

**THE CHALLENGE OF STICKINESS IN KNOWLEDGE
TRANSFER AMONG INFORMATION AND
COMMUNICATION TECHNOLOGY (ICT) FIRMS IN
MALAYSIAN TECHNOLOGY PARKS**

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DECLARATION

This thesis is my own account of research conducted by myself except where other sources are fully acknowledged by footnotes and referencing and contains as its main content work which has not previously been submitted for a degree at any university.

Suhaimi Mhd Sarif

ABSTRACT

THE CHALLENGE OF STICKINESS IN KNOWLEDGE TRANSFER AMONG INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FIRMS IN MALAYSIAN TECHNOLOGY PARKS

The study examines knowledge transfer between firms by using the concept of stickiness to conceptualise problems with knowledge transfer. The concept of stickiness is subdivided into “macro” and “micro” levels stickiness. As for “macro” level stickiness, the study uses literature in the field of innovation studies, in which governments have been identified as major contributors to macro level stickiness. The study uses literature in the economics of knowledge and evolutionary economics to develop the concept of “micro” level stickiness, which refers to firms’ contributions to stickiness. Four factors are used to examine micro stickiness: transfer mechanisms, types of transfer, knowledge barriers, and transfer contexts.

After explaining the concept of stickiness and providing a background to technology parks policy, the study examines the perceptions of a variety of informants of stickiness in knowledge transfer among ICT firms in Malaysian technology parks. The study approached seven (out of eleven) Malaysian technology parks, over a period of three months in 2005 (May-July 2005) and a month in 2007 (August 2007). It interviewed fifty (50) informants, who included policy makers, government officers, and executives of ICT firms in Malaysian technology parks.

With respect to “macro” level stickiness, policy makers and government confirmed that the government cannot exclude previous policy documents that contained three major elements: national unity, foreign direct investment and sound economic growth to formulate policy for Malaysian technology parks, which does not solely encourage knowledge transfer because the policy documents permitted short term profit taking by ICT firms.

With respect to “micro” level stickiness, the results suggest that transfer mechanisms, types of transfer, knowledge barriers, and transfer contexts are costly; thus, impede ICT firms from participating actively in knowledge transfer between ICT firms. This study suggests that the government and ICT firms should work closely to facilitate knowledge transfer between ICT firms in Malaysian technology parks.

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LIST OF ACRONYMS

EPU	Economic Planning Unit
FDI	Foreign Direct Investment
FTZ	Free Trade Zone
GDP	Gross Domestic Products
ICT	Information and Communication Technology
IMP	Industrial Master Plan
JTP	Johor Technology Park
KDI	Knowledge-based Economy Index
KHTP	Kulim Hi-Tech Park
MP	Malaysia Plan
MSC	Multimedia Super Corridor
MTDC	Malaysia Technology Development Corporation
MTR	Mid Term Review
NEP	New Economic Policy
NKDC	National Knowledge-based Economy Development Council
OECD	Organisation for Economic Co-operation and Development
OPP	Outline Perspective Plan
PIKOM	<i>Persatuan Industri Komputer Malaysia</i> (Computer Industry Association of Malaysia)
TFP	Total Factor Productivity
TPM	Technology Park Malaysia
PIA	Promotion Investment Act
SITP	Seri Iskandar Technology Park
SMIDEC	Small and Medium Industries Development Corporation
SSP	Selangor Science Park