

Chapter 5.12

Publicly Available Computers: An Investigation of Transactional Website Use through Computers in Public Locations¹

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ABSTRACT

Businesses and governments continue to expand the use of the internet to access and provide a wide range of services to consumers. This change in service delivery presents a potential access barrier for people who do not have access to the internet available in their homes. Publicly available computers attempt to bridge this gap; however, it is not clear if people are willing to use computers in these environments to engage in the full range of web-based activities, particularly online transactions. We expand Triandis' modified TRA model to consider user characteristics and the impact of the physical and virtual environment on public transactional use of websites. Results indicate that people are sensitive to the physical environment surrounding the computer and that Internet self-efficacy supports public transactional use while individual need for privacy deters transactional use in a public environment. In addition, people without personal internet access do complete transactions at other non-public locations and that completing transactions from non-public locations is a strong determinant of public transactional use.

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INTRODUCTION

The Internet has moved from business use into many aspects of modern life and has become an important channel through which businesses and governments provide service to consumers. This new delivery channel helps to reduce costs and improve efficiency while increasing consumer access to goods and services. The use of electronic channels has become so extensive that many people shop online instead of going to a store, bank online instead of visiting a bank and submit job applications electronically instead of filling out paper applications- all from their computers (Venkatesh & Brown, 2001). In addition governments employ these efficient and cost-effective channels to provide citizen access to information and services (Horrigan, 2004). For example, the Federal Emergency Management Agency (FEMA) encourages disaster victims to request assistance via an Internet-based application process (FEMA, 2008).

These changes in the way people interact with commercial enterprises and government agencies in addition to the vast number of services provided through Internet channel creates a large barrier for people without personal access to the Internet. This *digital divide*, or lack of access to Internet technologies, has been studied along economic (Preiger, 2003), geographic (Gabe & Abel, 2002; Hoffman et al., 2000; National Telecommunication and Information Administration, 2000) and racial dimensions (Stanley, 2003). Unfortunately, we continue to see indications that as more people become Internet users, others are dropping out (Horrigan et al., 2003), so this lack of access problem may extend well into the future. Statistics from the U.S. Census indicates that although 55% of all U.S. households have an Internet connected computer, only 31% of households with income under \$25,000 have residential internet access (Day et al., 2005). So an important element in addressing the issues of this gap in access, is to provide public internet access in locations such as

community centers, government point of service locations and public libraries (Nicholas et al., 2002) where people are willing to fully participate in all aspects of Internet use (Stiglitz et al., 2000).

Although making Internet connections available for information access is very important, we do not know if people are willing to fully use Internet technologies and engage in electronic transactions from public locations. If people who do not have personal access to the Internet are unwilling to fully use publicly provided access to Internet technologies, these publicly provided connections may help bridge the information divide, but an e-commerce divide may remain (Dewan & Riggins, 2005).

The adoption of technology has been extensively studied in organizations; however, there has been little focus on the adoption and use of computer technologies in public environments (Kibirige, 2001; Nicholas et al., 2002; Slack & Rowley, 2004). The environment surrounding a publicly located computer is very different from the environment of a non-public computer. Orlikowski and Iacono (2001) suggest that the context is important when considering IT use so guided by this insight, we use Triandis' (1980) modified Theory of Reasoned Action to develop a model of the determinants of transactional use in a public environment and then test the model in the public library environment. This research explores the area where e-commerce research intersects with the digital divide literature and expands our current knowledge about e-transactions by considering the influence of computing environment on user activities. The research also adds insight into the electronic transaction activities of people without residential internet access.

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