

# Chapter 5.20

## Benefits Derived from ICT Adoption in Regional Medical Practices: Perceptual Differences Between Male and Female General Practitioners

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### ABSTRACT

Information and communications technologies (ICTs) are being used more and more by general practitioners (GPs) in their day-to-day activities. While a number of studies have shown that ICT adoption and use can provide real benefits to medical practices, there have been few studies to determine whether the perception of those benefits is uniform across the sector. This study examines

whether differences in the perception of benefits exist between male and female GPs. The results suggest that the groupings and priorities of benefits arising from ICT use differ substantially between male and female GPs. Results also show, amongst other things, that male GPs are focussed on business efficiency, while female GPs are focussed on communication and practice expansion.

## **INTRODUCTION**

The use of ICTs within medical practices is by no means a new phenomenon. An examination of the literature provides numerous studies detailing the design of clinical ICT systems (Baldwin, Clarke, & Jones, 2002; Hsu et al., 2005; Pelletier-Fleury et al., 1999) as well as the uses of such systems within medical practice or health care facility (Ammenwerth, Mansmann, Iller, & Eichstadter, 2003; Catalan, 2004; Shohet & Lavy, 2004; Waring & Wainwright, 2002). Along with the increased adoption and use of ICTs in the small-to-medium enterprise (SME) sector (MacGregor, 2004a; MacGregor & Vrazalic, in press; Stockdale & Standing 2004; Woerndl, Powell, & Vidgen, 2005), there has been an increased interest both by academics as well as practitioners in the use of ICTs in the overall management of medical practices (Anderssen, Vimarlund, & Timpka, 2002; Ash, Gorman, Seshadri, & Hersh, 2004; Leung, Yu, Wong, Johnston, & Tin, 2003). These studies suggest that health care managers and professionals are increasingly examining ICTs, not only to improve medical services but to reduce costs and to operate more effectively and efficiently.

Not only has there been an increased use of ICTs both within the SME sector as well as the medical sector, a number of studies (Boerma & van den Brink-Muinen, 2000; MacGregor & Vrazalic, in press; Teltscher, 2002,) have shown that there is a substantial increase of females in the wider SME sector as well as in general practice. The increase in female participation and ICT adoption has, not unexpectedly, given rise to studies concerning the role of gender in ICT adoption and use. A number of studies (Brush & Hisrich, 1999; Buttner & Moore, 1997; Carter, 2000; Sandberg, 2003; MacGregor & Vrazalic, in press) have found gender differences in the perception of benefits derived from ICT adoption in the small business sector. Yet despite the increasing numbers of females in the workforce, there have been no studies examining whether differences exist in

the perception of benefits derived from the use of ICTs between male and female GPs.

The purpose of this paper, then, is to examine whether the groupings and priorities of benefits derived from ICT adoption, differs between male and female GPs in regional Australia. As almost all of these practices are, by nature, specialized small businesses, the study examines the benefits (both the intrinsically medical benefits as well as the more general small business benefits) derived from ICT adoption and use.

The paper begins by providing a brief review of the literature concerned with gender differences from the wider small business sector. The paper then examines gender differences within the general practice sector as well as those differences found in the adoption and use of ICTs. It further investigates the nature of benefits derivable from ICT adoption and use, both from a general SME perspective as well as from a medical perspective. A description of the study and results are presented. This includes a series of Factor Analyses of the benefits derived from ICT adoption and use by male and female GPs. Finally the implications of the study results are discussed along with conclusions.

## **Gender Differences in the SME Sector**

As most general practices in regional Australia are specialized small businesses, it is appropriate to examine the findings from this “wider” perspective, before examining medical practices or the use of ICTs. It is also appropriate to note the observations of Baker, Aldrich, and Liou (1997) and Carter (2000), who found that research into gender differences in the ownership/management of SMEs is scarce by comparison to research that has examined SMEs in general. Nonetheless, there are a number of interesting findings in the literature that compare various facets of gender differences in the ownership/management of SMEs. Studies by Carter (2000) and Brooksbank

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