

**CITY UNIVERSITY OF HONG KONG**  
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**The Impact of E-Pet Health Literacy and Duty  
of Care on Pet Healthcare Purchases: The  
Moderating Effect of Financial Toxicity**  
寵物相關的數碼健康素養與照護責任對醫健  
消費之影響：財務毒性的調節作用

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## ABSTRACT

*Pet owners are the caretakers of pets, the key decision-makers of their pets' lives and deaths, and the sole bearers of their pets' living and healthcare expenses. The health and well-being of pets can be secured only if pet owners are competent and responsible enough to provide adequate veterinary and non-veterinary healthcare. Therefore, this study aims to develop a better understanding of the determinants of pet healthcare purchases, i.e., the number of veterinary clinic visits, veterinary clinic expenditures, and non-veterinary pet healthcare expenditures undertaken by a pet owner.*

*This study leverages the concept of e-health literacy in human healthcare. Based on the pet care competency model, it proposes a new concept—e-pet health literacy (ePL)—to evaluate pet owners' ability to obtain and utilize pet healthcare information available on the Internet. Drawing on social learning theory, it investigates to what extent ePL can encourage pet healthcare purchases and enhance pet owners' duty of care (DoC), i.e., duty beliefs, problem awareness, awareness of impact, efficacy, and ascription of responsibility. It proposes that pet owners possessing a high level of ePL have a higher DoC, which leads to more pet healthcare purchases. It also hypothesizes that, although ePL can encourage pet healthcare purchases, DoC is the direct determinant of pet healthcare purchases. In other words, DoC is the mediator between ePL and pet healthcare purchases. Furthermore, based on mental accounting theory, this study suggests that pet owners must go through a mental accounting process before deciding on pet healthcare purchases. They can experience financial toxicity—the objective financial burden and subjective financial distress triggered by pet healthcare budgeting—that may cause them to avoid pet healthcare purchases. Thus, this study extends the pet care competency model by incorporating FT as a hindrance factor. It examines the extent to which the effect of FT moderates the relationship between ePL and*

*pet healthcare purchases via DoC. Specifically, this study proposes that while FT is a hindrance that prevents pet healthcare purchases, DoC is a motivator that mitigates the adverse effect of FT and maintains (or even encourages) pet healthcare purchases.*

*A survey aimed at dog owners was conducted in Hong Kong, where almost 60% of pet owners reported not taking their pets to veterinarians in the past 12 months. Over 400 Hong Kong dog owners participated in the survey, and 391 valid samples were obtained. Robust tests were performed to confirm the data reliability and validity.*

*Hypothesis test results show that, although ePL does not significantly affect pet healthcare purchases, it can enhance duty beliefs and awareness of the impact of DoC. These results support the researcher's suggestion that enhancing pet owners' ability to obtain, evaluate, and utilize online pet healthcare information can be a proactive, scalable solution to encourage veterinary and non-veterinary pet healthcare. Results also show that certain subscales of DoC have the potential to encourage pet healthcare purchases and to mediate the relationships between ePL and pet healthcare purchases. Duty beliefs, awareness of impact, and ascription of responsibility have the potential to mediate the relationship between ePL and pet healthcare purchases, increasing the veterinary clinic expenditures and non-veterinary pet healthcare expenditures of pet owners with specific attributes. Efficacy, however, mediates the relationship between ePL and pet healthcare purchases adversely, leading to reduced veterinary clinic expenditures but increased non-veterinary pet healthcare expenditures. These results uncover the potential drawbacks of enhancing pet owners' efficacy.*

*Furthermore, moderation test results show that FT changes the strength and direction of the effect of ePL on efficacy and has the potential to change the strength of the effect of ePL on duty beliefs. FT also potentially magnifies the adverse effect of efficacy on veterinary clinic*

*expenditures and its positive effect on non-veterinary pet healthcare expenditures, further reducing veterinary clinic expenditures and increasing non-veterinary pet healthcare expenditures. These results draw the researcher's attention to the implications of efficacy for pet owners' perceptions and the positioning of efficacy in pet-edutainment. Interpretations and implications of the data analysis results are discussed.*

*To the best of the researcher's knowledge, this study is the first to conceptualize and operationalize ePL to evaluate pet owners' ePL. By empirically validating the scale of DoC and the pet care competency model, this study is one of the first to shed light on the effects of ePL on DoC and pet healthcare purchases. It is also the first of its kind to consider motivating and hindrance factors, i.e., DoC and FT, simultaneously and to examine their competing effects on pet healthcare purchases. The findings will expand the body of literature on the impacts of information systems on pet healthcare and well-being.*

*Public policymakers, veterinarians, and animal welfare practitioners can regard the scales of ePL and DoC as comprehensive standards to guide their work. They can provide adequate support and training to enhance pet owners' ePL, making pet owner education on DoC more successful. The findings of this study can inspire the pet healthcare industry to develop support services that genuinely enhance pet owners' DoC. Pet owners with high DoC will appreciate the importance of veterinary care and the benefits of non-veterinary pet healthcare products and services, providing their pets with adequate veterinary and non-veterinary pet healthcare as a result. Hence, pets' health and well-being can be secured, and the development of the pet healthcare industry can also be sustained ethically.*