

## ONLINE SCAM: A SYSTEMATIC LITERATURE REVIEW

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### ABSTRACT

The rise in crime involving online scam is increasing each year. A total of 107, 716 cases involving losses amounting to RM 3.2 billion were detected by the National

Security Council from 2020 to 2023. Although various parties such as the Royal Malaysia Police (PDRM) in collaboration with the government and government agencies have made announcements on the modus operandi of online scam, it is still not fully effective. In Malaysia, there is the lack of studies on online scam although the statistics of cases reported are increasing from year to year. Thus, this study characterizes the literary landscape related to online scam crime to provide a deep understanding as well as identify the frequency of studies by systematically reviewing the previous studies through PRISMA method. This paper provides a literature review on online scam crime to provide a deep understanding on the issues. Additionally, this paper identifies the frequency of studies by systematically reviewing the previous studies through PRISMA method. Ultimately, the implication of this study from the academic aspect are to identify the adaptation of the KAP model, study appropriate research methods and the frequency of research related to online scam in Malaysia.

**Keywords:** online scam, KAP model, PRISMA, google scholar, publish or perish

## 1.0 INTRODUCTION

Online scam has become one of the main threats in the digital world today. With the advancement of technology, the fraudulent activities carried out by cybercriminals are becoming more creative and cunning. Online scam involves the use of the internet and digital technology to defraud individuals or entities with the aim of illegally obtaining profits. Since 2014, the Communications and Multimedia Commission report has acknowledged that one of the major challenges of the technology world in Malaysia today is the rise of online crime as well as the diversity of social media networks today that opens up opportunities for criminals to commit online scam (Abdul Wahab, Pitchan, & Salman, 2023). The value of the loss of these criminal cases as recorded by the Ministry of Communications and Digital proved an increase to RM687 million, which is 29% compared to 2022. Supporting the increase, the Cyber999 Cyber Incident Response Centre operated by Cyber Security Malaysia also recorded online scam leading the cyber security incident chart with a total of 3,087 cases out of a total of 4,898 cases.

The study of online scam plays a crucial role in stimulating the understanding and prevention of threats encountered in the digital environment. Overall, the importance of this study is divided into several aspects of interest such as the first to understand the pattern of attack. The study of online scam helps researchers and authorities understand the patterns of attacks used by cyber criminals. The studies assist in identifying new scam trends and developing more effective prevention strategies by analyzing the modus operandi and techniques employed, (Rahman & Lim, 2022). The second importance of the study is to design effective prevention strategies. Online scam research enables the development of more effective prevention strategies by understanding online criminals' tactics. This includes developing an integrated approach involving public awareness, strict law enforcement, and advanced cyber security technology (Abdullah et al, 2023). The third importance is to protect society and the economy. Online scam research is

crucial for safeguarding society and the economy from the negative effects of scam. Research enables authorities and private entities to take proactive measures to reduce scam risks and protect their interests by identifying the causes, trends, and impacts of scam, (Hassan et al, 2023). Lastly, the importance of carrying out the research is to measure the economic impact. Studies provide important data for designing effective economic protection and recovery strategies by assessing the financial losses experienced by individuals, businesses, and countries due to scam (Ismail & Tan, 2023).

## 2.0 ADAPTATION OF THE KAP MODEL

The Knowledge, Attitude, and Practice (KAP Model) has demonstrated its importance in understanding and addressing online scam issues. The integration of the three main components in this model is knowledge of online scam, attitudes towards online scam crime prevention, and online security practices. As for the knowledge component, recent studies have shown that a significant increase in knowledge about cybercrime is related to a reduction in the risk of becoming a victim of online scam. This knowledge includes understanding the types of scams that exist, the techniques used by scammers, and ways to identify and avoid such threats. The study by Patil and Arra (2022) emphasizes the importance of cybersecurity education in increasing awareness and understanding among the public. Meanwhile, Hosam A. Althibyani, Abdulrahman M Al-Zahrani (2023) observes digital citizenship, which significantly impacts awareness and prevention of cybercrime among higher education students. The results of this study indicate that knowledge of digital laws and digital communication skills are crucial for reducing cybercrime. Furthermore, when referring to the study conducted by L Kimpe et al. (2021), it was found that individuals who feel informed about online safety tend to be less vulnerable to cybercrime and less likely to take safety precautions. On the other hand, in terms of attitude, individual attitudes towards online scam prevention play a crucial role in the KAP model. These attitudes include willingness to adopt safety measures and perceptions of the importance of cyber security issues. The study by Bello (2018) indicates that a proactive attitude towards cyber security can reduce the likelihood of falling victim to online scams. Furthermore, Abdul Wahab et al., (2023) have also emphasized that a lack of vigilance among the public contributes to the rise in online scam cases. The researcher further divided the attitude factor into two themes: the public's perception of the online scam prevention campaign and the community's feelings and emotions towards the campaign. Informants were found to have a very positive view of the campaign and voluntarily participated, believing that it was something they had been eagerly anticipating in order to increase their knowledge. They believe that such a campaign should be continued in the future because its benefits society.

In terms of practice, the practice of online security is a practical manifestation of knowledge and attitude. This includes the use of security software, secure password management, and caution in interacting with suspicious emails or messages. These practices directly affect the effectiveness of individuals in avoiding online scam (Mazurczyk et al., 2016). Next, according to the study conducted by P. Priya & Ranganathaan A. (2022), one proposed way to enhance general awareness

about cyber security is through card games, involving the development of a gaming platform that allows players to learn about various cyber-attacks and defense mechanisms. While based on the results of Simona Tache E. et al. (2021) research on the role or responsibilities of a qualified auditor in reducing the impact of cyber fraud where they need to emphasize on training, courses and awareness workshops to prevent incidents caused by human error, especially in the financial sector which is often the target of cyber fraud on staff in his department. Researchers have researched and found that there is little or almost no use of the KAP Model in the resolution of online scam issues in previous studies. Despite numerous studies on online scam, the use of the KAP Model to study aspects of consumer knowledge, attitudes, and practices is still less focused, especially in the context in Malaysia. Referring to online scam studies, there are various aspects that need to be deeply understood, including attack patterns, contributing factors to scam, and the impact on victims.

### **3.0 RESEARCH OBJECTIVE**

Based on the identified research gap, the following are the predetermined research objectives:

- (i) To identify the adaptation of the KAP model in studies related to online scam.
- (ii) To investigate the appropriate research methods to be used based on a systematic literature review.
- (iii) To study the trends and frequency of online scam research in Malaysia

### **4.0 MATERIALS AND METHODS**

This writing is based on a systematic literature review supported by the method of searching for articles using two databases. Therefore, this section further elaborates on the methods used, as outlined below.

#### **4.1 Protocol**

The techniques and protocols of Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) have been used to find, collect and analyze literature related to online scam crimes. PRISMA can help achieve the research objective of identifying and evaluating online scam-related literature to reach comprehensive conclusions. This study demonstrates the processes and steps used based on PRISMA, which may differ from other techniques and protocols.

#### **4.2 Resources**

For this purpose, journal articles are collected and utilized from the dataset recorded through the Publish or Perish and Google Scholar databases. Google Scholar is a freely accessible web search engine that indexes full-text or metadata in various formats and publishing disciplines. The articles consist of English and Malay language articles dated between 2019 and 2024. The articles referred to consist of

revised articles, conference proceedings, government institution data reports and other related matters. Publish or Perish is a database developed by Professor Anne-Wil Harzing that enables academic analysis to be done quickly and efficiently. Search for articles with the keyword online scam generated for a period of 5 years, from 2019 to 2024. The generated sources through this platform include articles in addition to PDF format.

### **4.3 The Systematic Review Process**

The systematic review process used to select articles in this study includes identifying articles, article screening, and assessing article eligibility.

#### **4.3.1 Identification**

The process of identifying articles is important to avoid overlapping search results. This process is divided into three stages, with the first being identifying keywords based on the research gap. Several keyword searches in Malay and English have been conducted to obtain comprehensive search results. These keyword searches were set within the period from 2019 to 2024 to ensure consistency in research relevance. The second stage involves identifying relevant titles related to the research topic because this phase can help researchers pinpoint more accurate and relevant articles related to the research topic. This stage is important to facilitate researchers in focusing directly on relevant articles. The third step is identifying keywords within the article, including the process of reading the abstract. This process is crucial for producing accurate and focused search results. Overall, through the use of Publish or Perish searches, the total number of keyword-related searches before the filtering process conducted by researchers was 997 articles, while manual searches yielded 191 articles.

#### **4.3.2 Screening**

The article screening process is done by the conducted by researchers after the identification process of relevant articles on the topic has been carried out. During this phase, the researchers have screened for articles from both databases. The screening results from Publish or Perish yielded a total of 7 relevant articles, while the screening results through Google Scholar produced a total of 16 articles. Therefore, unrelated articles have been excluded in order to focus on relevant articles that will serve as the main source for future studies. From this total, non-PDF articles have also been excluded by the researcher.

#### **4.3.3 Eligibility**

The process in examining the eligibility of articles involves the process of identification and screening of articles. In its totality, the eligibility process taking into account the identification of keywords, title and abstract which is carefully examined in ensuring the related articles fulfill the focus and research gaps. The result, a total of 23 articles in PDF format that meets the needs and focus of the

study, while, 447 articles in PDF format were excluded because they did not meet the requirements of the research focus.

#### **4.4 Data Analysis**

The process of data analysis in this study includes the process of data analysis based on search result through Publish or Perish and Google Scholar. The researchers have analyzed the data in detail and comprehensively for every search result as discussed in the research findings and discussion section. This process is also done manually by examining the search results one by one.

### **5.0 RESEARCH FINDINGS AND DISCUSSION**

The systematic review search results is divided into 4 sections; they are Google Scholar manual search data results and Publish or Perish data metric; keyword search on online scam on Publish or Perish database; keyword search on online loan scams on Google Scholar database; and screening results of studies related to online scam based on Google Scholar and Publish or Perish database.

#### **5.1 Google Scholar Manual Search Data Results And Publish Or Perish Data Metric**

This study uses the method of manual search on search engine and Google Scholar database in obtaining a comprehensive article search result. Not only limited to the manual search, Publish or Perish is also used in enriching the article search results with the keywords related to online scams. Therefore, this section is divided into two sections; search data results by using search engine and Google Scholar database and search data results by using Publish or Perish.

##### **5.1.1 Results of general data search related to keywords of online scams and KAP model by using Google Scholar database**

This search is the first step taken by the researchers before deciding to use the keyword of online scams on all searches. This step is done to ensure a comprehensive and accurate search before initiating a study focusing on online scam. This search is also based on research gaps from the aspect of lack of use of the KAP model in identifying the usage frequency of the model on the problem of online scams.

**Table 1:** Amount of general search of KAP model and KAP theory

<b>General Search Volume for KAP Models</b>		<b>General Search Volume for KAP Theory</b>	
<b>Keyword</b>	<b>Total</b>	<b>Keyword</b>	<b>Total</b>
Online scam	382	Online scam	404
Internet scam	338	Internet scam	358

Cyber crime	2300	Cyber crime	1690
Cybercrime	769	Cybercrime	762
Cyber fraud	610	Cyber fraud	549
Cyberfraud	21	Cyberfraud	20
Online fraud	4890	Online fraud	4500
Onlinefraud	33	Onlinefraud	4500
Jenayah siber	15	Jenayah siber	21
Jenayah penipuan dalam talian	6	Jenayah penipuan dalam talian	5
Penipuan siber	643	Penipuan siber	1110

This search is divided into general search of KAP model and KAP theory because of diversity of term usage based on previous studies. This shows that there is inconsistency use of terms by researchers in using the terms of model and theory, but, if we look closely, the research focus or discussion brings the same meaning. Thus, general search with certain keywords is divided into general search keywords for KAP model and KAP theory in obtaining comprehensive results before screening is done. Based on the comparison of the table above, there are gaps between the amount of search with the keywords of online scam; internet scam; cybercrime; cybercrime; cyber fraud; online fraud; online fraud; *jenayah siber*; *jenayah penipuan dalam talian*; and *penipuan siber*. In other words, other researchers who wish to do a research on online scam based on KAP can refer to the search that uses model and theory terms. The use of keywords with closed compound and open compound word contribute to the differences of number of searches such as cyber fraud is 610 articles and cyberfraud is 21 articles in the general search for KAP model. In this case, the researchers believe the use of the keywords brings the same meaning though there is inconsistency in the uses of keywords. So, proofreading is important before an article is published.

Besides English keywords, keywords in Bahasa Melayu are used to ensure there is no abandonment of related keywords. Result of the search proves that study on online scam with the keyword of cyber fraud is published more in Bahasa Melayu articles in comparison to articles with the keyword of cybercrime and online fraud crime. The fixation of keyword usage plays a crucial role in delivering the proper meaning of a written article. As an illustration, the uses of the keywords cybercrime and cyber fraud are seen identical in meaning but different from a definition point of view. According to Kamus Dewan Fourth Edition Dewan Bahasa dan Pustaka, crime is defined as wrongdoing that is wrong under the law whereas, fraud refers to an act of cheating.

### **5.1.2 Results of general data of keyword search related to online scam by using Google Scholar database**

The search continues by focusing on the keywords related to online scam to look for the difference in search result for keywords related to online scam that uses the KAP model, in contrast to the ones which do not use the KAP model. Therefore, the

search is divided into the search the focuses on advance title and the search from the year 2019 to 2024.

**Table 2:** Total search advance titles and searches from 2019 to 2024

Total Search Advance Title Without KAP Model		Total Search From 2019-2024 Without KAP Model	
Keyword	Total	Keyword	Total
Online scam	39	Online scam	191
Internet scam	33	Internet scam	160
Cyber crime	3580	Cyber crime	846
Cybercrime	3620	Cybercrime	440
Cyber fraud	216	Cyber fraud	364
Cyberfraud	17	Cyberfraud	13
Online fraud	603	Online fraud	3000
Onlinefraud	-	Onlinefraud	21
Jenayah siber	40	Jenayah siber	8
Jenayah penipuan dalam talian	1	Jenayah penipuan dalam talian	3
Penipuan siber	5	Penipuan siber	359

Advance title searches focus on direct searches, solely based on keywords such as online scam, internet scam and others. This is also a general search that is not limited to the study period in comparison to the searches in the next table that produces the search from the year 2019 until 2024. If we were to make a comparison in the search result based on the KAP model, articles that are written by applying the KAP model are higher than articles that do not apply the KAP model.

### **5.1.3 Results of metrics data of keyword searches on online scam by using Google Scholar database on Publish or Perish database**

Based on the search results by using Google Scholar search engine, the researchers decide to focus on the next search through Publish or Perish by using the keyword online scam for the period from 2019 until 2024 on the Google Scholar database.

The search result by using Publish or Perish is seen inconsistent with the search result on the Google Scholar search engine although both use the same database which is Google Scholar. As the figure above, the amount of research papers with the keyword online scam from the year 2019 until 2024 on Publish or Perish is 997 as compared to Google Scholar search engine is 191. In terms of difference, it is definitive that both have obvious difference from the perspective of search engine, search result data, result of data metrics display and others. The search of keyword by using Publish or Perish only focuses on the keyword online scam from the year 2019 until 2024 because the search result with the keyword online scam that uses the KAP model is incongruous with the expectation of the research focus. In this case, if the keyword online scam and KAP model are used the

search function of publish and perish is inefficient in producing a thorough and focused search. The result of the search is incongruent as compared to focusing on the search by using the keyword online scam. This is done after the researchers made screening process on several articles. In terms of the display of the result of metrics data, Publish or Perish is able to give specific information related to the collected articles in one figure. Although there is significant difference in terms of amount of search result with the keyword online scam, the researchers consent to refer to the search result through Publish or Perish because this search engine facilitated the researchers to obtain articles in PDF format.

Citation metrics	Help
Publication years:	2019-2024
Citation years:	5 (2019-2024)
Papers:	997
Citations:	99260
Cites/year:	19852.00
Cites/paper:	99.56
Cites/author:	46313.97
Papers/author:	433.13
Authors/paper:	3.03
h-index:	139
g-index:	244
hI,norm:	87
hI,annual:	17.40
hA-index:	65
Papers with ACC >= 1,2,5,10,20:	994,992,973,752,397

**Figure 1**  
Metrics data of keyword search on online scam  
Source: Publish or Perish (2024)

## 5.2 Search of Keyword on Online Scam on Publish or Perish Database

There are 88 articles in PDF format from 2019 to 2024 with the keyword online scam that have been generated through Publish or Perish. These articles have been collected and studied individually to identify the frequency of adaptation of KAP models, the research approach (whether qualitative, quantitative, or otherwise), and to examine the relevance of the articles to the keywords used. Based on the search conducted in Publish and Perish, the frequently referenced online fraud crime article is by AH Shaari, MR Kamaluddin, et al (2019), titled “Online-dating romance scam in Malaysia: An analysis of online conversations between scammers and victims”, which has been cited 51 times, with an average of 1020 citations per year. The article by MT Whitty (2019) titled “Who can spot an online romance scam?” has been cited 35 times, with an average of 7 citations per year. Based on this search as well, the research topics that have been focused on using the article titled “online scam” revolve around online romantic scams, online job scams, online banking fraud, the psychological effects on scam victims, and much more. The listed studies also pertain to the fields of computer science, psychology, criminology, and economics. There are also several articles that focus on Malaysia, Indonesia, and China, indicating the importance of online fraud crime research, especially in

Southeast Asia. Therefore, this search result can help researchers to focus more on relevant articles through a systematic literature review process that considers various search aspects and studies.

### **5.3 Search For The Keywords Online Loan Fraud In The Google Scholar Database**

**Table 3:** List of online loan fraud keywords in the Google Scholar database

Authors	Title	Year	Source	KAP Model	Qualitative	Quantitative
NA Ahmad, N Othman	Information Privacy Awareness among Young Generation in Malaysia	2019	JOSTIP Vol. 5 No. 2	x	/	x
KA Meerangani, MAA Termimi, AF Ibrahim, MHM Johar	Elemen Al Hirz dan Kedudukannya dalam Jenayah Siber Masa Kini	2019	Journal of Contemporary Islamic Studies	x	/	x
A Bashir, Azwardi, Sukanto, BB Soebyakto, DP Atiyana, I Hamidi, Hamira, RS Dwi	Raising Awareness and Knowledge of Rural Communities against Lottery Fraud & Illegal Online Loans through Telephone & Short Message Services	2022	Journal of Sriwijaya Community Services	x	x	/
X Liao, TPL Nguyen, N Sasaki	Use of the knowledge, attitude and practice (KAP) model to examine sustainable agricultural in Thailand	2022	Regional Sustainability	/	/	x
WNHW Jusoh, NMS Nizar	Online Scams Awareness among Muslim University Students in Malaysia	2022	Journal of Islamic, Social, Economics and Development	x	x	/
NS Alias, AF Mahamood, TKT Yakob, AJ Ramli, HB Affandy, ARA Manaf	Fenomena Phishing di Malaysia: Persepsi Masyarakat, Kesan dan Kaedah Mengatasinya	2022	Journal of Global Business and Social Entrepreneurship	x	x	/
SMHSA Rahman, MA Ramli, CZ Sa'ari, AA	Penggunaan Media Sosial Baharu: Isu-Isu dan Panduan Perspektif Islam	2022	Jurnal Usuluddin	x	/	x

Norman, MA Mamat, MHM Azhar						
N Shonhadji	Fraud Analysis on Illegal Online Lending using Habermas' Theory of the Public Sphere	2022	Jurnal Ilmiah Akuntansi dan Bisnis	x	/	x
EA Wahab, MA Pitchan, A Salman	Pengetahuan, Sikap dan Amalan Masyarakat di Kuala Lumpur Terhadap Kempen Pencegahan Jenayah Penipuan dalam Talian	2023	Jurnal Komunikasi: Malaysian Journal of Communication	/	/	x
FM Asri, TET Mahamad	Anatomy of Phone Scams: Victims' Recall on the communication Phrases used by Phone Scammers	2023	ASSEHR 769	x	/	x
MYA Karim, N Lyndon	Pandangan Dunia Pengguna Perniagaan dalam Talian tentang Jenayah Siber	2023	Malaysian Journal of Social Sciences and Humanities	/	/	x
KD Solihati, M Rizki, N Sari	The Role of the Government to Improve Financial Literacy in Efforts to Prevent the Use of Illegal Online Loans	2023	The 4th International Conference on Governance, Public Administration and Social Science	x	/	x
IE Khaq, A Hidayat	The Law: Enforcement Against an Illegal Online Loans Platform	2022	Journal of Law Theory and Law Enforcement	x	/	x
PA Putri, K Rinaldi	The problems of Illegal Online Loans based on the Victim's Perspective: A Case Study	2022	International Journal of Advances in Social and Economics	x	/	x
M Arafah	Peluang dan Tantangan Pembiayaan Online Syariah dalam	2022	IQTISHADUNA : Jurnal Ilmiah Ekonomi Kita	x	/	x

	Menghadapi Pinjaman Online Ilegal					
RAE Wahyuni	Strategy of Illegal Technology Financial Management in Form of Online Loans	2020	Jurnal Hukum Prasada	x	/	x
DT Subagiyo, LR Gestora, Sulistiyo	Characteristics of Illegal Online Loans in Indonesia	2022	Indonesian Private Law Review	x	/	x
BL Putra, AA Rifqi, S Al Masyhuri	Low Financial Literacy on the Desire to Take Online Loans (Case Study of Muhammadiyah Surabaya University Students)	2023	Journal of Entrepreneurial & Business Diversity	x	/	x

Researchers conducted a search for research papers based on the keyword online loan fraud manually on the Google Scholar search engine from 2019 to 2024. The search yielded only 18 relevant research papers related to that keyword. There are three elements that are considered in each paper, namely the use of the KAP model, qualitative approach, and quantitative approach. The results of the review found that only 3 study papers used the KAP model, 15 study papers using a qualitative approach and only 3 study papers using quantitative approaches. This indicates that there are no research papers using a mixed methodological approach, which combines qualitative and quantitative data. Therefore, it is relevant for researchers to use a mixed method approach as it allows for gathering data from various sources and obtaining clearer, more accurate information, and a better understanding of the research problem compared to using only one method.

#### 5.4 Screening Results Of Online Scam-Related Studies Based On Publish Or Perish And Google Scholar Databases

**Table 4:** List of screening results related to online scam based on the Publish or Perish and Google Scholar databases

Online Scam Study Paper Search Using Google Scholar						
Author	Title	Year	Source	KAP Model	Qualitative	Quantitative
NA Ahmad, N Othman	Information Privacy Awareness among Young Generation in Malaysia	2019	JOSTIP Vol. 5 No. 2	x	/	x
KA Meerangani,	Elemen Al Hirz dan Kedudukannya dalam	2019	Journal of Contemporary	x	/	x

MAA Termimi, AF Ibrahim, MHM Johar	Jenayah Siber Masa Kini		Islamic Studies			
A Bashir, Azwardi, Sukanto, BB Soebayko, DP Atiyana, I Hamidi, Hamira, RS Dwi	Raising Awareness and Knowledge of Rural Communities againts Lottery Fraud & Illegal Online Loans through Telephone & Short Message Services	2022	Journal of Sriwijaya Community Services	x	x	/
X Liao, TPL Nguyen, N Sasaki	Use of the knowledge, attitude and practice (KAP) model to examine sustainable agricultural in Thailand	2022	Regional Sustainability	/	/	x
WNHW Jusoh, NMS Nizar	Online Scams Awareness among Muslim University Students in Malaysia	2022	Journal of Islamic, Social, Economics and Development	x	x	/
NS Alias, AF Mahamood, TKT Yakob, AJ Ramli, HB Affandy, ARA Manaf	Fenomena Phishing di Malaysia: Persepsi Masyarakat, Kesan dan Kaedah Mengatasi	2022	Journal of Global Business and Social Entrepreneurship	x	x	/
N Shonhadji	Fraud Analysis on Illegal Online Lending using Habermas' Theory of the Public Sphere	2022	Jurnal Ilmiah Akuntansi dan Bisnis	x	/	x
EA Wahab, MA Pitchan, A Salman	Pengetahuan, Sikap dan Amalan Masyarakat di Kuala Lumpur Terhadap Kempen Pencegahan Jenayah Penipuan dalam Talian	2023	Jurnal Komunikasi: Malaysian Journal of Communication	/	/	x
FM Asri, TET Mahamad	Anatomy of Phone Scams: Victims' Recall on the communication Phrases used by Phone Scammers	2023	ASSEHR 769	x	/	x

MYA Karim, N Lyndon	Pandangan Dunia Pengguna Perniagaan dalam Talian tentang Jenayah Siber	2023	Malaysian Journal of Social Sciences and Humanities	/	/	x
KD Solihati, M Rizki, N Sari	The Role of the Government to Improve Financial Literacy in Efforts to Prevent the Use of Illegal Online Loans	2023	The 4th International Conference on Governance, Public Administration and Social Science	x	/	x
IE Khaq, A Hidayat	The Law: Enforcement Against an Illegal Online Loans Platform	2022	Journal of Law Theory and Law Enforcement	x	/	x
PA Putri, K Rinaldi	The problems of Illegal Online Loans based on the Victim's Perspective: A Case Study	2022	International Journal of Advances in Social and Economics	x	/	x
M Arafah	Peluang dan Tantangan Pembiayaan Online Syariah dalam Menghadapi Pinjaman Online Ilegal	2022	IQTISHADUNA: Jurnal Ilmiah Ekonomi Kita	x	/	x
RAE Wahyuni	Strategy of Illegal Technology Financial Management in Form of Online Loans	2020	Jurnal Hukum Prasada	x	/	x
DT Subagiyo, LR Gestora, Sulistiyono	Characteristics of Illegal Online Loans in Indonesia	2022	Indonesian Private Law Review	x	/	x
<b>Online Scam Study Paper Search using Publish or Perish</b>						
R Khweiled, M Jazzar, D Eleyan	Cybercrimes during COVID-19 Pandemic	2021	International Journal of Information Engineering and Electronic Business	x	x	x

B Collier, S Horgan, R Jones, L Shepherd	The implications of the COVID-19 pandemic for cybercrime policing in Scotland: A rapid review of the evidence and future considerations	2020	The Scottish Institute for Policing Research	x	x	x
I S Rusdianti, R Irmadariyani, A S Kustono	E-Finance: Mitigation of Fraud Tendency in Indonesia	2022	International Journal of Entrepreneurship and Business Development	x	/	x
M Kumari	Social Media and women empowerment	2020	International Journal Science Technology Research	x	/	x
R Apau, FN Koranteng	Impact of cybercrime and trust on the use of e-commerce technologies: An application of the theory of planned behavior.	2019	International Journal of Cyber Criminology	x	x	/
K Farahbod, C Shayo, J Varzandeh	Cybersecurity indices and cybercrime annual loss and economic impacts	2020	Journal of Business and Behavioral Sciences	x	x	/
M Saraswati, N Lutfiani, T Ramadhan	Kolaborasi Integrasi Inkubator Bersama Perguruan Tinggi Sebagai Bentuk Pengabdian Terhadap Masyarakat Dalam Perkembangan Iptek	2021	adi-journal.org	x	x	/

Researchers focused on searching research papers based on online scam keywords from two trusted sources namely Google Scholar search engine and Publish or Perish. Researchers refer to the results of the screenings that have been done one by one by identifying the accessible study papers which are PDF-formatted. The screening using Google Scholar found a total of 382 research papers identified based on the keyword's online scam, with only 16 research papers directly related to the main keyword. Meanwhile, screening using Publish or Perish found 88 study papers based on key keywords and only 7 study papers that had to do with key keywords. This clearly indicates that the gap shown in the table above is significant and

relevant for researchers conducting online scam studies. The agreed conclusion is that the number of Pdf-formatted research papers that match the main keywords is only 23, compared to the total number of Pdf-formatted research papers that were excluded, which is 447, through filtering from Google Scholar and Publish or Perish search engines.

## 6.0 RECOMMENDATION

The study on online scam crime by applying the KAP model (knowledge, attitude and practices) can be made as the main word search. Suitable theory can be used to search so the study on online scam crime can be expanded to various factors and sectors. Besides that, the improved search quality is among the factors to be considered accordingly. The quality of article searches can be improved by using the relevant database by searching reviewed academic journal articles. For example, the search that uses prominent and relevant database such as Google Scholar, PubMed, IEEE Xplore, ScienceDirect or JSTOR will give more quality searches by presenting current and relevant articles with up-to-date studies. Besides that, the combination of search terms should be considered when doing search on academic journal articles related to online scam crime. The term online scam crime is appropriate with the combination like the KAP model (knowledge, attitude and practices) or “cybercrime” can widen the scope of searching the suitable academic journal articles. For example, “online fraud crime” AND “KAP model” OR “knowledge attitude practices” AND “cybercrime”.

Apart from that, due to the increasing of writing and publishing related to online scam crime, it is recommended that the search on academic journal articles focuses on the latest publication in order to gain better comprehension and relevant with current situation. Likewise, it is also recommended that the searched academic journal articles have good cross-references. As an example, online scam crime gains a lot of attention in journals related to criminology, cyber security or human psychology. Cross-references with related articles and relevant can assist in obtaining additional source references for the purpose of a more quality analysis and article writing. Pertinent academic community is also helpful in obtaining academic journal articles related to online scam crime which is more relevant to society. There are numerous platforms that feature academic figures who are expert in the study of online scam crime. Insight and references from these well-known figures are helpful in producing better articles. One of the most important components in any study particularly in a study related to online scam crime is methodology and reported research findings. Research methodology is very important in ensuring validity and relevance of the online scam crime study in looking into its context in Malaysia as well as Southeast Asia. Previous research results can be used as guidance to carry out suitable study and able to fulfil research gaps in the online fraud crime.

## 7.0 CONCLUSION

The advancement of the Internet in the present time has led to an increase in cybercrime. Online scam cases in Malaysia indicate that the public still lacks knowledge, awareness, and cautious behavior while conducting any online activities.

There are still many users who still ignore the growing cybercrime from year to year. This is because they are less concerned about the growing cybercrime. According to a study by Pitchan et al (2017), many Malaysians have become victims of online scam due to a lack of understanding and awareness about internet safety. This is because there are still many internet users who consider online security as trivial and ignore safety principles on the internet. To address this problem of cybercrime, knowledge of the matter is very important. In the formation of the Knowledge, Attitude, and Practice (KAP) model, the knowledge element is a crucial component. This is because a person cannot act on any information obtained without sufficient knowledge (Ramsey & Rickson, 2010). This clearly shows that knowledge about something will make someone more cautious about their behavior. However, from a scientific point of view, studies that take into account such factors are worth enriching as this study proves that there are not many studies focusing on the adaptation of related models. Similarly, the appropriate research methods should be expanded through a mixed-method approach to obtain comprehensive research results.

Besides that, among the steps that can be taken to address cybercrime from spreading further is to consistently raise awareness among the public about the threats of cybercrime that can harm victims' lives. The campaign through advertisements in print and digital media needs to be expanded and reach the entire community so that people are always cautious and more aware of the new tactics used by cyber criminals. Furthermore, authorities should also assess and introduce new laws capable of preventing cybercrime. Finally, it is to introduce ethical education in the use of technology in every educational institution within this country. For the initial stage, this education needs to be provided in schools and universities because students are easily influenced by cyber criminals, and it can also shape a knowledgeable and informed generation.

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## Author Contribution

Jais, Z., Abstract, introduction, model adaptation and research results. Azmi, S.N.S., Abstract, research objectives, research methods and research results. Hasini, N.F.M., Research results and conclusions. Samsudin, S.N., Study results and recommendations. Izhar, N.I., Proofread and translate. Idris, N.A., Proofread and translate. Hassan, A.A.A., Research resources and issues.

## Conflict of Interest

The manuscript has not been published elsewhere and is not under consideration by other journals. All authors have approved the review, agree with its submission and declare no conflict of interest on the manuscript.

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