



DOES IDENTITY THEFT INSURANCE UNDERMINE RISK PERCEPTIONS AND INCREASE RISKY BEHAVIORAL INTENTIONS?



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ABSTRACT

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A survey was conducted to study the impact of identity theft insurance on consumer risk perceptions and their risky behavioral intentions. By using the data collected from this survey, we were able to elicit and estimate subjects' risk perceptions toward identity theft and also their intentions to engage into risky online shopping activities which may endanger their personal identity. The results show that identity theft insurance, as a curative remedy, does undermine individual risk perceptions of being victimized by the identity theft. Additionally, we also demonstrate that having identity theft insurance surprisingly increases consumer intentions to involve into the activities that could put personal identity at risk. Identity theft insurance, which is believed by consumers to protect their personal information, does have unintended impact with negative consequences on consumer welfare. This research provides valuable and deep insights for consumers, marketers, and government agencies to understand the identity theft insurance.

Contribution/ Originality: This study is one of very few studies which have investigated identity theft policy as a remedy insurance product with the negatively boomerang consequences on risk perceptions and, in turn, consumer behavioral intentions. It illustrates that identity theft insurance result in unintended adverse outcomes that impair consumer welfare.

1. INTRODUCTION

Identity theft, the unlawful act of stealing another person's identity information to gain financial advantages,¹ has become one of the most ubiquitous worldwide crimes in recent years. In 2017 alone, United States has more than 15.4 million victims of a total cost of \$16.7 billion² losses. The concerns and problems caused by the identity theft to consumers go much far beyond the direct money losses they bear. For instance, identify theft may upset the victim's ability to rent an apartment, apply for a new loan, or even get a job. In some extreme cases, the stolen identity might even be used by the thief during a police arrest.

¹ Examples include but not limited to stealing from bank accounts, obtaining unauthorized bank loans, establishing insurance policies, and opening unauthorized credit cards.

² Source: Insurance Information Institute (I.I.I.)

As one of the unfortunate facts of our modern life, identity theft does happen. There are some methods can be used to reduce the chance to be the victims of identity theft. As suggested by the Federal Trade Commission, consumers should develop a routine to check their credit reports from three bureaus and statements from banks or credit card companies.³ Meanwhile, many consumers turn to identity theft service by purchasing identity theft insurance from the market. Consumers typically spend from \$25 to \$60 per year on the identity theft insurance and such policy may provide insurance benefits up to \$15, 000.⁴ While identity theft policies are in fact insurance products just like other insurance policies on the market, they often don't align with what consumers traditionally perceive as insurance.

Unlike traditional insurance policies such as health insurance or homeowner insurance, identity theft insurance policies don't cover any direct monetary losses due to identity theft activities. The policies only provide coverage to pay for the incurred costs to legally restore a victim's identity. For example, the policies may provide benefits to pay for any incurred attorney fees, lost wages, notary cost, and even credit monitoring services. In spite of that, consumers commonly misinterpret the true coverage and believe that all future financial losses caused by identity theft activities would and should be covered. Such perceived misconception of identity theft coverage may not only create complaints or disputes between consumers and the insurance companies after financial losses occur but also affect consumers' perceptions of the identity theft risk they may encounter and even their individual behaviors toward such risk. From consumer welfare perspective, we are curious to know whether consumers with identity theft policies tend to exercise less care to protect their own personal information and more likely to engage into risky activities to jeopardize their identity.

The main goal of this research is to study the impact of identity theft insurance on individual risk perceptions and risky behavioral intentions. To our knowledge, the literature of identity theft insurance is not mature. Most paper only discusses the prevention or mitigation of identity theft. Little systematic effort has been done in consumer behavior research or insurance decision-making research to study identity theft policy. This paper is the first one to address such gap and contribute to the current literature by discussing identity theft policy as a remedy insurance product with the negatively boomerang consequences on risk perceptions and, in turn, consumer behavioral intentions.

Even though the traditional method to reducing risk mostly emphasizes the promotion of curative remedies which address the incurred risk by reducing the severity of the outcomes, this research examines whether identity theft insurance, as a curative remedy promoted by the insurance industry, has any unintended consequences that may reduce risk avoidance by consumers. That is, does identity theft insurance negatively affect consumers' risk perceptions toward the risk and even boost risky behavior among consumers who are eager to protect their personal identity?

We address this research question by conducting a consumer survey. Subjects of the survey were introduced to the identity theft insurance product and the hypothetical purchase decisions were made accordingly. All subjects were required to response to a list of survey questions reflecting their overall personal risk perceptions and shopping behavior toward the identity theft. By using the data collected from this survey, we were able to elicit and estimate subjects' risk perceptions toward identity theft and also their intentions to engage into risky online shopping activities which may endanger their personal identity. We observed that identity theft insurance, as curative remedy insurance, undermined our subjects' risk perceptions of being the victims of the identity theft. In addition, having identity theft insurance surprisingly increased the subjects' propensity to engage into riskier behavior that was viewed to jeopardize their personal information when shopping online. The survey subjects appeared to be calibrated inadequately and poorly about the true benefits of the identity theft policy and were more

³ Source: <https://www.consumer.ftc.gov/topics/identity-theft>.

⁴ Source: National Association of Insurance Commissioners (NAIC).

intended to trade away the perceived protection from the identity theft insurance by expressing their willingness to participate into much riskier activities.

The findings in this paper are significant from consumer welfare perspective since identity theft insurance may impair those consumers who are in need of most help to protect their personal identity. In such case, not only consumers bear the cost resulted from the negative outcomes of their riskier behavior due to identity theft insurance, society as a whole also does. Our research provides valuable and deep insights for consumers, marketers, and government agencies to understand the identity theft insurance. With more identity theft policies sold on the current market, by illustrating unintended negative boomerang effects of this product on consumers, this paper raises important consumer education needs and regulatory issue regarding the marketing of this remedy product.

This paper proceeds as follows: Section 2 reviews the existing literature. Section 3 introduces the theoretical foundations and develops testable hypotheses. Section 4 outlines the method and the estimation procedure used to test the hypotheses. Section 5 discusses the result and section 6 offers the general conclusions.

2. LITERATURE REVIEW

Identity theft is a relatively new and serious phenomenon. As a result, a stream of literature focuses mainly on the cause and prevention of identity theft. Milne (2003) designed an exploratory study to measure the behavior self-reported by college and non-college students on more than ten identity theft preventative activities that were recommended by the Federal Trade Commission. By analyzing the data from the survey, he studied the effectiveness of these adopted methods that have been suggested to minimize the risk of identity theft by consumers. Milne *et al.* (2004) reported findings from three consumer surveys that were used to indicate that consumer tendency to protect oneself from online identity theft diversifies by population. They examined factors such as attitudinal, demographic, and behavioral characteristics that predicted the propensity to protect online identity and privacy. Newman and McNally (2005) suggested that research was in need of assessing the issue of reporting and recording identity theft by law enforcement. Hoofnagle (2005) indicated from a legal perspective that a thorough change to the framework of privacy was necessary when combating identity theft. A fix was proposed in the paper to address the slack credit granting practices by changing the default state of credit reports from its current liquid state to the frozen one. Sauer (2006) investigated consumer attitudes toward willingness to pay for security features due to the identity theft and found that a large number of identity theft victims were actively considering security freeze legislation. Anderson (2006) examined the correlations between a consumer's demographic characteristics and the likelihood of being the victim of any identity theft activities by using the survey data collected by the Federal Trade Commission. His paper found out that young women with relatively higher household income appeared to have higher probability to experience identity theft. Using a panel data from the Federal Trade Commission, Romanosky *et al.* (2011) investigated whether the adoption of data breach disclosure laws might efficiently reduce identity theft caused by data breaches. Lai *et al.* (2012) studied conventional coping and technological coping behaviors consumers exhibited when fighting identity theft. Their results illustrated that both these two coping behaviors were effective to defend against identity theft.

Researchers since then direct their attentions to the identity theft impact on consumer welfare. Hille *et al.* (2015) developed a scale to measure the consumer fear of online identity theft and discussed how such fear contributed to the side effect of e-commerce. Kahn and Liñares-Zegarra (2016) discussed how identity theft has affected consumers' payment choices. Their paper showed that particular types of identity theft incidents had a positive and significant effect on the probability of consumers' adoption of checks and online banking bill payments. Drawing on the coping literature, Li *et al.* (2019) studied identity theft victims' responses and antecedents to the responses. By using a survey consisted of identity theft victims, they demonstrated that perceived severity due to identity theft victimization positively affected consumer perceived distress and, in turn, positively on their behavioral responses.

In the field of consumer research, traditional models argue that risk remedy attempts to discourage risky behavior by amplifying the negative consequences from the perceived risks of the behavior. Floyd *et al.* (2000) illustrated that increases in threat appraisal as well as coping appraisal apparently have positively reinforced more protective behavior. Risk appraisals as key determinants of decisions and actions were tested by Sheeran *et al.* (2014). They found that heightening risk appraisals did change consumer intentions and behaviors. When anticipatory emotions or perceived severity was increased, the heightening risk perceptions had relatively larger effects.

Compared to traditional models, research in risk compensation have presented evidence to suggest that risk remedy may have unintended negative consequences that in fact harm consumer welfare (e.g., Rogers and Greenfield (1999)). Bolton *et al.* (2006) proposed a conceptual framework to discuss how the impact of remedy on the individual risky behavior could be moderated by the tie between the person's current relationship and the problem scope. They explained that the marketing of remedy messages might undermine risk perceptions as consumer problem scope increased while the risky behavioral intentions were raised. Bolton *et al.* (2011) used two experiments to demonstrate the negative impact of the marketing of debt consolidation loans on consumers who have mounting debt problems. They argued that debt consolidation loans which offered a financial remedy to consumers actually overstated the short-term benefits. A financial literacy intervention was discussed in the paper to assist marketing financial remedy products.

3. HYPOTHESES

3.1. Risk Perceptions

Research on persuasive remedies to halt risky behavior has established the theoretical framework that curative remedies seek to reduce risky behavior by amplifying the negative consequences from the perceived risks of the behavior. For example, drivers will be told by their insurance agents that the chance for any drivers involving into car accidents are very high and they can be personally responsible for any financial losses caused by bodily injury or property damage. Floyd *et al.* (2000) indicated that consumers who purchased insurance products increased their perceived effectiveness of protective behaviors. Based on this framework, it suggests that individuals with identity theft coverage should be more conservative and risk averse when evaluating the potential exposures to the identity theft.

In contrast to the previous framework, research in risk compensation research analyzing consumer aggregate behavior suggests that in spite of the fact that risk compensation exists in various types of remedies (e.g., Calkins and Zlatoper (2001)) the remedies may cause unintended consequences that harm consumer welfare in the society. Insurance products as curative remedies are heavily marketed as an approach to reducing risk by mitigating or decreasing the severity of the consequences. For example, auto insurance offers to help drivers reduce the severity of financial losses resulted from auto accidents. Nevertheless, individuals who are covered by insurance may have misconception that they are protected from any possible financial losses and hence become more confident when assessing their risks. According to the risk compensation theory, individuals with identity theft coverage are more likely to have their perceived risks toward the identity theft reduced or eliminated. That is, identity theft insurance may have negative impact on individual perceived risks to be victimized by the identity theft activities. In particular, this leads us to the following hypothesis for the risk perceptions:

Hypothesis 1: Identity theft insurance undermines individual risk perceptions toward identity theft.

If supported, this finding would demonstrate the unintended negative impact of identity theft insurance on consumers' perceived risk. That is, covered by the identity theft insurance, consumers may subconsciously increase their perceived effectiveness of the protection from the policy and, thereby, reduce the perceived risks associated with the identity theft.

3.2. Risky Behavioral Intentions

An extensive body of prior research (e.g., Ganderton *et al.* (2000)) on insurance purchase decision-making argues that individuals with higher degree of risk aversion would prefer to purchase more insurance and determine to carry out more precautions to the degree that the extra coverage benefits gained from high level of care exceed the relevant marginal costs. If such argument is supported, risk averse consumers who are willing to pay for identity theft insurance are expected to be more risk averse and should behave more cautiously, vigilantly and prudently. We thus expect to see these consumers lack of intention or desire to get involved into risky behavior.

Meanwhile, risk compensation from consumer research argues that a curative remedy, such as insurance policy, lowers the costs of an objective behavior, and hence consumers are more inclined to give up part of their safe gain perceived for the potential engagement in riskier behavior (Bolton *et al.*, 2006). For example, drivers with auto policy often have perceptual thoughts that their policy may lower the risks and relevant costs of auto accidents. This indeed could encourage driver's risky driving behavior. Just as explained in Zeckhauser (1995) patients may exercise low standard of care of their health once they are covered by health insurance. From moral hazard viewpoint, the individual's degree of risk aversion decreases when remedies are available. Under such framework, identity theft insurance may encourage risky behavior that could put the consumer's identity at risk. In particular, this leads us to the following hypothesis for risky behavioral intentions:

Hypothesis 2: Identity theft insurance increases individual risky behavioral intentions.

Due to the misconception of identity theft coverage, all incurred financial losses including direct and indirect losses are believed to be covered by the identity theft insurance. In reliance on such misunderstanding and perceived belief, consumers greatly exhibit misprocessing behavior. They tend to be less alert to the potential identity theft scenarios they may encounter from the market. Compared to individuals who are not covered by the identity theft insurance, those who are covered actually unknowingly reduce their degree of risk aversion and show more tendency and desire to take risk. That is, identity theft insurance may have negative impact on the consumer behavioral responses.

4. METHOD AND ESTIMATIONS

Most literature study risk behavior use either survey or experiment to collect data (Outreville, 2014). In this paper, we conducted a consumer survey to test our hypotheses related to the impact of identity theft insurance on risk perceptions and individual risky behavioral intentions.

College students were recruited as the subjects in this survey. One of the main reasons to have college students as our subjects is that due to their daily social media activities and individual financial behavior, college students seem to have relatively higher problem with identity theft in the population according to U.S. Department of Education.⁵

The survey consisted of two parts. In the first part, subjects read written introductory information about the risk of identity theft. Detailed statistics were shown to help them to understand the huge impact of identity theft on different stages of life. Then subjects were given the opportunity to decide hypothetically whether they would like to buy the identity theft insurance which was described as the insurance coverage to reduce the consequences of identity theft at a fair price. In the second part, all subjects were required to response to a series of questions to rate their overall personal risks related to the identity theft on a five-point scale. They were asked to weigh in their concerns regarding the financial risks of identity theft and how likely for themselves to be the victims of identity theft activities. Next, subjects were directed to picture themselves using their personal credit cards to shop online for a friend's upcoming birthday gift. They were instructed to indicate and rank their preferences on three different online shopping domains that vary with regard to the type and the amount of personal information required.

⁵See U.S. Department of Education public information release on www.ed.gov

Subjects who indicated their willingness to buy identity theft insurance in the first part of the survey were instructed to read “Assume that you are covered by identity theft insurance” and then answered the survey questions in the second part. Meanwhile, those who showed no interest to buy identity theft insurance answered exactly the same set of questions but without the assumption at the start. Individual demographic information such as age, gender, household income and smoking behavior⁶ was collected from the survey as well.

To measure the impact of identity theft insurance on individual risk perceptions, survey question related to the financial risks (*Financial Risk*) was adopted to elicit subjects’ risk perceptions that were used as the dependent variable in our model. The *Financial Risk* was scaled as “#1 Not at all concerned”, “#2 Slightly concerned”, “#3 Somewhat concerned”, “#4 Moderately concerned”, and “#5 Extremely concerned”. Given that the ordinal responses as dependent variables were involved in the model, the ordinal response regression model thus provided a better way of estimating parameters using the maximum likelihood method. The general form of the model is

$$P(y = m|x) = F(c_m - x\beta) - F(c_{m-1} - x\beta),$$

where c is a cutpoint. Independent variables used in the model included personal characteristics we collected from the survey (e.g., gender, age, income level) and a binary variable indicating subjects’ decisions to have identity theft insurance from the first part of the survey.⁷ In addition, another variable, *Victim*, from the survey question related to the possibilities of being the victims of the identity theft activities, was further adopted to elicit overall risk perceptions that were used to replace “*Financial Risk*” in the previous model as the dependent variable for the purpose of examining the robustness of the results.

To test the impact of identity theft insurance on risk behavioral intentions, three survey questions related to the subject’s willingness were adopted to measure subjects’ intentions to provide social security number or mother’s maiden name and use any unsecured websites respectively when doing online shopping. Such information was later used as dependent variables to infer the risky behavior subjects might be intended to exercise. They were scaled as “#0 would not buy”, “#1 Might or might not buy”, and “#2 definitely buy”. Subjects’ characteristics and their binary decisions to have identity theft insurance were also included in these models as the independent variables.

5. RESULTS

Model 1 captured the significant impact of identity theft insurance on perceptions of financial risks consumers could be exposed to because of the identity theft. We used survey question to elicit individual concern level regarding the financial risk they may encounter. *Financial Risk*, an ordinal response, was used as the dependent variable in this model.⁸ As the results from Table 1 illustrated, the variable *ID theft policy* was significantly negative at the 1% level for both logit (Model 1a) and probit (Model 1b) assumptions. Examining the results from Model 1, we found support for our hypothesis H1, suggesting that identity theft insurance does undermine subjects’ risk perceptions. It appears that subjects who were covered by the identity theft insurance were more confident and little worried about the potential risks when asked to rate their personal concerns regarding the financial risks of identity theft. Subjects who chose to be covered by identity theft insurance hypothetically in the survey were more likely to have relatively lower level of degree of risk aversion. It is clearly that covered by the identity theft insurance, our subjects subconsciously increased their perceived effectiveness of the protection from the assumed policy and, thereby, reduced the perceived risks associated with the identity theft.

⁶ Subject’s smoking behavior was used to elicit individual risk aversion.

⁷ Decision to buy identity theft insurance was coded as a binary variable with Yes (1) and No (0).

⁸ The levels of concern were coded as follows: #1 Not at all concerned, #2 Slightly concerned, #3 Somewhat concerned, #4 Moderately concerned, and #5 Extremely concerned.

In Model 2, the concern of being victimized by the identity theft activities was used as dependent variable to illustrate the negative effect of identity theft insurance.⁹ Similar to Model 1, the variable *ID Theft Policy* from Model 2 in Table 2 was also significantly negative at the 1% level for both logit and probit assumptions. That is, subjects with identity theft coverage expressed less concern when evaluating possibility for them to be victimized by the identity theft activities. This result was in line with our previous finding which further confirms that individuals with identity theft coverage are more likely to have their perceived risks toward the identity theft reduced or eliminated. Findings from both Model 1 and Model 2 indicated that consumer perceived belief and misconception of identity theft coverage create a safe zone which adversely harms their abilities to identify risks and protect their personal information.

Table-1. The effect of identity theft insurance on perceptions of financial risks.

Variables	Model 1a	Model 1b
	Model1 logit financial risk	Model1 probit financial risk
ID theft policy	-1.212*** (0.402)	-0.675*** (0.229)
Gender	-0.304 (0.381)	-0.160 (0.228)
Age	-0.698* (0.410)	-0.411* (0.241)
Income level	-0.0950 (0.368)	-0.0332 (0.216)
Smoking	-0.0995 (0.504)	-0.0913 (0.297)
Constant cut1	-1.897*** (0.511)	-1.064*** (0.296)
Constant cut2	0.0991 (0.472)	0.136 (0.283)
Constant cut3	2.972*** (0.799)	1.553*** (0.365)
Constant cut4	3.674*** (1.067)	1.805*** (0.429)
Observations	113	113

Standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

Table 3 and Table 4 were performed to examine whether identity theft insurance may boost risky behavior.¹⁰ Survey questions related to the preferences on three different online shopping domains were used to elicit risky behavioral intentions.¹¹ *Web_1*, willingness to shop on the website which requested the last four digits of social security number, was used as the dependent variable in Model 3 of Table 3 and Table 4. In a similar way, *Web_2*, willingness to shop on the website requiring mother's maiden name and, *Web_3*, willingness to shop on an unsafe domain were also used as the dependent variables respectively in Model 4 and 5 from Table 3 and Table 4 to study the impact of identity theft insurance on risky behavioral intentions. The independent variable *ID Theft Policy* was significantly positive at the 1% level in all these models. It appears that subjects who were covered by the policy in our survey exercised less care and exhibited more desires and intentions to shop when exposed to a relatively riskier online environment. This finding strongly supports our hypothesis H2 that identity theft insurance does foster risky behavioral intentions. In reliance on perceived belief toward the identity theft insurance, consumers

⁹ The levels of concern of being victim were coded as follows: #1 Not at all concerned, #2 Slightly concerned, #3 Somewhat concerned, #4 Moderately concerned, and #5 Extremely concerned.

¹⁰ We assume logit model in Table 3 and probit model in Table 4.

¹¹ The decisions related to the online shopping preferences were coded as follows: "#0 Would not buy", "#1 Might or might not buy", and "#2 Definitely buy"

greatly exhibit misprocessing behavior. Identity theft insurance, as a curative remedy, results in unintended consequences that may reduce risk avoidance and encourage risky behavior that could put the consumer's identity at risk.

Table-2. The effect of identity theft insurance on perceptions of being identity theft victims.

Variables	Model 2a	Model 2b
	Model2 logit victim	Model2 probit victim
ID theft policy	-1.396*** (0.438)	-0.816*** (0.238)
Gender	-0.447 (0.401)	-0.193 (0.233)
Age	0.270 (0.421)	0.131 (0.240)
Income level	-0.344 (0.382)	-0.146 (0.222)
Smoking	0.252 (0.511)	0.0655 (0.298)
Constant cut1	-2.087*** (0.541)	-1.162*** (0.302)
Constant cut2	0.869* (0.496)	0.575** (0.290)
Constant cut3	2.510*** (0.699)	1.396*** (0.352)
Constant cut4	3.633*** (1.075)	1.864*** (0.457)
Observations	113	113

Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Table-3. The effect of identity theft insurance on risky behavioral intentions (with logit assumption).

Variables	Model 3a	Model 4a	Model 5a
	Model3 logit web_1	Model4 logit web_2	Model5 logit web_3
ID theft policy	6.630*** (1.032)	3.620*** (0.579)	2.283*** (0.504)
Gender	-0.726 (0.507)	-0.141 (0.426)	-0.625 (0.421)
Age	-0.407 (0.497)	0.513 (0.428)	0.570 (0.437)
Income level	-0.0702 (0.468)	0.561 (0.408)	-0.488 (0.398)
Smoking	0.146 (0.616)	-0.0686 (0.551)	0.172 (0.539)
Constant cut1	2.264*** (0.824)	1.364** (0.559)	-0.917* (0.521)
Constant cut2	5.480*** (1.075)	4.567*** (0.722)	2.592*** (0.610)
Observations	113	113	113

Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

Table-4. The effect of identity theft insurance on risky behavioral intentions (with probit assumption).

	Model 3b	Model 4b	Model 5b
Variables	Model3 probit web_1	Model4 probit web_2	Model5 probit web_3
ID theft policy	3.639*** (0.466)	1.981*** (0.289)	1.233*** (0.259)
Gender	-0.459 (0.291)	-0.156 (0.245)	-0.395 (0.244)
Age	-0.236 (0.287)	0.339 (0.252)	0.295 (0.250)
Income level	0.00969 (0.273)	0.391* (0.237)	-0.282 (0.230)
Smoking	0.0880 (0.363)	0.124 (0.311)	0.127 (0.308)
Constant cut1	1.265*** (0.420)	0.734** (0.316)	-0.609** (0.300)
Constant cut2	2.955*** (0.512)	2.540*** (0.378)	1.400*** (0.321)
Observations	113	113	113

Standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

6. GENERAL CONCLUSIONS

One interesting question related to the identity theft insurance is whether such remedy insurance policy brings unintended negative impact on consumers who need most help to protect their personal identities. In this paper, we examine the impact of identity theft insurance on individual risk perceptions toward identity theft and behavioral intentions to engage in identity theft risky behavior.

By conducting a consumer survey, we found out that our results strongly support the contentions that identity theft insurance does undermine consumer risk perceptions toward identity theft and boost their intentions to participate in risky activities which in fact jeopardize their personal information. In other words, covered by identity theft insurance, consumers appear to exercise less necessary care required to protect their personal information and more inclined to risky behaviors.

This paper contributes to the current literature by discussing identity theft policy as a remedy insurance product with the negative consequence on individual risk perceptions and, in turn, consumer behavioral intentions. In contrast to the traditional framework which believes that consumers who purchase insurance products tend to increase the effectiveness of protective behaviors, this paper illustrates that identity theft insurance results in unintended adverse outcomes that impair consumer welfare.

Due to misconception of the policy benefits, consumers who have identity theft insurance become less prudent when caring their identities while reducing their risk perceptions toward any consequences caused by identity theft activities. Moreover, such undermined risk perceptions foster more risky behavioral intentions among consumers which in turn create more identity theft victims.

Herein, consumers as well as our society are bounded to bear the cost resulted from the negative outcomes of their riskier behavior. With more insurance companies selling identity theft policies on the current market, the main implication of this paper is to shed light on the importance of consumer education and marketing regulatory issue due to the negative boomerang effect of identity theft insurance on the consumers. Future research may focus more on empirical data that could be used to identify true identity theft victims and further study their behavioral intentions.

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