

THE RELATIONSHIP BETWEEN COMPUTER
ATTITUDE, ACADEMIC MAJOR AND
PROFESSIONAL COMPUTER USAGE:
AN EMPIRICAL STUDY ON
LECTURERS IN UiTM PERLIS.

A thesis submitted to the Graduate School in partial
Fulfillment of the requirements for the degrees
Master of Science (Management),
Universiti Utara Malaysia

by
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Nov 2000

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ABSTRAK

Hubungan diantara sikap, bidang dan penggunaan komputer telah diuji menggunakan model laluan theoretikal Tiga hipotesis mengenai korelasi telah diuji dalam kajian ini. Komuniti pensyarah di UiTM Perlis telah diambil sebagai subjek kajian. Kajian ini telah mendedahkan bahawa sikap terhadap komputer mempunyai korelasi yang positif dengan penggunaan computer untuk tujuan profesional. Bidang akademik iaitu bidang matematik and bukan matematik mempunyai korelasi secara langsung dengan tahap penggunaan komputer secara profesional. Hasil kajian mendapati bahawa dua angkubah tersebut adalah signifikan walaupun ianya berkorelasi secara songsang. Begitu juga hubungan diantara bidang dan sikap terhadap komputera adalah signifikan walaupun mempunyai korelasi yang songsang.

ABSTRACT

The relationship between attitude, major and computer usage was studied using a theoretical path model. Three hypotheses on correlation were tested in this research. A community of lecturers in UiTM Perlis was taken as the subject under study. The study uncovered the fact that computer attitude is positively correlated with professional usage of computers. Academic major of maths and non-maths is directly correlated with level of professional usage of computers. The finding was that the two variables were significant even though they are inversely correlated. For the relationship between Major and Computer Attitude, the relationship was found to be on a similar note with the latter where, a significant but yet an inverse relationship.

ACKNOWLEDGEMENTS

In completing this project paper, there are several people I would like to thank.

I take the opportunity to express my heartfelt gratitude to Associate Professor Dr Zolkifli Bin Hussin and En Abdul Rahim Bin Abu Bakar; both are my supervisors, for their invaluable comments and recommendations.

Next, I would like to thank En Sharuddin Bin Jakpar, a lecturer at UiTM Perlis, for his time in reading my draft and discussion especially on statistical analysis.

And to my wife and children for their unfailing faith in my ability to complete my master program and also to my parents who understand my quest for knowledge.

Last but not least, thanks are due to the staff of Perpustakaan Universiti Utara Malaysia and En Roslan Bin Ahmad, the typesetter, for their excellent services.

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CHAPTER 1

1. INTRODUCTION

1.1. Background

MARA University of Technology Perlis is a branch college of UiTM, which is one of the Public Institution of Higher Learning in Malaysia. The campus has 222 lecturers; annually, they produce about 500 graduates in various disciplines.

1.2 Statement of Problem

Malaysian education is heading toward a more technologically oriented curriculum. It is the nation's mission and vision to lift Malaysia to a fully developed and industrialized country by the year 2020. Information technology is a very important factor toward realizing this vision and the vision calls for an extensive use of computers.

“By the year 20000 living without a computer, in a state of information poverty, will effectively exclude people from many day-to-day activities in society and will certainly exclude them from power” Zimmerman(1981)

More knowledgeable computer users who are capable of handling challenging computer tasks are in dire need at UiTM Perlis. Effective training programs are required to furnish these needs. To do this, a

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REFERENCES

- Bennett, K.P. & LeCompte M.D. (1990). *The way school Works- A Sociological Analysis of Education*, Longman, New York.
- Choong, K. F., 1993, "Computerization in personal computer environment: The risk that has been neglected and ways to overcome it". *Akauntan Nasional*, vol. 4, no. 1, pp. 12-17.
- Essinger, J. 1991, "Just another tool of your trade". *Accountancy*, vol. 108, no. 1177, p. 97.
- Ferguson, C., & Nevell, P. 1996, "The relationship between machine enjoyment, computer attitude and computer usage: Some further refinements". *Accounting and Finance*, vol. 36, no. 1, pp. 113-125.
- Ferguson, C. 1997, "The Effect Of Microcomputers on the work of Professional Accountants". *Accounting and Finance*, vol. 37, no.1, pp. 41-47.
- Fishbein, M., & Ajzen, I., 1975, *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*, Reading, Mass: Addison Wesley.
- Gressard C.P. and Loyd B.H (1984), Paper presented at the Annual Meeting of the Ameican Educational Research Association, New Orleans, L.A, April 23-27,1984.
- Gressard C.P., and LoydB.H (1986), Validation Studies of New Computer attitude Scale, Association for Educational Data Systems Journal.
- Griswold, P.A. (1983). Some determinants of computer awareness among education majors, *AEDS Journal*, 16(2), pp 92-103
- Jay, T.B.(1981). *Computerphobia: What to do about it?* Educational Technology
- Kay, R.H. (1990) Predicting Student Teacher Commitment to the Use of Computers. *J. of Educational Computing Research*, Vol 6(3) 299-309

Loyd B.H., and Gressard C. (1986). Gender and Amount of Computer experience of Teachers in Staff Development Programs: effect on Computer attitudes and Perceptions of the Usefulness of Computers, Association for Educational data System Journal.

Rafaeli, A., 1986, "Employee attitudes toward working with computers". *Journal of Occupational Behaviour*, vol. 7, pp. 89-106.

Shaw M. E & Wright J.M.(1967). The nature of attitudes. In M.E. Shaw & H.M. wright, Scales for measurement of attitudes (pp. 1-15). new York: McGraw-Hill.

Wedman, J.F. & Heller, M.O. (1984). Concerns of teachers about educational computing. *AEDS Journal*, 18 (1), pp. 31-40.

Zimmerman (1981). Technology and The Future of women: Haven't We Met Somewhere Before? In J. Rothchild (Ed.) *women, Technology and Innovation* (pp 355-367) london: Pergamon Press Ltd.