo outstation via Maguu outstation and another road from Litembo to Lugari outstation via Ngima. A road was constructed between Litembo and Kindimba outstation through Myanganga to Mbinga mission station.¹⁴⁹ In all cases the Christians used volunteers in the construction of these roads. The Matengo Highlands terrain is naturally associated with mountain ridges and a series of rivers and streams. In all these cases, bridges were very common and again the converts volunteered their time and energy in this construction. The construction materials which included tree logs, big stones, ropes and many other materials required were brought to the sites by the Christians. At the end of the day, most of the infrastructure construction in the Matengo Highlands was the sole responsibility of the mission stations which organized the Christians to perform this noble responsibility until the end of the World War I. Later in September 1916, the war entered the Matengo Highlands when the British troops came from Nyasaland through the Nyasa area. The British administration was forced to construct a road from Mbamba-bay along Lake Nyasa to Ndengo in the Matengo Highlands to ferry the British troops. Another road was

¹⁴⁷ Jimbo Katoliki Mbinga, *Ustawi wa Enjili Jimbo la Mbinga kuelekea mwaka 2000*, Peramiho Printing Press, 1997:30

¹⁴⁸ Interview with Benjamin Akitanda and Fr. Josephat Komb Malunda, 2013

¹⁴⁹ Anton Kapinga Matanila and Fr. Francis Ndunguru interviewed in 2012 and 2013 respectively, Remigius Michael Hyera, Paul Jeremia Ndunguru, Kostantin Manyuka Mwingira and Longnus Matias Mwingira interviewed at Litembo, 2014.

¹⁴⁴ APA, Diary of Kigonsera, Vol. 1 entry for 9.5.1905

¹⁴⁵ <http://www.peramiho.org> Missionary Benedictine Sisters Peramiho, Tanzania, East Africa, 2013

¹⁴⁶ www.seniorenland.com poste 2010

constructed from Lituhi along Lake Nyasa to Ruanda in the interior for the same purpose.¹⁵⁰

IV. CONCLUSION

The German Benedictine Fathers' work marked the initial attempt to introduce the new religion to the people who had their traditional religion. The response was, therefore, negative and frustration among the missionaries was evident. Despite all these setbacks, the German Benedictine missionaries, through the use of material inducements, were able to convince the youth who accepted conversion and, in the long run, formed the foundation of a strong Christian tradition in the whole of South Western Tanzania. These youths were much more attracted to the material incentives like cloth, salt, sugar, kerosene, utensils and different trades rather than the spiritual values. The German colonial government on the other hand benefited from the missionaries who provided social services which, otherwise it was the role of the state. As reciprocity to this contribution, the state assisted the pacification of the rebellious natives as it happened in the *Karonga* war 1902 and the *majimaji* uprising 1905-1907. The state was also all out to assist the missionaries alienate land from the natives through the provision of offers of land occupancy to different mission activities. The British from 1916 when German rule was liquidated in the Matengo Highlands did not overhaul the existing structures. There were improvements here and there. To that effect, the Benedictine missionaries remained the major social services provider. Serve the period between 1919 to 1926 when the church was left in the hands of White Fathers as caretakers based on the Versailles Agreement. Otherwise after the return of German Benedictine missionaries in 1926 the church shouldered most of the tasks related to provision of social services here. Despite their mistrust over the German Benedictine Missionaries, the British government continued depending on the missionaries for social services provisions. Therefore, the European occupation of the Matengo Highlands is among the typical examples where the colonial masters collaborated strongly with the

missionaries. Furthermore, the missionaries had a stronger influence in the lives of the Matengo Highlands hence the cross preceded the flag. More important is the situation where the German Benedictine missionaries stayed longer in the area (1899 to 1968) than the German colonialists (1902 to 1916) which ultimately entrenched their legacy in the Matengo Highlands.

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¹⁵⁰Doerr, op.cit. :83

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Students' Attitudes and Perceptions Toward the Effectiveness of Mobile Learning in Omdurman Islamic University April 2020

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Omdurman Islamic university

ABSTRACT

Over the previous couple of decades information and communication technologies have improved greatly and therefore the use of computers has become more widespread. The evolution of handheld portable devices and wireless technologies has resulted in radical changes within the social and economic lifestyles of recent people.

The study aim to assess Omdurman Islamic university students regard their perception, attitude regard using mobile learning in online learning and assess its efficacy and measuring the relationship between their perception, attitude and demographic data regard using mobile in online learning.

Keywords: m-learning, student attitude and perception, mobile technology, omdurman islamic university.

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The study aim to assess Omdurman Islamic university students regard their perception, attitude regard using mobile learning in online learning and assess its efficacy and measuring the relationship between their perception, attitude and demographic data regard using mobile in online learning.

Methods: This cross-sectional study was designed as a descriptive study to assess perception.

Study population: all ranks of students first, second, third and fourth classes Sample size 100 using simple random sampling technique.

Results: Show that students has good perception regard using mobile in online learning and mobile learning are getting to be more flexible method of learning 40% (= 40), because it is often done anytime, anywhere while 38% (N=38) of respondents strongly agree that the mobile learning will improve communication between student and teacher Also the study show that limiting factors regarding mobile learning were considered and the respondents were asked as to what can be the reasons because of which mobile learning cannot be used for learning, 50% of the respondents strongly feel that unavailability of appropriate mobile phones

with a large no. of students is one of the major reasons From the results appeared that no relation between demographic data and perception and attitude p value. In our university From study appeared that there is no relation between demographic data and their perception regard age, Student rank, Family income .769, 906, .221, and regard relation between supsequancy.

Conclusion: m technologies are perceived as an effective tool in improving communication and learning. In our university. From study appeared that there is no relation between demographic data and their perception and attitude.

Keywords: m-learning, student attitude and perception, mobile technology, omdurman islamic university.

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I. INTRODUCTION

Over the previous couple of decades information and communication technologies have improved greatly and therefore the use of computers has become more widespread. The evolution of handheld portable devices and wireless technologies has resulted in radical changes within the social and economic lifestyles of recent people. Today, many technological devices are produced in portable form and other people became familiar with them. These devices are reshaping user behavior in daily lives in several ways. Online learning may be a sort of distance learning or distance education. Distance learning may be a sort of education and training delivery during which students are inaccessible from the education institution. Ader inoye (2002, remarked that distance learning as a medium of instruction has revolutionized the supply of educational opportunities for many folks that are over looked of the traditional system worldwide. Ajadi, Salawu and Adeoye (2008) described distance learning as a system of education that's delivered through a spread of media and don't need the mandatory presence or manifestation of the teacher and therefore the learner. It offers great opportunities for interaction with students and ensures equity in education regardless of the gender differences (Bar ron, 1999). According Ajadi, Salawu and Adeoye (2008) Online classes became a prominent a part of the education landscape, and lots of professors who previously believed they might never teach online are being asked to supply Web enhancements to their face-to-face classes or teach a category entirely online. And, while interest in online classes from both students and college administrators has led to a rise within the number of online classes computer plays an important role in modern education and pedagogy. M. learning (or mobile learning) is realized with mobile devices and wireless communication. Context-aware ulearning (or ubiquitous-learning) requires mobile devices equipped with sensor technology and wireless communication (Fuxin Andrew Yu, 2012). Context-aware u-learning might be classified under m-learning because as more smart phones enable sensor technology, m learning will become indistinguishable from context-aware u-learning.

Online learning offers a spread of educational opportunities: Student-centered learning the variability of online tools draw on individual learning styles and help students become moreover satile learners. Collaborative learning Online group work allows students to become more active participants within the learning process. Contributing input requires that students comprehend what's being discussed, organize their thinking coherently, and express that thinking with carefully Easy access to global resources Students can easily access online databases and subject experts within the online classroom. Experiential learning through multimedia presentations New technologies are often wont to engage and motivate students. Technology also can be wont to support students in their learning activities. Accessible for non-traditional students Online delivery of programs and courses makes participation possible for college kids who experience geographic and time barriers in gaining access to education. Draws on student interest in online learning Many students have an interest in online learning. During a recent survey conducted by the office of Educational Planning and Assessment at UMass Amherst, quite 50% of scholars surveyed said that they were "very interested" or "somewhat interested" in taking a web course. The Benefits and Uses of Online Learning, one reason why there' s such a lot discussion around online learning is that there are many purposes benefits and uses of online learning. A number of the foremost important ones are: its effectiveness in educating students, its use as professional development, its cost-effectiveness to combat the rising cost of postsecondary education, credit equivalency at the postsecondary level, and therefore the possibility of providing a world class education to anyone with a broadband connection (Bartley & Golek 2004; De la Varre, Keane, & Irvin, 2011. Gratton-Lavoie & Stanley, 2009. Lorenzetti, 2013. What has received most of the eye for online learning is that the postsecondary education arena. The rising cost of postsecondary education and therefore the importance of a postsecondary degree are well documented within the literature. Many scholars and educators believe that online learning are often an efficient

tool in combating the rising cost of postsecondary education by spreading the value of a category over a way larger number of scholars compared to the normal setting, (Bowen, 2013). Moreover, the incremental category over a way larger number of scholars compared to the normal setting, (Bowen, 2013). Moreover, the incremental cost of a student in a web setting is negligible relative to the normal setting, necessarily constrained by variety of things like the dimensions and availability of the physical classroom. Due to the rapid development of technology, courses employing a sort of media are being delivered to students in various locations in an attempt to serve the tutorial needs of growing populations. In many cases, developments in technology allow distance education schemes to supply specialized courses to students in geographically remote areas with increasing interactivity between students and teacher. Although the ways during which distance education is implemented differ markedly from country to country, most distance learning programs believe technologies which are either already in situ or are being considered for his or her cost effectiveness. Such programs are particularly beneficial for the various people that aren't financially, physically or geographically ready to obtain traditional education.

However, recent development in hypermedia technologies which promise to facilitate "individualized" and "collaborative" learning are blurring the distinctions between distance and traditional education. These technologies even have the potential of making new environments for learning like "virtual communities". Students in traditional settings are being given entire courses on CD-rom multimedia disks through which they progress at their own pace, interacting with the trainer and other students on electronic message or face to face consistent with their needs (Technology Based Learning, 1994). Through international collaboration, students round the world participate in cooperative learning activities sharing information using computer networks (Riel, 1993). In such cases, global classrooms may have participants from various countries interacting with one another at a distance.

Mediated educational activities allow students to participate in collaborative, authentic, situated learning activities (Brown & Palincsar, 1989; Brown, Collins, & Duguid, 1989) The available evidence suggests that schools are using information technologies with the intention of expanding access, improving instructional quality and reducing costs related to traditional instruction. Many districts and states have turned to online learning (-) according to survey-based estimates by the International Association for K-12 Online Learning (iNACOL), 1.5 million students took one or more online courses in 2010 (Wicks 2010). In these courses, students received all or an area of their instruction over the web and interacted online with teachers, peers and digital learning content. Some states like Alabama, Florida and Michigan have made the web learning experience an area of their graduation requirements (Watson et al. 2010) Online learning has become popular thanks to its perceived potential to supply more flexible access to content and instruction by 1) increasing the supply of learning experiences for people that can't or like better to not attend traditional schools, 2) assembling and disseminating instructional content more efficiently, and 3) increasing student-instructor ratios while achieving learning outcomes capable those of traditional classroom instruction. Some proponents see technology as having potential beyond increasing efficiency in instructional delivery, as an example, by providing a community of learners to support understanding of an aesthetic body of data (Riel and Polin 2004; Schwen and Hara 2004)The Positive Findings There are an outsized number of studies that find positive statistically significant effects for student learning outcomes within the online or hybrid format compared to the normal face-to-face format. Quite the positive learning outcomes are improved learning as measured by test scores, student engagement with the category material, improved perception of learning and of the web format, stronger sense of community among students, and reduction in withdrawal or failure. Consider subsequent illustration supported by a study by Riffell and Sibley (2005) Online learning appeals to diverse populations of scholars with

ranging academic needs that traditional education classes are deficient or incapable of meeting. The demand for online courses springs from a push “to provide quality education to all or any students, no matter location and time (Chaney E. G. (2001). Online courses are found to be conducive to students who favor self-regulated learning (You & Kang, 2014) during a study conducted by Kirtman, a student skilled online coursework by stating, “It is more self-guided so I can spend longer on the concepts that i'd like help with and fewer on concepts that I can devour quickly” (Kirtman, 2009, p. 110 Self regulated learners have a bent to use various “cognitive and metacognitive strategies to accomplish their learning goal” (You & Kang, 2014, p.126) Aim of the study: This study aimed to assess students' attitudes and perceptions towards the effectiveness of mobile learning. To measure relation between demographic data and perception and attitude Methodology.

II. MATERIALS AND METHODS

This cross-sectional study was designed as a descriptive study to assess perception, attitudes of 100 nurse students nurses who studying in Omdurman Islamic university so on review their perception and their attitudes on the effectiveness of mobile learning, a questionnaire was developed with 20 items. The Study was conducted in Islamic university. Sample size 100 using simple

random sampling technique A random sample of 100 undergraduate.

Study population

All rank students first, second, third and fourth class were given the questionnaire. They completely filled the questionnaire. Responses were received and the data collected was processed and statistically analyzed using SPSS version 20. Exclusion criteria those who refused to participate in the study. The questionnaire consisted of demographic data which consist of age, sex, students rank, family income And perception and attitude which consist of strongly agree ,agree ,undecided, strongly disagree, disagree questions(score for strongly agree=1, agree=2, undecided=3 strongly disagree=4, disagree=5) , inferential statistic done MS, SD and Chi squire p value 0.5 is significant. Measurement done to see relation between demographic data and perception and their attitude. Perception question consist of (5) question about their perception regard using mobile in online learning Attitude question consist of (12) question about their attitude regard using mobile in online learning and how it affects on their learning Approval informed consent was taken from each of the participant before participating in the study and respect those who refused to participate in the study.

This study done on march to October 2020.

Results: AGE

Age	Frequency	%Percentage
years 17	24	24.0
above 17	76	76%
total	100	100

Student rank

Student rank	Frequency	%Percentage
First class	21	21.0
Second class	10	10.0
Third class	3	3.0
Fourth class	66	66.0
total	100	100.0

FAMILY INCOME

Family Income	Frequency	%Percentage
rich	44	44.0
Middle	46	46.0
Poor	10	10.0
total	100	100.0

Table 1: Perception no (100)

Perception	Frequency	%
Using the online units was an effective way to learn about the assigned topic		
strongly agree	27	27.0
Agree	51	51.0
Undecided	9	9.0
strongly disagree	4	4.0
Disagree	9	9.0
Using the online learning units was fun		
strongly agree	26	26.0
Agree	44	44.0
Undecided	15	15.0
strongly disagree	6	6.0
Disagree	9	9.0
An online learning unit assignment similar to this should be used in this course in the future		
strongly agree	24	24.0
Agree	54	54.0
Undecided	13	13.0
strongly disagree	6	6.0
Disagree	3	3.0
Completing the online units did not take more time and effort than it was worth		
strongly agree	19	19.0
Agree	60	60.0
Undecided	10	10.0
strongly disagree	3	3.0
Disagree	8	8.0
Questions asked in the online units were not too difficult		

strongly agree	27	27.0
Agree	40	40.0
Undecided	14	14.0
strongly disagree	4	4.0
Disagree	15	15.0
Mean score perception		
Poor	7	7.0
Good	93	93.0

Table 2 (A): Attitude (1) no (100)

Variable	Frequency	Percent
Mobile learning can be an effective method of learning as it can give immediate support		
strongly agree	34	34.0
Agree	48	48.0
Undecided	8	8.0
strongly disagree	5	5.0
Disagree	5	5.0
Mobile learning will bring new opportunities of learning		
strongly agree	32	32.0
Agree	50	50.0
Undecided	8	8.0
strongly disagree	5	5.0
Disagree	5	5.0
Mobile learning will be more flexible method of learning as it can be done anytime anywhere		
strongly agree	42	42.0
Agree	40	40.0
Undecided	8	8.0
strongly disagree	9	9.0

Disagree	1	1.0
Mobile learning will improve communication between student and teacher		
strongly agree	30	30.0
Agree	38	38.0
Undecided	8	8.0
strongly disagree	5	5.0
Disagree	19	19.0
Mobile learning is a quicker method of getting feed back in learning		
strongly agree	28	28.0
Agree	34	34.0
Undecided	9	9.0
strongly disagree	8	8.0
Disagree	21	21.0
Unavailability of mobile phones with a larger number of students		
strongly agree	28	28.0
Agree	50	50.0
Undecided	10	10.0
strongly disagree	4	4.0
Disagree	8	8.0

Table 2 (B): Attitude (2) NO (100)

Variable	Frequency	Percent
.expenses involved in Mobile learning		
strongly agree	24	24.0
Agree	43	43.0
Undecided	14	14.0
strongly disagree	6	6.0
Disagree	13	13.0
When I study alone, I understand better and learn better		
strongly agree	19	19.0
Agree	46	46.0
Undecided	23	23.0
strongly disagree	3	3.0
Disagree	9	9.0
poor networking in our country		
strongly agree	53	53.0
Agree	30	30.0
Undecided	11	11.0
strongly disagree	4	4.0
Disagree	2	2.0
I prefer to write alone rather than in a group		
strongly agree	39	39.0
Agree	46	46.0
Undecided	10	10.0
strongly disagree	3	3.0
Disagree	2	2.0
Working in groups fostered exchange of knowledge, information and Experience		
strongly agree	37	37.0

Agree	50	50.0
Undecided	6	6.0
strongly disagree	3	3.0
Disagree	4	4.0
Working in groups made problem solving easier		
strongly agree	33	33.0
Agree	47	47.0
Undecided	16	16.0
strongly disagree	2	2.0
Disagree	2	2.0
Mean score attitude		
Poor	9	9.0
Good	91	91.0

Students regard mobile learning

Variable	MEAN	SD
Perception	1.93	.256
Attitude	1.91	.288

Relation between perception and attitudes and practice among nurses students regard mobile learning

Perception	(%)Good	(%)Poor	P value
Age	56	44	680.
Student rank	66	34	906.
Family income	90	10	221.
Attitude			
Age	75	25	224.
Student rank	85	15	024.
Family income	65	35	155.

III. RESULTS AND DISCUSSION

Responses to the primary question regarding Using the online units was an efficient because of study the assigned topics showed good level of perception among students as 51.% of the respondents they agree that it an efficient because of learn. Whereas 4 % strongly disagree that. In

response to the other question on Using the online learning units was fun, results show that, 44% agree (out of 100 which of the entire respondents, while 6% strongly disagree that students are very comfortable on line learning, feeling learning are getting to be more flexible method of learning because it is often done

anytime anywhere, when being asked if they Questions asked within the web units weren't too difficult, 40% of them (agree that), while only 4% said that they are not comfortable doing so. attitude mobile learning can also provide good support to micro-learning, a replacement and effective way of learning (Habitzel, Mark, Stehno & Prock, 2006). It has been observed by Habitzel and his colleagues (2006), for instance, people can learn more effectively if "information" is weakened into smaller more easy-to-comprehend units. Therefore it's suggested here, that mobile learning is an ideal medium simply because it supports this "new way" of learning regard their attitude: In specifically, 48% of (N=100) students and about half of them (48) agree that mobile learning are often an efficient method of learning because it can give immediate support, with 40% (N=100) feeling that the mobile learning are getting to be more flexible method of learning because it is often done anytime anywhere. 38% (N=38) of respondents strongly agree that the mobile learning will improve communication between student and teacher, and N=38) strongly feel that expenses are involved in mobile learning. 43% (N=46%) of the respondents, feeling that the mobile learning will bring new opportunities of learning. Furthermore, there are several indicators within the survey (Table 1) Related to the effectiveness of mobile learning. The majority of the respondents preferred the effective use of mobile technology in promotion of distance learning where as Traxler (2003), also support the findings of the study.

When limiting factors regarding mobile learning were considered and the respondents were asked as to what can be the reasons because of which mobile learning cannot be used for learning, 50% of the respondents strongly feel that unavailability of appropriate mobile phones with a large no. of students is one of the major reasons but 4% of them strongly disagree to this. 53% strongly feel that poor networking infrastructure is a major hindrance and only 43% agree to the fact that the expenses involved in mobile learning is a limiting factor the MS score and SD of their perception and attitude are MS of perception 1.93,

SD was .256 while MS of attitude was 1.91 and SD was .288 p value.

IV. CONCLUSIONS

This paper investigates the students' attitudes and perceptions of Omdurman Islamic university Student's from different level towards effectiveness of mobile learning in their studies. The authors have analyzed the answers to the questions within the surveys in an attempt to understand an understanding of how current students view the use of mobile devices in learning environments. The analysis of student perception on m-learning points to the actual fact that mobile learning is widely embraced by the scholar community. The majority of student supported the notion that the wireless mobile learning is widely embraced by the scholar community. The majority of student supported the notion that the wireless networks increase the pliability of access to resources in learning which they could work independently of variable the scholars also were keen to use all sources of m-learning approaches through mobile phones in order that access to information would be anytime and anywhere. because the data reveals m-learning activities can much better engage students within the training process. Students during this survey changed from passive learners to actually engaged learners who are behaviorally, intellectually and emotionally involved in their learning tasks. The Mobile technologies are perceived as an efficient tool in improving communication and learning. In our university From study appeared that there is no relation between demographic data and their perception regard age, Student rank, Family income .769, 906, .221, and regard relation between subsequent.

RECOMMENDATIONS

This research can serve a guide for the formulation of a framework for mobile learning with the goal of the enhancing learning in higher education.

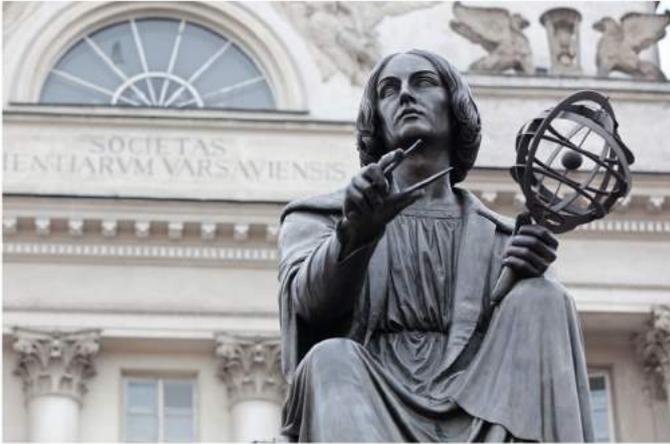
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