

**CONSUMER SELF-SERVICE TECHNOLOGY ADOPTION  
IN MULTIPLE SERVICE INDUSTRIES IN SAUDI ARABIA**

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**By**

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**Thesis Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
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## ABSTRACT

The current convergence of information and communication technology (ICT) is found to be creating new opportunities. Business organizations are leveraging this technology in response to the need for greater business integration, flexibility, and agility. One of the technologies that have been utilized quite aggressively by firms is the Self-Service Technologies (SST). Although the proclaimed benefits of SSTs are enormous, few institutions which have adopted the SST have achieved its intended objectives. Even though the use of the SSTs in the service settings within the developed economies has attained an increasing level of acceptance by consumers, little is known about the consumer's adoption in the Arab world, particularly in Saudi Arabia which is still lack of research in this area. Therefore, the main aim of this thesis is to explore the SST adoption in multiple sectors in Saudi Arabia as well as the usage of all types of SST. The main focus of this thesis, is to explore the consumers' adoption of the SSTs through the users' seek values. The users' seek values construct is a new construct proposed in this study to complement the Technology Acceptance Model (TAM) framework. The research model composes of four variables: the antecedents of users' seek values; the users' seek values; the customers' intention to use the SST; and the customers' adoption of the SST. Using a mall-intercept technique, a sample of 400 respondents was collected in three major cities in Saudi Arabia. The hypothesis was tested using Structural Equation Modeling (SEM). The results showed that, for the antecedent factors, demographic profiles and personality traits were found to influence the users' seek values. In addition, users' seek values were found to mediate the relationship between the consumers' characteristics and their intention to use the SST. In addition, the intention to use the SST also mediates the relationship between users' seek values and the SST adoption. Finally, the direct positive relationship between customers' intention and adoption was also confirmed. The research concluded with a discussion on the management implications as well as the recommendations and the future research that need to be carried out.

**Keywords:** users' seek values, antecedents, self-service technologies, technology acceptance model, Saudi Arabia

## ABSTRAK

Penemuan semasa tentang teknologi maklumat dan komunikasi (ICT) banyak mewujudkan peluang baharu. Organisasi perniagaan banyak memanfaatkan teknologi sebagai tindak balas kepada keperluan yang meningkat bagi integrasi perniagaan, fleksibiliti, dan ketangkasan. Antara teknologi yang telah digunakan secara agresif oleh firma-firma ialah Teknologi Layan Diri (SST). Walaupun manfaat atau faedah SST dikatakan agak banyak, namun hanya beberapa institusi yang mengguna pakai SST mencapai objektif yang menjadi matlamatnya. Penggunaan SST dalam bidang perkhidmatan di negara ekonomi maju telah menyaksikan peningkatan tahap penerimaan yang tinggi oleh pengguna. Namun, hanya sedikit maklumat yang diketahui dan jumlah kajian yang terhad tentang penggunaan SST oleh pengguna di dunia Arab terutamanya di negara Arab Saudi. Oleh itu, matlamat utama kajian ini adalah untuk meneroka penggunaan SST dalam pelbagai sektor dan juga penggunaan semua jenis SST di negara Arab Saudi. Tumpuan utama kajian ini adalah untuk meneroka tujuan pengguna dalam penggunaan SST berdasarkan objektif penggunaan. Konstruk ini merupakan konstruk baharu yang dicadangkan dalam kajian ini bagi melengkapi rangka Model Penerimaan Teknologi (TAM). Model kajian ini terdiri daripada empat pembolehubah: latar belakang atau anteseden pengguna bagi mendapatkan nilai-nilai, pengguna-pengguna yang mendapatkan nilai-nilai, tujuan pelanggan menggunakan SST, dan penggunaan SST oleh pelanggan. Dengan menggunakan teknik pintasan *mall (mall-intercept technique)*, sampel daripada 400 orang responden telah dikumpulkan dari tiga bandar utama di Arab Saudi. Hipotesis telah diuji menggunakan Pemodelan Persamaan Berstruktur (SEM). Dapatan kajian menunjukkan faktor-faktor anteseden, profil demografi dan sifat personaliti mempengaruhi pengguna dalam mendapatkan nilai. Di samping itu, pengguna yang mendapatkan nilai didapati menjadi pengantara dalam hubungan antara ciri-ciri pengguna dan tujuan mereka untuk menggunakan SST. Di samping itu, tujuan untuk menggunakan SST pula menjadi pengantara dalam hubungan antara pengguna yang mendapatkan nilai dan penerimaan SST. Akhirnya, ia turut mengesahkan hubungan positif langsung antara niat pelanggan dan penerimaan. Kajian diakhiri dengan perbincangan mengenai implikasi pengurusan serta cadangan dan kajian masa hadapan yang perlu dijalankan.

**Kata kunci:** Pengguna yang mendapatkan nilai, anteseden, teknologi layan diri, model penerimaan teknologi, Arab Saudi

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## **LIST OF ABBREVIATIONS**

ATM	:	Automated Teller Machine
SST	:	Self-Service Technology
TAM	:	Technology Acceptance Model
TAM2	:	Technology Acceptance Model 2
TPB	:	Theory of Planned Behaviour
TRA	:	Theory of Reasoned Action
WTO	:	World Trade Organization

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

The service sector is one of the important contributors to the global economy. More specifically, in North America, the exports of commercial services in 2008 alone, increased by 9% to USD\$603 billion while the imports increased by 6% to USD\$473 billion. Europe's exports of commercial services on the other hand also showed an increase by 11% to USD\$1.9 trillion along with exports by 10% to USD\$1.6 trillion. In the meantime, commercial services exports in the context of the Middle Eastern countries was reported at USD\$94 billion in 2008, showing an increase of 17% from the year before. Along a similar line, imports also increased by 13% in the same context to USD\$158 billion (WTO, 2008). While the economic growth of both the continents of Europe and North America only displayed a slight 1% increase in 2008, the oil exporting regions of South and Central America, the Commonwealth of Independent States, Africa and the Middle East all reported increase in their GDP growth of 5% with Middle East exports growing at the rate of 6.3%.

This buoyant economic growth would obviously affect the growth of the services sector within this region. In addition, the world commercial services exports showed an increase of 11% in 2008 to reach USD\$3.7 trillion with the three fastest primary categories of service exports as transport (15% growth), travel (10%), and other commercial services

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