



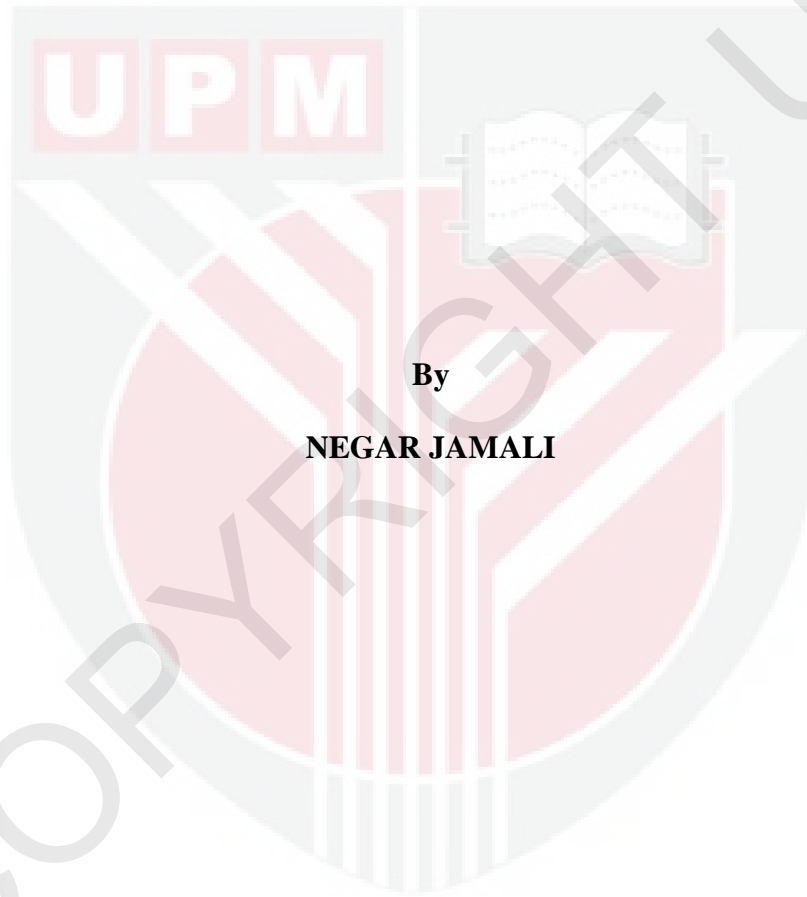
UNIVERSITI PUTRA MALAYSIA

**FACTORS INFLUENCING THE LEVEL OF ELECTRONIC COMMERCE
AMONG CENTRAL IRANIAN SMEs**

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FK 2012 104

**FACTORS INFLUENCING THE LEVEL OF ELECTRONIC COMMERCE
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By

NEGAR JAMALI

**Thesis submitted to the School of Graduate Studies, Universiti Putra Malaysia, in
Fulfilment of the Requirements for the Degree of Master of Science**

July 2012

DEDICATIONS

*I dedicate this thesis to my parents, Abdullah Jamali and Tayebah Samavi, your essence
is in everything I accomplish.*



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

**FACTORS INFLUENCING THE LEVEL OF ELECTRONIC COMMERCE
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Chair: Associated Professor Faieza Abdul Aziz, PhD

Faculty: Engineering

Small and medium-sized enterprises (SMEs) contribute heavily to economic growth, social structure and employment as well as regional and local development. Consequently, they have become a significant sector of the economy. Moving towards globalization and rapid technological changes, including the internet and e-commerce (EC), can offer new opportunities for SMEs. Researchers have recently discovered that information technology-related innovations such as EC are being used increasingly by SMEs because of their various benefits. The lack of EC research on SMEs of developing countries is challenging because the findings of previous EC studies on

SMEs of developed countries cannot be freely generalized to the context of SMEs of developing countries. This lack of generalizability is due the fact that in most developing countries including Iran, and in addition to the innate limitation of SMEs, EC adoption by SMEs is also hindered by the quality, availability, and cost of accessing necessary infrastructure. Therefore, the recent literature recommends that studies should be strong enough to capture most, if not all, of the idiosyncrasies of EC adoption within SMEs of developing countries.

To help SMEs, in particular those in developing countries, with EC adoption, this research investigates the factors within the Technological Organizational Environmental (TOE) framework that affect the decision to adopt EC as well as the adoption and non-adoption of different EC tools within two hundred thirty five manufacturing SMEs in central Iran. Furthermore the current research attempted to investigate the level of EC adoption in SMEs. In this research a questionnaire-based survey using a quantitative approach is conducted. The research model hypothesised ten adoption predictors within three contexts of TOE framework; relative advantage, cost, compatibility, business size, information intensity, support from technology vendors, pressure from suppliers/buyers, competition, CEO's innovativeness, and CEO's involvement. The findings showed that seven out of ten factors have significant positive relationships with EC adoption, which were buyer/supplier pressure, support from technology vendors, perceived compatibility, CEO innovativeness, perceived relative advantage, competition and information intensity. Moreover, results showed that 57.02 percent of SMEs adopted EC. In addition to this, there was an adoption rate of 48.50 percent for email, 29.10 percent for intranet, and 32.90 percent for extranet/VPN, 41.04 percent for web sites, 22.39 percent for EDI,

13.43 percent for EFT and 11.19 percent for ESCM. However, the factors that appeared to be significant and the ones that appeared to be insignificant led to a conclusion the weakness of the EC adoption phenomenon in Iranian SMEs. This research has managerial implications for practitioners in Iran and internationally, and theoretical implications for researchers who are interested in EC adoption within SMEs.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**FAKTOR- FAKTOR YANG MEMPENGARUHI TAHAP PERDAGANGAN
ELEKTRONIK ANTARA PENGUSAHA KECIL DAN SEDERHANA DI
SENTRAL IRANIAN**

Oleh

NEGAR JAMALI

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Perusahaan Kecil dan Sederhana (PKS) menyumbang sepenuhnya kepada pertumbuhan ekonomi, struktur sosial, pekerjaan dan juga pembangunan serantau dan tempatan. Oleh itu, perusahaan ini menjadi tunjang kepada pertumbuhan sektor ekonomi. Dalam menuju ke arah era globalisasi dan perubahan teknologi yang pesat, termasuk penggunaan internet dan e-dagang (EC), ianya dapat menawarkan satu peluang yang baharu terhadap PKS. Baru-baru ini para penyelidik telah menemui satu inovasi yang berkait rapat dengan teknologi maklumat seperti penggunaan EC yang semakin meluas disebabkan

oleh pelbagai faedah. Kurangnya kajian EC ke atas PKS di negara-negara yang sedang membangun menyebabkan timbulnya masalah kerana penemuan kajian EC ke atas PKS negara-negara maju tidak boleh sewenang-wenangnya diguna pakai di negara-negara yang sedang membangun. Kekurangan ini adalah disebabkan oleh fakta bahawa di kebanyakan negara-negara yang sedang membangun termasuk Iran, dan di samping kekangan had bawaan PKS, penerimaan penggunaan EC oleh PKS juga dibatasi oleh kualiti, ketersediaan, dan kos yang diperlukan untuk mengakses infrastruktur yang sesuai. Oleh itu, penemuan terbaharu mencadangkan supaya kajian seharusnya dibuat dengan teliti serta merangkumi keseluruhan, jika tidak semua, idiosinkrasi penggunaan EC ke atas PKS di negara-negara sedang membangun.

Untuk membantu PKS dalam penggunaan EC, khususnya bagi negara-negara sedang membangun, penyelidikan ini mengkaji faktor-faktor dalam rangka Teknologi Organisasi Alam Sekitar (TOE) yang mempengaruhi keputusan untuk mengamalkan EC, serta gunapakai dan tidak gunapakai penggunaan alatan EC yang berbeza, di kalangan dua ratus tiga puluh lima PKS dalam bidang pembuatan di Sentral Iran. Selain itu, penyelidikan ini juga mengkaji tahap penggunaan EC dalam PKS. Untuk penyelidikan ini, satu kajian berasaskan soalan kaji selidik menggunakan pendekatan kuantitatif dijalankan. Model penyelidikan dibuat berdasarkan sepuluh hipotesis ramalan penerimaan dalam tiga konteks rangkakerja TOE; faedah relatif, kos, keserasian, saiz perniagaan, keamatan maklumat, sokongan daripada vendor teknologi, tekanan daripada pembekal / pembeli, persaingan, inovasi Ketua Pegawai Eksekutif, dan penglibatan CEO. Hasil kajian menunjukkan bahawa tujuh daripada sepuluh faktor mempunyai hubungan positif yang signifikan dengan penggunaan EC, iaitu tekanan dari

pembeli/pembekal, sokongan daripada vendor teknologi, keserasian yang dicapai, inovasi CEO, penerimaan faedah berbanding, persaingan dan intensiti maklumat. Selain itu, keputusan menunjukkan bahawa 57.02% PKS mengguna pakai EC. Disamping itu, terdapat kadar penerimaan sebanyak 48.50% untuk e-mel, 29.10% untuk intranet dan 32.90% untuk ekstranet / VPN, 41.04% untuk laman web, 22.39% untuk EDI, 13.43% untuk EFT dan 11.19% untuk ESCM. Walau bagaimanapun, faktor-faktor yang timbul sebagai sesuatu yang penting dan yang tidak penting menjurus kepada kesimpulan terhadap kelemahan dari fenomena penggunaan EC ke atas PKS di Iran. Kajian ini mengandungi implikasi pengurusan untuk para usahawan di Iran dan di peringkat antarabangsa, dan implikasi ke atas teori bagi penyelidik yang berminat mengguna pakai EC di dalam PKS.

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Sincerely

NEGAR JAMALI

I certify that a Thesis Examination Committee has met on 30 July 2012 to conduct the final examination of Negar Jamali on her thesis entitled "Factors influencing e-commerce adoption within Iranian small and medium-sized enterprises" in accordance with the Universities and University College Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.



NEGAR JAMALI

Date: 30 July 2012

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