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Analysis of Customer Usage Intention of Artificial Intelligence Veterinary Drug Consultation System in Southwest China

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Abstract: The number of pets waiting to be examined often limits the time available for veterinary visits; therefore, one veterinary visit would usually not be enough to consult on every trip to veterinary service, especially under the current pandemic crisis. This study used the study model of a new artificial intelligence veterinary drug consultation system by the latest technology of AI in serving pet owners in Southwest China. The technology acceptance model (TAM) for testing pet owners' perception of usage intention was developed through perceived accuracy, integrity, ease of use, convenience, and customer satisfaction. The objectives of the impact of the new artificial intelligence veterinary drug system, the relationship between influencing factors and pet owner usage intention, and the proposal of consultation service improvement were studied through five hypotheses of relationship investigation.

Keywords: Usage Intention; Artificial Intelligence; Veterinary Drug Consultation System

1. Introduction

Combining innovative information technology with existing operating models enables enterprises to transcend traditional corporate culture, manage processes, value propositions, and customer experience, and comprehensively transform into an agile one centered on customer value and experience and constantly renews and transforms itself organization. Businesses can provide customers with diverse and convenient services and develop and maintain direct customer relationships; for example, it was impossible to allow users to complete business transactions on their mobile devices (Pavlou, Lie, and Dimoka, 2007)[1]. With wireless networks and mobile devices, instant messaging applications have received attention. The status of instant messaging applications in the current generation of the Internet continues to increase; people continue to use instant messaging applications, which gradually replace traditional mobile phone communication and text messages as the most common application on mobile devices and an indispensable tool in daily life especially for the service of intelligence veterinary drug consultation system.

2. Theoretical Basis

2.1 The concept of the TAM model for the conceptual framework

Katy: et al. (2021)[2] pointed out that perceptual accuracy improves user satisfaction. TAM posits that some external variables affect perceived usefulness and ease of use, which are mediators of external variables affecting the system's willingness. Thus, TAM can provide a basis for the relationship between external variables, internal beliefs, attitudes, intention to use, and actual use, including relevance, timeliness, and adequacy. Relevance refers to the degree to which content matches users' needs, and timeliness refers to how information systems can provide users with current information. This study defines relevance and timeliness as responding to users with the latest and most accurate information.

2.2 Research study on perceived accuracy and intention to use

The amount of data and the response to information affect perception's integrity, and perceived completeness Improves user satisfaction. In addition, adequacy refers to the amount and total category of data that an information system can provide to users. This study defines adequacy as responding to users with complete information and is expressed as "perceived completeness." (Valérie: et al. 2021)[3].

3. Understanding the Customer Usage Intention of Artificial Intelligence Veterinary Drug Consultation System

3.1 Intelligent voice consultation system

An AI advisory system is a computer program that conducts conversations using dialogue or text (Huang; & Chueh. 2021)[4]. AI consulting systems are often used for business activities such as customer service or product information provision. Some AI consulting systems use natural language processing systems to analyze the sentences entered by the user.

3.2 Technology acceptance phenomenon

The Technology Acceptance Model (TAM) was developed by Davis et al. In 1989, the behavior of information technology users was predicted based on the theory of reasoning behavior (Fishbein; & Ajzen. 1975)[5] and the use of information systems.

3.3 TAM theory finding in use of the system

First, there are significant differences in specific pathways in TAM. Second, the roles of external variables explain variation in

TAM's core structure. Third, there are multiple TAM models, with or without external variables, with or without the direct effect of some variables on outcome variables, and with or without variables that group the teacher sample (Abdullah and Ward 2016)[6].

4. The Conceptual Framework for the Research Study

First The empirical analysis results of this study confirm that when pet owners use an AI consultation system for veterinary consultation, perceived accuracy, completeness, and ease of use affect user satisfaction, while user satisfaction and perceived convenience affect user satisfaction behavioral intent use. Accuracy means that the AI advisory system's responses to pet owners must be relevant and up to date. Integrity means that the AI advisory system must provide pet owners with complete response information.

Second For veterinary consultations using artificial intelligence consultation systems, relevance and timeliness can be considered accurate information, and adequacy can be considered complete information. Therefore, in this study, perceptual usefulness was replaced by perceptual accuracy and perceptual completeness.

5. The Countermeasures for the Customer Usage Intention of Artificial Intelligence Veterinary Drug Consultation System

5.1 Usage intention

Purchasing intention refers to the tendency of consumers to purchase products. Indicative signals of consumers' actual shopping behavior. It is usually measured in terms of the speed, direction, and magnitude of shifts in consumers' purchase likelihood for a commodity over a while. Culture has a substantial and wide-ranging influence on consumers' needs and behavior, which manifests in that consumers in the same cultural environment have similar needs and purchasing behaviors. In contrast, consumers in different cultural backgrounds have identical needs and behaviors, and shopping behaviors vary widely.

5.2 Artificial intelligence

Artificial Intelligence (AI), abbreviated as AI. It is a new technical science that studies and develops theories, methods, techniques, and application systems for simulating, extending, and expanding human intelligence. Artificial intelligence is a branch of computer science that attempts to understand the essence of intelligence and produce a new intelligent machine that can respond similarly to human intelligence. Research in this field includes robotics, language recognition, image recognition, Natural language processing, expert systems, etc.

5.3 Veterinary Drug Consultation System

A system offers veterinary drug prescriptions and advice through the online system provided by the veterinary clinic to pet owners.

5.4 Perceived ease of use

Refers to the degree to which a person believes that using a particular system would be free of effort and create efficiency.

5.5 Perceived convenience

Perceived convenience is a level of convenience toward time, place, and execution when pursuing a task during English mobile learning.

5.6 Customer satisfaction

Customer satisfaction is defined as a measure of how satisfied customers are with a company's products, services, and capabilities.

6. Conclusion

New products and technologies are the direct driving force for the veterinary market's development and progress. In contrast, market orientation and consumer recognition are the fundamentals of enterprise upgrading for veterinary enterprises. This has formed a linkage mechanism. Veterinary companies should conduct research according to the market, carry out structural upgrades in the direction of product research and development to meet consumer needs, and keep an eye on market trends at any time. As an adjustment factor, update the breeding model, promptly add new production raw materials, and eliminate products that may have already been released from the market. A veterinary enterprise that can do this must not have the same operational flexibility as other similar enterprises. Market demand is the fundamental orientation that consistently leads the veterinary enterprise forward. Modern society pays attention to greenness and health care and the choice of biological agents. Consumers have a relatively clear understanding, and the attention to food issues is also increasing, which requires the flow of funds and talents of veterinary enterprises.

References:

[1] Pavlou, P. et al. (2007). An Integrative Model of Mobile Commerce Adoption. Journal of Information System. Vol 7, p.12-25.

[2] Katy, K. et al. (2021) The use of artificial intelligence systems in diagnosis of pneumonia via signs and symptoms: A systematic review. Biomedical Signal Processing and Control. Vol 72, p.112-123.

[3] Valerie, R. et al. (2021). Conversational commerce: Do biased choices offered by voice assistants' technology constrain its appropriation? Technological Forecasting and Social Change. Vol 174, p.123-135.

[4] Huang, D. and Chueh, H. (2021). Chatbot usage intention analysis: Veterinary consultation. Journal of Innovation. Vol 6 Issue 3, p.135-144.

[5] Fishbein, A and Ajzen, I. (1975), A Bayesian analysis of attribution processes. Psychological Bulletin. Vol 82(2), p.261–277.

[6] Abdullah, F. and Ward, R. (2016). Investigating the influence of the most commonly used external variables of TAM on students' Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) of e-portfolios. Computers in Human Behaviour. Vol 63, p.75-90.