Economic analysis of the effect of cigarette consumption on the academic performance of students in Adamawa State University

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Abstract
This paper examines the effect of cigarette consumption on the academc performance of students in Adamawa State University. The study employs primary data obtained through questionnaire issued to students. The techniques used in analyzing the data include correlation analysis and regression analysis. The findings of the correlation analysis shows a negative correlation between smoking and students' performance in Adamawa State University. Also, regression analysis revealed smoking has a negative effect on the academic performance of student, while monthly pocket money has a positive impact on their academic performance of students. Based on the results from the study, the study recommends, among others, that smoking should be highly discouraged among students since it affects their academic performance negatively, and that since monthly pocket money has positive impact on students' academic performance, it is advisable that parents keep that up and even improve on that as a means of facilitating the performance of their wards.

Keywords: Cigarette consumption, Academic performance, Economic analysis, Correlation and Regression analysis

1. Introduction
This chapter examine in detail of Cigarette Consumption. We draw on both possible theoretical explanations for school smoking. A review of existing literature uncovers the fact that social historians have not succeeded in providing clear documented evidence of the inception of the use of cigarette as stimulant by humans. However, it is as well-known as it is undeniably observable that cigarette is not the most addictive and widely consumed stimulant ever discovered by man throughout the entirety of human civilization (Burns, 2007).

This observation is buttressed by the ensuring argument that while tea, coffee and cola nut are similarly in wide usage, the rate of consumption per person is far higher for cigarette than for the other stimulants. This is demonstrably evident since an average smoker smokes several times a day as against once or twice for the other stimulants. Also, while other stimulants are mostly some kind of luxury in many societies, cigarette are consumed in high proportions even by the poorest individuals and societies simply because its demand (price and income) is inelastic due to its devastating addictiveness (Burns, 2007).

This reality becomes most striking when we consider the case of Adamawa State University Mubi where a reasonable number of youths engage in cigarette smoking and thus suffer from negative effects. Despite these obvious social and health effects, smokers find it very difficult to quit. Thus most people engage in the act just because they inadvertently or deliberately make the mistake of joining the line of smokers. As a consequence, only a few proportion of smokers have succeeded in quitting.

Smoking makes people liable to cancer, the heart, liver and lungs diseases. Smoking is a major risk factor for heart attack, strokes, Chronic Obstructive Pulmonary Disease (COPD) including emphysema and chronic bronchitis and cancer. It also causes the misallocation of the students' meagre autonomous income towards unprofitable expenditures, not to mention its effects on the skin, lips and teeth of the consumers that make them socially unattractive (Osuola, 1978) [19].

This research work is intended to serve as a progressive study put forward in order to objectively ascertain the effects of cigarette smoking among students of tertiary institutions, in particular, Adamawa State University, Mubi. In doing so, the researcher intends to draw some hypothetical statements which are tentative explanation of the problem situation, to serve as a guide towards reasonable conclusions that will scientifically explain the practical problem at hand.

While the major thrust of this study is to prove that cigarette has been observed as having largest negative impacts on students of tertiary institutions, it is intended to employ a descriptive survey research in order to find out if our prior supposition is constant under the critical gaze of the methodology of scientific research and to derive helpful recommendations.

Cigarette consumption has always been regarded as a health problem, but with a cursory look, it has escalated beyond the level of health as it is now a socio-economic problem. Analysis of the health effects of cigarette are scaring, let alone the social, psychological, and its economic effects. Some depressed people rely on this lethal product for solace. More disgusting even more is the fact that it is a vice of the poor and economically helpless people.

Scientifically, it is believed that for every cigarette stick that one smokes, it takes away six (6) minutes of one's life but the rate at which students in higher institutions

indulge in cigarette consumption seems as if they are ignorant of this fact. However, ignorance is not innocence. The bottom line is that "there is no legally produced product that has killed more people in the world than cigarette" (Burns, 2007).

However, as none of the studies consulted by the researcher seem to reflect on the magnitude of this problem in the tertiary institutions located in the north-eastern Nigeria, particularly in Adamawa State University, Mubi, the researchers have tried to justify this work by studying the problem with respect to the students of the said University.

The overriding objective of this study is to ascertain the effect off smoking on academic performance of students in Adamawa State University Justification of the Study

This study will help sensitize the students of Adamawa State University (ADSU) Mubi on the implications of cigarette smoking. It will also provide the management of ADSU, Mubi with the remedies to cigarette smoking so as to tackle the problem within and outside the campus. Moreover, it will contribute to knowledge especially in fields related to the study.

1.1 Literature Review and Empirical Literature

Smoking has been practiced in one form or another since ancient times. Tobacco and various hallucinogenic drugs were smoked all over the Americas as early as 5,000 BC in shamanistic rituals and originated in the Peruvian and Ecuadonian Andes. Many ancient civilizations, such as the Babylonians, Indians and Chinese, burnt incense as a part of religious rituals, as did the Israelis and the later Catholic and Orthodox Christian churches. In ancient Greece, smokes was used as healing practice and the oracle of Delphi made prophecies while intoxicated by inhaling natural gases from a natural borehole. The Greek historian Herodotos also wrote that the Scythians used Cannabis for ritual purposes and, to some degree, pleasure. He describes how Scythians burned hemp seed (Bradzt, 2015).

Cannabis was common in the Middle-East before the arrival of tobacco, and is known to have existed at least 2,000 BC. Early consumption of cannabis was a common social activity involving the type of water pipe called a hookah.

In North America, the most common form of smoking was in pipes, which today are best known as the peace pipes offered both to other tribes and later European settlers as a gesture of goodwill and diplomacy. In the Caribbean, Mexico, and Central and South America, early forms of cigarettes, smoking reeds or cigars were the most common smoking tools. Only in modern times has the use of pipes become fairly widespread. Smoking is depicted in engravings and on various types of pottery as early as the 9th century, but it is not known whether it was limited to just the upper class and priests (Robert, 2009).

A French man named Jean Nicot (from whose name the word nicotine derives) introduced tobacco to France in 1560. From there, it spread to England. The first report of a smoking Englishman is of a sailor in Bristol in 1556, seen "emitting smoke from his nostrils." Like tea, coffee and opium, tobacoo was just one of many intoxicants originally used as a form of medicine (Alfred, 2005).

Cannabis smoking was introduced to sub-Saharan Africa through Ethiopia and the East African coast by either Indians or Arab traders in the 13th century or earlier and spread on the same trade route as those that carried coffee, which originated in the highlands of Ethiopia. It was smoked in calabash water pipes with terra-cotta smoking bowls, apparently an Ethiopian invention later conveyed to eastern, southern and central Africa. Around 1600 AD, French merchants introduced tobacco in what is now Gambia and Senegal. At the same time, caravans from Morocco brought tobacco to the area around Timbuktu, and the Portuguese brought the commodity (and the plant) to Southern Africa. This established the popularity of Tobacco throughout all of Africa by the 1560s. Imported tobacco and tobacco pipes became prize and valuable trading goods and were both quickly absorbed into African cultural traditions, rituals and politics (Robert, 2009).

Global trend on the use of tobacco indicates that there are 209 million smokers in United States, Western Europe, Canada and Japan while there are 933 million smokers in low and middle income countries. So far, the emerging scenario is an increase in smoking among the poor illiterate and less educated while there is a decline among the educated public. Researchers calculated that 68,000 to 84,000 adolescents from middle/low income countries join the ranks of smokers each day against 15,000 in high income countries. This means that each day between 83,000 and 99,000 young people start to smoke and get addicted to nicotine (Kigotho, 1999) [15].

1.2 Determinants of Cigarette Consumption

Most smokers begin smoking during adolescence or early adulthood. Smoking has element of risk taking and rebellion which often appeal to young people. The purpose of high status models and peers may also encourage smoking, because teenagers are influenced more by their peers than adults. Attempts by parents, schools and health professionals at preventing people from trying cigarette smoking were often unsuccessful. Children of smoking parents are more likely to smoke than children of non-smoking parents (Eysenck, 1965) [9]. There are claims that teenagers begin smoking due to peer pressure and cultural influence portrayed by friends. However, Eysenck (1965) [9] have established that direct pressure to smoking cigarette did not play a significant part in adolescents' smoking. Adolescents also reported low levels of both normative and direct pressure to smoke cigarette (Eysenck, 1965) [9]. Psychologists have developed a personality profile for the typical smoker. Smokers tend to be sociable, impulsive, risk taking and excited seeking individuals. Although, personality and social factors may make people likely to smoke, the actual habit is a function of operating condition. During the early stage of live, smoking seems pleasurable, as a source of positive reinforcements (Kigomo, 1999). But because they are engaging in an activity that has negative effects on health, people who smoke tend to rationalise their behaviour. In other words, they developed convincing, if not necessarily logical reasons why smoking is acceptable for them. For example, a smoker could justify his or her behaviour by concluding that

everyone will die and so cigarette do not actually change anything. A person could also believe that smoking relieves stress or has other benefits that justify its risks. These types of beliefs prevent anxiety and keep people smoking.

The reasons given by smokers are broadly categorised; addictive smoking, pleasure from smoking, tension reduction/relaxation, social smoking, stimulation etc. Smoking is seen as attractive probably because of the way it is presented in Nigeria. Young people see their role models, film stars, musicians and celebrities smoking or portraying smoking as something glamorous. Many also see it as a status symbol, a way of telling your peers and contemporaries that you have come of age. Moreover, the average Nigerian youth tends to want to be as westernised as much as his or her present circumstances allow. Because smoking cigarette is common in western societies, he or she feels that smoking should be cultivated to make him or her belong which makes many youths to smoke because they do not want to be left out (Odigwe, 2003) [17]. Smoking is seen as attractive probably because of the way it is presented in Nigeria.

1.3 Economic Impact of Cigarette Consumption
Cigarette has a wide variety of negative impacts on the smoker. The most dangerous are the severe and numerous health impacts. The Centre for Disease Control and Prevention (CDC) published a research in 2002, claiming that the cost of each pack of cigarette sold in the United States was more than $7 in medical care and cost productivity. Another study puts it as high as $41 per pack. Most of which, however, are on the individual and his or her family. Between 1970 and 1995,per capita cigarette consumption in poorer developing countries increased by 67 percent, while it dropped by 10 percent in the richer developed world (Chandra and Chaloupa, 2003) [7].

Due to the passage of the Federal Cigarette Labelling and Advertising Act 1965 and the Public Health Cigarette Smoking Act of 1969, the US Surgeon General's health warning is stamped on every pack of cigarette (Centres for Disease Control and Prevention). Yet, despite the flood of information on the dangers of smoking cigarette, approximately 3,800 youths under the age of 18 start smoking every day is more than enough to replace the approximately 1,200 people that die in the United States each day due to smoking related causes (US Department of Health and Human Services). The rate is declining for first time smokers have become stagnant. Public Health Experts, Physicians and legislators routinely proposes various methods of decreasing cigarette consumption. Cigarette smoking is a grave public health concern from health and economic perspective. Although, numerous public policy initiatives have been directed at reducing cigarette consumption, one of the most widely used methods has been the taxation of cigarette smoking at both the federal and the state levels.

If these statistics are of a developed country with high level of education, what more of the less developed countries with less education and income? Eighty (80) percent of smokers now live in less developed countries.

By 2030, the World Health Organization forecasts that 10 million people a year will die of smoking-related illness, making it a single biggest cause of death worldwide with the largest number to be among women. World Health Organization forecasts the 21st century death rate from smoking will be ten times the 20th century's rate (WHO Report, 2002) [22].

1.4 Health Effects of Cigarette Consumption
There have been numerous campaigns against cigarette smoking communicating that this vice causes death. But a threat to health doesn't seem to be a good reason for quitting anymore. People somehow block themselves and ignore all the information that is given to them. The purpose of this essay is to discuss three effects of cigarette smoking besides the broadly mentioned possibility of developing cancer or dying, which are the smell of smoke, the stained teeth and the cost of doing it.

The first effect if cigarette smoking, and probably the one that the non-smoker hates the most, is that it permeates everything around it. Smokers usually have smelly hair, breath, clothes, and, if they smoke indoors, smelly rooms. The stench of cigarette smoke is very penetrating and hard to remove. Even if the person quits smoking the odour remains for a long time.

The second effect of cigarette smoking is one that most people don't even take into consideration. It stains the teeth yellow or sometimes even brown. Since this effect is long term, most people are not aware of it when they begin smoking. The truth is that a cigarette stain is very hard to eliminate from the teeth, and it will probably end up costing a considerable amount of money. Yellow teeth are disgusting because they give an unhygienic image and make people look older.

1.5 Smoking among Students in Nigeria
In Nigeria, smoking among students ranges from secondary schools to colleges, polytechnics and universities. Findings have showed that families and friends appear to influence that first cigarette experience. It should be noted that the factors of civilization are very active in schools and more so among boarding students. It seems that factors like peer group and media are the main causes of smoking among students.

Although, the hazards of smoking are well-known, the numbers of smokers among students is still high. There are many other factors influencing these students to start smoking, for example, socio-economic status, parents, friends, siblings who smoke and the social environment.

Research in the industrialized countries has repeatedly stressed the importance of presenting tobacco use among young people. In developing countries however, smoking among children and adolescents has not received much attention. Nonetheless, it is well known that smoking among children and adolescents is a developmental phenomenon with several factors exerting an influence on cigarette use at different times (Bawazeer, Hattab & Morales, 1999) [4].

Studies have found out that common age people starting smoking is between 15 and 17 years. It was also discovered that this range of ages is the period of highest curiosity among growing children as they seem to be

eager to experience everything, to assume an edge over their peers experiencing what most of their peers can hardly brag of experiencing too. Social and environmental factors are the most outstanding in some cases among the many factors that influence smoking (Burnham, 1993) [6].

1.6 The Effects of Smoking on Students
Smoking cigarette can result to several effects among the students concerned. It is universally understood that cigarette smoking causes a number of health problems than often ultimately results in death. According to a global health survey, men who smoke contact lung cancer 22 times the rate faster than non-smokers. Smokers are also highly at risk for heart diseases, emphysema, oral cancer, stroke and so on. The danger of tobacco also has it effects on family health. Those around a smoker inhale what is known as "second-hand smoke" – the unfiltered, poisonous waste that goes into the air (WHO, 2007). Information given by the Ministry of Health states that 'second-hand' smoke causes or aggravates asthma, bronchitis, and other respiratory problems. Smoking can become addictive. The addiction to tobacco is a physical response that often interferes with one's life and worship. In addition, smoking is a waste of money (Robert, 2009).

1.7 Restrictions on Cigarette Smoking
Most of the European countries have imposed restriction on cigarette advertisement, cigarette smoking in public places, and have even set an age restriction on buying cigarette. For instance, in Australia, the Tobacco Advertisement Prohibition Act of 1992 expressly prohibited almost all forms of tobacco advertisement including the sponsorship of the brands (Guel and Glanz, 2001) [10].

Many countries have smoking age, including the United States, New Zealand, Canada, South Africa, Israel, India, Brazil, Chile, Costa Rica and Australia, where it is illegal to sell tobacco products to minors. In the Netherlands, Belgium and Denmark, it is illegal to sell tobacco products to people under age of 16 years (Burnham, 1993) [6].

All tobacco advertisement has been banned within the European Union since 1991 under the Television without Frontiers Directive of 1989. This ban was extended by the Tobacco Advertisement Directives which took effect in July 2005 to cover other forms of media such as the Internet, print media and radio (Burnham, J. C., 1993) [6]. The directive does not include advertising in cinemas and on bill boards or using merchandising or tobacco sponsorship of cultural and sporting events which are purely local, with participants coming from only one member state as these fall outside the jurisdiction of the European Commission. However, most members state have transposed the directive with National Laws that are wider in scope than the directive and cover local advertising (Chandra, *et al.,* 2003) [7].

On September 1, 2007, the minimum age to buy tobacco product in Germany rose from 16 to 18. Some countries have even legislated against minors engaging in the act of smoking. Underlying such laws is the belief, that people should make an informed decision regarding tobacco use.

To achieve this, some countries have imposed labels upon cigarette pack warning smokers of the effects including graphic images of the potential health effects of smoking. Cards are also inserted into cigarette packs in Canada to explain the different method of quitting smoking.

However, in China, Turkey and many other countries, a child will have little problem buying tobacco product, because they are often told to go to the store to buy for their parents. In Nigeria, it is a horrible story as far as restrictions on the smoking of cigarette. There are laws that restrict cigarette advertisement. They are not allowed on radio and television after 10 pm and billboards have been scrapped. These are laws restricting smoking in public places like restaurants, bars etc.

People sell anything to anybody without a second though. It is interesting to note that most adults prefer to send children to buy cigarettes and other drugs. There are effectively no laws in this regard (Odigwe, 2003) [17].

1.8 Restrictions on Cigarette Smoking in Nigeria
Smoking in Nigeria is prohibited in public places and is punishable by a fine of not less than N200 and not exceeding N1000 or to imprisonment to a term of not less than one month and not exceeding two years or to both a fine and imprisonment (Leadership Newspaper, 2008).

In Nigeria, the anti-tobacco communities are at the forefront of ensuring smoke-free public places. Over 40 civil society groups, legal practitioners and public health advocates storm the Senate Hearing Room of the National Assembly Complex, Abuja, on July 21 and 22 to present their memorandum in support of the National Tobacco Control Bill (NTCB) (NTCB, 2009).

The Nigeria National Tobacco Control Bill is a comprehensive law which when passed will regulate the manufacturing, advertising distribution and consumption of tobacco products in Nigeria.

It is a bill that is aimed at domesticating the Framework Convention on Tobacco Control (FCTC) because Nigeria is a party to that international convention. The key highlights of the bill are prohibition of smoking in public places; to include restaurant and bars, public transportation, schools, hospitals etc. A ban on all forms of direct and indirect advertising, prohibition of sales of cigarette 1000-meter radius of areas designated as non-smoking, mass awareness about the danger of smoking as well as the formation of committee that will guide government on the issue of tobacco control in the country.

1.9 Review of empirical literature
Mathew, (2014) examined the prevalence and risk factors for tobacco smoking, among college students of South India using a cross sectional data. He uses simple percentage analysis. Findings from the study revealed that the prevalence of smoking was 26.7% (95% CI 21.6% to 31.8%). The mean age at which they started smoking was found to be 17.43 with the minimum age of 12 and the maximum age of 21 years. 56.3% of the students said they started smoking because of peer pressure while 46.3% said that they started for fun. The study recommends that there is a need to have a comprehensive tobacco control policy and stricter

implementation of the law, with regards to control of tobacco. The focus should be on limiting the supply as well as the demand, for tobacco products.

Oyerinde (2010) investigated the smoking patterns and behaviour of fresh and graduating physical and health education students in tertiary institutions of Kwara State using primary source of data. He employed the use of proportionate random sampling technique; and a previously validated questionnaire (CSAQ) was used to gather information and collect data for the study. The findings from the study revealed that the attitude of fresh PHE students differ from those of graduating students. Fresh students scored higher on the attitudinal scale. Also, graduating students had better perception of the elements and effects of cigarette smoking than fresh students. The study recommended that health educators should convert the improved knowledge of graduating students in the physical and health education departments on the elements and effects of cigarette smoking to health action; and that some of the curriculum items in drug, alcohol and smoking education should be moved to lower levels to help fresh students.

Awosusi and Adegboyega (2015) investigated alcohol consumption and tobacco use among secondary school students in Ekiti State, Nigeria using primary data, i.e. to collect data. He uses simple random technique to analyse the data. The findings revealed a low prevalence of alcohol and tobacco use. Also, significant relationship was found between alcohol consumption and tobacco use as well as, between knowledge of health effects and tobacco use. He recommended that heath educators should organize sensitization programme using mass media to educate students on effect of alcohol and tobacco on their health. School administrators should place bill boards in strategic places in the school condemning the use of alcohol in the school environment.

Ajao, Ige and Obafemi (2013) examined drinking and smoking habits on the performances of students in Nigeria tertiary institutions using primary data. Chi-Square is employed to analyze the data. The findings revealed that a high risk of consumption of alcohol and cigarettes among the students with respect to their health and academic performances. It is also observed that there is a significant relationship between the type of alcoholic drink preferred and sex ($\chi 2$ = 18.38, p-value = 0.001), Reading length per day and drinking ($\chi 2$ = 10.50, p-value = 0.015), but the association between Drinking and CGPA ($\chi 2$ = 2.38, p-value = 0.510) is obviously not significant at 5% level of significance. Also, notice that there is no relationship between academic rating and age. Finally, association between the reading ability and drinking habit is also significant all at 5% level of significance. He also recommend that educational leaders, educators, and other concerned organizations should establish strong programmes that aim at minimizing the impacts of smoking and drinking on the students.

Eniojukan and Owonaro (2015) evaluated the various contexts of cigarette smoking in a community in Bayelsa state of Nigeria using primary data. He uses a simple percentage technique to analyze the data. The result revealed that the prevalence of smoking among the adolescents in the community is generally low, majority of the students initiated a smoking habit at an early age and half of them were currently smokers. Gender and religion were not associated but class specialization was associated with smoking habit, also majority smoke to relief stress, forget their worries and to enhance their academic performance. He recommended that public enlightenment and smoking-cessation programmes are urgently needed in this community.

Mansur, Isa, Oche and Kaoje (2013) investigated the prevalence and risk factors for cigarette smoking among in school adolescents in Sokoto metropolis, North West Nigeria using primary data. He uses simple percentage in his method of data analysis. His findings revealed that there is no prevalence of cigarette smoking among the respondents. Buying cigarette and having friends who smoke cigarette was very determinants of cigarette smoking behaviour among the respondents. He recommended that sustained health education programme should be implemented in secondary schools to reduce the update of cigarette smoking among adolescents.

1.10 Theoretical Framework
The most influential theories in tobacco control and public health are ones that can be broadly conceptualised as cognitive–behavioural. These theories often have separate sub-theories that theorise the relationships between cognitive aspects and factors influencing conditioned, reactive behaviours. One subset, expectancy value theories, focuses on rational appraisals of costs and benefits. These are purely or largely cognitive in focus and include such theories as the theory of planned behaviour, the health beliefs model, the rational addiction model and the transtheoretical model.

A second set of theories, of which the social cognitive theory of Bandura is best known, try to incorporate other factors, but focus on context. A third set of theories, broadly conceptualised as self-regulatory theories, focus on what volitional processes act to inhibit or constrain affective reactions and impulse to act on affective inputs. These include Leventhal's perceptual motor theory, which has not been applied to smoking as much as it could have, and more recently the hugely influential PRIME theory of West and temporal self-regulation theory. These theories focus on ways in which people manage more basic conditioned and innate reactions, including emotional reactions, to substances.

Overall, most of the evidence for the effectiveness of non-pharmacological approaches is that various cognitive–behavioural interventions are helpful. They are the basis of Quitline callback protocols and of most publicly available cessation courses.

2. Methodology
In order to accomplish the study successfully, a number of methods were used to collect and analyse the data. The data were collected from both primary and secondary sources.

The population of the study comprises of the entire students of Adamawa State University, Mubi. It comprises of both undergraduate and postgraduate

students. The total population of the University students is estimated at 6,000 students.

For the purpose of convenience, the researchers have decided to draw a sample of 100 students from the population of students in Adamawa State University. Also, a total of 100 questionnaires were administered to the selected sample, but only 62 were completed and returned. Therefore, the analysis is based on the number of retrieved questionnaire. For the purpose of this study, econometric logit model technique was considered most appropriate for the study.

$$CGPA_i = \beta_0 + \beta_1 SMOK_i + \beta_2 QCS_i + \beta_3 MPM_i + \beta_4 EMPS_i + \beta_5 Male_i + \beta_6 SCHA_i + U_i$$

Where
CGPA = Students' Cumulative Grade Point Average which measures student's academic performance.
SMOK = Smoking represented by dummy 1 if a student smokes and 0 if a student does not smoke.
QCS = Quantity of cigarette smoked per week.
MPM = Student's monthly pocket money
EMPS = Employment status represented by dummy 1 if a student is employed and 0 if he is not employed
Male = Gender dummy, that equals 1 if the student is a male and 0 if the student is a female.
SCHA = Secondary schools attended represented by dummy which equals 1 if the student attended public secondary school and 0 if the student attended private secondary school.
β_0 = Intercept
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ and β_6 are the coefficients of the independent variables
U_i = Error term

2.2 Apriori expectation
$\beta_2 < 0, \beta_3 > 0, \beta_4 < 0, \beta_5 > 0$ and $\beta_6 > 0$

The main instruments that were used in data collection are the questionnaire and interview schedules. The questionnaire is close-ended to ensure each in filling them. Personal interview was also used. In carrying out the research work, data was obtained from primary source.

2.1 Model Specification
The model specification in this research work is as follows:
Linear relationship (Econometric model);

$\beta_1 < 0$, And $\beta_2 < 0$ means that smoking and the quantity of cigarette smoked are expected to have negative impact on CGPA.
$\beta_3 > 0$ Means that monthly pocket money is expected to have positive impact on CGPA
$\beta_4 < 0$ Means that employment status is expected to have negative impact on CGPA
$\beta_5 > 0$ Means that we expect gender to have positive impact on CGPA
$\beta_6 > 0$ Means that secondary school attended is expected to have positive impact on CGPA

2.3 Techniques of Data Analysis
In order to analyse the data generated for the study, the following techniques are being employed; Correlation analysis. Ordinary Least Square (OLS) analysis.

3. Results and Discussion
Correlation analysis has been conducted in order to determine the linear relationship between the variables in this study. The result of the correlation analysis is presented in table 4.1.

Table 1: Correlation Matrix

	CGPA	SMOK	SCS	MPM	EMPS	Male	SCHA
CGPA	1						
SMOK	-0.215751	1					
QCS	-0.0702576	0.57939109	1				
MPM	0.0234605	0.01040948	0.278946	1			
EMP	-0.0928338	0.05976143	0.084868	0.0525422	1		
MALE	-0.0147358	0.02227177	0.141933	0.1091419	0.042591	1	
SCHA	0.0029528	0.02488411	0.146599	-0.001748	-0.04461	0.18954	1

Source: Author's Computation using Eviews 8.0

Based on the correlation result given in table 4.1, it is observed that there is a negative relationship between CGPA and smoking as indicated by the correlation coefficient of about -0.2158. This therefore shows that students who smoke cigarette are likely to have their performance go down by about 22%. As they increase smoking, their academic performance will reduce by about 22%.

Similar result has been obtained for the correlation between CGPA and the number of sticks of cigarette taken per week. The result reveals that there is a negative relationship between the quantity smoked of cigarette

(QCS) and academic performance. The correlation coefficient is -0.070 which justifies the negative relationship existing between CGPA and quantity of cigarette taken in a week by a student. As students smoke cigarette, their performance will decrease by about 7%.

The correlation between student's monthly pocket money and CGPA is positive. This is indicated by the correlation coefficient of 0.0235. This therefore shows that as student's monthly pocket money increases, CGPA will also increase indicating a direct relationship between the variables. The result can therefore be explained to mean that as a student gets monthly pocket money, he/she may

have to buy adequate food stuffs, eat three times a day, buy books and other inexpensive reading facilities such as Rechargeable Lantern and so on. This in turn will facilitate and enhance academic performance.

There is a negative correlation between employment (EMP) and CGPA as shown by the correlation coefficient of about -0.0928. This further means that employment has a negative linear relationship with CGPA so much so that the jobs of employed students will negatively affect their academic performance. This is particularly associated with students who have not been released from their places of work so that they have to divide their attention between study and work.

The relationship between Male and CGPA is also negative as indicated by the correlation coefficient of -0.0147. Thus there is a weak negative correlation between gender and CGPA. A male student is therefore likely to get his academic performance reduced possibly due to smoking and other related behaviour.

The result also shows that there is a negative correlation between schools attended (SCHA) and CGPA as shown by the correlation coefficient of 0.0029. This indicates that students who attended public secondary schools will have their CGPA higher than those who attended private secondary schools. Hence there is a positive linear relationship between public secondary schools and students' performance (CGPA).

There is positive correlation between quantity of cigarette smoked and smoking, between student's monthly pocket money and smoking, between employment and smoking, male and smoking and between school attended and smoking as indicated by the correlation coefficients of 0.5794, 0.0104, 0.0598, 0.0223 and 0.0249 respectively. This result explains that there is a direct relationship between student's monthly pocket money and smoking suggesting that if a student gets monthly pocket money,

that will increase his chances of smoking cigarette. The more the money, the more he/she smokes. In the same vein, employment has a direct relationship with smoking. There is positive correlation between quantity of cigarette smoked and student's monthly pocket money, employment, male and secondary school attended. This is indicated by the correlation coefficients of 0.2789, 0.08487, 0.1419 and 0.1466 respectively. It therefore suggests that there is direct linear relationship between the quantity of cigarette smoked and these other variables. In the same vein, the correlation between student's monthly pocket money and employment as well as between monthly pocket money and male is positive as indicated by the correlation coefficient of 0.0525 and 0.1091 respectively. However, there is a negative correlation between monthly pocket money and the secondary school attended as suggested by the correlation coefficient of -0.0017. The correlation between employment and male is positive as indicated by the correlation coefficient of 0.0426 while the correlation between employment and secondary school attended is negative as shown by the correlation coefficient of -0.0446. The correlation between male and school attended is positive as shown by the correlation coefficient of 0.1895.

3.1 Regression Analysis
To determine the socio-economic impact of cigarette consumption on student's performance, ordinary least squares method has been used to run the analysis. The result of the analysis is presented in table 4.2. The variables used as dependent variable is CGPA which measures student's academic performance while the independent variables are Smoking, Quantity of Cigarette Smoked, Monthly Pocket Money, Employment status, Gender and the Secondary School Attended.

Table 2: Regression Result

Dependent Variable: CGPA			
Method: Least Squares			
Date: 08/31/16 Time: 16:42			
Sample: 1 62			
Included observations: 62			
White heteroskedasticity-consistent standard errors & covariance			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
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C	3.435109	0.457501	7.508412	0.0000
SMOK	-0.760276	0.462624	-1.643400	0.1060
QCS	0.055574	0.113674	0.488887	0.6269
MPM	7.50E-07	1.47E-05	0.050998	0.9595
EMPS	-0.175741	0.271026	-0.648428	0.5194
MALE	-0.042087	0.289256	-0.145501	0.8848
SCHA	-0.007874	0.260641	-0.030209	0.9760
R-squared	0.058580	Mean dependent var		2.830645
Adjusted R-squared	-0.044120	S.D. dependent var		0.979058
S.E. of regression	1.000423	Akaike info criterion		2.944727
Sum squared resid	55.04649	Schwarz criterion		3.184888
Log likelihood	-84.28654	Hannan-Quinn criter.		3.039020
F-statistic	0.570399	Durbin-Watson stat		2.123858
Prob(F-statistic)	0.752087	Wald F-statistic		0.706189
Prob(Wald F-statistic)	0.645903			

Source: Author's Computation using Eviews 8.0

The intercept of 3.43 means that when smoking (SMOK), quantity of cigarette smoked, student's monthly pocket money, employment, male and secondary school attended are zero, CGPA will be 3.43. However, this value is not statistically significant at the 5% level.

The coefficient of smoke (SMOK) is -0.76 which means that if a student increased smoking by one unit, on the average, his/her CGPA will decrease by about 0.76 units holding quantity of cigarette smoked (QCS), student's monthly pocket money (MPM), employment (EMP), male and school attendance (SCHA) constant. This indicates that smoking has a negative impact on CGPA. However, this value is not statistically significant at the 5% level of significance. Similarly, employment appears to impact negatively on a student's academic performance as indicated by the coefficient of employment (EMP) which is -0.18. This value means that if a student is employed, it affects performance (CGPA) negatively. That is, if employment (EMP) is increased by one unit, on the average, CGPA will decrease by about 0.18 units holding SMOK, QCS, MPM, Male and SCHA constant. In the same vein, the coefficient of male is -0.04 indicating that a male student is likely to get his CGPA reduced by about 0.04 than his female counter part. A similar result has been obtained for the secondary school attended. The coefficient of school attendance (SCHA) of -0.008 means that secondary school attended has a negative impact on student's CGPA so that if a student attended a public secondary school, his/her CGPA is likely to be lower than a student who attended a private secondary school.

On the contrary, quantity of cigarette smoked and student's monthly pocket money have a positive impact on CGPA as indicated by the coefficients of 0.056 and 7.50E-07 respectively. The result indicates that a one unit increase in the quantity of cigarette smoked (QCS), on average, CGPA will increase by about 0.056 units holding other variables in the model constant. As for the pocket money, it means that a one unit increase in a student's monthly pocket money, on the average, CGPA increases by about 7.50E-07 units holding other variables in the model constant. However, these coefficients are not statistically significant at the 5% level of significance.

3.2 Conclusion and Recommendations

This study has been able to establish that smoking has a negative effect on students' academic performance while monthly pocket money has a positive impact on their academic performance. Employment also has a negative effect of students' academic performance since they have to pay attention to both studies and work. Therefore, students who smoke and students who are employed have their CGPA lower than those who do not smoke and those who are not working. Based on the findings of this study, the following recommendations are being put forward:

- Smoking should be highly discouraged among students since it affects their academic performance negatively. This will go a long way in enhancing the performance of the students so that the university can produce graduates who will contribute to the development of the society.

- Since monthly pocket money has positive impact on students' academic performance, it is advisable that parents keep that up and even improve on that as a means of facilitating the performance of their wards.
- Employers are recommended to release their workers who are on study so that they can perform better. This is due to the fact that employed students tend to get low CGPA than those who are not employed.
- Students are recommended not to use their monthly pocket money to buy cigarette but they should use it to facilitate their studies.

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