



Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

 ScienceDirect

Research in Social and  
Administrative Pharmacy 12 (2016) 949–965

---

---

RESEARCH IN SOCIAL &  
ADMINISTRATIVE PHARMACY

---

---

Original Research

# A cross-sectional investigation of acceptance of health information technology: A nationwide survey of community pharmacists in Turkey

Emre Sezgin, M.Sc. <sup>\*</sup>, Sevgi Özkan-Yıldırım, Ph.D.

Middle East Technical University, School of Informatics, 06800, Çankaya, Ankara, Turkey

---

## Abstract

**Background:** Health information technologies have become vital to health care services. In that regard, successful use of information technologies in pharmaceutical services is important to manage, control and maintain pharmaceutical transactions, which increase the quality of health care delivery.

**Objective:** This study aimed to identify influencing factors on pharmacists' acceptance of pharmaceutical service systems.

**Methods:** A cross-sectional study was conducted employing a research model based on technology acceptance theories. A parsimonious model was developed, and a self-reported questionnaire was distributed online. Community pharmacists participated voluntarily via the website of Turkish Pharmacists' Association. The data was analyzed employing Structural Equation Modeling.

**Results:** From 77 out of 81 cities of Turkey, 2169 community pharmacists participated to the survey with 43% response rate. Perceived usefulness, perceived ease of use, system factors and perceived behavioral control explained 47% of total variance in pharmacists' intention to use the pharmaceutical technology.

**Conclusion:** The findings of the research provided insight about relations of influencing factors and practical implications regarding perceived behaviors and system use. Future researchers would benefit from the study design and findings. The study is also valuable for being the first nationwide study conducted on pharmacists about user attitudes toward a technology.

© 2015 Elsevier Inc. All rights reserved.

**Keywords:** Health information technologies; Pharmaceutical service systems; E-pharmacy; E-health; Adoption; Technology acceptance

---

## Introduction

Health information technologies (HIT) are health care service tools and software to provide assistance in communication and service processes.<sup>1,2</sup> HIT has been the major stepping stone toward increasing the quality of health care

services, and information communication technologies (ICT) have been utilized to adapt technological developments in health care services.<sup>2–4</sup> Transforming from traditional services to ICT-enabled services is a common trend, and the literature presents that transformation of electronic

---

<sup>\*</sup> Corresponding author.

E-mail address: [esezgin@metu.edu.tr](mailto:esezgin@metu.edu.tr) (E. Sezgin).

medical records was the common practice in ICT use in health care.<sup>4,5</sup> Moreover, increasing investments on ICTs has already pointed the importance of information technology in health care.<sup>6</sup>

As health care providers, pharmacists are in a critical position to meet the needs of patients and prescribers to assist safe and effective treatments. Furthermore, managerial and therapeutic duties of pharmacists increase the weight of their responsibilities.<sup>7</sup> Considering the expanding drug market and medical developments, technological assistance in pharmaceutical services has become a necessity in order to meet standards in providing quality service. In this context, pharmaceutical service systems (PSS) emerged as the extension of health information technologies in the field of pharmaceutical practices. Pharmaceutical service systems can be defined as pharmaceutical technology, service application and system built upon an information and communication platform to provide health services. In the literature, there are a number of studies about pharmaceutical services including clinical practices,<sup>8</sup> ethical studies,<sup>9,10</sup> medical shopping,<sup>11</sup> system development,<sup>12–14</sup> remote services (tele-pharmacy)<sup>15</sup> and service quality assessment.<sup>16</sup> It is evident from the literature that pharmaceutical services have an important place in health care delivery, and the economic and practical impact on health care delivery are unquestionable.<sup>17–19</sup> Moreover, ICT transformation in pharmaceutical services is rapidly increasing.<sup>7</sup>

The Turkish Statistical Institute reported that, in 2013, there were 27,012 pharmacists actively working in Turkey.<sup>20</sup> The number of community pharmacists were reported as 24,119, and the

others work in public and private industries.<sup>21</sup> Despite the large number of pharmacists in the country, there is a shortage of community pharmacists, with a population: to: community pharmacist ratio of 2965, compared to other highly populated countries in Europe, like Germany, Italy and France, whose ratios are 1754, 1143 and 1176 respectively.<sup>21</sup> Therefore, managing, controlling and maintaining the pharmaceutical transactions of community pharmacies have a vital importance. To coordinate and operate pharmaceutical services, the Health Ministry of Turkey postulates each pharmacy store to have at least one computer and internet connection in order to access the pharmaceutical services system (PSS), namely Medula, which is a network-based application. Medula has been used for more than ten years in Turkish national pharmacy services. It was brought as a substitute system for the previous pharmacy management system, which was a standalone system for prescription records. Today, Medula has been accessed from more than 20,000 pharmacy stores nationwide, and it provides a substantial amount of economic value to Turkish health industry in terms of pharmaceutical services.<sup>22</sup> The ministry of Health defined Medula as an information and communication platform, which integrates a number of services including electronic health records, health care technologies, diagnostic laboratory tools, community practice systems and supply management systems (Fig. 1). Medula users have three main tasks: (1) patient registration (creating patient information records and prescription entries), (2) conducting pharmaceutical queries (drug stocks, prescription control) and (3)

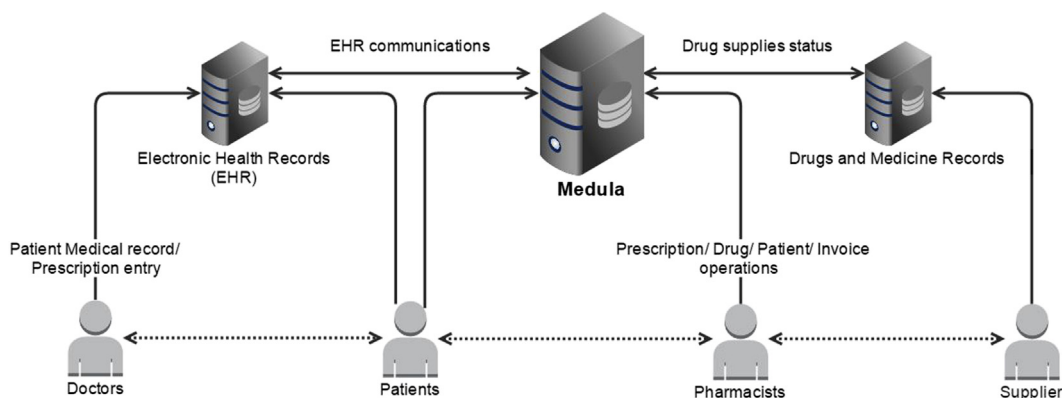


Fig. 1. Schema of Medula system.

Download English Version:

<https://daneshyari.com/en/article/5551417>

Download Persian Version:

<https://daneshyari.com/article/5551417>

[Daneshyari.com](https://daneshyari.com)