

**A Review of: “Examining the Effect of
Victimization Experience on Fear of
Cybercrime: University Students’
Experience of Credit/Debit Card Fraud”**

- ▶ Helen A. Bramow
- ▶ CRJS 215s - Criminology
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 - ▶ Prof. J. Lopez

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Review Article Information

- ▶ *“Examining the Effect of Victimization Experience on Fear of Cybercrime: University Students’ Experience of Credit/Debit Card Fraud”*
- ▶ Author: Mohammed A. Abdulai
- ▶ Journal: International Journal of Cyber Criminology
- ▶ Year: 2020, Volume 14, Issue 1, Jan. – June
- ▶ Focus: College students’ prior victimization impact on their fear of future credit and/or debit card fraud (cybercrime fear).

Importance – p. 1

- ▶ This is a very important study today due to the prevalence of cybercrime today and because it was focused on college students in particular. It gives some evidence of how students and younger people particularly feel regarding becoming victims of cybercrime and fraud online. A major highlight of this study is the previous victimization effect on students' fear of future cybercrime.
- ▶ Although it is a 2020 study, the statistics used are from 2010. It is correct that cybercrime is growing exponentially, however, it would help to include current statistics on internet use and cybercrime stats. However, the point is clear that crime victims feel fear due to their experience and that can affect their online habits. Identity theft was big 20 years ago, but today due to the internet it is very commonplace. It is also worldwide, as hacking is often international.
- ▶ It also provides important information that cybercrime and credit/debit card fraud is on the rise and will continue into the future. So, it needs to be researched and addressed because although much research is done on crime, not much addresses white collar crime and cyber fraud cases.

Importance – p. 2

- ▶ We are in a time when many people, young and old are online everyday and many conduct much of their business and buying online too. That makes them easy prey for hackers and groups of hackers who are stealing data, identities or any sort of cybercrime. Since many jobs are remote now, and even schools, many people of all ages are spending a large part of their day online, especially since Covid19.
- ▶ While the internet is very convenient, fast, and allows access to work, school and many activities online as well as shopping, it is also a place to be cautious. The internet flaw of lacking security has created a vast online network for cyber criminals, as well as a convenient place for work, shopping and education. That insecure network ruins lives and creates cyber victims as well, and that may affect them and their families, as well as businesses well into the future. The cost is not only monetary but also emotional.
- ▶ Although cyber events are constantly in the news, many people may have a false sense of security online. In the case of previous cyber victims, they will at least realize how unsafe online actually is. They may take extra precautions to protect their data and devices due to their experience and fear of cybercrime. Or, they may choose to ignore it because fear can become stagnation and much our lives now is online.

Importance – p. 3

- ▶ The internet as a whole system was created without safety measures and that was a clearly a mistake. But still the general public, and young people in particular may especially be naïve as to how unsafe cyberspace actually is. Much older people too will be in the same category as they also may not be aware how to remain safe online, or perhaps may not be able to afford safer cyber protocols. The cost of internet is not simply a monthly fee, but the cost of safety programs and updates too for businesses and the public.
- ▶ The very nature of the internet itself is a hacker's dream world, where they can hide (like in a hoodie) and do damage and remain hidden. Unlike crime in an actual location, they can spoof their location and hide in the shadows as they prey on unsuspecting people anywhere. And, hackers can attack multiple people at one time as well.
- ▶ I trained in cybersecurity because I felt it was the right place to be in the future, because our future is online, and people need to feel safe. I felt strongly that much of what is happening in the world is happening behind the scenes so I wanted to know about that world. I didn't start to think about victims and how they might feel until this class. It is important that people feel safe whether they are driving to a store to shop, or shopping online, or banking online, or just reading a blog.

Importance – p. 4

- ▶ While it is true that the original internet (W1) was made insecurely on purpose, the next version (W3) will have security. But, hackers will always find a way around the system because that's what they do. Systems are created by humans, but humans will outsmart each other and those systems they create.
- ▶ So, these studies are important because they look at the effect of crime on victims, and on society in general. They look at what our solutions could be and the cost of cybercrime to both individuals and businesses. Those costs affect consumers, as do business cyber attacks because consumers depend on businesses. When Colonial Pipeline was hacked due to a password leak, we all stood in gas lines, and it affected most of the east coast. It not only is a monetary cost to everyone, but it is inconvenient and scary to people. It creates an unsafe place in our lives, and breaks the very threads of our existence.
- ▶ This study looked at the fear of victimization and we are all victims at some point in our lives. And, we all know the fear of being unsafe, or insecure, or afraid of something. It is not a comfortable feeling for most people, and it will be with us long after the monetary loss leaves or the inconvenience leaves. It is the emotional cost of a being a victim, and if we could stop it, then we should because no one wants to be a victim or to live in fear.

Key Terms – p. 1

- ▶ Cybercrime – crime that occurs when using a device, i.e., smartphone, computer, etc., and particularly when accessing the internet. It includes different types of fraud, theft, identity theft, and various malware or ransomware attacks to control devices and/or to access and steal either personal, government or corporate data. Hackers can be working alone or in groups, and can be in foreign countries like China or Russia because the internet is interconnected. Space, as in location, and time, are all accessible anywhere today. (“Cybercrime.”)
- ▶ Risk Society – according to U. Beck, society is full of risks, and those risks are not defined by geography, and they are far increased due to the internet. That means there are no boundaries, and this is very applicable to the interconnected world (internet) and cybercrime. It changes the meaning of location in crime, because cyberspace has no actual physical location. (“Risk Society.”)
- ▶ Victimization – victimology is a term in criminology that pertains to the victim of the crime as the ‘injured party.’ In particular, the victim has endured some level of harm, whether it be costly or bodily injury, or injury to property. Victimology focuses on why they were chosen as the victim, i.e., what relationship did they have with the perpetrator? (“Victimology”)

Key Terms – p. 2

- ▶ Socio-demographic – demography uses statistics and status, like age, race, gender, college level, race, marital status, income, employment, to classify and compare respondents. (“Demography”)
- ▶ Binary logistic regression– technique of using variables and their relationship in the study to make predictions, (“What is Binary Logistic Regression and How is it Used in Analysis”)
- ▶ White Collar Crime – crime that is not usually violent, but is about gaining money, as in either business or personal gain. It may include: fraud, tax schemes, money laundering, corporate fraud, etc. (“What is White Collar Crime?”)

Summary of Literary Review

- ▶ Positive - Finding included gender (F), victim and seriousness as variables that led to fear of cybercrime. But, victims have a positive relationship with fear and crime because they are aware of the risks involved, and they worry about the risks. (Alshan, 2006)
- ▶ Variable – Yu found that research needed to be ‘crime specific.’ Victim fear only affected cybercrime in the areas of cyber bullying and also cyber viruses. While only four types of cybercrime were reviewed, fraud was not one of them. (Yu, 2014)
- ▶ Variables – There are several different variables that affect victims’ fear of cybercrime and these include: gender (f), low: social status and confidence (internet use). Yet the last two variables: social status and confidence according to Virtanen had the most impact on victim’s cybercrime fear. This study was also on college students similar to Abdulai’s study also so the correlation is age-related. (Virtanen, 2017)

Theory

- ▶ Beck's Risk Society – In 1986 U. Beck published his book on 'risk society.' Beck thought that the risks of society are a result of our modern technology, however, in 1986 one can't really compare that time to today in terms of technology. But, he had a point that man brings about the risks by the evolution of our technology and the impact it has on society. Still, I'm not sure Beck could have imagined the sort of cybercrime and internet cyber warfare that goes on today. We have simply given criminals new tools to work with.
- ▶ This study references Beck's risk society, and I think the author likens it to the advent of the modern internet bringing cloaked hackers and crime to our doors overnight. It is an unavoidable risk that on the internet that we are interconnected with all types of people in the world at the same time. (Rasborg)
- ▶ This study calls the risks unavoidable based on Beck's theory. (p. 167)

Hypotheses/Research Questions - p. 1

- ▶ Hypothesis: Prior victimization affects victim's fear of cybercrime, but credit and/or debit card fraud cybercrime in particular.
- ▶ *(Questions are rephrased from the original survey)*:
- ▶ Within the past 30 days, have you found yourself afraid of credit or debit card fraud?
- ▶ What is your gender?
- ▶ What is your age range?
- ▶ What is your marital status?
- ▶ What ethnicity are you?
- ▶ In which category of family income (total, annual) pretax, and from any sources are you in?

Hypotheses/Research Questions - p. 2

- ▶ (Questions are rephrased from the original survey):
- ▶ Please disclose the status of your residency.
- ▶ What is your study level?
- ▶ Where is your residence location?
- ▶ Are you: a full-time or part-time student?
- ▶ What is your employment status?
- ▶ What is cybercrime?
- ▶ Over this past year (12 months prior) were you a victim of credit and/or debit card theft? Or, did anyone use your credit and/or debit card for either credit or money, without you giving them permission?

Methods

- ▶ Basic study information and sample characteristics
 - The same size was 462 college students at the University of Saskatchewan in Canada, but only 405 completed it.
 - The school had 20,998 students total in 2015.
 - The study used SPSS – Statistical Package for Social Sciences, v. 19 and any data missing was not included. It was an online survey study for students and advertised to students.
- ▶ Key variables and how they are measured/operationalized

There was only 1 dependent variable: fear - credit and/or debit fraud victimization. Other variables were socio-demographic: cybercrime knowledge, cybercrime is independent, victimization and cybercrime is enabled and dependent.

Findings/Conclusions

- ▶ Lack of victimization: 89% This was a high number to be lacking in victimization which was a primary variable of this student survey overall.
- ▶ Victimization experience: 10% This is an incredibly low number of victims in correlation to the total amount of the survey which was over 400 students.
- ▶ Fear of cybercrime: 36% which is about 3 students out of every 10 students, leaving another 7 students who are not afraid of cybercrime. That would be like 70% versus 30% and still it is a very small amount of students comparatively speaking to the student population in general.
- ▶ Students thought cybercrime is both: cyber -enabled and -dependent 83.7%.
- ▶ Cybercrime knowledge is NOT assoc. with student's fear of being a credit and/or debit card victim, and, this fact/result did not matter with the variables either.
- ▶ Students had greater fear if they thought the crime was cyber-enabled but yet had less fear if they thought it was cyber-dependent. Yet there was not shown any correlation with knowing about cybercrime and the credit and/or debit card victimization due to fraud.
- ▶ Author also found that socio-demographics were insignificant to the student's fear of victimization too.
- ▶ Victimization as a variable was significant yet only 10% of students had it. They were more fearful of having credit and/or debit card fraud still than the other 89% of students lacking victimization experience.
- ▶ The fear of credit or debit card fraud came along with the experience of being a victim.

Author's Mentioned Limitations

- ▶ The technology is such that when studying crime, and victimization with fear, differences in crimes matter. That means whether the crime is just regular crime or cyber crime, and further still like as in the particular type of cybercrime. Victimization also matters to the type of crime that is.
- ▶ The author states that victimization and credit and debit fraud are not going to use either criminology or sociology theories. The theory used here was Beck's risk society. Fears and risks then are changing, like technology is also changing.
- ▶ *[My NOTE: There seemed to be an issue with this study because the statistics were from 2010, the survey was from 2015 and the article was published in 2020. And the 400 sample seemed low in comparison to the 20,000 students at the university overall – as in it is not truly representative.]*

Recommendations for Further Research

- ▶ Further research needs to be very specific regarding the type of crime involved. Crime differences should be studied along with victimization also per particular cybercrimes, along with victimization experience.
- ▶ Different fears of crime and different victimization may correlate differently between certain crimes. People's risks and also their fears change as technology changes. Beck's risk society states all people are share equally at risk.

References – p. 1

- ▶ *"Demography."* (2023, Nov. 28). Retrieved Dec. 29, 2023, from <https://www.britannica.com/>:
<https://www.britannica.com/topic/demography>
- ▶ *"Risk Society"*. (2023). Retrieved Dec. 29, 2023, from Oxford University Press - Oxford Reference:
<https://www.oxfordreference.com/display/10.1093/oi/authority.20110803100422576>
- ▶ Dennis, M. (2023, Dec. 19). *"Cybercrime."* Retrieved from <https://www.britannica.com/>: <https://www.britannica.com/topic/cybercrime>
- ▶ Hayes, A. (2023, Oct. 24). *"What is White Collar Crime?"*. Retrieved Dec. 29, 2023, from <https://www.investopedia.com/>:
<https://www.investopedia.com/terms/w/white-collar-crime.asp>
- ▶ Patel, K. (2021, Jul. 30). *"What is Binary Logistic Regression and How is it Used in Analysis"*. Retrieved Dec. 29, 2023, from <https://www.dataversity.net/>: <https://www.dataversity.net/what-is-binary-logistic-regression-and-how-is-it-used-in-analysis/>

References – p. 2

- ▶ Rasborg, K. (2012). "'(World) risk society' or 'new rationalities of risk'? A critical discussion of Ulrich Beck's theory of reflexive modernity". *Thesis Eleven*, 108(1), 3 - 25. Retrieved Dec. 29, 2023, from <https://journals-sagepub-com.proxy.lib.odu.edu/doi/epub/10.1177/0725513611421479>
- ▶ Virtanen, S. (2017). "Fear of Cybercrime in Europe: Examining the Effects of Victimization and Vulnerabilities". *Psychiatry, Psychology and Law*, 24(3), 323 - 338. Retrieved Dec. 29, 2023, from [//doi.org/10.1080/13218719.2017.1315785](https://doi.org/10.1080/13218719.2017.1315785)
- ▶ Yu, S. (2014). "Fear of Cyber Crime among College Students". *Cybercrime Journal*, 8(1), 36 - 46. Retrieved Dec. 29, 2023, from <https://cybercrimejournal.com/pdf/yuijcc2014vol8issue1.pdf>