A Study of Effectiveness of E-teaching Portfolio in Blogosphere -- A Case Study of Junior High and Primary Schools in ..

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ABSTRACT

This focus of this study is whether or not Blogosphere E-portfolios is accepted and continuously applied to teaching by teachers. A theoretical model is proposed in the study to predict the possibility of success and continuance usage of Blogosphere E-portfolios. The model constructed on the basis of 3 thoeries 1. Technology Acceptance Model (TAM) — providing the core concepts of Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). 2. Expectation-Confirmation Theory (ECT) — defining factors such as Confirmation, Satisfaction and Continuance Usage. 3. IS Success Model — bringing in the ideas of Information Quality and System Quality. Data in this study are collected through survey. 260 copies of questionnaire were given to teachers who participated in the Competition of Portfolios Blog in Changhua County, 2006. 195 copies of the questionnaires were completed and returned, which made a response rate of 75 %. The data firstly went through a confirmatory factor analysis to test its reliability and validility. Then a follow-up structural equation modeling was applied to test the hypothesis made by the theoretical model in this study. The results indicate: 1. Confirmation is influenced by Information Quality, System Quality, and PU. 2. Satisfaction is influenced by confirmation, PU, and PEOU; while Information Quality and System Quality do not significantly influence satisfaction. 3. Satisfation and PU have significant influence on Continuance Usage Intention.

Keywords: Blog; E-Portfolios; Expectation-Confirmation Theory; Technology Acceptance Model

Table of Contents

中文摘要
iv 誌謝辭
.vii 表目錄 ix 圖目錄
...xi 第一章 緒論..................1 第一節 研究背景............
1 第二節 研究動機
4 第四節 研究範圍及限制
......7第二章 文獻探討...............9 第一節 網誌與教學歷程檔案...
9 第二節 科技接受模式
義與測量46 第三節 研究設計50 第四節 統計與資
料分析法
結果分析
研究模型驗證89 第二章 結論與建議88 第一節
研究發現
三節 研究貢獻
考文獻
113

REFERENCES

一、中文部份 李敏正(2003),延伸計劃行為理論以預測WWW持續使用之研究。高雄第一科技大學資訊管理系未出版之碩士論文,高雄市。 林克寰(2003),BLOG 架站實務:使用Movable Type,台北:旗標出版股份有限公司。 林清山(1988),多變項分析統計法,台北:東華書局。 邱皓政(2003),量化研究與統計分析,台北:五南。 吳明隆(2000),SPSS統計應用實務,松崗電腦圖書資料股份有限公司。 徐昌義(2002),我國小學教師在職階段專業檢覈制度之研究,暨南國際大學教育政策與行政研究所未出版之碩士論文,南投縣。 許月梅(2005),幼稚園教師教學專業指標之研究--教學檔案建構取向,台北市立師範學院國民教育研究所未出版之碩士論文,台北市。 陳向東、張際平(2003),博客文化與現代教育技術[線上資料],來源: http://www.being.org.cn [2004, Auguest 21]。 陳聖謨(1998),檔案在師資培育上的

```
應用,教育研究資訊,6(2),150-156。 張德銳(2003),促進教師專業發展的教學檔案,國教新知,49(4),60-68。 羅綸新(2001),教學檔
案與教師專業成長,教學科技與媒體,57,12-21。二、英文部份 Ajzen, I., & Fishbein, M. (1980). Understanding Attitudes and Predicting
SocialBehavior. New Jersey: Prentice-Hall. Anderson, J. C., & Gerbing, D. W. (1984). The effect of sampling error on convergence, improper
solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. Psychometrika, 49, 155-173. Anderson, J.C., & Gerging,
D.W. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. Journal of Marketing Research,
25(May), 186-192. Bagozzi, R.P., & Phillips, L.W. (1982). Representing and testing grganizational theories: A holistic construal. Administrative
Science Quarterly, 27(3), 459-489. Bagozzi, R. P., & Yi, Y. (1988). On the Evaluation of Structural Equation Models. Journal of the Academy of
Marketing Science, 16(1), 74-94. Bailey, J.E., & Pearson, S.W. (1983). Development of a tool for measuring and analyzing computer user
satisfaction. Management Science, 29(5), 530-545. Bajaj, A., Nidumolu, S.R. (1998). A feedback model to understand information system usage.
Information & Management, 33(4), 213-224. Barrett, H. (1997). Electronic teaching portfolios.
[Online]. Available: http://transition.alaska.edu/www/portfolios/site99.html [2002, Sept, 29] Bentler, P. M., & Bonett D. G. (1980). Significance
tests and goodness-of-fit in the analysis of covariance structures. Psychological Bulletin, 88(3), 588-606. Bitner M. J. (1990). "Evaluating Service
Encounters: The Effects of Physical Surroundings and Employee Responses, "Journal of Marketin, Vol. 54, 69-82. Bhattacherjee, A. (2001a).
Understanding information systems continuance: an expectation-confirmation mode. MIS Quarterly, 25(3), 351-370. Bhattacherjee, A. (2001b), An
empirical analysis of the antecedents of electronic commerce service continuance. Decision Support Systems, 32(2), 201-214. Bird, T. (1990) The
Schoolteacher's portfolio: An essay on possibilities. In the New Handbook of Teacher Evaluation: Assessing Elementary and Secondary School
Teachers, Edited by Millman & Darling-Hammond, 241-56. Newbury Park, Ca: Sage. Bollen, K. (1989). Structural Equations with Latent
Variables. New York: Wiley. Bushweller, K. (1995). The resilient child. American School Board Journal, 182(5), 18-23. Cadotte, E.R., Woodruff,
R.B. & Jenkins, R.L. (1987). Expectations and Norms in Models of Consumer Satisfaction. Journal of Marketing Research, 24, 305-314. Cardozo,
R. (1965). An experimental study of customer effort, expectation, and satisfaction. Journal of Marketing Research, 2(8), 244-249. Carmines, E.G., &
McIver, P.P. (1981). Analyzing models with unobserved variables: analysis of covariance structures. CA: Beverly Hills. Chae & Kim (2001).
Information Quality for Mobile Internet Services. Twenty-Second International Conference on Information Systems. Chiu, H. C., Hsieh, Y. C., &
Kao, C. Y. (2005). Website auality and customer 's behavioural intention: An exploratory study of the role of information asymmetry. Total
Quality Management & Business Excellence, 16(2), 185-197. Churchill, G.A., & Surprenant, C. (1982). An investigation into the determinants of
customer satisfaction. Journal of Marketing Research, 19, 491-504. Cronin, J. J. & Taylor, S. A. (1992). Measuring service quality: A reexamination
and extension. Journal of Marketing, 56, 55-68. Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information
technology. MIS Quarterly, 13(3), 319-340. Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User Acceptance Of Computer Technology: A
Comparison Of Two Theoretical Models. Management Science, 35(8), 982-1003. Delone, W.H., McLean, E.R. (1992). Information systems
success. The quest for the dependent variable. Information Systems Research, 3, 60-95. DeLone, W. H. & McLean, E. R. (2003). The DeLone and
McLean model of information systems success: A ten-year update. Journal of Management Information Systems, 19(4), 9-30. Devaraj, S., Fan, M.
& Kohli, R. (2002) Antecedents of B2C channel satisfaction and preference: validating e-commerce metrics. Information Systems Research, 13(3),
316-333. Doll, W.J., Torkzadeh, G. (1988). The measurement of end user computing satisfaction. MIS Quarterly, 12(2), 259-274. Fishbein, M., &
Aizen, I. (1975). Belief, Attitude, Intentions and Behavior: An Introduction to Theory and Research, MA; Addison-Wesley, Fornell, C., & Larcker,
D.F. (1981). Evaluating Structural Equation Models with Unobservables and Measurement Error. Journal of Marketing Research, 39-50. Fornell,
C., Michael D. J., Eugene W. A., Jaesung C. and Everitt B. (1996). The american customer satisfaction index: nature, purpose, and findings.
Journal of Marketing, 60, 7-18. Hair, J. F., Anderson, R. E., Tatham, R. L.& Black, W. C. (1992). MultivariateData Analysis with Reading (3rd ed).
New York: Macmillan. Hayashi, A., Chen, C., Ryan, T., & Wu, J. (2004). The role of social presence and moderating role of computer self efficacy
in predicting the continuance usage of e-learning systems. Journal of Information Systems Education, 15(2), 139-154. Hewett, S. M. (2005).
Electronic Portfolios: Improving Instructional Practices. TechTrends, 48(5), 26-30. Hong, S.J., Thong, J. Y. L., & Tam, K. Y. (2006).
Understanding continued information technology usage behavior: A comparison of three models in the context of mobile internet. Decision
Support Systems, 42, 1819-1834. Howard, J. A., & Jadish N. S. (1969), The theory of buyer behavior. New York: Wiley. Hsu, M.H., Chen, Y.L., &
Chiu, C.M. (2003). Examining the WWW continuance: an extended expectation confirmation model. Communications of the ICISA. 5(2), 12 – 25.
Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives.
Structural Equation Modelling, 6, 1-55. Igbaria, M., Guimaraes, T., & Davis G. B. (1995). Testing the determinants of microcomputer usage via a
structural equation model. Journal of Management Information Systems, 11(4), 87-114. ISO 9241-11, (1998). Ergonomics Requirements for Office
with Visual Display Terminals (VDTs)—Part 11: Guidance on Usability. International Organization for Standardization (ISO), Geneva. James, E.
G.. & Shery, O. S. (1996). The teacher portfolio: A strategy for professional development and evaluation. Pennsylvania: Technomic. Kaiser, H. F.
(1974). An index of factorial simplicity. Psychometrics, 39, 31-36. Kang, S. (1998). Information technology acceptance: evolving with the changes in
the network environment. Proceedings of the 31st Annual Hawaii International Conference on System Sciences. 413-423. Karahanna, E., &
Straub, D.W. (1999). The psychological origins of perceived usefulness and ease of use. Information & Management, 35(4), 237-250. Khalifa M.,
and Liu V. (2002a). Statisfacton with Internet-Based Services. Proceedings of the 35th Hawaii International Conference on System Sciences, 174.
Khalifa M., and Liu V. (2002b). Explaning Satisfaction Different Stages of Adoption in the Context of Internet-Based Services. 23th International
Conference on Information Systems. King, W.R. & Epstein, B.J. (1983). Assessing information system value. Decision Sciences, 4(1), 34-45.
```

Klenowski, V. (2002). Developing Portfolios for Learning and Assessment: Processes and Principles. Oxford: Routledge. Kunsoo S. (1994). End-user's disconfirmed expectations and the success of information systems. Information Resources Management Journal, 7(4), 30-40. LaBarbera, P.A., & Mazursky, D. (1983). A longitudinal assessment of consumer satisfaction/dissatisfaction: the dynamic aspect of the cognitive process. Journal of Marketing Research, 29, 393 – 404. Latour, S. A. & Peat, N. C. (1979). Conceptual and Methodological Issues in Consumer Satisfaction Research. in Advances in Consumer Research (6Ed). William L. Wikie. Ann Arbor MI: Association for Consumer Research, 431-437. Legris, P., Ingham, J., & Collerette, P., (2003). Why do people use information technology? A critical review of the technology acceptance model. Information & Management, 40(3), 191-204. Lin, C.S., Wu, S., & Tsai, R.J. (2005). Integrating perceived playfulness into expectation-confirmation model for web portal context. Information & Management, 42(5), 683-693. Lin, J. & Lu H. (2000). Towards an understanding of the behavioural intention to use a web site. International Journal of Information Management, 20, 197-208. Locke E. A. (1976). The Nature and Causes of Job Satisfaction. in Handbook of Industrial and Organizational Psychology, M. D. Dunnette(ed.). New York: Holt. 1297-1349. Loughran, J., Corrigan, D. (1995). Teaching portfolio: A strategy for developing learning and teaching in pre-service teacher education. Teaching and teacher education, 11(6), 565-577. Mason. R.O. (1978). Measuring information output: A communication systems approach. Information & Management, 1(5), 219-234. Marsh, H.W., & Hocevar, D. (1985). Application of confirmatory factor analysis to the study of self-concept: First- and higher-order factor models and their invariance across groups. Psychological Bulletin, 97(3), 562-582. Mathieson, K. (1991). Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior. Information Systems Research, 2(3), 173-191. McKinney, V., Yoon, K., & Zahedi, F.M. (2002). The measurement of Webcustomer satisfaction: an expectation and disconfirmation approach. Information Systems Research, 13(3), 296-315. Moersch, C.M., & Fisher, L. M. (1996). Pivotal questions about electronic portfolios. Leading and Learning with Technology. Myers, M. D., & Young, L. W. (1997). Hidden agendas, power, and managerial assumptions in information systems development: An ethnographic study. Information Technology & People. 10(3), 224-240. Oliver, R. L. (1977). Effects of expectation and disconfirmation on post exposure product evaluations: An alternative interpretation. Journal of Applied Psychology, 62(2), 246-250. Oliver, R.L. (1980). A cognitive model for the antecedents and consequences of satisfaction. Journal of Marketing Research, 17, 460-469. Oliver, R.L. (1981). Measurement and evaluation of satisfaction process in retail setting. Journal of Retailing, 57, 25-48. Oliver, R. L., & Bearden, W. O. (1985), Disconfirmation processes and consumer evaluations in product usage. Journal of Business Research, 13, 495-507. Oliver, R. L. & Wayne S. D. (1988). Response determinants in satisfaction judgements. Journal of Consumer Research, I(14), 495-507. Olshavsky, R. W. & John A. M. (1972). Consumer expectations, product performance, and perceived product quality. Journal of Marketing Research, 9, 19-21. Olson, J. C., & Dover P. A. (1979). Disconfirmation of consumer expectatioin through product trial. Journal of Applied Psychology, 64(2), 179-189. Paulson, L.F., Paulson, P.R., Meyer C. (1991). What makes a portfolio a portfolio? Education Leadership, 48(5), 60-63. Pavlou, P.A. (2002). What drives electronic commerce? A theory of planned behavior perspective. Best Paper Proceedings of the Academy of Management Conference, Denver, CO, August, 9-14,. Pitt, L.F., Watson, R.T., & Kavan, C.B. (1995). Service quality: A measure of information systems effectiveness. MIS Quarterly, 19(2), 173-187. Plouffe, C. R., Hulland, J. S., & Vandenbosch, M. (2001). Research report: richness versus parsimony in modeling technology adoption decisionsunderstanding merchant adoption of a smart card-based payment system. Information Systems Research, 12(2), 208-222. Rai, A., Lang, S.S., & Welker, R.B. (2002). Assessing the validity of IS success models: an empirical test and theoretical analysis. Information Systems Research, 13(1), 50-69, Roca, J. C., Chiu, C. M., & Martinez, F. J. (2006), Understanding e-learning continuance intention; An extension of the Technology Acceptance Model. International Journal of Human-Computer Studies, 64(8), 683-696. Santos J. & Boote, J. (2003), A theoretical exploration and model of consumer expectations, post-purchase affective states and affective behaviour. Journal of Consumer Behaviour, 3(2),142. Seddon, P. B. (1997). A respecification and extension of the DeLone and McLean model of IS success. Information Systems Research, 8(3), 240-253. Seddon, P. B., & Kiew, M. Y., (1994). A partial test and development of the DeLone and McLean Model of IS success. In Proceedings of the International Conference on Information Systems (pp. 99-110), Vancouver, Canada. Seddon, P. B., & Yip, S. K. (1992). An empirical evaluation of user information satisfaction (UIS) measures for use with general ledger accounting software. Journal of Information Systems, 6(1), 75-92. Shannon, C. E., & Weaver, W. (1949). The Mathematical Theory of Communication. University of Illinois Press, Urbana, IL Shulman, L.S. (1988). A union of insufficiencies: Strategies for teacher assessment in a period of reform. Educational Leadership, 46, 36-41 Spreng, R.A., MacKenzie, S.B., & Olshavsky, R.W. (1996). A re-examination of the determinants of consumer satisfaction. Journal of Marketing, 60, 15-32. Srinivasan, Ananth, (1985). Alternative Measures of System Effectiveness: Associations and Implications. MIS Quarterly, 9(3), 243-253. Swan, J. E. & Trawick I. F. (1981). Disconfirmation of Expectation and Satisfaction with a Retail Service. Journal of Retailing, 57, 49-67. Szajna, B., & Scamell, R. (1993). The effects of information system user expectations on their performance and perceptions. MIS Quarterly, December, 493-516. Tabachnick, B. G., & Fidell, L. S. (1989). Using multivariate statistics (2nd ed.). New York: Harper & Row, Publishers, Inc. Taylor, S., & Todd, P. A. (1995a). Assessing IT usage: the role of prior experience. MIS Quarterly, 19(4), 561-570. Taylor, S., & Todd, P. A. (1995b). Understanding information technology usage: a test of competing models. Information Systems Research, 6(2), 144-176. Thong, J. Y. L., Hong, S. J. & Tam, K. Y. (2006). The effects of post-adoption beliefs on the expectation-confirmation model for information technology continuance. International Journal of Human-Computer Studies, 64, 799-810. Tse, D. K., & Wilton, P. C. (1988). Models of consumer satisfaction formation: An extension. Journal of Marketing Research (25), 202-212. Venkatesh, V. (2000). Determinants of perceived ease of use: integrating control, intrinsic motivation, and emotion into the technology acceptance model. Information Systems Research, 11(4), 342-365. Wheeler, P. H. (1993). Using portfolios to asses teacher performances. EREAPA Associates, Livermore, CA. Wolf, K. Lichtenstein, G., & Stevenson, C. (1997). Portfolios in Teacher evaluation. Paper

presented at the Annual Meeting of the American Educational Research Association. Chicago. Yi, Y. (1990). A critical review of consumer satisfaction. in V. A. Zeithmal (ed.), Review of Marketing (4) American Marketing Association, Chicago, 68-123. Zeithaml, V.A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. Journal of Marketing, 52(3), 2 – 22.