When do I Protect Myself? Avoidance Motivation toward Online Sexual Harassment on Social Media: A Study Based on Threat Avoidance Theory[1]

언제 나 자신을 보호하는가? 소셜 미디어에서 온라인 성희롱에 대한 회피 동기: 위협 회피 이론을 기반으로

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〈 Abstract 〉

With the increasing use of social media, the occurrence of cyber crimes on social media has also increased. In this paper, we focus on online sexual harassment among various cyber crimes and discuss how social media users use social media to avoid online sexual harassment. Drawing on threat avoidance theory, the factors affecting avoidance motivation were identified. Avoidance motivation was measured based on the affordance of social media, and the influence of the degree of sexualization was tested to examine how environmental factors affect motivation behavior. The results indicated that the more users perceived sexualization on social media, the lower their motivation to avoid sexual harassment. Thus, it is important to create an atmosphere on social media where crime is minimized, and users are able to respond appropriately by continuously managing their accounts on these platforms.

Key words: Online sexual harassment, Cyber crime, Avoidance motivation, Threat avoidance theory, Affordance perspectives, Sexualization

1. Introduction

With the COVID-19 pandemic, online crime and deviant behaviors have increased as non-face-to-face activities through social media have increased. Crime or deviant behavior committed using new technology is not easy to punish even though the damage is serious because the scope of the crime and the possibility of the punishment has not been clearly defined. Among these, online sexual harassment is one of the crimes that can cause long-term psychological harm to victims. Cyber-sex crime includes taking and spreading pictures or videos without the consent of the other person, threatening to use these pictures or videos, sexual harassment in cyber places, and other crimes (Act On The Protection Of Children And Youth Against Sex Offenses, Article 25-2(1)). Cyber-sex crime is defined as an act that infringes on an individual's rights and causes sexual shame using digital devices (Korean Women Lawyers Association). The present study researched online sexual harassment among the broad types of cyber-sex crimes. Online sexual harassment simply repeats real-world gendered inequalities and tensions through the internet (Herring, 2003). After online sexual harassment, the victim suffers considerable emotional pain that makes his or her daily life difficult. It is necessary to understand why sexual harassment problems continue and what causes continuous exposure to preventable damage situations and to deal with them more systematically.

Technology Threat-avoidance theory (TTAT) has been suggested to explain the problems caused by technology and individual responses (Liang & Xue, 2010). TTAT explains the circumstances under which people are motivated to avoid a threatening situation. TTAT was proposed by Liang and Xue (2010), and since then, various studies have continuously expanded the theory to explain the factors affecting technology threat avoidance. Most studies that apply TTAT focus on security. The theory can also be used in research on deviant cyber behavior based on other technologies to verify how vague fear of crimes caused by unspecified people online affects avoidance motivation (Arachchilage & Love, 2014; Asante-Offei & Yaokumah, 2021; Gillam, 2019; Liang & Xue, 2010). For instance, Jain and Agarwal (2020) showed the presence of avoidance motivation for deviant behaviors on social media by applying the TTAT to cyberbullying.

TTAT has limitations because it does not consider external environmental factors influencing individual avoidance motivation. Most of the existing studies applying TTAT focus on the characteristics of individuals or threats; however, in the case of online sexual harassment, environmental factors should be considered because it is a crime that is greatly influenced by external environmental factors (Gruber, 1989; Gwartney-Gibbs & Lach, 1992). Online sexual harassment occurs within a social structure that is different from the hierarchical order in the workplace. The degree of sexual harassment or the victim's response is greatly influenced by the technical characteristics and environment presented by the online platform. Thus, in this study, it was hypothesized that an individual's response to a threat would vary depending on the context formed on social media. Therefore, we aimed to answer the following research questions: Research Question1: In the case of cyber crimes, how do perceived susceptibility, perceived severity, and perceived threat affect the

avoidance motivation during the use of the technology? Research Question2: Does the climate in the social media influence the user's technology threat avoidance? Specifically, this study examined how the sexual climate on Instagram as a social media environment affects individual behavioral motivation.

In this study, we employed a survey research method and structural equation modeling to test the research hypotheses. Drawing upon TAT, this study related perceived severity and perceived susceptibility to a perceived threat, and perceived threat and sexualization respectfully influence avoidance motivation. To investigate our research questions, we collected data from 230 Instagram users. By adopting Liang and Xue's 2010 validated measure, this study assessed the construct of TTAT and modified it based on our research context and affordance perspectives.

2. Related Literature

2.1. Sexual Harassment

The definition of sexual harassment is broad and differs by country and culture because sexual harassment is perceived differently by various people. In this study, we defined sexual harassment as exposure to unwanted sexual content. In a more detailed study of sexual harassment, sexual harassment referred to various forms of behavior that could be classified into three main categories: gender harassment, unwanted sexual attention, and sexual coercion (O'Hare & O'Donohue, 1998). Gender harassment refers to situations in which a person is subjected to offensive, gender-related, or sexual comments. Unwanted sexual attention

refers to repeated attempts to establish a romantic relationship despite refusals, such as unwanted touching, sexual imposition, or assault. Sexual coercion refers to blackmail or rewards for sexual cooperation.

Previous research has examined sexual harassment within organizations and has found that it can occur when there is a hierarchical difference between men and women within a group (Knapp et al., 1997). Sexual harassment can occur easily in hierarchies, where the positions of men and women are distinct. Thus, the earliest research has attempted to identify the characteristics of victims or perpetrators to understand when and why sexual harassment occurs (Gadlin, 1991; Thacker & Ferris, 1991). In addition, social, cultural, and biological theories have been put forward to explain why sexual harassment occurs. As a result, many studies have shown that a low educational background or low-income family environment increases the likelihood of damage (Benavides-Espinoza & Cunningham, 2010). In victim-related research, several studies have been conducted on victims' personal lives and organizational performance degradation (Fitzgerald et al., 1994; Gutek & Koss, 1993). After sexual harassment, the victims complained of serious damage such as poor performance at work, depression, and interruption of social life.

However, specifying the characteristics of a victim with biological and environmental characteristics forms a bias toward the victim. Therefore, many subsequent studies have focused on victims' reactions after a crime (Gruber, 1989; Gruber & Bjorn, 1986). In the area of victims' responses after sexual harassment, several studies are being conducted on victims' coping strategies because long-term sexual harassment can be prevented if the victim responds appropriately to the perpetrator. Possible

coping strategies for sexual harassment include avoidance strategies that psychologically and behaviorally reject the fact that a problem has occurred; confrontation strategies that directly raise the problem with the perpetrator and ask that the perpetrator stop his or her actions; social support strategies that involve garnering support from the people around them; and advocacy seeking strategies that directly inform and cope with the damage to public authorities or legal regulations. Because sexual harassment occurs within the organization in a clear hierarchical order, the main result is that the victim cannot appropriately respond to perpetrators and the factors influencing these coping strategies (Fitzgerald & Shullman, 1993). Previous research had revealed that when sexual harassment occurred, there were only a few cases in which the organization or society actively supported the vi. The majority of organizations ignored the problem (Knapp et al., 1997).

2.2. Online Sexual Harassment

Online sexual harassment is ''the use of the internet to threaten, intimidate, or shame an individual' (International Game Developers Association, 2017). According to previous research, online sexual harassment can be caused by an unspecified number of people and is not limited to a specific organization (Nova et al., 2019). Most of the prior results on online sexual harassment about perpetrators indicate that online anonymity tends to increase the likelihood of sexual harassment (Nova et al., 2019). In addition, cybercrime is growing rapidly because depersonalization lowers self-control (Berson, 2003). In the same context, increase in time spent online may also increase the possibility of sexual harassment from the victim's perspective (Van Royen et al., 2015; Van Royen et al., 2016).

Previous studies on online sexual harassment have mainly focused on the characteristics of victims (Van Royen et al., 2015; Van Royen et al., 2016), perpetrators (Chan et al., 2019), and the organization as the environment. For example, Chan et al. (2019) demonstrated that a crime is more likely to be committed when a victim is accessible through social media. Studies have begun to focus on the coping strategies of victims (Van Royen et al., 2016) and the victim's level of perceived seriousness of the crime (Van Royen et al., 2015). In addition, behaviors after experiencing online sexual harassment, such as depression complaints and discontinuation or reduction in online activities, have also been studied (Gumbus & Meglich, 2013).

Rather than analyzing the characteristics of the victim or perpetrator or analyzing the victim's reaction after the sexual harassment has already occurred, the present study explored the notion that how potential victims typically respond to sexual harassment before it occurs to play an important role in reducing future damage. Using a similar context, Scarduzio et al. (2018) attempted to verify victims' coping strategies in various environments. It is therefore important to clarify how potential victims respond to the threat of crime. Thus, in this study, we explored the actions taken by potential victims of online harassment to prevent crime and the involving factors.

2.3. Affordance Perspectives

An affordance is "the likelihood of an action related

to achieving an immediate and specific result and the possibility arising from the relationship between an artifact and an objective-oriented actor or actors.". Technical affordance is "the reciprocity of the actor's intention and technical capabilities that provide possibilities for a specific action." Affordance perspective can be defined as the action that a person can take within the range allowed by the features of the technology (Karahanna et al., 2018). In his theory of affordances, Gibson (1977) explained goal-directed action in terms of how the environment is used, that is, whether the possibility of an action that could achieve a specific purpose was afforded. This differs from the case in which there is a particular feature for an intended purpose, regardless of the user. When affordance is applied, research can be expanded to include individual units of analysis, as an individual's purpose-oriented behavior is linked to the ability of a specific technology skill, which enables a detailed analysis of the technology. This is also one of the reasons why technology should be studied by applying the affordance perspective that multiple social groups can use the same form of technology for various purposes (Davern et al., 2012). Various studies have interpreted the use of technology from the affordance perspective. Karahanna et al. (2019) categorized affordances in social media focusing on the needs of users such as egocentric affordance (e.g. self-presentation, content sharing, and) interactivity) and allocentric affordance (e.g. presence signaling, relationship formation, group management, communication, collaboration etc.). et al. suggested that social media can afford cyberbullying. Majchzak et al. (2013) revealed four affordances on social media that affect employee engagement. In this study, we introduce

affordance from the perspective of avoiding crime by utilizing technical characteristics when criminal behavior occurs through social media, which is a way to use internet technology (IT) features objectively to defend against threats specifically on social media. Short-term threats could be avoided by forming and maintaining social relationships or a profile that can help build relationships by specifying one's identity. In addition, conservative use of social media may aid in avoiding unnecessary threats in the long term (Pearce & Vitak, 2016; Vitak & Kim, 2014).

2.4. Technology Threat Avoidance Theory

TTAT describes the fundamental mechanism by which the level of threat or severity that users feel with the development of technology affects their motivation to protect themselves. TTAT was first introduced by Liang and Xue (2009) and has since been widely applied in cybersecurity (Arachchilage & Love, 2014; Asante-Offei & Yaokumah, 2021; Liang & Xue, 2010). Combining cybernetic theory and coping theory, TTAT describes how individual threat appraisal and coping appraisal affect avoidance motivation. In the case of threat appraisal, perceived severity and perceived susceptibility affect avoidance motivation. TTAT has been applied in various IT studies (Couraud, 2014; Rhoa & Yub, 2011; Xue et al., 2015). TTAT suggests that there are three factors that users consider when they evaluate the threat if they use a safeguarding measure how avoidable the threat would be: the effectiveness of the measure, the costs of the measure, and users' self-efficacy of taking the measure. By considering these factors, users decide which measure

to take to avoid the threat. The essence of TTAT is that when there is an IT threat and users perceive it, they have a motivation to avoid the threat by taking problem- and/or emotion-focused coping. Problem-focused coping is an active way to avoid the threat that users take when they see the threat is avoidable through this measure. As a result, it can objectively reduce the threat. On the other hand, if users perceive the threat is not avoidable by any problem-focused coping they can use, they adopt emotion-focused coping to passively avoid the threat (Liang & Xue, 2009). In Carpenter et al. (2019), impulsivity was added as an individual-dimensional variable to explain avoidance motivation. Risk propensity and distrust propensity were added and verified as antecedents affecting the perceived threat. Some variables are factors that negatively affect people's acceptance or use of technology. In Chen and Liang (2019), TTAT was applied to examine user perceptions regarding the threat of malware, and a new dependent variable called wishful thinking was added to the coping strategies and measured. Recently, Jain and Agrawal (2020) researched cyberbullying on social media by combining it with TTAT. Since it is a cybercrime that occurs online, it is possible to verify whether the crime can be avoided by the IT being used, how serious it appears, and the willingness to avoid it due to fear.

3. Hypotheses

3.1. Threat Avoidance Motivation

Perceived threat is the extent to which an individual

perceives a danger, such as deviant behavior (e.g., sexual harassment) online. Perceived severity refers to an individual's subjective belief in damage from the threat, for example, to their device or system by malicious technology. In the present study, perceived severity was defined as a subjective belief about the harm that a possible crime will inflict on an individual through a particular technology. It is assumed that these individuals' beliefs affect subjective threats and, consequently, affect avoidance motivation in the TTTAT model, along with related efficiency, cost, and safeguard effectiveness. In a previous study, Rosenstock et al. (1994) emphasized the importance of perceived vulnerability and perceived severity variables, arguing that people perceive threats through the threat assessment process. Bae (2017) measured perceived severity by the perception of the economic, psychological, and social negative consequences caused by fintech security threats, the severity of the problem, the necessity of solving the problem, and the possibility of deepening the degree of damage. Kim and Kim (2016) revealed that perceived severity, as an influencing factor in privacy decisions in an online environment, affects perceived threats based on privacy calculus theory. In the case of online crimes, such as online sexual harassment that can cause problems at any time by unspecified anonymous perpetrators, it is assumed that individual threat appraisal will act as a mechanism to influence avoidance motivation. Thus, this study held the following hypotheses:

H1: Perceived severity positively influences perceived threat

Perceived vulnerability, another antecedent of threat

appraisal, measures the possibility of online harm. Perceived susceptibility is defined as an individual's subjective probability that deviant behavior, such as online sexual harassment will negatively affect him or her. In other words, perceived susceptibility is an individual's subjective belief that he or she will be harmed. While previous studies focused on the damage that malicious technology can inflict on an individual's own technology, this study expands the scope of the existing definition to the fear of the damage that a crime that could occur through a particular technology could inflict on the person using the technology. In a study that considers perceived susceptibility, Lee and Larsen (2009) showed that the higher the smartphone user's awareness of vulnerability to threats, the stronger the protection motive and the higher the security attitude. Bae (2017) suggests that perceived vulnerability also means the degree to which people, including themselves, perceive that they are likely to be exposed to fintech security risks. The higher the perceived vulnerability, the higher the possibility of taking information protection actions.

H2: Perceived susceptibility positively influences perceived threat

Threats motivate individuals to engage in coping behaviors to avoid them. This is because of the motivation to change the status between the current state and the undesired end state, objectively or subjectively. The distance between the current state and the undesired end state is inversely proportional to the strength of the potential negative consequences. In the case of threat, the threat is perceived when the distance decreases to a certain value. Therefore, threat perception activates coping

appraisal, in which users assess available action options and decide what to do to cope with the threat. Previous studies have shown that perceived threat affects avoidance motivation.

H3: The more an individual perceives a threat, the more likely he or she will be motivated to avoid online sexual harassment

3.2. Sexualization As Contextualization

Recently, it has been formed on social media as various age groups use it due to the activation of social media and the increase in mobile use. Research on self-sexualization, in which one expresses sexiness on one's own, has increased (Liss et al. 2011; Nowatzki & Mor,ry 2009; Ward et al. 2018). As teenagers account for a major part of social media users, research on the self-sexualization phenomenon of teenagers has recently increased. This phenomenon can be explained by hyper-sexualized culture. Hyper-sexualized culture is not created by a professional, such as an actor or artist, like the existing pornographic sexiness. Still, it refers to the sexiness generated by the general public (Choi & Delong, 2019). Hyper-sexualized culture includes sexiness shaped by the public rather than by experts in different forms. As such, factors for an individual to become accustomed to a hyper-sexualized culture are highlighted by various factors, including seeing positive rewards such as making a lot of money, receiving a lot of attention from the sexualized results in the media, or getting used to the sexualized results while doing similar things along with peers (Lynch, 2007). Thus, self-sexualization and hyper-sexualized culture change the climate on social media, result in increasing the possibility of crime. The research model presented in

this study focuses on the context that influences avoidance motivation. In most TTAT studies, only the psychological fear of an individual and the cost of a solution were considered, but the context in which the threat occurred was not applied. In the case of sexual harassment on social media, where the relational aspect of the threat is more emphasized, the environmental factors in which sexual harassment occurs address the situation effectively. Researchers indicate that an environment that would not discourage inappropriate behavior and deviant behavior could inhibit reporting behavior (Gruber, 1989; Gwartney-Gibbs & Lach, 1992). Thus, this research assumes that sexualization in social media negatively influences the motivation of avoidance. Thus,

H4: The higher the individual's perception of sexualization on Instagram, the less likely he or she will be to avoid online sexual harassment

To sum, this research suggests a research model based on the hypotheses in <Figure 1>
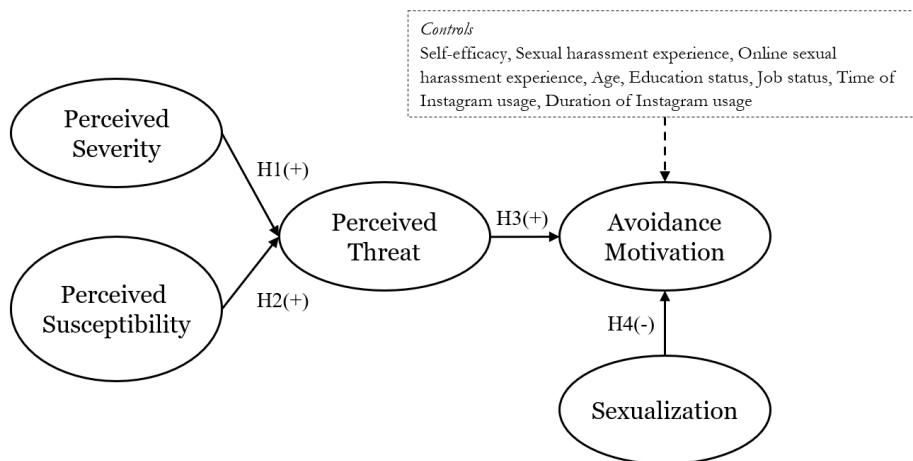
4. Research Methods and Data Collection

We employed a survey research method and structural equation modeling to test the hypotheses. Data were gathered from 230 Instagram users. This study focused on social media, especially Instagram, to control for the common cultural effects among users.

4.1. Subjects and Data Collection

A field study was conducted to collect data for testing the research model. A survey was conducted from March 18 to March 22, 2021, through the survey company Macromill Embrain in South Korea. Regarding gender, out of 230 respondents, 18 were 10s, 107 were the 20s, and 105 were 30s. The frequency analysis was performed using SPSS 20.0. <Table 1> shows the distributions of age, education level, job status, time of Instagram usage, and duration of Instagram usage. The table also shows the distribution of the responses to the question about whether they have read or written comments in the past week.

⟨Figure 1⟩ Research Model

〈Table 1〉 The Profile of the Respondents

Characteristics		People	
		No	Percentage
Age	10s	18	7.83%
	The 20s	107	46.52%
	The 30s	105	45.65%
Education Status	High school or equivalent	23	10%
	Junior college or equivalent degree	45	19.57%
	Bachelor's or equivalent degree	142	61.74%
	Postgraduate degree	20	8.70%
Economic Status	None	17	7.39%
	Less than 1 million (Korean) won	15	6.52%
	Over than 1 to less than 2 million won	19	826%
	Over than 2 to less than 3 million won	52	22.60%
	Over than 3 to less than 4 million won	28	12.17%
	Over than 4 to less than 5 million won	29	12.61%
	Over than 5 to less than 6 million won	25	10.87%
	Over than 6 to less than 7 million won	21	9.13%
	Over than 7 to less than 8 million won	8	3.48%
	Over than 8 to less than 9 million won	6	2.61%
	Over than 9 to less than 10 million won	2	0.87%
	More than 10 million won	8	3.48%
Job Status	Agriculture/forest/fishing/farming	0	0
	Self-employed/sales business	3	1.30%
	Service industry	16	6.96%
	Labor position	1	0.43%
	Technical position	0	0
	Office job	101	43.91%
	Specialized job	29	12.61%
	Technical Profession	2	0.87%
	Manager Position	0	0
	Housewife	12	5.22%
	Student	1	0.43%
	(Under) graduate Student	38	16.52%
	Unemployed/retired	21	9.1%
	Etc.	6	2.6%
Time of Instagram Usage per Day	Less than one hour	100	43.48%
	More than 1 hour − less than 2 hours	77	33.48%
	More than 2 hours − less than 3 hours	34	14.78%
	More than 3 hours − less than 4 hours	12	5.22%
	More than 3 hours − less than 4 hours	3	1.3%
	More than 5 hours	4	1.7%

Characteristics		People	
		No	Percentage
Duration of Instagram Usage	Less than 1 year	7	3.04%
	More than 1 year – less than 2 years	43	18.70%
	More than 2 year – less than 3 years	73	31.74%
	More than 3 year – less than 4 years	43	18.70%
	More than 4 year – less than 5 years	26	11.30%
	More than 5 year – less than 7 years	19	8.26%
	More than 7 years	19	8.26%

4.2. Measurement Model

We adopted Liang and Xue's 2010 validated measure to assess the construct of TTAT and modified them based on our research context. First, we modified four TTAT items (i.e., perceived susceptibility, perceived severity, self-efficacy, and perceived threat) to fit better the context of this research on the threat from online sexual harassment on Instagram. Additionally, we developed five formative constructs related to avoidance motivation based on the technical avoidance functions in Instagram, following previous research and the user interface of Instagram. Finally, the TTAT section of our instrument comprised 4 items to measure perceived susceptibility, perceived severity, and self-efficacy, and 15 items for avoidance motivation (5 constructs for 3 items each). This research model includes seven constructs, with each item gauged using a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). To ensure construct validity, perceived severity, perceived susceptibility, and perceived threat were adapted from previously validated scales. Table 2 presents these measures. Perceived severity was assessed using a two-item scale adopted from (Liang & Xue, 2010), while perceived susceptibility was measured with a four-item scale adopted from (Liang & Xue, 2010). Perceived threat was assessed using the three-item scale

proposed by (Liang & Xue, 2010). To measure the specific functions in social media, this study developed a scale for avoidance motivation by focusing on five different functions (Fox & Tang, 2017; Vandoninck & d'Haenens, 2015; Wu et al., 2020). Each function of social media has been introduced in the literature on coping strategies that focus on technical coping. For example, Wu et al. (2020) mention that people use deactivate or unfollowing functions. All measurable items were initially developed in English and were translated into Korean in the present study. Three professionals in the field were invited to review the translated measurement items and research content for validation. A pre-test was conducted to validate the research instrument. There were 34 items in the original pool of items; however, due to low factor loading, 1 item from sexualization was discarded, leaving 33 items for the final analysis.

The data collection targeted female Instagram users. This survey was conducted twice. The first survey included technical coping, social disability bias, demographics, and variables related to online sexual harassment. The second survey was conducted two days after the first survey with the same respondents, and the constructs included trust, IT identity, and other control variables. In total, 230 female Instagram users responded to the first and second survey.

〈Table 2〉 Measurements

Variable	Items	Contents
Avoidance Modtivation1	AMA1	I intend not to interact with others to prevent sexual harassment while using Instagram.
	AMA2	I predict I would not interact with other people on Instagram to stop sexual harassment.
	AMA3	I plan to stop communicating with others on Instagram to prevent sexual harassment.
Avoidance Modtivation2	AMB1	I have the intention to minimize my followers to prevent sexual harassment.
	AMB2	I predict I would minimize the number of people who follow me to head off sexual harassment.
	AMB3	I plan to cut down on my followers to stop sexual harassment.
Avoidance Modtivation3	AMC1	I intend not to use direct messages to prevent sexual harassment.
	AMC2	I predict that I would not use direct messages to avoid sexual harassment.
	AMC3	I plan to stop using direct messages to prevent sexual harassment.
Avoidance Modtivation4	AMD1	I intend to use a private account to avoid sexual harassment.
	AMD2	I expect that I would use a private account to stop sexual harassment.
	AMD3	I plan to use my account in private mode to prevent sexual harassment.
Avoidance Modtivation5	AME1	I intend to use Instagram without showing my gender on my profile to avert sexual harassment.
	AME2	I predict that I would use it without revealing my gender of a woman on my profile to avoid sexual harassment.
	AME3	I plan to hide my gender on my profile to prevent sexual harassment.
Perceived Severity	PSEV1	It is serious for me to be sexually harassed through Instagram.
	PSEV2	It is a harsh matter for me to be sexually harassed via Instagram.
	PSEV3	It is a big problem for me to be sexually harassed through Instagram.
	PSEV4	It is difficult for me to be sexually harassed through Instagram.
Perceived Susceptibility	PSUS1	It is extremely likely that there is a high chance of being sexually harassed through Instagram in the future
	PSUS2	My chances of getting sexually harassed through Instagram are great
	PSUS3	I feel I'm being sexually harassed through Instagram.
	PSUS4	It is extremely likely I will experience sexual harassment through Instagram
Perceived Threat	PTREAT1	Sexual harassment on Instagram poses a threat to me.
	PTREAT2	The sexual harassment through Instagram threatens me.
	PTREAT3	It is dreadful if I am sexually harassed on Instagram.
	PTREAT4	It is risky to use Instagram if you are likely to be sexually harassed on Instagram.
Sexualization	SEXUL1	I can see pictures of sexy faces on Instagram.
	SEXUL2	I can access photos of sexy faces through Instagram.
Self-efficacy	SEFF1	For me, stopping sexual harassment on Instagram is easy.
	SEFF2	I have the power to stop sexual harassment on Instagram.
	SEFF3	I am confident in stopping sexual harassment on Instagram.
	SEFF4	I can stop sexual harassment on Instagram if I want to.

5. Analysis and Results

5.1. Measurement Model Assessment

To assess the measurement model, analysis was conducted using the partial least squares structural equation with SmartPLS version 3. Indicator loadings were evaluated to determine if they exceeded the minimum cut-off criteria. Second, the internal consistency reliability of the construct

was examined using composite reliability and Cronbach alpha values. Cronbach alpha values ranged from 0.96,7 to 0.873 and composite reliability values ranged from 0.979 to 0.91; both meetings recommended threshold of 0.7 (Hair et al., 2019). Convergent validity of the constructs was assessed. Convergent validity was evaluated using the average variance extracted (AVE) for all items on each construct. An AVE of 0.50 or higher is acceptable. The AVE values ranged from 0.732 to 0.957, meeting this requirement (see <Table 3>).

〈Table 3〉 Results of reliability and validity test

Construct	Indicators	Loading	Cronbach's α	CR	AVE
Perceived Severity	PSEV1	0.932	.955	.967	.880
	PSEV2	0.953			
	PSEV3	0.931			
	PSEV4	0.937			
Perceived Susceptibility	PSUS1	0.931	.937	.960	.888
	PSUS2	0.962			
	PSUS4	0.933			
Perceived Threat	PTREAT1	0.899	.873	.915	.732
	PTREAT2	0.912			
	PTREAT3	0.9			
	PTREAT4	0.691			
Sexualization	SEXUL1	0.979	.955	.978	.957
	SEXUL2	0.978			
Self-efficacy	SEFFI1	0.891	.951	.965	.873
	SEFFI2	0.963			
	SEFFI3	0.951			
	SEFFI4	0.93			
Avoidance Modtivation1	AMA1	0.9	.922	.951	.866
	AMA2	0.952			
	AMA3	0.939			
Avoidance Modtivation2	AMB1	0.963	.960	.974	.927
	AMB2	0.964			
	AMB3	0.96			
Avoidance Modtivation3	AMC1	0.963	.963	.976	.930
	AMC2	0.962			
	AMC3	0.969			
Avoidance Modtivation4	AMD1	0.952	.956	.972	.919
	AMD2	0.956			
	AMD3	0.969			
Avoidance Modtivation5	AME1	0.963	.967	.979	.939
	AME2	0.963			
	AME3	0.981			

Third, the discriminant validity of the construct was assessed. Discriminant validity verifies that the construct is empirically distinct from other constructs in the structural model, which can be estimated by comparing the square root of the AVE for each factor against the correlation of the construct. The former should be higher than the latter (Fornell & Larcker, 1981). In Table 4, the bold diagonal values are the square roots of AVEs, and the off-diagonal values are the correlations among constructs. Comparing the bold diagonal values with the off-diagonal values, all constructs meet the condition of discriminant validity.

5.2. Structural Model Analysis Results

After confirming the soundness of the measurement model, we assessed the structural model and the hypotheses. Before assessing the structural relationship, collinearity was examined to reduce the bias in the results. In assessing the variance inflation factor of the latent

variables, the variance inflation factor values ranged from 1 to 1.294, which met the requirement of being less than 3 (Hair et al., 2019). To assess whether the hypothesized direct paths were supported, we examined the path coefficients and t-values of each hypothesized direct path. The results indicate that the influence of perceived severity on perceived threat was positive and significant (β= 0.305; t=4.777, p<0.000), supporting Hypothesis 1. The impact of perceived susceptibility on perceived threat was also positive and significant (β=0.331; t=7.156, p<0.000), supporting Hypothesis 2. The influence of perceived threat on avoidance motivation was positive and significant (β=0.283; t=4.886, p<0.000), supporting Hypothesis 3. In addition, the influence of sexualization on avoidance motivation was negative and significant (β= -0.120; t=2.084, p<0.037), supporting Hypothesis 4. In this study, hypotheses H1 and H2 based on TTAT showed the same relationship as in previous studies. In the case of avoidance motivation focusing on the affordance perspective of social media in the OSH

⟨Table 4⟩ Results of Fornell–Larcker Test

Construct	1	2	3	4	5	6	7	8	9	10	11	12	13
(1) PSEV	0.938												
(2) PSUS	0.061	0.942											
(3) PTREAT	0.349	0.325	0.855										
(4) SEXUL	0.103	0.102	0.084	0.978									
(5) AVOITT	0.272	0.209	0.29	−0.105	.784								
(6) SEFF	−0.028	−0.114	−0.137	−0.063	0.112	0.934							
(7) Age	0.02	0.132	0.164	0.029	0.18	−0.135	1						
(8) Edu	0.098	−0.013	0.04	0.103	0.087	−0.028	0.068	1					
(9) Job	−0.005	−0.141	−0.023	−0.099	0.035	0.136	−0.367	−0.056	1				
(10) InstaTime	0.024	0.079	0.032	0.126	0.024	0.084	0.059	0.079	−0.039	1			
(11) InstaYear	0.146	0.046	0.077	−0.055	0.135	0.083	0.033	−0.057	0.184	0.084	1		
(12) SHExperience	0.042	−0.111	0.037	−0.147	0.056	0.072	0.149	−0.080	−0.018	−0.092	0.009	1	
(13) OSHExperience	0.160	−0.132	0.036	−0.111	0.130	0.092	0.129	−0.011	0.064	−0.067	0.021	0.444	1

⟨Table 5⟩ Hypotheses Results

No.	Hypotheses	P values	Decision
H1	Perceived Severity → Perceived Threat	0.305***	Supported
H2	Perceived Susceptibility → Perceived Threat	0.331***	Supported
H3	Perceived Threat → Avoidance Motivation	0.283***	Supported
H4	Sexualization → Avoidance Motivation	−0.120*	Supported

situation, the results were derived according to the hypothesis that the higher the perceived treat, the higher the avoidance motivation. In addition, Hypothesis 4 that the degree of sexualization on social media has a negative effect on avoidance motivation supports the assumption that if the environmental factors contain more sexual factors, the motivation to avoid will decrease.

6. Discussion and Conclusions

This study focused on a negative aspect of social media. In contrast, existing studies have mainly focused on the positive aspects of social media, such as the introduction of social media to specific groups or organization types or other positive aspects of its utilization. In this study, to prevent sexual harassment that may occur online, research was conducted on factors that affect individuals' avoidance motivation for online threats using TTAT. In particular, the degree of sexualization was tested by setting it as an online environment to verify how the characteristics of the online environment affect avoidance motivation when technology-based threats occur online. The theoretical and practical contributions of this study are as follows:

In terms of its theoretical contributions, this is one of the first studies to apply technology threat avoidance

theory to crimes occurring within technology to discuss how an individual's avoidance motivation mechanisms work when online sexual harassment occurs on social media. This study also contributes to expanding the TTAT model by proposing a new dependent variable focusing on the functions that users can use when sexual harassment occurs, among various functions that can activate avoidance motivation on social media. Furthermore, in previous studies, avoidance motivation was mainly discussed at the individual level to verify the individual's avoidance motivation for sexual harassment occurring in the social media context. In the present study, the theoretical contribution was expanded by adding an environmental variable, the sexualization environment. In addition, this research also extends the stream of online sexual harassment literature. By applying the motivations of avoidance as the dependent variable, this research could examine the of potential victims in social media to understand the attitude of individuals on cybercrimes. This research might bridge of understanding coping behaviors when the potential victims actually face the sexual harassment.

In terms of its practical contributions, this study is one of the first to identify an individual's intention to avoid dangerous situations and what factors affect them before a crime. This could be a defense method that can be taken from the victim's point of view to reduce crime

practically. By understanding the mechanisms of avoiding systems in individual minds, the platform service providers could effectively develop the functions for avoiding cybercrime. In addition, sexualization on social media has recently become a social problem as the degree of the sexualization of teenagers using social media has increased. Revealing how these environmental factors affect an individual's avoidance motivation provides guidelines on how to adjust the content and amount of content exposed to an individual's post feed at the level of social media. In addition, the problem of online sexual harassment is expanding on social media. Recently, online crime has continued to occur in media environments where social interaction is possible, not only on social media used by teenagers such as TikTok but also on game platforms such as Roblox through direct messages. It is necessary to discuss what platform environments should be created to prevent this. Additionally, from the perspective of the platform operator, it is essential to understand how users want to avoid sexual harassment in a platform environment where it is prevalent. The results of this study revealed that the higher the degree of sexualization, the lower the degree of avoidance of threats, and that the content of posts on an individual's timeline has a direct contextual effect on making him or her less actively use technology to avoid sexual harassment.

An important limitation of this study is that it was impossible to verify how victims should react when a problem occurs because we asked about the motivation to avoid experiencing sexual harassment in the future as platform users. In future research, the effect of individual sexualization on avoidance movements can be further verified by controlling impression management through

questionnaires. We asked indirect questions about the degree of sexualization on the platform, considering that if we asked about the degree of the sexualization of an individual, he or she might not accurately answer the questions about platform usage. Furthermore, we defined online harassment as online sexual harassment, limiting respondents to women. Still, given the recent situation of online crime, where sexual harassment occurs regardless of gender, future studies will be able to expand the scope of generalization by collecting responses from not only women but also men. In addition, future research about online sexual harassment and avoidance motivation-related research could extend the objects of studies to bystanders who observe the harassment situation and how their actions would be changed after the experience. Moreover, since affordance of avoidance motivation varies across social media, measurements of avoidance motivation can be developed considering the contexts and IT environments.

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〈 국문초록 〉

언제 나 자신을 보호하는가? 소셜 미디어에서 온라인 성희롱에 대한 회피 동기: 위협 회피 이론을 기반으로

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소셜미디어의 사용이 증가함에 따라 소셜미디어 상에서의 온라인 범죄도 증가하고 있다. 본 연구에서는 다양한 범죄 중 온라인 상에서의 성희롱에 집중하여 소셜미디어 사용자들이 온라인 성희롱을 피하기 위하여 어떤 방식으로 소셜미디어를 사용하는지를 논의하고자 한다. 이를 위하여 기술 위협 회피 이론을 기반으로 회피 동기에 영향을 주는 요인을 밝혔다. 이때, 소셜미디어 상의 기술적인 기능을 회피동기를 기반하여 기능별로 반영하여 측정하였으며 환경적인 요인이 행동의 동기에 어떤 영향을 주는지 검증하기 위하여 소셜미디어 상의 성애화 정도의 영향을 검증하였다. 그 결과 소셜미디어 상에서 성애화 정도가 클수록 회피동기가 적어짐을 알 수 있었다. 이를 통해 소셜미디어 상에 성적인 분위기가 성희롱을 회피하는 것을 줄이므로 지속적인 플랫폼 상의 게시물에 대한 관리를 통하여 성희롱에 대한 소셜미디어 사용자들이 적절한 대응을 할 수 있고 플랫폼도 범죄가 줄어드는 분위기를 형성하는 것이 중요하다.

주제어: 사이버범죄, 온라인 성희롱, 기술위협회피이론, 성애화, 회피동기, 소셜미디어

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