

THE MODERATING EFFECT OF  
ORGANIZATIONAL STRUCTURE AND  
QUALITY PRACTICES ON ABSORPTIVE  
CAPACITY, TECHNOLOGY COMPATIBILITY  
AND TECHNOLOGY TRANSFER  
RELATIONSHIP

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By

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## Abstrak

Pemindahan teknologi merupakan salah satu kaedah bagi meningkatkan perkembangan serta pertumbuhan sesebuah organisasi. Terdapat pelbagai faktor yang menyumbang ke arah prestasi pemindahan teknologi. Namun begitu, hanya sedikit usaha dilakukan bagi meneliti kemampuan pencerapan organisasi terhadap prestasi pemindahan teknologi. Sehubungan dengan itu, kajian ini dilakukan terhadap firma Elektronik dan Elektrik di Malaysia bagi mengenalpasti hubungan di antara kapasiti cerapan firma serta kesuaipadanan teknologi dengan prestasi pemindahan teknologi mereka. Di samping itu, kajian ini juga bertujuan mengenalpasti samada struktur dan saiz firma serta amalan kualiti firma bertindak sebagai moderator dalam hubungan di antara kapasiti cerapan firma, kesuaipadanan teknologi dan prestasi pemindahan teknologi. Kaedah penyelidikan yang dijalankan berbentuk kajian lapangan di mana instrumen yang digunakan adalah soal-selidik. Data dianalisa menggunakan kaedah korelasi Pearson dan regresi berganda. Dapatan kajian menunjukkan terdapat hubungan yang signifikan di antara beberapa dimensi kapasiti cerapan dan kesuaipadanan teknologi dengan prestasi pemindahan teknologi. Di samping itu, beberapa pembolehubah moderator juga bertindak mempengaruhi hubungan di antara kapasiti cerapan dan kesuaipadanan teknologi dengan prestasi pemindahan teknologi. Ujian post-hoc juga telah dijalankan bagi mengenalpasti bentuk moderator dalam kajian ini. Hasil kajian ini dapat menyumbang kepada perkembangan teori dan pengetahuan kerana salah satu dimensi dalam kapasiti cerapan telah dikenalpasti sebagai penting dalam mempengaruhi hubungan terhadap prestasi pemindahan teknologi.

## Abstract

Technology transfer is one of the channels to upgrade development and spur growth. Many factors contributed to the performance of the transferred technology, yet few attempts were made to determine firms' absorptive capacity and technology compatibility towards the transferred technology. This study was conducted on the Electronics and Electrical firms in Malaysia to understand the performance of the transferred technology. The objectives were to determine the relationship between firms' absorptive capacity and technology compatibility in technology transfer performance. In addition, the study also attempted to determine the moderating role of organizational size and structure and its quality practices in the absorptive capacity, technology compatibility and technology transfer performance relationship. The study used survey method. Data was analyzed using Pearson correlation and multiple regression analysis. The findings showed that absorptive capacity dimensions and technology compatibility dimension have several significant relationships with technology transfer performance. Moreover, among organizational structure, size and quality practices, few act as moderators in the relationship between absorptive capacity, technology compatibility and technology transfer performance. Finally, a post-hoc test was conducted to determine the type of moderators involved in this study. The result of this study contributed to knowledge as it discovered additional dimension of absorptive capacity that was also important in influencing the relationship of absorptive capacity, technology compatibility and technology transfer performance relationship.

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## **CHAPTER 1: INTRODUCTION OF THE RESEARCH**

This chapter starts with a background of the study under Section 1.1, followed by the problem statement in Section 1.2. Research objectives and research questions are then covered under Section 1.3. Several contributions of this study are discussed in Section 1.4. Section 1.5 includes the scope and limitations of this study while Section 1.6 explains the terms used in this study. Finally the chapter concludes with the organization of the report in Section 1.7 and the summary of the chapter in Section 1.8.

### **1.1 Background of the study**

Technology is becoming an important element in social and economic development (Tai-Yue & Shih-Chien, 2007). With technology, it provides a basic requirement to stimulate growth. One of the ways to obtain advanced technology is through technology transfer. Osman-Ghani (1999) suggested that technology transfer is an avenue for firms to increase their technological innovation. Furthermore, firms become involved in technology transfer as they want to increase their technological capabilities (Geeta & Hong 2003). This is important especially when firms' internal R&D is limited.

However, technology transfer is very complex. It involves transferring technology from provider firms, which are private R&D firms, government agencies

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**Comment [U27]:** Will go thru them again after printing the hard copy. Need to work on computer that do not have end-notes coz the program keep on up-dating/amending the references. Yg tak directly quote, abis dipadamkan.

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