

# **The Information Technology Adoption Process within Indonesian Small and Medium Enterprises**

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A THESIS SUBMITTED FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY

**University of Technology Sydney  
Faculty of Information Technology**

**2007**

## **Certificate of Authorship/Originality**

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated and referenced in the thesis.

Signature of Candidate

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## Acknowledgements

All thanks and praise is due to God Almighty for granting me the opportunity of writing this thesis.

This thesis was completed with the support of a range of people and organizations. I must appreciate the help and support of my supervisors Associate Professor Didar Zowghi, Associate Professor David Wilson, and Dr. Jim Underwood, who devoted an enormous amount of their busy time to me during the entire course of the study. Specifically, I would like to thank Didar and Jim for their help, guidance and support during this period. I am thankful to them for their open mind, patience, and guidance. Especially, their time at the final stages is something exceptional. Without their help, encouragement and support, this work would have never reached this stage. The early version of my thesis proposal has been developed under the supervision and assistance from Associate Professor Rodney Clarke of the University of Wollongong Australia.

This work was edited in accordance with parts D, language and illustrations; and E, completeness and consistency of the *Australian Standards for Editing Practice* by Dr Bruce Howarth, who has taught in the IT field, and has experience in systems development

The help and support of my friends at Requirements Engineering Research Laboratory, Faculty of IT, UTS; Ms Norazlin Yusop, Ms Nurmuliani, Dr. Mahmood Niazi, Dr Tom McBride, and Mr Chad Coulin are appreciated for their willingness to share and discuss my research ideas. Special thanks to Mr Siswanto and Mr Tony Pongoh for their great help and commitment to overcome my problems which significantly impacted the completion this thesis. Thanks are due to all the staff at Faculty of Economics, Atma Jaya Yogyakarta University, and Dr Koesmargono from

the Faculty of Engineering for facilitating my return to work. I am thankful to the interview participants who had dedicated their valuable time for my study. It is a pity that due to ethical consideration I could not publicly appreciate their invaluable contributions. I also would like to thank various research visitors at Requirements Engineering Research Laboratory Faculty of IT, UTS, Dr Vincenzo Gervasi, Prof. Alan M. Davis, Dr João Araújo, Dr Tracy Hall, and Prof. Dave Bustard who had been willing to listen to my ideas and contribute their valuable suggestions. I also would like to thank my virtual friends at DB Net who have helped me going through hard days while I was in Australia by continuously amusing me.

Another special appreciation goes to AusAid representatives at UTS, Ms Kaye Osborn, Ms Raquel Armedilla, Ms Eva Postlep, Ms Aki Plume, Ms Susanne Clark, and Mr Steve Haddad for helping me and my family to settle in Sydney and contribute to our wonderful life while we were in Australia.

Last but definitely not least, I would like to thank my wonderful wife Retno and my lovely daughter Sati for their patience and support during the lengthy process of this study. I am also grateful to my parents, Iman Sarosa Sukardi and Siti Supartini, my parents in law, Mr Heribertus Sugiyanto and Christina Sri Suratilah, my brothers Yoyok, Dea, and Nana, and other family members for their best wishes, prayers and support.

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## **Dedications**

I would like to dedicate this thesis to:

- The loving memory of my father, Iman Sarosa Sukardi who passed away when I just started my PhD
- My lovely wife, Retno for her support and willingness to accompany me to Australia and abandoning her bright career
- My lovely daughter, Sati who was born in the middle of my PhD. I am sorry for being unable to provide you with a better environment when you were born. I wish it could be better.

## **Abstract**

This thesis examines the adoption process of Information Technology (IT)-based solutions within small and medium enterprises (SMEs) in Indonesia, in the furniture and handicraft industries. As the Indonesian SMEs grew in size, they faced new problems in managing their businesses. They have tried to use IT to support their business and resolve some of these problems. Yet in their efforts to adopt IT, they often faced new problems by introducing new technology into the organisation.

The thesis examines the experiences of 35 Indonesian SMEs when they adopted IT. We investigated what factors were influencing IT adoption; the process of IT adoption which covers decision making, implementation or deployment and evaluation; and how SMEs cope with and recover from failure. The participants' experiences were compared to what has been reported in the existing literature.

Analysis of the relevant research literature revealed some unexplored issues concerning IT adoption within SMEs. Most of the published research has been conducted in developed countries, with little in developing or less developed countries. From those few, only one was conducted in Indonesia and it was about IT diffusion. The focus of previous studies was mainly to explore factors influencing IT adoption and they mostly utilised survey techniques to elicit the factors. The scant literature suggests that exploring IT adoption can be approached from three different perspectives: individualist, structuralist, and interactive process. This thesis uses the interactive process approach to explore how well those factors that have been well documented in the literature actually work in Indonesian SMEs' IT adoption. As a result of our exploration, we formulated a model of an interactive process view of IT adoption within Indonesian SMEs.

A qualitative approach was used to answer research questions and explore the participants' experiences in depth. In this thesis, we used in-depth interviews to explore participants' experiences. These interviews enabled us to draw out not only IT adoption processes but also successes and failures in IT adoption. Semi-structured interviews were used as the data collection tool. They provided guidance so the interviews stayed well within the focus of the thesis, yet provided room to explore new and relevant issues that emerged during the interview process. Content analysis of the interview transcripts was used to extract answers given during the semi-structured interviews and to identify new themes that emerged from the data.

The analysis resulted in important findings. First, it confirms some factors found in the literature as actually influencing IT adoption in Indonesian SMEs. Despite some similarities, we found some differences such as government role and competitors' influence on IT adoption. The other findings are concerned with the failures faced by some of the participants. We then explore the differences between failed and successful participants, and how Indonesian SMEs cope with and recover from failed IT deployment. Finally, we revised the initial model of the interactive process of IT adoption. The extended model captures new insights into success and failure of IT adoption, and could provide a better understanding of IT adoption within Indonesian SMEs. The interaction between different factors in the IT adoption shows how those factors influence each other and how different stakeholders could manage their own interests related to IT adoption. The improved model could be used to guide Indonesian SME managers to manage their adoption of IT more effectively.