Smuggling Activities and School Environment as Correlates of Students' Learning Outcomes in Economics

Titus Adesegun Benedict Ph.D. FHNR

Lecturer/Facilitator, Department of Arts and Social Science Education, National Open University of Nigeria (NOUN). Mushin Study Centre, Lagos, Nigeria.

ABSTRACT

Smuggling activities across borders by individuals who want to evade the payment of customs duties and tax is not a new trend, but the involvement of secondary school students whose schools are sited in border towns is novel. Thus, the study sought to investigate the correlation between smuggling activities and the school environment on learning outcomes in Economic concepts in secondary schools. The study is underpinned by the Rational Choice Theory within the positivism paradigm. The study was designed using descriptive survey research. A sample size of 320 respondents was obtained through the use of stratified random sampling. Two (2) self-developed instruments were used to collect data; students' questionnaire on smuggling activities (SQOSA) and an economics achievement test (EAT). Pearson's correlation conducted on the data collected from the respondents and multiple regression analysis utilizing the step-wise method indicated that the best of the predictors were smuggling of fairly used clothes, fairly used tyres and small firearms accounted for the poor performance in economics concepts at the $p < .05$ level. The study which is hinged on the rational choice theory concludes that the participation of students in secondary schools in smuggling activities is a result of proximity to border towns which affects their academic performance in economics concepts, hence, the study recommends that schools in future should not be located near border posts, while the ones presently close to the border be upgraded into full boarding schools with a high-security network to prevent the students from participating in smuggling activities.

Keywords: Smuggling, school environment, economics, learning outcomes, rational choice theory, borders, border towns

INTRODUCTION

Smuggling of goods within and outside the borders of a nation is not a new phenomenon. Since time immemorial smuggling has been going on, especially of goods across borders, and recently according to (Ojo, 2015), it took a new dimension with more sophistication in the way it is carried out most especially as a result of the growing level of unemployment in developing nations around the world. Nations around the world have smugglers to contend with at one level or the other depending on what is been smuggled across the borders of that country. Various items are smuggled across borders ranging from agricultural produce, narcotics, cars, small (light) arms and ammunitions, ornaments, fairly used clothes, ivory products, canned foods and human beings (Faleye, 2015; Opanike & Aduloju, Raballand & Mjekpi and Prag, 2010.).

Smuggling which is an offshoot of trans-border trade involves men and women that are mostly unemployed looking for a means of survival and as a result found themselves moving goods across the borders of countries sidetracking government agencies such as customs officers, immigration and other relevant

agencies at border posts in other to circumvent the payment of official taxes and levies. Sometimes they cross borders with smuggled goods with the connivance of corrupt government officials who collect bribes from the traders and look the other way whenever these traders pass through the borders with their wares. Most of the goods smuggled come in through old abandoned roads or bush paths literally referred to as *'fayawo'* (Titus, 2018) that link border towns with one another with the assistance of residents of border towns who are mostly youths and teens (students) that dropped out of school or are unemployed..

Research Questions

The following research questions were tested in this paper:

1. What is the composite effect of trans-border trading activities on students' academic performance in Economic concepts?
2. What are the relative effects of trans-border trading activities on students' academic performance in Economic concepts?
3. Which of the trans-border trading activities would predict students' Academic Performance in Economic concepts?

Scope of the study

This study focuses on the effects of smuggling activities and the school environment as correlates of students' learning outcomes in economics. Data collected was conducted on students in border towns of Ogun state Nigeria.

The study significance

The goal of this study is to investigate the effects of smuggling activities and the school environment as correlates of students' learning outcomes in economics. This research work will be beneficial to the government because they will be able to understand the negative impact of setting schools close to border areas and act accordingly. Students will also benefit from this research as they become increasingly aware of skipping classes for transborder trading activities. Despite the aforementioned, the research will add more value to the body of literature by filling a gap in what has been studied. Furthermore, it is going to give theoretical background knowledge to researchers who are interested in the area of study.

LITERATURE REVIEW

Concept of Smuggling

Smuggling literarily means stealing an item discreetly without alarming or involving the lawful owner of the property (Ike, 2013; The Guardian, 2009). The act in itself is illegal and shameful. From the economic point of view, smuggling especially in the context of this paper involves the transportation of goods from one border destination to another border point with or without the agreement or knowledge of government agencies assigned to man the border post (Titus, et al 2016). It also implies the importation or exportation, illicitly or stealthily without paying lawful custom duties. The activities of smugglers in recent times have assumed a sophisticated dimension about their modus operandi. Goods smuggled across the borders varies from one geographic location to another. For instance, at the Mexico-US border according to research conducted by Berestein (2010) narcotics are moved across the borders of these two nations using trucks that are conveying fruits while the drugs are neatly stocked in-between the fruits to avoid the prying eyes of narcotic officers at the border posts. In the great lake region of east African countries, items smuggled in this region consist of ivory, timber, and agricultural produce, while in the Nigerian–Benin border axis

articles smuggled across borders include: fairly used cars/tyres; frozen poultry products, rice, canned foods, fairly used clothes, narcotics, small and light arms among others.

Smuggling activities especially in border towns of West Africa are thriving as a result of the inconsistency of government policy over borders and the gross inefficiency of government agencies manning the border posts which gives smugglers easy access to evade border rules and regulations (Opanike & Aduloju, 2015). These and other factors give rise to crime across the borders from West to central Africa and other parts of the world. Cross-border crime in West Africa cannot be compared with organized crime like that of North America which operates in a sophisticated manner to deprive the government of revenue.

One factor that sometimes leads people into the act of smuggling, which is an integral part of trans-border trade, is the desperation to make quick money as those involved in this illicit business are mainly tax evaders. The urge to meet the basic needs of life of food, clothes and shelter also serves as an impetus for many people who ventured into trans-border trade (Adeyinka, 2014). The income generated by these traders through the illicit trade is enormous as a result of tax evasion and other duties which they are supposed to pay into the coffers of their nations but such illegally acquired income ends in the custody of the cross-border traders. Due to the oil boom in Nigeria from the early '70s through the '80s, Benin and Togo have been competing to serve as the point of distribution for illegally imported merchandise into Nigeria, as well as serving as a transit corridor for Niger and Benin Republic. The proximity of the Republic of Benin has resulted in their vantage position with Nigeria along the boundaries of the two nations, similar to that of Togo with Benin, hence traders must cross through Benin or circumvent Burkina Faso and Niger to arrive in Nigeria. This demerit is particularly severe for perishable goods that require refrigeration for their protection from being destroyed (World Bank, 2010).

Smuggling activities generate ripple effects on the political, social and economic life of a nation. About fifty per cent of revenue generated as tax revenues in Benin and Togo are realized from trade at the border, especially goods coming into the Nigerian market through the Lome-Cotonou- Seme border. Togo's main source of revenue comes from custom duties and VATs while Benin their main source is traceable to taxes and fees on transit goods, mainly used cars whose final destination is Nigeria. In the case of Nigeria, substantial revenue is being lost to the activities of smugglers through the evasion of taxes, under-invoicing and non-declaration of goods at the border custom control post while the Beniniose generates humongous revenue into their economy through the sale of fairly used vehicles and textiles. The illegal influx of imported goods into the Nigerian market is at the detriment of related industries that produce these goods domestically and hence leading to unemployment. For instance, the smuggling of second-hand textile materials from Europe and the United States of America is so massive that it has destroyed the growth of textile industries at home and this resulted in the closure of industries and mass retrenchment of workers (Raballand & Mjekiqi, 2010; The Guardian, 2009).

School environment and Learning

Students' academic performance in terms of affective, social and learning behaviour is largely influenced by the multidimensional nature of the school system. (Gu & Johansson, 2013). The environment in which the school carries out its operation has a great influence on both the quality of learning and the overall outcome for the students. The more conducive the learning environment, the better the learning outcomes of the students and this reflects in their cognitive, affective and psychomotor domains. The school environment according to Ezendu (2013) has the potential to determine and redesign the cerebral ability of the students and this can be achieved in a convivial school environment enriched with modern and adequate learning materials which make the students more relaxed, and studious with their academic activities leading to high learning outcomes.

The atmosphere of the school has a broad influence on students' learning and development, which comprises a large chunk of their social well-being, and emotional and ethical development. A supportive and caring school environment reduces negative behaviours such as drug abuse, bullying and other problem behaviours common among students (Ezendu, 2013). A supportive and caring school environment enhances motivation for the students engaged in learning as students tend to learn more in a conducive environment.

The location of a school or better still the environment in which a school is located plays a major role in defining the level of student academic performance. Orji (2013) opines that the location of a school can be classified as either urban or rural. Urban schools according to his grouping are those schools in the towns, or schools sited within the metropolis, while rural schools, on the other hand, are schools located in the hamlets or semi-urban areas. For this study, School location implies the community in which the school is sited, such as a village, hamlet, or rural area with a population of fewer than three thousand people. For a small town (village) a population range from about three thousand to fifteen thousand people, while a town has a population of about fifteen thousand to about one hundred thousand people, and a city one hundred thousand to about one million people and more.

Economics, as a subject deals with human behaviour and man's interaction with his environment and how the environment in turn influences man. In this case, the place where the school is situated affects both actors i.e. the learner and the teacher. Students whose schools are located in a quiet and convivial environment where there is little or no distraction resulting from commercial activities and their counterparts whose schools are sited in border towns are likely to have varying degrees of academic performance as a result of the suitability of the environment for learning. (Idialu, 2013; Titus et al., 2016).

The impact of school climate on students' learning process cannot be underestimated. School climate consists of various dynamics that shape learners' experiences in school with a long-lasting effect on their disposition towards life. Government at federal, state and local government levels aim at different measures of promoting and developing the schools adapting a variety of agendas at achieving their aims. According to Bascia (2014), the school climate framework is composed of defined variables associated with students' academic performance which is determined by the use of statistical analysis.

Fredrick (2011) views school location as one factor that influences students' academic performance in a particular subject area. The parent's opinion according to him is that the distance of the school from home be it urban or a rural area is a major determinant of students' place of enrolment for academic purposes. Idialu (2013) states that the provision of education in schools outside the towns is normally faced with difficulties and problems such as teachers, especially the qualified ones, rejecting appointments and posting to schools in rural areas. Even the villagers refuse to send their wards to school with the excuse that these students assist them; parents are cautious in entrusting their daughters to male teachers, while some villages have few children to be enrolled on primary school, which may be a result of the bad state of roads, inadequate and obsolete textbooks and teaching materials. The distance to be covered daily by students coupled with a non-conducive learning environment and other such variables may impede effective teaching and learning process. Consequently, Owoeye and Yara (2011) deduced that parents strongly believed that students whose school is situated in the metropolis perform better than those whose schools are in rural areas with particular reference to village schools. According to Iwuagwu, Don, and Ojemhenkele (2016), one of the factors that influence academic performance is where the school is sited. If a school is sited in a busy commercial area, such as an airport, the marketplace or a commercial nerve centre, or near border areas such as the one under study, this will affect the teaching and learning process and subsequently the students' academic performance.

According to Akagbogu and Ajiwoju (2015), schools located in rural areas are in dire need of qualified teachers, well-equipped laboratories, conducive learning environments and social amenities. For those in

cosmopolitan areas (towns/cities), amenities required such as qualified teachers, laboratories, conducive learning environments and social amenities are made available. The geographical location of schools has a significant influence on the academic performance of students. Schools sited in border areas are affected by the lopsided distribution of resources, poor school mapping, inadequate facilities, the problem of qualified teachers rejecting appointments or unwillingness to perform well in isolated villages, lack of potable roads, poor communication and nonchalant attitude of some communities to school challenges among others are some of the factors that contribute to a wide gulf between rural and urban secondary schools (Titus, 2018).

Schools with adequate plant planning such as physical structure and well-maintained facilities are most likely to record the fewer incidence of indiscipline amongst the students, while there will be an improvement in the turnout of students in schools that promote positive disposition towards learning among the students. Based on the scope of this paper, location implies the environment in which the school is sited which may be rural, semi-urban or urban. However, the variations observed between schools in rural and urban settings reveal the dissimilarities in the academic achievement of students in language learning, but for this study location in its geographical context is rural communities where a country's border is located.

Where a school is sited is one of the factors that determine the academic performance of academic performance. In a study conducted by Ezendu (2003) on the relationship between the classroom and students' cognitive achievement in senior secondary school geography, he averred that schools' location implies schools in cities/towns or villages. Similarly, Quirck (2008) views location as a relative term that distinguishes one particular place or area from the other. Schools sited in villages or hamlets have a dearth of experienced and qualified personnel to deliver instructions to the students because the qualified ones refuse to take up the appointment in rural areas due to insufficient infrastructural facilities, hence, their preference for schools in urban areas rather than rural areas. Further studies conducted by (Iwuagwu, et al. 2016) reveal that students whose schools are located in cities perform creditably well when compared with their mates in village schools.

Agbaje and Awodun (2014) add that, towns/cities are areas that are beautiful with variety and densely populated, while rural areas are those areas with few people living on a subsistence and a boring and arduous environment. Similarly, Akpan (2008) states that schools in urban centers can boast of electricity, potable water and adequate teachers with more learning facilities and infrastructures, while schools in rural areas lack the necessary facilities and infrastructure that can enhance students' academic performance. According to studies conducted by (Akagbogu & Ajiwoju, 2015 and Iwuagwu, et.al 2016) where a school is situated determines the learning outcomes of students in a particular subject and as a result, the environment where a school will be sited must not be at variance with the student's interest.

Theoretical Framework

The rational choice theory emerged from neo-classical economics and hinged on various models. This theory designs socio-economic and individual behaviour based on particular actions. According to Zafirovski (2016), rational choice theory systematically and constantly maximize satisfaction derived by consumers or gains by producers to maximize profit. Rational choice theory's primary focus is on actors. Actors (in this case, the trans-border traders) act purposively with a particular intention at the back of their minds. The central focus of this theory is the intentionality of behaviour as exhibited by an individual actor who has immense benefits in one way or another.

According to rational choice theorists, individual behaviour is a function of their wants, needs and goals targeted at some particular challenges premised on the information at the disposal of the individual on which the relationship between individual wants and the challenges they confront is purely technical. Since achieving all set goals and desires is practically impossible, there is a need to choose between available

alternatives and deduce a method to achieve such.

Rational individuals carefully select alternatives that yield the highest level of satisfaction at the expense of other choices available to them (opportunity cost). As exhibited by economic actors, rational choice and action gear toward constant utility maximization at minimal cost by actors. What differentiates this theory from other forms of theory is the denial of the existence of any motive or action other than being purely articulate and calculative. Because the action and movement of a rational consumer are not only based on impulse but a deliberate choice, having considered other factors before making decisions (Yusuf, 2014), this defines the behaviour an average trans-border trader exhibits.

The argument adduced for this paper is hinged mainly on the conviction that commercial activity of trans-border traders in rational choice theory, as any individual, before opting to be involved in trade across the border, would have to consider the merits and demerits of such decisions if it is a worthwhile activity. Start-up capital required for trade businesses is meagre, making it easy for women to get involved despite the trade's dangers. Due to the economic depression currently facing developing countries, women find cross-border trade as an escape route for poverty reduction and a means of survival. Actors based on rational choice theory believe that before individuals take action, they calculate what the expected outcome is likely to be and choose the best option suitable for them. This theory is the dominant theoretical model in macroeconomics which assumes that individuals choose the best action according to stable preference functions and the constraints facing them.

A rational individual, in this case, the cross-border trader, to get the maximum benefit from any transaction, will opt for the alternative with minimal cost to achieve an ultimate goal. As a result, trans-border traders are involved in smuggling goods and persons (human trafficking) across the border for economic gains without bothering about the emotional and psychological trauma those trafficked persons pass through. These cowardly acts occur with the connivance of corrupt customs and immigration officers at various border posts to the detriment of the economy and pride of the nation. Conversely, the irrational individual's choice and action are entangled in the wrong application of valuable resources, only to emerge as losers (without profit). Trans-border traders, therefore, are interested in profit-maximization by avoiding the payment of taxes and other legitimate fees at border posts making the goods cheaper for them but who, in turn, sell at exorbitant prices for profit maximization.

Previous research on students' learning outcomes in Economic concepts did not fully address the place of the school environment as a determinant. Therefore, it becomes highly imperative to conduct a study and provide the panacea to the dwindling performance of students in Economic concepts, especially of students residing close to border towns. As a result, this paper investigated the correlation between smuggling and the school environment as it affects the learning outcomes of students in Economic concepts. In more specific terms, this paper explored:

1. The relationship between smuggling activities and students' learning outcomes in Economic concepts
2. The effect of school environment on students learning outcomes in Economic concepts
3. The correlation between smuggling activities and school environment on students' learning outcomes in Economic concepts

METHOD

Research Design

The study adopted a correlational research design of a descriptive survey. This design enabled the researcher

to make conclusions and obtain information that describes the existing phenomena. The study employed a quantitative method using a self-developed questionnaire of a 4-point modified Likert scale from strongly agree (4) to strongly disagree (1) in collecting data to allow the researcher for more probing of the existing phenomena.

Population

All senior secondary school students in Ogun state offering Economics and schools located around border towns between Nigeria and the Republic of Benin formed the population for this study.

Sampling and Sampling Techniques

The research involved eight (8) randomly selected senior secondary schools out of twenty-three (23) schools spread across five (5) local governments sharing border towns between Nigeria and Benin republic obtained through a stratified sampling technique. A total of three hundred and twenty (320) students comprising 151 Boys and 169 Girls in SSII &III, participated in the study's sample. The schools were stratified into the border and non-border areas, out of which eight schools were selected. The nearness of schools to border towns was a deliberate choice because the smuggling of goods occurs across nations' borders.

Instruments

The following instruments were used to elicit information from the respondents in this study, the instruments are:

1. Students' Questionnaire on Smuggling Activities (SQSA) and
2. Economics Achievement Test (EAT).

The SQSA contains 20 items while the EAT contains a standardized 40 multiple choice objective questions in economic concepts. The SQSA contains sections A, B, C and D. Section A contains Bio-data information about the respondents, while sections B-D was rated on a 4- point modified Likert scale of Strongly Agree 'SA', Agree 'A', disagree 'D' and strongly disagree 'SD'.

Students' questionnaire on smuggling activities (SQSA)

The SQSA was developed by the researcher and it consisted of 20 items grouped into five sections. Section A contains bio-data details, section B on articles smuggled across borders section C – methods and patterns of smuggling goods, and section D- the location of the school.

Validity and Reliability of SQSA

The instrument for this study was validated through the perusal of specialists in the field of social sciences in the university from the education department. The instrument went through pilot testing in six (6) public senior secondary schools outside the study area in other to measure the difficulty level. For reliability, Cronbach Alpha was used and a coefficient value of 0.81 was attained.

Economics Achievement Test (EAT)

The instrument (EAT) was developed by the researcher and it comprises forty (40) multiple choice objective test items with options from the letters A-D. The topics comprise basic concepts and tools for economic analysis, population concepts, and production, laws of demand and supply, international trade and roles of agriculture.

Validity and Reliability of EAT

The instrument was given to experts in the Economics Education department in the faculty of education of three different universities and also to Economics teachers in secondary schools who have over 15 years of teaching experience for their contributions. The instruments were subjected to pilot testing in which 50 students from schools in non-border areas were used before the final administration of the instruments on respondents (students) whose schools are sited in border communities. Kuder Richardson KR (21) reveal an estimated reliability value of r=0.873.

Ethical Procedure

Taking cognizance of ethical issues implied permission was sought from the Permanent Secretary ministry of education in Ogun state, the chairman teaching service commission, the zonal secretary, principals of secondary schools, and students respectively. Letters of permission to conduct the study at the site were collected before the commencement of the study to collect data. The participants, their class teachers as well as the principals were duly informed about the study, and given utmost assurance of freedom to disengage from the study at any time without fear of intimidation or victimization. They were also assured that their identities will not be disclosed to third parties or the public. Before the distribution of the instruments, the researcher explained the purpose of the survey and asked the students to respond truthfully to the questionnaire since it will have consequences for the findings and any intervention strategies that may subsequently be developed therefrom.

DATA ANALYSIS

Information gathered was sorted, coded and analyzed using frequency count, mean and standard deviation for the bio-data, while, the step-wise regression analysis was used to test the hypothesis raised in the study.

FINDINGS AND DISCUSSIONS

Research Question 1: What is the composite effect of trans-border trading activities on students' academic performance in Economics?

Table 1. Descriptive and Correlation Coefficients of the Trans-border Trading Activities and Academic Achievement.

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Academic Achievement	1	-.071	.069	-.074	-.174**	-.075	-.026	-.018	-.103	.003	-.168**	-.229**	-.149**	-.268**
Gender	-.071	1	-.034	.050	.036	-.042	-.035	.036	-.097	-.033	-.201**	-.015	-.020	.085
School Location	.069	-.034	1	.056	-.192**	-.050	.075	-.003	.058	.031	.055	.005	-.069	-.105
Family Background	-.074	.050	.056	1	-.130*	-.135*	-.023	-.124*	-.111	-.082	-.164**	-.005	-.007	-.064
Sold or bought small arms at the border before	-.174**	.036	-.192**	-.130*	1	.382**	.246**	.201**	.100	.039	.065	.069	.191**	.204**

Sold or bought light weapons at the border before	-.075	-.042	-.050	-.135*	.382**	1	.278**	.230**	.154**	.078	.077	-.013	.106	-.022
Sold or bought narcotics at the border before	-.026	-.035	.075	-.023	.246**	.278**	1	.038	.136*	.086	.136*	.105	.229**	.012
Sold or bought human beings at the border before	-.018	.036	-.003	-.124*	.201**	.230**	.038	1	.019	.061	-.042	-.080	-.007	.026
Sold or bought frozen foods at the border before	-.103	-.097	.058	-.111	.100	.154**	.136*	.019	1	.313**	.490**	.401**	.469**	.386**
Sold or bought rice at the border before	.003	-.033	.031	-.082	.039	.078	.086	.061	.313**	1	.400**	.238**	.242**	.195**
Sold or bought groundnut oil at the border before	-.168**	-.201**	.055	-.164**	.065	.077	.136*	-.042	.490**	.400**	1	.495**	.411**	.332**
Sold or bought fairly used clothes at the border before	-.229**	-.015	.005	-.005	.069	-.013	.105	-.080	.401**	.495**	.495**	1	.546**	.454**
Sold or bought canned foods at the border before	-.149**	-.020	-.069	-.007	.191**	.106	.229**	-.007	.469**	.242**	.411**	.546**	1	.556**
Sold or bought used tyres at the border before	-.268**	.085	-.105	-.064	.204**	-.022	.012	.026	.386**	.195**	.332**	.454**	.556**	1
Mean	13.754	1.547	1.128	1.397	1.965	1.971	1.965	1.952	1.442	1.168	1.442	1.629	1.719	1.842
Standard Deviation	3.902	.499	.335	.490	.185	.168	.185	.215	.497	.374	.497	.484	.450	.365

* Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Source: Author's field report (2017).

Table 1 gives the summary of the zero-order Pearson correlations between the trans-border trading activities and the academic achievement of the students. Table 1 reveals significant correlations between academic achievement and smuggling of small arms at border areas (r=.174, p<0.05), academic achievement and smuggling of oil palm products (r=.-168**, p<0.05), academic achievement and smuggling of used clothes across borders (r=- .229**, p< 0.05), academic achievement and smuggling of canned foods (r=-.149**, p<0.05), as well as smuggling of used tyres (r= -.268**, p<0.05). The results show that trans-border trading activities are negatively correlated to students' academic achievement in Economics. This implies that trans-border trading activities negatively impair student academic achievement in Economics (Ojo 2015; Owoeye & Yara, 2011). The more the students have been involved in trans-border trading activities the worse their academic achievement in Economics.

Research Question 2: What are the relative effects of trans-border trading activities on students' academic performance in Economics?

Table 2. Relative Effects of Trans-border Trading Activities on Students' Academic Achievement in Economics.

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	19.027	1.101		17.286	.000		
	Sold or bought used tyres at the border before	-2.863	.586	-.268	-4.883	.000	1.000	1.000
2	(Constant)	23.654	2.351		10.060	.000		
	Sold or bought used tyres at the border before	-2.594	.595	-.243	-4.360	.000	.959	1.043
	Sold or bought small arms at the border before	-2.608	1.173	-.124	-2.223	.027	.959	1.043
3	(Constant)	24.364	2.356		10.341	.000		
	Sold or bought used tyres at the border before	-1.915	.662	-.180	-2.893	.004	.764	1.309
	Sold or bought small arms at the border before	-2.679	1.166	-.127	-2.299	.022	.958	1.044
	Sold or bought fairly used clothes at the border before	-1.119	.491	-.139	-2.278	.023	.793	1.260

Source: Author's field report (2017).

The smuggling of fairly used clothes turned out as the most consistent predictor of students' academic performance in Economics (B= -.139, t= -2.278, p<0.05), trailed by the smuggling of small arms (B= -.268, t=-4.883, p<0.05), and smuggling of used tyres across the border (B= -.243, t= -4.360, p<0.05). The tolerance statistic and the Variance Inflation Factor (VIF) were used to evaluate the absence of multicollinearity amidst the independent variables. Table 2 reveals there was no multicollinearity among the trans-border trading variables as the tolerance and VIF values were normal. It should be noted that the values in Table 2 connote the negative relative effects of the trans-border trading activities on students' performance in Economics. The implication is that the more students engage in these activities in border schools, the poorer their academic achievement in Economics (Fredrick, 2011).

Research Question 3: Which of the trans-border trading activities would predict students' Academic Performance in Economics?

Table 3. Trans-border Trading Activities Predicting Students' Academic Performance in Economics.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.268[a]	.072	.069	3.76478	
2	.295[b]	.087	.081	3.74084	
3	.320[c]	.102	.093	3.71548	1.821

ANOVA*

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	338.014	1	338.014	23.848	.000[b]
	Residual	4351.294	307	14.174		
	Total	4689.307	308			
2	Regression	407.177	2	203.588	14.548	.000[c]
	Residual	4282.131	306	13.994		
	Total	4689.307	308			
3	Regression	478.845	3	159.615	11.562	.000[d]
	Residual	4210.462	305	13.805		
	Total	4689.307	308			

Source: Authors field Report (2017).

Table 3 shows that smuggling of used tyres, trading in small arms, and fairly used clothes were the strongest predictor of students' achievement in Economics. The result shows that the smuggling of used tyres by students accounted for 7.2% of the variance in students' academic achievement ($\Delta R2=.072$, (ΔF (1,307) =11.56, p <0.05), followed by trans-border trading in small arms ($\Delta R2=.087$, (ΔF (1,307) =14.55, p <0.05). Smuggling of used clothes by students reveals the strongest prediction of school students' academic achievement in Economics amounting to 10.2% of the variance ($\Delta R2=.102$, (ΔF (1,307) =23.85, p <0.05). From findings in tables 1, 2, and 3 (composite, relative and predictor variable) it is proved that the smuggling of fairly used clothes (Adeyinka, 2014; Ojo, 2015), smuggling of small arms and light weapons (Ike, 2013) and smuggling of used tyres (Afolayan, 2010; Titus et al 2016, Yusuf 2014;) respectively across the border rank in that order with smuggling of fairly used clothes at the top.

Finally, the combination of trans-border trading activities in used tyres, small arms, and fairly used clothes accounted for 10.2% of the variance in students' achievement in Economics. The step wise regression model adopted for this study barred the other eight variables entered into the model as insignificant in the prediction of academic achievement in Economics. The Durbin-Watson (d) value of 1.821 reveals that there is no first-order linear auto-correlation in the data of the step wise regression model since it falls between the critical values of 1.5<d<2.5. This result implies that the most prevalent trans-border trading activities in the selected schools are the smuggling of used tyres, small firearms, and chiefly fairly used clothes in that order.

CONCLUSION AND RECOMMENDATIONS

The current study investigated the association between smuggling activities and the school environment and its effect on students' academic performance in economic concepts. Trans-border trading activities negatively impact students' academic performance. The more students are involved in trans-border trading activities the worse their academic achievement in economic concepts. Further, there is a negative relative effect of the trans-border trading activities on students' achievement in economic concepts. The implication is that the more students are engaged in these activities in schools located in border towns, the poorer their academic achievement in economic concepts. The conclusion was drawn from the findings of this study which reveals that smuggling of fairly used clothes, used tyres and small firearms in that order respectively are strong predictors of factors that lead to the poor showing of students whose schools are located close to

the border towns, an environment not conducive for appropriate teaching and learning to take place. Based on this paper, therefore, recommends that:

- Schools in future should not be located near border posts, while the ones presently close to the border be upgraded into full boarding schools with a high-security network to prevent the students from being part of trans-border trade.
- Parents be involved in the monitoring of their wards' academic performance by attending school programmes and showing up on open days in schools. Also, the parents must close ranks with the school authorities to monitor their wards and friends they relate with.
- Students should shun the urge to make quick money and concentrate on their studies.
- A student preventive package should be produced to assist in the modification of the student's behaviour.

REFERENCES

1. Adeyinka, A. M. (2014). Trans-border movement and trading activities across Nigeria –Benin republic border. Mediterranean Journal of Social Sciences. (MCSER) Publishing, Rome-Italy, 5(1):415-425.
2. Afolayan, A. A. (2010). Trans-border movement and trading. Institut Francais de recherché en Afrique IFRA- Nigeria: 33-88.
3. Agbaje, R. O., & Awodun, A. O. (2014). Impact of school location on academic achievement of science students in senior secondary school certificate examination. International Journal of Scientific and Research Publications, 4 (9), Available from ijsrp.org
4. Akagbogu, J. U., & Ajiwoju, J.A. (2015). Effect of Gender and school location on secondary school student's achievement English vocabulary in junior secondary schools in Akoko South education zone, Ondo State. International Journal of Research in Humanities, Arts and Literature (IMPACT: IJRHAL), 3 (6), 17-24.
5. Akpan, B. B. (2008).Nigeria and the future of science education. Science Teachers Association of Nigeria (STAN). Ibadan, Nigeria: Oluseyi Press Limited.
6. Bascia, N. (2014). The School Context Model: how school environments shape students' opportunities to learn. In Measuring What Matters, Toronto, Ontario: People for Education, Ottawa, Ontario: Canadian Electronic Library, 2014.
7. Berestein, L. (2010). Drug Smugglers' Creativity Grows: Produce Truckers Increasingly Used. Retrieved from singnosandigo.com/news/2010/Feb/15drug creativity
8. Ezendu, S. A. (2003).Classroom environment as a correlate of students' cognitive achievement in senior secondary school geography. The Journal of WCCI Nigeria Chapter, 4(2), 65-73.
9. Faleye, O.A. (2015). Impact of Informal Cross Border Trade on Poverty Alleviation in Nigeria. Kotangowa Market (Lagos) in Perspective. Crossing the Border. International Journal of Interdisciplinary Studies, 2 (1), 15 July 2014.
10. Fredrick, E.O. (2011). Influence of Sex and Location on Students' Achievement in Agricultural Science. African Journal of Science, Technology and Mathematics Education (AJSTME), 1(11), 96-101.
11. GU, Q., & Johansson, O. (2013). Sustaining school performance: School context matters. International Journal of Leadership in Education, 16(3), 301-326.
12. Idialu, J. O. (2013). Influence of gender, school location and students' attitude on academic achievement in Basic technology in Delta state. (Unpublished thesis), University of Nigeria.
13. Ike, I.J. (2013). The impact of Ecowas protocol on the free movement of persons, goods and capital in West Africa: A Case Study of Nigeria- Benin Republic Border Relations, 1999-2012 (Unpublished master's thesis). University of Nigeria, Nsukka.
14. Iwuagwu, B.O., Don, O. & Ojemhenkele, A. (2016). Environmental influence on student's academic performance in secondary school. International Journal of fundamental psychology and social

sciences (IJFPSS), 6 (1), 10-14.

15. Ojo, M.O.D. (2015). Risks and Social Repercussions Inherent in Smuggling: A Sociological Investigation of Badagry–Seme and Owode-Idiroko International Border communities in Nigeria. American Journal of Economics, Finance and Management. 1 (2), 43-62.

16. Opanike, A., & Aduloju, A. A. (2015). ECOWAS Protocol on free movement and trans-border security in West J. Civil Legal Sci. 4, 154-161. DOI: 10.4172/21690170.1000154.

17. Owoeye, J.S., & Yara, P.O (2011). School Location and Academic Achievement of Secondary Schools in Ekiti State, Nigeria. Asian Social Science Journal, 7(5), 170- 175. DOI:10.5539/ass.v.7n5p170.

18. Prag, E. (2010). Political Struggles over the Danktokpa Market in Cotonou Benin (DIIS Working PaperNo.3). Danish Institute for International Studies: Copenhagen.

19. Quirk, R. (2008). Longman Dictionary of Contemporary English. England: Pearson Education.

20. Raballand, G., &Mjekiqi, E. (2010). Nigeria's Trade Policy Facilitates Unofficial Trade and Impacts Negatively on Nigeria's Customs Efficiency and Economy. In Volker Treichel (Ed.), Putting Nigeria to Work (pp. 203-28). Washington, DC: World Bank.

21. The Guardian. (2009, September 16). The Recovery of Underpaid Custom Duties. Matters Arising. The Guardian, 41.

22. Titus, A.B., Dada, A.B., & Adu, E.O (2016).School Location and Gender as Correlates of Students' Academic Achievement in Economics. International Journal of Educational Studies (IJES), 13 (3), 255-261.DOI:10.31901/24566322.2016/13.03.01

23. Titus, A.B. (2018). Influence of trans-border trading activities on senior secondary school student's academic performance in Economics in Ogun State, Nigeria. (Unpublished doctoral thesis), University of Fort Hare, East London South Africa.

24. Titus, A.B. (2022). Effects of Smuggling and human trafficking across borders on students' academic performance in Economics. The International Journal of Humanities and Social Studies (IJHSS). 10 (9), 1-10. DOI: 10.240945/ the Ijhss/2022/V10/i9/HS 2209-002.

25. World Bank. (2010).Risky business? Poor women food traders in the borderlands of Congo, Uganda, Rwanda, and Burundi. A brief report for the Africa region World Bank Group: Washington.

26. Yusuf, O. S. (2014). Gender Dimensions of Informal Cross-Border Trade in West African Sub-Region (ECOWAS) Borders. International Letters of Social and Humanistic Sciences, 29, 19-33.

27. Zafirovski, M. (2016). Rational Choice Theory at the Origin? Forms and Social factors of ''Irrational Choice''. Journal of Social Epistemology, 1-36. Taylor and Francis online. http://dx.doi.org/10.1080/02691728.2016.1172358. Accessed from University of Fort Hare Library.