

## FACTOR ANALYSIS ON PET LOVERS INTENTION TO UTILIZE TELEMEDICINE APPLICATION FOR PETS THROUGH INTEGRATION MODEL UTAUT2 AND TPB

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<sup>1\*</sup>Fredlina Margerat, <sup>2</sup>Firdaus Alamsjah, <sup>3</sup>Anak Agung Nurah  
**Perwira Redi**

<sup>1-2</sup>) Bina Nusantara University, <sup>3</sup>) Samporna University

**Abstract**— The goals of this study were to examine the factors that influence pet owners' intentions to use telemedicine applications for their pets. Based on the Unified Theory of Acceptance and Use of Technology (UTAUT2) and the Theory of Planned Behavior (TPB), in order to gather information, a survey of pet owners in Indonesia was carried out using a random sampling method. Respondents filled out a total of 400 questionnaires, which were gathered. Using Smart Partial Least Squares (PLS) version 3.0, an analysis was done on the data that was collected. Positive factors included performance and effort expectations, attitude toward use, facilitating conditions, subjective norm, and intention to use. According to the findings, future development strategies should prioritize factors that positively influence pet owners' intentions to use telemedicine apps for pets.

**Keywords**— *Animal health, Mobile application, Pets, Telemedicine, TPB, UTAUT2*

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### ***Penulis Korespondensi:***

Fredlina Margaret  
Industrial Engineering Department  
Bina Nusantara University  
Email: [fredlina.margaret@binus.ac.id](mailto:fredlina.margaret@binus.ac.id)

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## I. INTRODUCTION

This study will find customer intentions through statistical science, namely Structural Equation Modeling (SEM) involving the UTAUT2 apps for pets for future development strategies, in order to gain a better understanding of the supply and demand within the Indonesian animal health business, and the TPB. SEM is widely used to examine factors influencing consumers' willingness to use a technology [1].

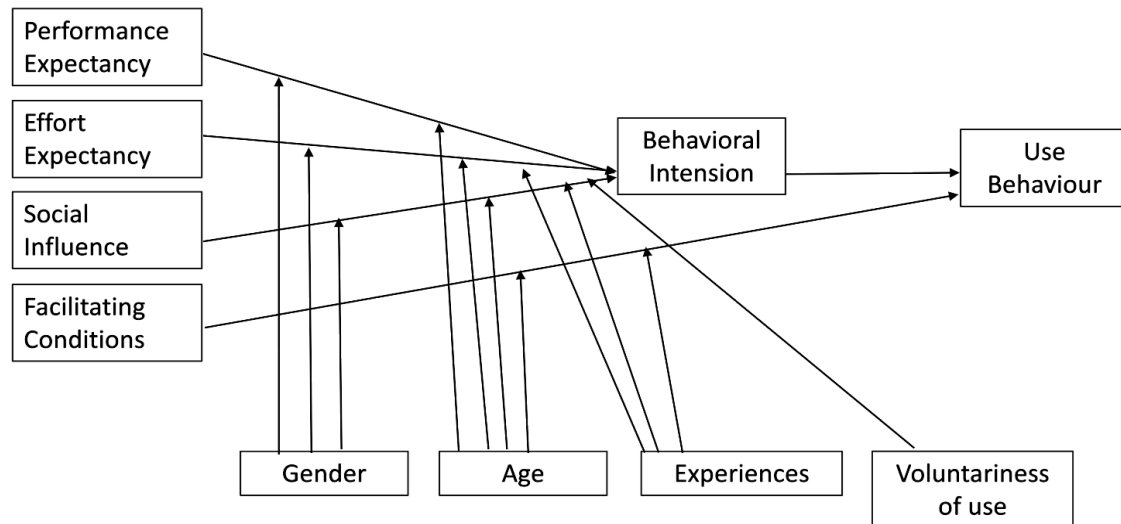


Figure 1. 1Model UTAUT2

The UTAUT2 model, depicted in Figure 1.1, was used in this study as a theoretical framework for searching for and examining factors influencing a user's behavioral intention to receive and use digital tools developed to address pet needs online [2].

Human action is determined by three considerations, according to the TPB: beliefs about the existence of factors that facilitate the performance of behavior and perceived power over these factors, as well as beliefs about the results of behavior and the results of its evaluation; beliefs in normative expectations of others; and motivation to obey expectations (normative beliefs); and beliefs about the results of behavior and the results of its evaluation; (control beliefs). Figure 1.2 depicts the TPB. This research combines two models, UTAUT2 and TPB.

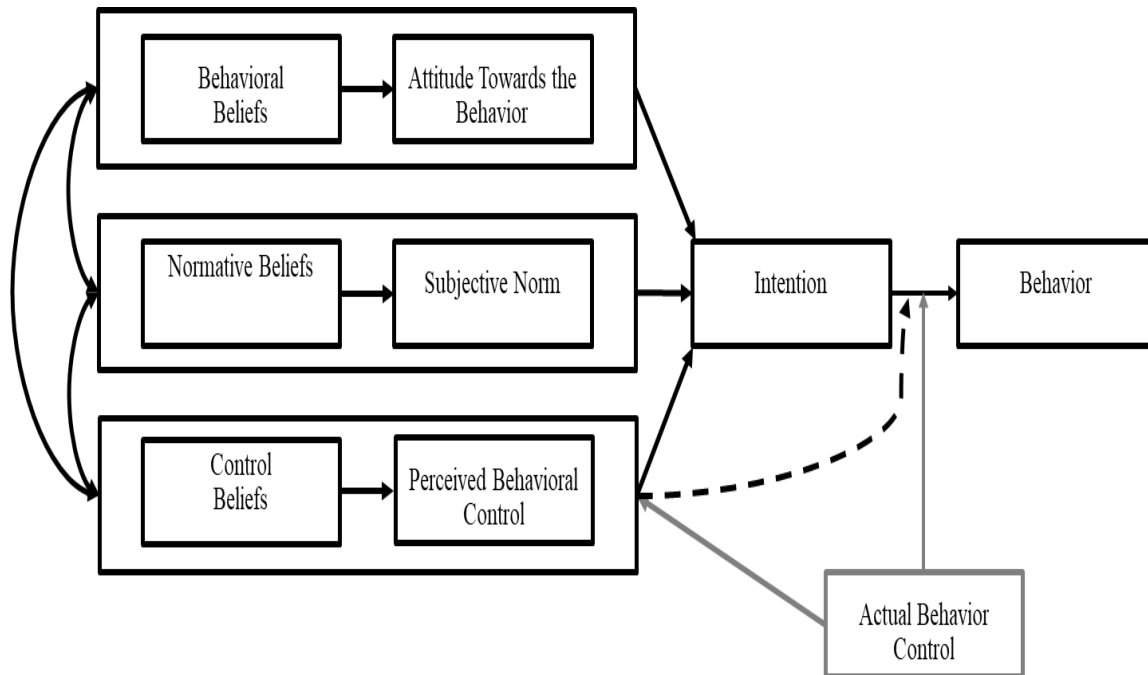


Figure 1. 2 Theory of Planned Behavior (Source: (Ajzen, 2006))

The study's objectives are as follows:

1. Understand the factors that influence the compassionate intention of animals to use pet telemedicine applications in Indonesia.
2. Examine the impact of Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Hedonic Motivation (HM), and Price Value (PV) on pet lovers' intentions to use pet telemedicine applications in Indonesia.
3. Examine the impact of Facilitating Condition (FC) on Perceived Behavior Control (PBC) on pet owner intentions to use pet telemedicine apps in Indonesia.
4. Examine the role of Attitude Toward Use (AT), Subjective Norm (SN), and Perceived Behavioral Control (PBC) in influencing pet lovers' intentions to use pet telemedicine applications in Indonesia.

Examine the impact of Intention to Use (IU) and Actual System Usage (US) on pet lovers' intentions to use pet telemedicine applications in Indonesia.

## II. METHOD

a. The problem is first understood by conducting a review of relevant literature and theories from a number of supporting pieces of literature. The problem is then identified in order to determine the factors that influence pet owners' intentions to use telemedicine applications designed specifically for pets. The findings of the analysis in accordance with the data collection are expected to identify the factors that have the greatest impact by integrating the UTAUT and TPB.

### a. *A. Hypotesis & Research Framework*

This research develops a SEM-based research framework to examine animal lovers' interest in adopting applications for telemedicine services for animal health, particularly in Indonesia's major urban areas.. The goal of this study is to determine whether or not animal lovers in Indonesia are interested in using these services. The primary emphasis of this investigation is on intangible aspects that are difficult to measure using standard quantitative approaches. There are a variety of aspects to take into consideration, including performance, system usage, social environment, pricing affects, and settings that may be enabled to attract animal lovers. These factors are taken into consideration in the hypothesis in the following way:

1. PE has a positive link with ATU, which is significant when there is a desire to use telemedicine
2. EE has a positive link with AU, which is significant when there is a desire to use telemedicine.
3. AT has a positive link with SI, which has a positive association with a desire to use telemedicine.
4. HM has a positive connection with AT, which in turn has a positive link with telemedicine usage intention;
5. AT has a positive link with PV, which has a positive association with telemedicine intention.
6. There is positively correlated with both the FC and the PBC.
7. It is hypothesized that there is a positive correlation between AT and IU of telemedicine.
8. There is a correlation between SN and IU when it comes to telemedicine.
9. It has been shown that PBC has a favorable correlation with a person's desire to IU.
10. IU of Telemedicine has a positive relationship with US.

Based on the ten hypotheses given earlier, this research offers a model or conceptual framework for understanding animal-lovers' intents towards the use of telemedicine apps for their pets (Figure 2.1).

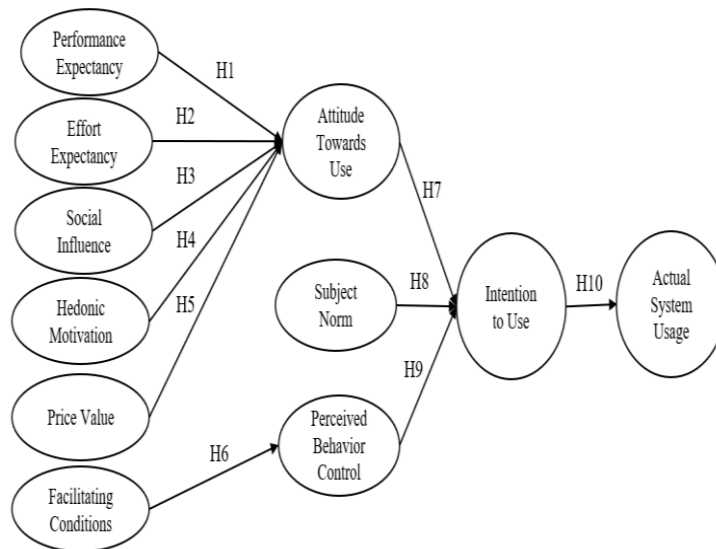


Figure 2. 1 Model for research to analyze animal-loving intentions in using telemedicine applications for pets

### III. RESULT AND DISCUSSION

After running 32 indicators through Smart PLS version 3.0, we find that 32 of them have loading factors larger than 0. The next step is to do a Structure Model Analysis Evaluation. In Table 3.1, we can see the structural models' corrected R-Squared values. Consumers' intentions to utilize telemedicine applications for their pets are affected by factors including their attitude toward use, their perception of their own behavioral control, and their actual system usage by a combined 0.632, or 63.2%. That works out to an additional 36.8% impact from the study's other unmeasured variables on intent to use.

Table 3. 1 Adjusted R-Squared and R-Squared Results

Construct	R-Squared	Adjusted R-Squared
Intention to Use (IU)	0.632	0.629

To validate the importance of path coefficients in structural models, the PLS model, which is depicted in Figure 3.1, applies a non-parametric test that is simulated with the bootstrap method.

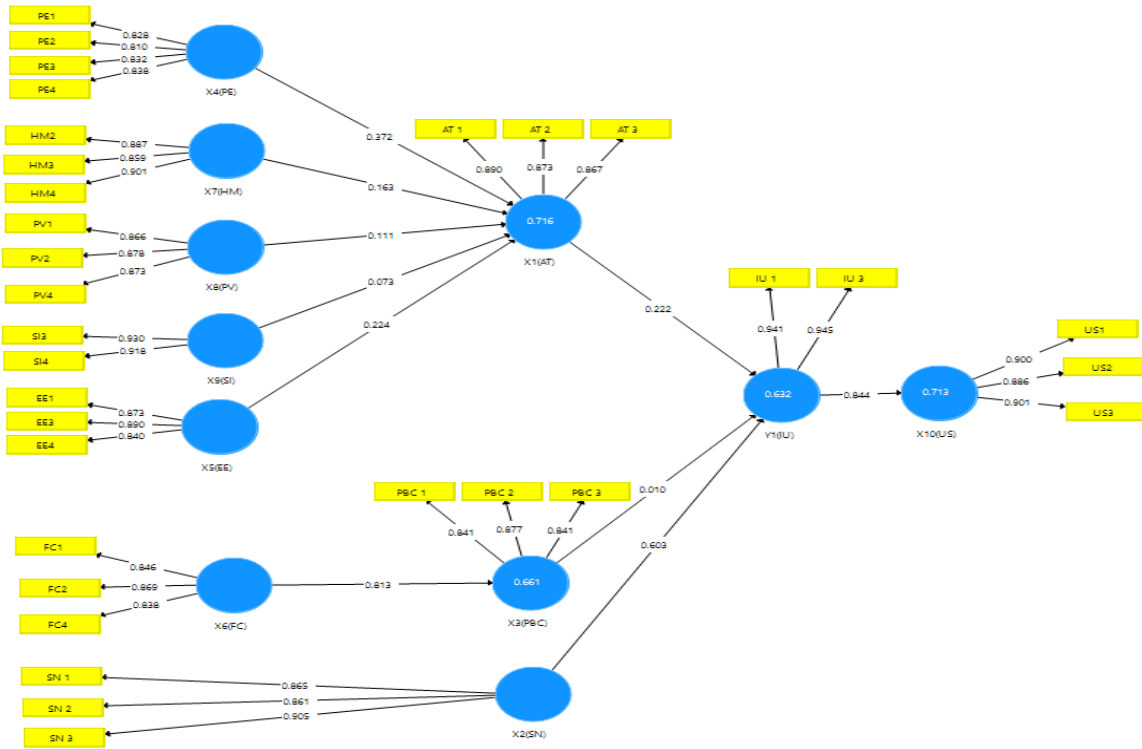


Figure 3. 1 PLS Model

Each hypothesis was tested using t-values (1,960) at the 5% (p0.05) level of significance, and the path coefficients were analyzed using the bootstrap method and a two-way test.

Table 3. 2 Iner Model Test Results (Line Coefficient)

Research Hypothesis	Path	T Statistics ( O/STDEV )	P Values	Interpretation
	PE -			
<b>H1</b>	>	4.570	0.000	Accepted
	AT			
	EE -			
<b>H2</b>	>	2.658	0.008	Accepted
	AT			
	SI -			
<b>H3</b>	>	1.341	0.180	Rejected
	AT			

	HM			
<b>H4</b>	->	1.693	0.091	Rejected
	AT			
	PS -			
<b>H5</b>	>	1.598	0.111	Rejected
	AT			
	FC -			
<b>H6</b>	>	4.1454	0.000	Accepted
	PBC			
<b>H7</b>	AT - > IU	2.576	0.010	Accepted
<b>H8</b>	SN - > IU	8.681	0.000	Accepted
	PBC			
<b>H9</b>	->	0.125	0.901	Rejected
	IU			
	IU -			
<b>H10</b>	>	4.5432	0.000	Accepted
	US			

There is a highly significant positive link between AT and PE, as shown in Table 3.2, and the intention to use telemedicine. The significance level for this association is 0.000. An p-value of 0.008 demonstrates a statistically significant positive correlation between EE and AT and a propensity to seek care via telemedicine. There is a substantial positive link between FC and PBC for the utilization of telemedicine, and the p-value for this relationship is 0.000. There is a substantial positive link between AT and IU to use telemedicine, and the p-value for this relationship is 0.010. The SN has a substantial positive relationship on encouraging animal-loving IU to use telemedicine, with a p-value of 0.000. This association has a significant positive impact on influencing animal-loving IU to use telemedicine. US has a significant positive effect on influencing the usability of IU using telemedicine, with a p value of 0.000 indicating such a significant link.

#### IV. CONCLUSION

The hypothesis testing claims that it has accepted hypotheses H1, H2, H6, H7, H8, and H10, while rejecting hypotheses H3, H4, H5, and H9. Therefore, the factors that influence the animal's compassionate intention to use telemedicine applications for animals are as follows: PE has a significant positive relationship with AT with the intention to use telemedicine, with a p-value of 0.000; EE has a significant positive relationship with AT with the intention to use telemedicine; and finally, AT was associated with an intention to use telemedicine, which had a p-value of 0.008. There is a significant positive relationship between FC and PBC to use telemedicine, with a p-value of 0.000. There is also a significant positive relationship between AT and IU to use telemedicine, with a p-value of 0.010. SN has a significant positive impact on influencing customers' intention to use telemedicine, with a p-value of 0.000 indicating such a significant positive relationship. and the p value for the link between IU and US is 0.000, indicating that there is a substantial positive relationship between the two variables.

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