AN EMPIRICAL STUDY OF SOCIO-DEMOGRAPHIC FACTORS OF CYBERCRIME VICTIMIZATION EXPERIENCES OF INTERNET USERS IN ABIA STATE, NIGERIA

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Abstract

Given that studies on demographic influences of cybercrime victimization are far from being comprehensive, more interventions are therefore needed towards understanding the subject matter. The present study therefore focuses on understanding the socio-demographic forces predicting cybercrime victimization incidence in Umuahia North, Abia State of the South-eastern part of Nigeria. A sample of 1,104 was selected using questionnaire distributed with the techniques of multistage cluster and random sampling. Results: We found: (1) that male experienced cybercrime victimization (M = 2.46, S.D = 1.63) more than the female participants (M =2.29, S.D = 1.50. (2) that on average, students were most likely to experience cybercrime victimization (M = 2.46, S.D = 1.62); followed by working class (*M* = 2.38, *S*.*D* = 1.55) (*M* = 1.90, *S*.*D* = 1.18). (3)that middle-level educated participants were most likely to experience cybercrime victimization (M =2.39, S.D = 1.61; followed by highly educated participants (M = 2.37, S.D =1.55) (M = 1.67, S.D = .52). (4) that on average, single participants experienced cybercrime victimization (M = 2.38, S.D = 1.62) more than the ever married participants (*M* = 2.35, *S*.*D* = 1.46), *t*(923) = -.275, *p* < .05, *r* = .1. (5) that on average, middle-aged participants were most likely to experience cybercrime victimization (M = 2.41, S.D = 1.56); followed by old participants (M = 2.36, S.D = 1.78); while young participants were less likely to experience victimization (M = 2.34, S.D = 1.55). We therefore conclude that students,

Corresponding Author: Ogochukwu Favour Nzeakor, Email: nzeakor.ogochukwu@mouau.edu.ng male, non-married, middle-aged, and middle-level educated Internet users tend to experience more cybercrime victimization when juxtaposed with their counterparts.

Key Words: Socio-demographic factors, cybercrime victimization, Internet users, gender, students, information security incidence.

INTRODUCTION

Despite the mitigating measures towards cybercrime attacks, records show that the menace of cybercrime victimization has continued unabatedly (Umoru, 2017; Mbachu & Nazeef, 2017; Internet Crime Complaint Centre, 2019). Internet-enabled crimes and scams have therefore shown no sign of declining. The 2019 Reports Internet Crime Complaint Centre showed the highest number of complaints and the highest dollar losses reported since the Center was established in May, 2000 (Internet Crime Complaint Centre, 2019)). It was reported that IC3 received 467,361 complaints in 2019, an average of nearly 1300 every day, and recorded more than \$3.5 billion in losses to individuals and business victims. The most frequently reported complaints were phishing and similar ploys, non-payment/non-delivery scams, and extortion. The most financially costly complaints involved business email compromise, romance or confidence fraud, and spoofing, or mimicking the account of a person or vendor known to the victim to gather personal or financial information (Internet Crime Complaint Centre, 2019). Again, in recent past, Umoru (2017) reported that Nigeria recorded about 3,500 cyber-attacks in 2016 alone- where about N127bn and \$450m were lost to cybercrime attacks. In the same token, as reported by Mbachu and Nazeef (2017), activities of cyber criminals particularly hackers resulted in the loss of \$80 billion in the struggle of combating the crime globally; and about N127 billion was the estimated loss to cybercrime in Nigeria in 2015.

Expectedly, a number of authors devoted efforts in canvassing the likely factors that gave rise to such reality. Some anchored it on the lack of cybercrime awareness on the part of most Internet users; others anchored it on the lack of comprehensive statistics of cybercrime threats, rapid expansion of computer connectivity, legal impediments, and astronomical growth of the number of Internet users (Akuta et al., 2011; Boateng, Isabalija, Olumide & Budu, 2011; Jansen, Junger, Montoya & Hartel, 2011; Paglia-Boak, Adlaf, Hamilton, Beitchman, Wolfe & Mann, 2012; Ndubueze, Igbo & Okoye, 2013; The Current State of Cybercrime, 2013; Internet World Stats, 2013; Leukfeldt, Stol & Veenstra, 2013; Lee, 2018; Lee & Sanchez, 2018; Nzeakor, Nwokeoma, & Ezeh, 2020; Hadlington, Binder & Stanulewicz, 2020).

However, it is important to aver that most of the intellectual efforts glossed over socio demographic forces that may have given rise to the increasing incidence cybercrime victimization. Few of such attempts like those of Paglia-Boak, Adlaf, Hamilton Beitchman, Wolfe and Mann (2012), Ndubueze et al. (2013), and Leukfeldt et al. (2013) were dated, non comprehensive, and were conducted outside the Southeastern part of Nigeria. The present article therefore builds on and advances the previous works on socio demographic forces predicting cybercrime victimization by empirically examining the gender, occupational, educational, marital, and age-related influences on cybercrime victimization incidence in Abia State of Southeastern Nigeria.

Objectives

1) To find out the gender influence on Cybercrime victimization experiences of Internet users in Abia State of South-eastern, Nigeria.

2) To discover the relationship between occupational and cybercrime victimization experience.

3) To examine the educational influence on cybercrime victimization experience.

4) To investigate the relationship between marital status and cybercrime victimization experience.

5) To observe the age-related influence on cybercrime victimization experience.

Literature review

Gender and cybercrime victimization

Authors reported conflicting relationship between gender and cybercrime

vulnerability For instance, some studies indicate that more of the female gender experience cybercrime victimization than their male counterparts; others contradict that position. It therefore appears that the relationship is sensitive to a given cybercrime category. For instance, Jansen, Junger, Montoya and Hartel (2011) found that boys engaged more in online auction fraud than girls; and that young people who commit online fraud have a beneath-average level of self-control. The researcher also revealed that those who commit online auction fraud are more likely to also be victims of this kind of fraud. This is in concurrence with Alshalan (2005), Ndubueze et al (2013), and Näsi, Oksanen, Keipi, and Räsänen (2015) who averred that male gender is more likely to experience cybercrime victimization.For instance, Alshalan (2005), who in a study in United States found that males are more likely than females to become victims of cyber-crime so also people who stay longer on the internet.

On the contrary, Paglia-Boak, Adlaf, Hamilton, Beitchman, Wolfe, and Mann (2012) demonstrated that higher proportions of girls reported they were victims of cyber bullying primarily targeting other females, sometimes within their —friendship groups- suggesting that females are more likely to be on the receiving end of cyber-bullying.

Occupational and cybercrime victimization experience

Occupational influences on information security vulnerability are not well established, especially in Nigeria due partly to non comprehensive data. However, Ndubueze et al (2013) averred that unemployment status associated with cybercrime victimization in Lagos, Nigeria. The authors explained that this could be possible because unemployed Internet users in their desperation for online job opportunities may be ensnared. They further averred that due to the relatively high level of youth unemployment in Nigeria, many young job applicants are likely to spend quality time on the web in searching for job, fun, and business chances thereby exposing themselves to cyber vulnerability. Ndubueze et al (2013)'s standpoint was supported by that Näsi, Oksanen, Keipi, and Räsänen (2015) who found that unemployment is a factor of cybercrime victimization

Educational influence on cybercrime victimization experience

Though studies reported increasing use of Internet facility for educational purposes, but there is no yet clear cut relationship between educational level and cybercrime victimization. For instance, DeBell and Chapman (2003) found that of the children and youth, who use the Internet, 72% use it for schoolwork, 65% for e-mailing or instant messaging, and 62% to play games. Another study by Livingstone and Helsper (2007), among young people aged 9-19years, found that Email is the most popular activity (72%) followed by instant messaging (55%). However, authors like of Alshalan (2005), and Ndubueze et al (2013) found no significant relationship between Internet users' educational status and their cybercrime victimization status.

Marital status and cybercrime victimization experience

Appreciable studies have not been done in the area of marital status and cybercrime victimization. However, Ndubueze et al (2013) found a positive correlation between being married and experiencing cybercrime victimization. In a partial disagreement with Ndubueze et al (2013), Näsi et al (2015) found that not living with parents was a significant predictor for cybercrime victimization.

Age and cybercrime victimization experience

With the exception of Ngo and Paternoster (2011)who found that age and marital status were not statistically related to cybercrime victimization, most studies concur with the position that more active population are more like to be both victims and perpetrators of crime in general and cybercrime in particular (Alshalan, 2005; Fox, Nobels & Piquero, 2009; **Ndubueze et al**, **2013**). This agrees with the lifestyle theory that holds that people may become crime victims because their lifestyle increases their exposure to criminal offenders (Siegel, 2010). Victimization risk is increased by such behaviors as associating with young unemployed men, going out in public places late at night, living in unsecured residential areas, etc (Stolzenberg, 2008; Nzeakor, 2020). It also agrees with the general pattern in the literature that that establishes gender difference in crime victimization. In the same vein, Ndubueze et al (2013) reported a negative correlation between age and

cybercrime victimization experience. In this sense, older people are less likely to experience cybercrime victimization in Lagos Nigeria. The authors explained that this possibility may be premised on the fact that young people's world is a world of adventures. National Statistics Agency (2019) equally reported that about 12% of individuals under aged (25) were victimized of cybercrime, compared to just 4% of the individuals over 65 years in Netherlands. Näsi, Oksanen, Keipi, and Räsänen (2015) equally concurred with this position.

Theory of Deviant Place

Among the proponents of deviant place theory are Wright and Rossi (1983), and Kleck and Gertz (1998). According to the theory, the greater their exposure to dangerous places, the more likely people will become victims of crime and violence. Victims do not encourage crime but are victim prone because they reside in socially disorganized high crime areas where they have the greatest risk of coming into contact with criminal offenders, irrespective of their own behavior or lifestyle. It presupposes a correlation between staying in a crime endemic environment and becoming victim of crime. In this sense, living in a globalized world where information and communication technology hold sway has implicated most individuals as potential victims of cybercrime irrespective of their behaviours or lifestyles. The more often victims visit dangerous places, the more likely they will be exposed to crime and violence. Neighborhood crime levels, then, may be more important for determining the chances of victimization than individual characteristics. Deviant places, in this sense, include the Internet, websites, social media, email, densely populated, highly transient neighborhoods in which commercial and residential property exist side by side (Wright & Rossi, 1983; Kleck & Gertz, 1998).

Methods

The study adopted a cross-sectional survey design. Questionnaire was adopted as the instrument of primary data collection, and it was supplemented with an in-depth interview guide. Umuahia North Local Government Area of Abia State was the area of the study. It is located within the coordinates of 5°32'N 7°29'E/5.533°N 7.483°E (Umuahia, 2017). The

scope of the study covered the sociodemographic influences on cybercrime victimization incidence in Abia State of South-eastern Nigeria. The potential Internet users within the aged bracket 20 and 70 were the target population for the study. This population segment was put at 223,134; of which 112,595 were males (50.5%) and 110,539 were females (49.5%) (National Population Census, 2006). 1,111 was initially selected based on published sample tables (see Israel, 1992), but the sample size of 1,104 was later selected based on the multistage cluster and random sampling techniques adopted (Babbie, 2008, p. 228, & 233-234). The quantitative data was equally supplemented with 12 participants. In this regards, 2 persons per ward were selected for IDI section. The field data was later analysed with relevant descriptive and inferential statistics from the 23 version of SPSS.

Participants

From the socio-demographic data, the result shows that more females (50.8) than males (49.2%); more single (62.8%) than married (37.2%) participated in the survey. Again, a little above half (54.9%) of the participants were young; two-thirds (33.6%) were middle-aged, while very few (5.4%) of the old segment of the population participated. Almost all the participants were Christians (98.5%), while other religious adherents like Islam, African Religion, and Atheists rarely participated as they constituted less than 2%. About 3 in every 5 participants (58.9%) were highly educated: constituting the modal education category. 2 in 5 (40.5%) were middle educated participants, while very few of the less-educated (0.6%). Again, almost half of the participants (48.2%) were in the working-class group; followed by almost two-fifth (38.0%) who were students; with unemployed and self-employed being poorly represented as they were less than 10%.

Measures

We measured all survey items described below combining both open-ended and structured questionnaire items. Participants were regarded to have been victimised if they checked or describe any of the cybercrime victimization indexes in item No.15 (all the indexes are equally weighted; and attract 1 score each), and this was coded as '1' under the 'value column' in the row of 'cybercrime victimisation status' in the variable view of SPSS software (this is for categorical data). Again, any of the victimization indexes checked/ticked attracted a score (1), and this was multiplied into the number of indexes checked/ticked for a given participant (making up for scale data).

On the other hand, they are regarded as not victimized if they could not check or describe any of the indexes above, and this was coded as '0' under the 'value column' in the row of 'victimisation status' in the variable view of SPSS software (for categorical data); and this was also scored as '0' for a given participant (for the scale data). Again, the entries above were juxtaposed with questionnaire items on socio-demographic data.

RESULTS

Objective One: To find out the gender influence on Cybercrime victimization experiences of Internet users in Abia State of South-eastern, Nigeria.

Sex and cybercrime victimization



Figure 1.Bar chart description of sex and cybercrime victimization experiences.

Figure 1: shows that on average, male experienced cybercrime victimization (M = 2.46, S.D = 1.63) more than the female participants (M =

2.29, S.D = 1.50). This difference was not significant, f(923) = 1.612, p > .05; it did also represent a small-sized effect r = .2.

Objective two: To discover the relationship between occupation and cybercrime victimization experience.

Occupation and cybercrime victimization



*Figure 2.*Mean curve description of occupation and cybercrime victimization.

Figure 2: indicates that on average, students were most likely to experience cybercrime victimization (M = 2.46, S.D = 1.62); followed by working class (M = 2.38, S.D = 1.55); while the unemployed were less likely to experience victimization (M = 1.90, S.D = 1.18). This difference was not significant, f(923) = 2.32p > .05; it did also represent a small-sized effect r = .2.

Objective Three: To examine the educational influence on cybercrime victimization experience

Educational level completed and cybercrime victimization



Figure 3. Mean curve description of educational level completed and cybercrime victimization.

Figure 3: Indicates that on average, middle-level educated participants (i.e. those who completed secondary school and Ordinary National Diploma)were most likely to experience cybercrime victimization (M = 2.39, S.D = 1.61); followed by highly educated participants (i.e., those who completed B,Sc, HND, and postgraduates)(M = 2.37, S.D = 1.55); while the lowly educated participants (those who completed primary school and below)were less likely to experience victimization (M = 1.67, S.D = .52). This difference was not significant, f(923) = .632, p > .05; it did also represent a small-sized effect r = .2.

Objective Four: To investigate the relationship between marital status and cybercrime victimization experience.

Marital status and cybercrime victimization.



Figure 4.Bar chart description of victimization by marital status.

Figure 4: shows that on average, single participants experienced cybercrime victimization (M = 2.38, S.D = 1.62) more than the ever married participants (M = 2.35, S.D = 1.46), t(923) = -.275, p < .05, r = .1.

Objective Five: To observe the age-related influence on cybercrime victimization experience.

Vourg Participants

Age and cybercrime victimization

Figure 5.Mean curve description of age and cybercrime victimization. Figure 5: indicates that on average, middle-aged participants (i.e., those aged between 30 and 49 years) were most likely to experience cybercrime victimization (M = 2.41, S.D = 1.56); followed by old participants (50 years and above)(M = 2.36, S.D = 1.78); while young participants (those below 30 years) were less likely to experience victimization (M = 2.34, S.D = 1.55). This difference was not significant, f(923) = .245, p > .05; it did also represent a small-sized effect r = .10. This is also in conformity with the data from the documentary sources: most of the victims were between 30 and 50 years of age.

Summary of Findings

1) That on average, male experienced cybercrime victimization (M = 2.46, S.D = 1.63) more than the female participants (M = 2.29, S.D = 1.50). This difference was not significant, f(923) = 1.612, p > .05; it did also represent a small-sized effect r = .2.

2) that on average, students were most likely to experience cybercrime victimization (M = 2.46, S.D = 1.62); followed by working class (M = 2.38, S.D = 1.55); while the unemployed were less likely to experience victimization (M = 1.90, S.D = 1.18). This difference was not significant, f(923) = 2.32p > .05; it did also represent a small-sized effect r = .2

3) that on average, middle-level educated participants (i.e. those who completed secondary school and Ordinary National Diploma) were most likely to experience cybercrime victimization (M = 2.39, S.D = 1.61); followed by highly educated participants (i.e., those who completed B,Sc, HND, and postgraduates) (M = 2.37, S.D = 1.55); while the lowly educated participants (those who completed primary school and below) were less likely to experience victimization (M = 1.67, S.D = .52). This difference was not significant, f(923) = .632, p > .05; it did also represent a small-sized effect r = .2.

4) that on average, single participants experienced cybercrime victimization (M = 2.38, S.D = 1.62) more than the ever married participants (M = 2.35, S.D = 1.46), t(923) = -.275, p < .05, r = .1.

5) that on average, middle-aged participants (i.e., those aged between 30 and 49 years) were most likely to experience cybercrime victimization (M = 2.41, S.D = 1.56); followed by old participants (50 years and above) (M = 2.36, S.D = 1.78); while young participants (those below 30 years) were less likely to experience victimization (M = 2.34, S.D = 1.55). This difference was not significant, f(923) = .245, p >.05; it did also represent a small-sized effect r = .10.

Discussion of findings

We found on average that students, male, non-married, middle-aged, and middle-level educated Internet users tend to experience more cybercrime victimization when juxtaposed with their counterparts. This is logical because this segment of the population tend to be more adventurous, and daring, hence more likely to be exposed to cybercrime risky factors. On the relationship between age and cybercrime victimization, the finding is partial in line with the National Statistics Agency (2019) that reported that about 12% of individuals under aged (25) were victimized of cybercrime, compared to just 4% of the individuals over 65 years in Netherlands. It however, disagrees with Ngo and Paternoster (2011) who found that age and marital status were not statistically related to cybercrime victimization. Nevertheless, the finding is in concurrence with most previous studies on the position that more active or younger population are more likely to be both victims and perpetrators of crime in general and cybercrime in particular (Alshalan, 2005; Fox, Nobels & Piquero, 2009; Ndubueze et al, 2013).

What is more, this agrees with the lifestyle theory that holds that people may become crime victims because their lifestyle increases their exposure to criminal offenders (Siegel, 2010). Of course, socio-demographic characteristics of Internet users mostly determine their lifestyles. Victimization risk is increased by such behaviors as associating with young unemployed men, going out in public places late at night, living in unsecured residential areas (Stolzenberg, 2008; Nzeakor, 2020). It also agrees with the general pattern in the literature that that establishes gender difference in crime victimization. Contrary to the findings of this study on gender and cybercrime victimization, Paglia-Boak, Adlaf, Hamilton, Beitchman, Wolfe, and Mann (2012) found that females were more likely to be on the receiving end of cyber-bullying; though it could not reveal the pattern on general victimization elsewhere. Furthermore, the finding partially agrees with Jansen, Junger, Montoya and Hartel (2011), on gender and cybercrime victimization; while contradicting it on age and cybercrime victimization. The researchers found that boys engaged more in online auction fraud than girls; and that young people who commit online fraud have a beneathaverage level of self-control. The researcher also revealed that those who commit online auction fraud are more likely to also be victims of this kind of fraud. However, the category of cybercrime victimization was just limited to a particular category of property/auction fraud. In the same vein, the study while contradicting Ndubueze, Igbo and Okoye (2013) on the relationship between cybercrime victimization, marital status and occupational categories; agrees with it on the other variables like gender, age, education and others. Ndubueze et al. (2013) found that younger respondents, males, ever married respondents, respondents with higher level of education, unemployed respondents and Christians are more likely to be victims of cybercrime. The current finding also agrees with Näsi, Oksanen, Keipi, and Räsänen (2015) who found that male gender, younger age, immigrant background, urban residence, not living with parents, unemployment and less active offline social life were significant predictors for cybercrime victimization.

Conclusion

We conclude that students, male, non-married, middle-aged, and middlelevel educated Internet users tend to experience more cybercrime victimization when juxtaposed with their unemployed and employed, female, married, older, highly and very lowly educated counterparts.

Recommendations

We therefore recommend an improved cybercrime awareness campaign that will focus on the students, single, middle educated, middle aged and the male segments of the population. We also encourage the law enforcement agents to increase their surveillances with and around these segments.

References

- Akuta, E. A. M., Ong'oa, I. M., & Jones, C. R. (2011). Combating cybercrime in Sub-Sahara Africa: A discourse on law, policy and practice.Journal of Research in Peace, Gender and Development,1(4), 129-137.
- Alshalan, A. (2005, September, 21). Cyber-Crime Fear and Victimization: An Analysis of a National Survey.Published by Department of Sociology, Anthropology, and Social Work, Mississippi State University. R e t r i e v e d o n 1 5 t h A u g u s t 2 0 1 3 f r o m <u>http://www.cse.msstate.edu/~dampier/study%20materials/Natio</u> <u>nalCrimeStats.pdf</u>.
- Babbie, E. (2008). *The basics of social research* (4thed.). Belmont, USA: Thomson Wadsworth.
- Boateng, R., Olumide, L., Isabalija, R. S., &Budu, J. (2011).Sakawa Cybercrime and criminality in Ghana. Journal of Information Technology Impact, 11(2), 85-100.
- DeBell, M., & Chapman, C. (2003). Computer and Internet use by children and adolescents in the United States,2001 (NCES 2004-014). U.S.
 Department of Education. Washington, DC: National Center for Education Statistics, 2003
- Fox, K. A., Nobels, M. R., & Piquero, A. R. (2009). Gender, crime, victimization and fear of crime. Security Journal, 22, 24-39.
- Hadlington, L., Binder, J., & Stanulewicz, N. (2020). Fear of missing out predicts employee information security awareness above personality traits, age, and gender. Cyberpsychology, Behavior, and Social Networking.ahead of printhttp://doi.org/ 10.1089/cyber.2019.0703.
- Internet. (2012). World Internetstats. Retrieved from http://www.internetworldstats.com/stats.htm.

- Internet crime complaint centre. (2019). Internet Crime Report. Retrieved from <u>http://www.ic3.gov/media/annualreports.aspx</u>.
- Jansen, J., Junger, M., Montoya, L., & Hartel, P. (Eds.). (2011). *Offenders in a digitized society: Cybercrime and the police.* Netherland: Safety & Security Studies.
- Lee, H. (2018). Employees attitude towards cyber security and risky online behaviours: An empirical assessment in the United Kingdom. *International Journal of cyber Criminology, Vol.12 (1).*
- Leukfeldt, R., Veenstra, S., &Stol, W (2013). High Volume Cyber Crime and the Organization of the Police: The results of two empirical studies in the Netherlands. *International Journal of Cyber Criminology*, 7(1), 1–17.
- Livingstone, S., & Helsper, E. (2007). Taking risks when communicating on the internet: the role of offline social-psychological factors in young people's vulnerability to online risks. Information, Communication and Society, 10, 619-643.
- Mbachu, G. N., & Nazeef, B. (2017 September 30). Cybercrime: Nigeria losing battle against unrelenting enemies. Retrieved from <u>https://leadership.ng/2017/09/30/cybercrime-nigerias-losing-battle-unrelenting-enemies/</u>
- Näsi, M., Oksanen, A., Keipi, T., & Räsänen, P. (2015). Cybercrime victimization among young people: a multi-nation study. *Journal of Scandinavian Studies in Criminology and Crime Prevention*,16(2). Retrieved from https://doi.org/10.1080/14043858.2015.1046640.
- National Statistics Agency (2019). *1.2 million Dutch hit by cyber crime, but most don't report it*. Retrieved from <u>www.DutchNews.nl</u>
- Ndubueze, P. N, Igbo E. U. M, & Okoye, U. O. (2013). Cybercrime victimization among internet active Nigerians: An analysis of socio-

demographic correlates. *International Journal of Criminal Justice Sciences*, 8 (2).

- Nzeakor, O. F. (2020). Cyber-Criminality and Experiences of Internet Users in Umuahia Urban, Abia State, Nigeria. A Ph.D. Dissertation presented to the Department of Sociology and Anthropology, University of Nigeria, Nsukka.
- Nzeakor, O. F, Nwokeoma, B. N., & Ezeh, P-J. (2020). Ezeh "Pattern of cybercrime awareness in Imo State, Nigeria: An empirical assessment. *International Journal for Cyber criminology, Volume* 14, Issue 1, January – June. Retrieved from <u>http://www. cybercrimejournal.com</u>
- Ngo, F. T., & Paternoster, R. (2011). Cybercrime victimization: An examination of individual and situational level factors. International Journal of Cyber Criminology, 5, 773 793.
- Paglia-Boak, A, Adlaf, E. M., Hamilton, H. A., Beitchmann, J. H., Wolfe, D., & Mann, R. E. (2012). Mental health and welbien of Ontario students, 1991-2011: Detailed OSDUHS findings. Toronto, ON: Center for Addiction and Mental Health. Retrieved from https://doi.org.
- Siegel, L. J. (2010). Criminology: Theories, patterns, and typologies. (10th ed.). Belmont, USA: Wadsworth Cengage Learning.
- Stolzenberg, L., & D'Alesso, S. (2008). Co-offending and the age-crime. Journal of Research in Crime and Delinquency, 45(1), 65-86.
- The current state of cybercrime. (2013). An inside look at the changing threat landscape. Retrieved from http://www.rsa.com.
- Umoru, H. (2017, May 24). \$450m lost to cybercrime in Nigeria —Senate. Retrieved from Umuahia (2017). Retrieved from https://en.m.wikipedia.org/wiki/Umuahia