

# **Women and ICT in Muslim Countries:**

***Policies, Practices and Challenges***

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I, Salma Abbasi confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm this has been indicated in the thesis

Date: 28<sup>th</sup> February, 2012

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# Abstract

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This thesis explores the challenges and barriers that influence women's engagement with ICTs in Muslim countries, particularly in Pakistan. It examines the extent to which ICT policies, plans and strategies for 24 countries refer to women, and the implications that this has for their experience of ICTs. It analyses the cultural and social constraints on women's engagement with ICTs. Empirical research was conducted in five regions of Pakistan using documentary analysis, interviews, focus groups and questionnaires.

The research shows that involving women in the ICT policy formulation process does not necessarily guarantee effective and inclusive ICT policies. Supporting Thas *et al.* (2007) and Chowdhury and Khanam (2005) it suggests that women from diverse sections of society with real knowledge of cultural and social contexts need to be involved in policy making if it is to be of benefit to women.

Building on the work of Wanasundera (2006) and Hafkin (2002), the research suggests that ICT policies cannot be gender-neutral in countries such as Pakistan, where prevailing patriarchal social structures limit understandings of the constraints faced by women in effectively utilising ICTs in their individual and collective interests.

The use and impact of ICTs depends greatly on class, education and geographical location (Gurumurthy, 2004; Jorge, 2002). ICT policies/programmes appear to cater mainly for the needs of wealthy, upper and middle class educated urban women. Thus ICTs have negligible benefits for the lower class poor, uneducated rural women (Arun *et al.*, 2004). This research also highlights critical gaps in our understanding of the interface between ICTs, women and development (Momsen, 2004).

Women face a wide range of social barriers in their use of ICTs, based on their environments, immersed in tradition and cultural norms. This research identifies substantial barriers that appear to be unaddressed in the design of ICT projects and guidebooks.

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# Abbreviations

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AAUW	American Association of University Women
AIOU	Allama Iqbal Open University
AJK	Azad Jammu Kashmir
AMD	Advanced Micro Devices
APC	Association for Progressive Communication
APDIP	Asia-Pacific Development Information Programme
APWA	All Pakistan Women's Association
ASIC	Application-Specific Integrated Circuit
BBC	British Broadcasting Corporation
CAIT	Central Agency for Information Technology
CD	Compact Disc
CD ROM	Compact Disc, Read Only Memory
CEO	Chief Executive Officer
CIDA	Canadian International Development Agency
CMS	Content Management System
COL	Common Wealth of Learning
COMNET-IT	Commonwealth Network of Information Technology for Development
DAWN	Development Alternatives with Women for a New Era
DBIC	District Business Information Centre
DFID	Department for International Development
DOI	Digital Opportunity Index
DVD	Digital Versatile Disc
ECA	Economic Commission for Africa
ECWR	Egyptian Centre for Women's Rights
FAO	Food and Agriculture Organization
GAD	Gender and Development
GAID	Global Alliance for ICT and Development
GII	Gender Inequality Index
GIS	Geographic Information System
GDP	Gross Domestic Product
GEM	Gender Evaluation Methodology
GSMA	Global System for Mobile Communication Association
HERDSA	Higher Education Research and Development Society of

	Australia
HR	Human Resource
ICT	Information and Communications Technology
ICT4ALL	Information and Communications Technology for All
ICT4D	Information and Communication Technologies for Development
ICTOI	Information and Communication Technologies Opportunity Index
ID Card	Identification Card
IDI	ICT Development Index
IDP	Internally Displaced People
IFLA	International Federation of Library Associations
ILO	International Labour Organization
IT	Information Technology
ITU	International Telecommunication Union
KADO	Karakoram Area Development Organization
KPK	Khyber Pakhtoon Khwa
KSA	Kingdom of Saudi Arabia
LBS	London School of Business
LIRNEASIA	Learning Initiatives on reforms for network economies in Asia
MAMPU	Malaysian Administrative Modernisation and Management Planning Unit
MCMC	Malaysian Communication Multimedia Commission
MDG	Millennium Development Goals
MIC	Microphone
MIS	Management Information System
MMS	Multimedia Messaging Service
NGO	Non-governmental Organization
NSF	National Science Foundation
OIC	Organisation of Islamic Cooperation
OECD	Organisation for Economic Co-operation and Development
PCO	Public Call Office
PTA	Pakistan Telecommunication Authority
SATC	Salman Ansari technology Consultants
S.A.W	SallallahuAlayhiWasallam
SDPI	Sustainable Development Policy Institute
SEWA	Self Employed Women's Association
SIM	Subscriber Identity Module
SME	Small Medium Entrepreneurs



SMS	Short Message Service
SOAS	School of Oriental and African Studies
TRA	Telecommunications Regulatory Authority
TV	Television
UAE	United Arab Emirates
UN	United Nations
UNAMA	United Nations Assistance Mission in Afghanistan
UNCTAD/IE	United Nations Conference on Trade and Development, Information Economy
UNDAW	United Nations Division for the Advancement of Women
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCWA	United Nations Economic and Social Commission for Western Asia
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
UNINSTRAW	United Nations International Research and Training Institute for the Advancement of Women
UNRISD	United Nations Research Institute for Social Development
USA	United States of America
USAID	United States Agency for International Development
VoIP	Voice over Internet Protocol
WID	Women in Development
WITSA	World Information Technology and Services Alliance
WSIS	World Summit on the Information Society

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It is unimaginable for me to consider how I could have completed this task without the support and commitment of my supervisor, Professor Tim Unwin. He has now become the voice in my head that makes me think about every word that I write and say, and the impact of these on others. The transition from engineer to academic has been a difficult experience. Unlearning 30 years of my life and engaging in textual debate was an almost impossible task. If it had not been for Tim Unwin's and Katie Willis's untiring critiques of my work, intellectual debates and patient reasoning with me, it would truly have been an impossible task. Moreover, I am deeply grateful for the trust from my colleagues from the ICT4D collective, who frequently shared their inner thoughts and horror stories from their research experiences, giving us a feeling of unity, particularly Marije Geldof.

My research has been undertaken over a period of 5 years and during this time, I have been entrenched in the world of academia, books, libraries and conferences. However, throughout this time I have been endlessly supported, encouraged and inspired by my family, friends and staff, in particular my mother, my brother, Shahzad, my sister, Najma, Dr. Amanat Hussain, Chris Wood, Asif Iqbal and Ahsan Raza, who often reminded me

that the end was near when I felt like giving up. I thank you all for your love and understanding. However, there are many more people who I wish to thank but have not been mentioned, but have made this thesis possible - God Bless You All - Jazak Allah.

Lastly, I would like to dedicate this thesis to my late father Saleem Akhtar.

# 1 Introduction

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## 1.1 Background and Rationale

For the past decade, Information Communication Technology (ICT) has been considered by many to be a panacea for development and a potential vehicle for enabling gender equality and inclusion. Advocates of ICTs such as Yuen *et al.*(2010), Kuppuswamy and Rajarathnam (2009), Olla (2008) and Rossener (2006) have all highlighted the positive effects of ICTs in creating new economic, social and political opportunities for developing countries and the poor. Furthermore, Vodanovich *et al.*(2010:1) in their report on understanding women's experience of ICTs in the United Arab Emirates, commented that "Information Communications Technologies (ICTs) have become a potent global force in transforming social, economic, and political life". Nevertheless, Dagron (2009, 2001) has consistently questioned what ICTs can really deliver. Furthermore, a recent report by APDIP (2006) on gender in the information society outlined the growing concern that ICTs may in fact be causing women's further exclusion. Moreover, Huyer and Mitter (2003:6) have highlighted the discrimination towards women in the context of ICTs, suggesting that "as currently implemented, ICTs continue to benefit comparatively few and access continues to be determined – both on the global scale and within nations – according to wealth, education, geographical location and, to a great extent, sex". Huyer and Sikoska (2003:2) have termed this phenomenon the "gender digital divide".

As a British Muslim women who has worked in the technology industry for the past 30 years such arguments struck a chord with my own experiences of the gender imbalance in participation in the industry as well as in the engineering field more widely. I have often felt the elements of gender discrimination directly myself. In fact, at some meetings that I attended as the most senior executive from my company, I was amazed to see how the clients completely ignored me and in some cases directed their questions to my male subordinates. While I was able to manage these situations with amusement and sometimes disappointment, I could not help but wonder how this phenomenon must impact women with lesser means without the confidence and privileges that I have been blessed with.

Huyer and Sikoska (2003:12) suggest that "the use of ICTs and other technologies by women and men reflects to a large extent the wider socio-cultural and economic context within which technologies are produced and used". Furthermore, my own philanthropic work with community and social work with marginalized people across the world has

reinforced the view that women appear to be excluded from any benefits that the global transformation towards using ICTs could bring. These points are further supported by Thaset *al.*'s (2007) report on, gender and ICT, e-primers for the information economy, society and policy.

This chapter sets out the background and overall context of this research as I seek to explore the impact of ICTs on women living in Muslim societies, in particular Pakistan, and highlight the critical role that cultural and social influences play as barriers preventing women's participation in and engagement with the potential benefits of ICTs. Primo (2003) notes the importance of creating comprehensive ICT policies that address the challenges that women face in engaging with ICTs. Chibba (2009) goes further to suggest that unless ICT policies reflect the interrelatedness of their social and cultural environment they may not address the women's issues effectively. As part of my research I have reviewed ICT policies and their formulation processes from across the Muslim World to ascertain how these address the barriers and challenges faced by women. This chapter also sets out the structure, content and scope of the research, highlighting the way it seeks to provide a new contribution to the body of knowledge of this field.

## **1.2 Evolution of Research Focus**

My research questions evolved during the course of this research. The initial area of research related to ICT4D and how multi-purpose telecentres can be developed to offer better services and support to women and marginalised communities through multi-stakeholder, multi-sector partnerships. However, as I progressed through the research process, it became apparent that it is not possible to consider such telecentres in isolation as they are intrinsically set within the cultural and social context of the communities they seek to serve, which in turn forms part of the overall national social and cultural framework. Further research highlighted the multifarious cultural, social and policy barriers and challenges that women face when trying to engage with ICTs in these societies. During the preliminary research in Pakistan, I became aware of how in the name of culture and tradition women seemed to have been deprived of resources and education and had very limited or no access to ICTs. This allowed me to refocus my research towards understanding, exploring and analysing the multi-dimensional barriers and issues faced by women in Pakistan and Muslim societies in general. This reflexive and responsive approach to research can only be adopted within a qualitative methodology involving intimate participation of the researcher in the data gathering

process. The flexibility allowed me to react to situations and modify my data collection approach in the light of the changing environments and cultural sensitivities, enabling my participants to feel safer and comfortable, thus, enhancing my understanding of their social and cultural conditions.

### **1.3 Research Subjectivity**

As Jayaratne (1993:118) notes “there is no such thing as truly objective research”. Personal biases impinge on the research process in many ways. My choice to investigate this field was prompted by my own interests in this area, a field about which I had many preconceptions. My choice of questions and methods of analysis were all influenced by the existing concepts, theories and perspectives about women, that I held, and the challenges and barriers that they face. My own processes of theory formulation and interpretation were likewise seen through the lens of my experiences and background.

I would like to share a little about my background so that it can illuminate the context in which I have undertaken this research and provide some insight into why and how my thesis aim has evolved in this manner. Recognising, that I am a humanitarian at heart and a technologist and business woman by profession, I was very interested in exploring how ICTs could be used in a practical manner to address the plight of women generally and specifically in Muslim countries. I was born and bred in London, living a privileged life with wonderfully supportive parents who have encouraged me to grow in every way. I spent the past 30 years working in the field of technology; initially as an ASIC chip designer at AMD and living in the heart of Silicon Valley for nearly 25 years. Despite having the credentials of a ‘geek’ or ‘nerd’, I have often directly experienced elements of gender discrimination myself. In fact, I have noted that the intensity of this discrimination appeared to grow as I moved to the east from California to Boston, to London and then to France. This discrimination increased further in the Middle East and Pakistan.

In parallel to my professional career, at a very early age my mother encouraged me to become involved in social work in London, Pakistan and in India and always told me to be conscious of the fact that I needed to take care of less privileged people, and help the marginalised as best as I could. Therefore, this thinking has become an integral part of how I look on life and business in general. Furthermore, I was lucky to be mentored by a wonderful woman, Anne Dempsey who brought me into the American Association of University Women (AAUW) in 1980, and exposed me to the plights of women in the

USA: homelessness, abuse, domestic violence and all sorts of marginalisation that were difficult to imagine to be happening in California. From this it became increasingly apparent that women all over the world were being marginalised, but in different ways, and something had to be done to combat this.

As a technologist, this feeling led me to wanting to see how technology could practically and effectively be applied to help improve the lives of marginalised women, particularly in Muslim countries. I was fortunate to have known an ICT expert from the World Bank, Bruno Lanvin, who recommended that I undertake my PhD with Professor Unwin, as he was the best but toughest, ICT Professor. Thus in September, 2005 I began the journey and transition into the world of academia. This also allowed me to explore the life and space of ICT4D through the eyes of a social scientist. This journey was complicated by my dyslexia, which had been diagnosed at a very early stage of my life. Therefore, I had to develop ways of understanding and presenting my work in a form that allowed me to overcome this disability. As a consequence, I have extensively used flow charts and diagrams to visualise and synthesise my thinking and results.

Professor Unwin encouraged me to participate at the World Summit on the Information Society (WSIS), in Tunisia in 2005, where I met many feminist ICT practitioners such as Gloria Bonder, Anita Gurumurthy and Chat Garcia Ramilo. Additionally, I was introduced to several ICT Ministers by the former Tunisian ICT Minister's Advisor, Mohamed Abida, who subsequently became a very good personal friend. The Tunisian Government later established an ICT4ALL Forum in 2006, inviting ministers, stakeholders and practitioners specifically from Africa to share best practices and promote the practical aspects of ICT4D. As a result, I actively participate in both WSIS conferences and in the ICT4ALL Forums to ensure that I stay engaged with current debates. This presents a wonderful opportunity to have informal discussions with ICT Ministers, key government stakeholders and practitioners (Figure 1.1). This led me to incorporate elite interviews with men and women as part of my research to provide an alternative perspective. This experience has provided a unique insight into the slow moving machinery of the UN system and rhetoric that exists around ICTs for development. Moreover, there is an appreciation in me today, of how devastatingly low the priority and lack of attention is towards women's inclusion in the information society.



**Figure 1.1**  
**Participation in International ICT Forums**  
 (Source: Author)



## 1.4 Background to this Thesis

Elnaggar (2007) and Ahmed *et al.* (2006) have suggested that there are multi-dimensional socioeconomic and cultural drivers that prevent women from engaging with ICTs. Their view is reinforced in part, but by no means always, by my own experience. Primo (2003:5) has suggested that “women face serious challenges that are not only economic but social as well as cultural – obstacles that limit or prevent their access to use of and benefit from ICTs”. This is repeatedly echoed by Thas *et al.* (2007), Colle (2003), Ramilo (2002) and Colle and Roman (2002, 2001) who have all argued that cultural barriers in some societies serve actively to prevent women from engaging with ICTs. However, as a Muslim woman I was struggling to find any substantive research to understand what the prevailing factors are that prevent women’s engagement with ICTs, specifically in the context of Muslim societies. Therefore, this has become one of the key elements of my research in the context of Muslim countries.

Kabeer (1999a) posits that the patriarchal and masculine orientated social structures in some Muslim countries play a pivotal role in restricting not only women’s abilities but also their access to resources. She gives the example of extreme cases of subordination in Pakistan where a woman equates herself with cattle in terms of subservience and ownership. Chaudhry and Nosheen (2009:217) have likewise emphasised this point, stating that “Pakistani Society is of (sic) highly patriarchal which is attributed to the age-old traditions of a subservient and subordinate role of women. A girl child in such a society is often grows up learning to serve and obey men, most of time decisions relating to her career, selection of future life Partner, no (sic) of children to be borne etc. are made by male members of her family especially in remote and underdeveloped areas” (see also Ahmad, 2009; Ahmad, 2008). These factors drove me to focus my field research on patriarchal structure within a Muslim society in Pakistan and on understanding the cultural and social context and how the use of ICTs impacted the lives of women, if they were able to have access to them in the first place. I also wanted to understand what influence the lack of decision making power, the level of literacy and family background had on women’s access to and use of ICTs.

Lennie (2002) and Hafkin (2002) stress the importance of women’s issues specifically being mentioned in ICT policies. Daly (2003) underlines the importance of addressing the cultural, political and economic factors while Jorge (2002) reinforces the significance of engaging women in the policy making process. My own experience of the apparent lack of effective work in supporting women to engage with the information society is

echoed by Heeks (2005:3) who questions the international commitment to gender inclusion when he argues that talk of “‘mainstreaming’ ICTs can be a code word for ‘ignoring’”. Walsham *et al.* (2007:7) also argue that “it is widely recognized in the development community, including both international aid organizations and local NGOs, that the role of women in developing countries has traditionally been neglected and, indeed, that women are often more disadvantaged than men in terms of access to education, health care, and other important services”. Furthermore Offenauer (2005:5) states that, “serious empirically based social science research on women and sex-disaggregated data were in short supply”.

Gurumurthy (2006) and Hafkin (2002) express their concern that the digital divide resulting from the status of women in these societies will accentuate their existing gender divide. Therefore, it is critical to understand the causes, issues and barriers that are preventing women from effectively engaging with and benefiting from the information society and knowledge economy. Hence, synthesising the literature and the current debate on the elements which influence and impact women’s engagement with ICTs, the following areas have been emphasised. I have drawn out these three areas on which to focus my research: ICT policies, strategies and plans; subordination of women in patriarchal structures in Muslim societies; cultural and social imperatives in the context of ICTs.

### **1.4.1 ICT Policies, Strategies and Plans**

National ICT policies if created and implemented effectively could potentially play a critical role in creating an environment that empower women and improve governance. However, policies need to address women’s needs and issues within their cultural context. Thas *et al.* (2007) argue against gender-neutral ICT policies and assert that these can unintentionally have a negative impact. This point has also been well argued by Heeks (2005) who agrees that ICTs have done little to address the plight of the marginalised. The importance of understanding the cultural and social influences is also propounded by Conroy (2006:25) when he notes that ICT interventions in rural India fail to benefit women because of “social structures and power relations”.

In asserting the importance of gender consideration in ICT policies, Chowdhury and Khanam (2005), note that these are not actually taken into consideration in most developing countries. Meanwhile, Anand and Uppal (2002:3) emphasise that “women’s needs are sophisticated and complex and require more substantive interventions and

considerations between players” and thus the participation of women in the ICT policy formulation process has been extensively discussed in the existing literature. Jorge (2002) states that, “it is of utmost importance to engage women and gender advocates in the policy making process and dialogue”. Similar points have been echoed by Thas *et al.* (2007) and Labelle (2005). Furthermore, there is extensive debate about gender-neutral policies and the potential risk of such policies to increasing the gender digital divide. Thas *et al.* (2007:37) argued that “ICT is not gender neutral” with similar concerns raised by Elnaggar (2007) and Wanasundera (2006). Thus, I will examine the ICT policies of Muslim countries to identify the degree to which women are considered in them. I investigate the degree to which the complexity and diversity of the heterogeneous nature of women is covered and their diverse needs and situation are understood and considered.

In order to ensure that appropriate outcomes are delivered for women, there is a need for a monitoring regime that tracks progress and achievements. COL (2002:24) reinforces this stating that “there is a need to evaluate the effectiveness of the implementation of policies with respect to ICTs and Gender”. Wanasundera (2006) also stresses the importance of policies being implementable. This point is further affirmed by Elnaggar (2007), Hafkin (2003) and Jorge (2002) who discuss the importance of having women specific goals and targets. Furthermore, Elnaggar (2007:11) reflected on the dilemma that “there are also no indicators that measure and monitor the efforts and changes, identifying gender indicators in ICT initiatives whether in policies, strategies, programs, projects or activities can be an effective way of ensuring that women’s particular needs are considered in the planning processes at all levels in ICT space”. Therefore, I will examine the ICT policies to assess the degree to which they define targets and gender indicators.

## **1.4.2 The Subordination of Women in Patriarchal Structures in Societies**

The subordination of women in Muslim societies has been discussed and extensively debated for decades but with limited progress (Kandiyoti, 2007, 1998, 1991; Kabeer, 2003, 1999a, 1999b; Tohidi, 2002; Moghissi, 1999). While the degree to which women are subordinated varies tremendously on the basis of class, race, ethnicity, geographical location and nation (Patel, 2005; Hatem, 2005; Momsen, 2004, 1999, 1993, 1991; Rowlands, 1997), in many Muslim societies women are still regarded as property of men (Syed and Ali, 2005). Chaudhry and Nosheen (2009) reinforce this view of patriarchal Pakistani society with subordinate role of women that is justified in the name of culture and tradition. "The fact that patriarchal influences on Islamic thought and practices have historically resulted in social structures that tend to produce and maintain female at disadvantage, at least in some dimensions, poses a significant challenge for capability and equal opportunity in Islamic Society" (Syed, 2006:1). This had led to women internalizing their status as being less important than men (Kabeer, 1999a) to perpetuate their subordination.

Syed (2006:11) in research on Islamic perspectives of adaptation and social choice in the context of the gender division of labour, states that "women's subjugation to patriarchal structures resulting in women who are mal-nourished and under-educated whose physical and emotional honour is frequently violated and whose mobility, status and roles are stringently monitored by male elites". However, there appears to be limited literature available demonstrating the influence of patriarchal social structure and male dominance and its impact on women's engagement with ICTs specifically in the context of Muslim countries. Therefore, I will examine the multiple elements within patriarchal structures in Pakistan such as power relationships, and specified roles of men and women along with the various types of pressures and controls on women with respect to influencing their engagement with ICTs.

## **1.4.3 Cultural and Social Imperatives in the Context of ICTs**

Wangmo *et al.* (2004) and Primo (2003) have both identified that women's access to and use of ICTs is limited because of the barriers that they face when trying to engage with them. Hafkin and Taggart (2001:7) emphasised that, a "lack of access to information and

communication technologies becomes a significant factor in the further marginalization of women from the economic, social, and political mainstream of their countries and of the world". Likewise, Thas *et al.* (2007), Arun *et al.* (2004) and Ramilo (2002) all argue that cultural barriers hinder women's access to ICTs which is much more problematic and complex in nature "than simply making computers available in a library, telecentre or other public facility" (Colle and Roman, 2002:51). Therefore there was a clear need for a deeper understanding of the barriers that women face. Furthermore, there has been major debate regarding the role of cultural and social attitudes and their importance in the effective inclusion of women in the information society (Loh-Ludher *et al.*, 2006; Huyer and Sikoska, 2003). This is emphasised in studies conducted in Oman (Elnaggar, 2007), Sri Lanka (Wanasundera, 2006) and Bangladesh (Ahmed *et al.*,2006),which all strongly advocate for the need for understanding the unique subtleties of culture and society which are critical to ensuring that women are able to benefit from what the information society offers.

Moreover, there is very limited literature on this subject in the context of Muslim women, which provoked me to explore, understand and examine how Muslim women engage with and benefit from ICTs through a case study in Pakistan. Offenbauer (2005:5) suggests that the question of understanding women's status in Muslim cultures and societies is "profoundly neglected", so much so that there is hardly any published work available to shed light on this critical factor which significantly impacts women's inclusion in the information society. In a study conducted on women in Oman, Elnaggar (2007) identified a series of barriers and gaps (e.g. lack of basic and ICT education, technophobia and social and cultural barriers) that prevent women from benefiting from the information society. He continues that if the barriers were not addressed not only would the gender divide increase, causing the further marginalisation of women, but this phenomenon would also negatively impact the wider economic development of Oman.

Therefore, I wanted to add knowledge in this area and contribute to a greater understanding of the context of women's engagement with ICTs. Considering the great emphasis on the importance of understanding the multiple elements of cultural and social attitudes as key factors contributing to the restricted use of ICTs by women, I will examine this in detail. Furthermore, I will also explore the impact of restrictions on women's mobility on their use of ICTs, the perception of male members of family and community towards women's use of ICTs and concerns over the possible sexual exploitation of women by using ICTs.

## 1.5 Context of Thesis

In reviewing the ICT policies, my research focuses initially on a broad cross-section of Muslim countries. Offenbauer (2005) asserts that “because of the wide variation in Muslim women’s status and conditions, researchers typically attribute more causal salience to determining factors that vary across nations and regions. To account for the variable situations of Muslim women, scholars cite as causal factors, for example, variations in the economic structures and strategies of nations, or variations in the pre-existing cultural value patterns of a given locale” (Offenbauer, 2005:1). Therefore I have also incorporated the aspect of class and social structure in my research.

Building on the arguments summarised in Section 1.4.1, I selected to examine and analyse the ICT policies from across different regions to ensure that the regional cultural and social influences and nuances could be compared and contrasted as they address women’s diverse needs. This approach supports Offenbauer (2005) and Kabear (1999b), who have noted that Muslim women have different ‘levels of access’ based on their social class, literacy level, family and geographical location, resulting in many women being excluded from engaging with ICTs. I therefore wanted to explore the diverse experiences of women from different backgrounds, geographical locations, classes, education levels and experience in engaging with ICTs. Based on the complexity and interplay of these elements, I selected Pakistan to be the primary country of my field research. This allowed me to analyse the policies from across the Muslim countries and then focus on Pakistan for a detailed analysis and understanding of the challenges and barriers that women face in Muslim societies. My own experience of living and working in Pakistan, along with the insight that my philanthropic and social work with marginalised communities there, particularly women and children with disabilities reinforced my approach. Unfortunately, in many instances, I have visited women in helpless situations, who as a group appear to be excluded from any benefits that the global transformation towards using ICTs could bring (Macueve *et al.*, 2009). My exposure to the hardships and challenges of women in Pakistan resulted in me initiating a series of sustainable development initiatives being launched in partnership with like-minded people (Figure 1.2 and 1.3). This experience subsequently exposed me to an unexplored potential that as a technologist I believed, ICTs could bring, which led to my research, and now these same people have continued to provide me with valuable insight and guidance throughout my research in Pakistan.



The First Women's Leadership forum in Pakistan 2002  
Governor Sindh



Pioneering Feminists and Educationalist  
Anita Ghulam Ali



Administration of Sewing Machines Distribution



Sewing Centre for Women



Women ICT Training Centre Run by Women in Peshawar



School for Children with special Needs



Computer Lab for Children for Special Needs



Private Transportation for Children Special Needs

**Figure 1.2**  
**Example of Initiatives in Pakistan 2002-2011-A**  
(Source: Author)



**Figure 1.3**  
**Example of Initiatives in Pakistan 2002-2011- B**  
 (Source: Author)



Jafar (2005) and Syed and Ali (2005) have all suggested that some women in Pakistan are treated as the property or commodities of Pakistani men. Kabeer (1999a:446) quotes Sathar and Kazi (1997) who state that in Pakistan “the only area of decision-making in which women reported not only participating but also playing a major decision-making role was in relation to the purchase of food”. However, a stark contrast can be noted by the observation that a woman, Benazir Bhutto had twice been the Prime Minister of Pakistan, and that Pakistan currently has over 35 female ministers in its Government.

The diversity in the position, role and power of women in Pakistan is described by Jafar (2005) in the context of the role that women played in the creation of Pakistan. Moreover she comments on how these women were at the forefront of women’s empowerment initiatives around the world by sharing how “in 1973 Nusrat Bhutto, wife of then Prime Minister Zulfikar Ali Bhutto, was one of the co-introducers at the United Nations of the Convention for the Elimination of Discrimination Against Women” (Jafar, 2005:6). Similarly, Begum Rana Liaqat Ali Khan, wife of the first Prime Minister of Pakistan, Liaqat Ali Khan took on a leadership role for women in Pakistan and established the All Pakistan Women’s Association (APWA). This was a women’s movement that sought to mobilise women to help build and nurture Pakistan (see also Mumtaz and Shaheed, 1987). On the other hand, Mukhatra Mai, is a Pakistani woman who was gang raped in order to resolve a family issue and used as a commodity (BBC, 2005). ICTs, particular, the media and internet, played a critical role in raising global awareness of this case, and the inhumane treatment to which some women in Pakistan are subjected. Nonetheless, despite the strong global condemnation of this act, the culprits ultimately escaped any conviction or punishment. This demonstrates the lack of social justice and equity for women based on their class, which is strongly intertwined within the social power structures of Pakistan (see also Syed and Ali, 2005 who discuss the issue of how women are viewed as cattle). On the other hand, I have met several women who are in strong decision making positions such as Dr. Hessa Sultan al Jaber, who is the Secretary General of ictQATAR and Sheikha Lubna Qasimi, who was the CEO of Tejari and Minister for Foreign Trade in UAE at the time that my research was conducted. The desire to explore and understand these factors and the causes for this dichotomy formed a key part of my research trajectory.

## 1.6 Aims of the Research

This research is concerned with understanding the impact of the use of ICTs on women in Muslim countries in general and Pakistan in particular, and identifying the barriers that prevent women from playing a full role in the information society. The aim of my research is to identify the cultural, social, economic and capability barriers that limit women's engagement with ICTs across multiple dimensions.

The intention is to understand how society exerts invisible restrictions, pressures and controls on access for women, therefore presenting a very complex and difficult task for those charged with creating enabling strategies, policies, plans and initiatives to support and drive women's inclusion in the information society and knowledge economy.

Within the context of this broad aim, the research objectives are:

1. To understand the creation of national ICT policies across Muslim countries to assess the extent to which women are referenced in them along with the level of sensitivity to barriers for inclusion as a specific category within them.
2. To understand the interplay of the social and cultural factors that influence women's engagement with ICTs and to assess the use and impact of ICTs on women (professionals, entrepreneurs and homemakers) living in Pakistan.
3. To understand and explore the barriers and challenges women face when engaging with ICTs, specifically in the cultural and social context of Pakistan.

## 1.7 Thesis Structure

In addition to this introductory chapter, the thesis is organised into six main chapters. Chapter 2, reviews relevant literature, and sets the foundation for the context of my research. The next chapter presents the rationale for my research and outlines the methods and techniques used for data collection and analysis. It justifies the research design and the challenges, as well as the ethical considerations that arose in my field work.

There are three main analytical chapters. Chapter 4 presents an analysis of ICT policies, strategies and plans from the perspective of women and covers the analysis and

synthesis of ICT documents for 24 Muslim countries to assess the extent of reference to women within them. Chapter 5 then explores the use of ICT tools by Muslim women and their potential impact on their lives. The last analytical chapter focuses on the barriers and challenges faced by women and the impact these have on their lives. The concluding chapter summarises the research findings and outlines recommendations for improving women's engagement with ICTs in Muslim countries.

Chapter 2's review of the current literature is necessarily broad and touches on six main areas: national and regional cultures; cultural and social influences on gender and ICTs; the complexity of ICT policy formulation with respect to women; dilemmas with practical literacy for women; issues of content, format and relevance; as well as gender bias more widely in the ICT industry. I explore the complexities, challenges and barriers that continue to reinforce women's exclusion in multiple ways. This analysis suggests that there is growing concern regarding the negative impacts of ICTs, which are increasingly seen as further excluding women from the information society.

Chapter 3 provides an explanation of the relevance of the data that has been collected and the techniques employed for this purpose. It summarises the data collected, notes its sources, when it was collected, how it was collected, why it was collected in the first place and the methods used for analysis. It also explains why the qualitative research techniques employed were chosen and the relevance of such a study in the context of contemporary society. The ontological as well as epistemological perspectives relevant to the researcher, constituting a phenomenological orientation, are presented together with the methodologies employed in implementing the different methods used to collect data, primarily interviews and focus groups.

Chapter 4 analyses the ICT policies, strategies and plans (documents) from 24 Muslim countries along with seven ICT policy guidelines and toolkits. These documents were analysed, synthesised, and filtered to extract women specific references addressing multiple aspects of their needs, requirements and the barriers faced by them when engaging with the information society.

My overall assessment suggests that there are considerable gaps in ICT documents that can potentially disadvantage women from effective inclusion in the information society. My research has shown that cultural and social barriers play a major role in preventing women from engaging with ICTs. However, due to the complexities of the social and cultural environments, a holistic approach that addresses all of the issues in an integrated manner is required. ICT documents need to be formulated within an overall

framework that addresses the gender considerations in a cultural and social context. Furthermore, there needs to be a shift by governments and those formulating ICT documents in the perception and role of women in Muslim societies that then need to be reflected in updated and improved ICT documents.

Chapter 5 then focuses on the specific example of Pakistan, examining the use and impact of ICTs on women living in five regions: Azad Jammu and Kashmir, Khyber Pakhtoon Khwa, Punjab, Sindh and the Federal Capital, Islamabad. The primary sources used in this research were focus groups and semi-structured interviews. The synthesis of the results identified three areas: preference of ICT tools; use of ICTs and the consequences and impact of ICTs: in relation to economic, knowledge and capability and social aspects. My analysis identified mobile phones as the most common tools and preferred ICT tools used by women from all educational backgrounds and geographical locations, in all the provinces. The research also identified serious concerns by women and their families with reference to potential harassment through mobile phones causing a backlash from families and communities.

Chapter 6 combines the results from the exploration of the literature with the findings from the primary data to identify the barriers and challenges that prevent women's inclusion in the information society. The findings from the primary field research, drawn from the focus groups and interviews are used to identify the challenges and barriers that women face in their use of ICT. This chapter analyses the multifaceted elements of cultural and social barriers that women face when engaging with ICTs in Pakistan. Five key aspects were identified in the focus groups: self-imposed restrictions – invisible and subconscious barriers; restrictions enforced by family on women's access to ICTs; direct discrimination towards women; women's limited personal space; and the working environment that is not sensitive to the needs of women in Pakistan. This research shows that women face multiple types of barriers some of which are self-imposed, as for example in the wide beliefs that 'technology is not for women' and that they 'will spoil the ICT tools'. Patriarchal society imposes clear restrictions, such as those from family, fathers, brothers and husbands, along with limited time, mobility, and lack of resources.

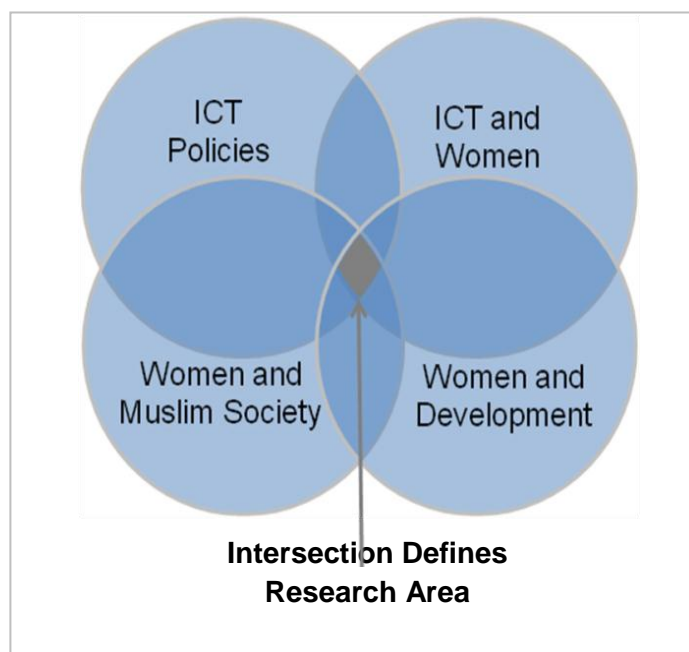
The conclusion consolidates the entire thesis in terms of its contribution to knowledge of the issues it explores and presents recommendations suggested by this research. Specifically, this research contributes to the body of knowledge in two distinct areas, namely, the identification of the barriers and challenges faced by Muslim women in Pakistan, and a comparative analysis of ICT policies, strategies and plans from across 24 Muslim countries. I outline the key findings from the research, along with

recommendations for promoting women's effective engagement with ICTs. It presents some reflections on the research questions, recommendations for future research and finally a summary of thesis's contribution.

## 2 ICTs, Women and Muslim Societies: A Conceptual Framework

### 2.1 Introduction

This chapter reviews the current literature on the challenges and barriers that impact women's engagement with ICTs in the context of ICT policies in Muslim societies. It also examines the cultural and social influences that exert pressure and controls on women (Syed, 2006; Kabeer, 1999b), particularly those emanating from patriarchal social structures that affect women's access to ICTs (i.e. telephones, mobile phones, the internet and other media) (see Saghir *et al.*, 2009; Offenhauer, 2005). Furthermore, I review the debates surrounding the importance of creating enabling and inclusive ICT policies in relation to women (Wanasundera, 2006; Jorge, 2002). The review is necessarily broad and mainly addresses the following issues: patriarchal cultures; cultural and societal influences on women and ICTs; the complexity of ICT policy formulation from the perspective of women; dilemmas of practical literacy for women; issues on content, format and relevancy; as well as biases against women in the ICT industry. Furthermore, since my research is focused on Muslim societies, this conceptual framework examines the key debates where the analytical categories of women and development, ICTs and women and Muslim societies 'intersect' (Figure 2.1).



**Figure 2.1**  
**Area of Focus of Literature Review**  
**(Source: Author)**

The following sections provide an outline of the key debates around women and development, and will discuss the importance of policy sensitivity to the non-homogeneous nature of women, along with the debate regarding the diversity of women's interests, needs and the subtle differences between gender relations and roles. This will be followed by a detailed overview of the six key debates (cultural social constraints; literacy; relevancy and content; technophobia; gender bias in the industry and ICT policies) around the barriers and challenges faced by women when engaging with ICTs to provide a greater understanding of the complexities and diversity of the barriers. An exploration of the current debates surrounding effective ICT policies in relation to women will then be undertaken to examine the key arguments regarding the formulation of inclusive policies. Finally, I will examine the complex relationship between men and women in a patriarchal society, paying particular attention to the subordination and subservience of women in many Muslim societies. I will also highlight such societies' cultural and social attitudes towards modesty and the fear of Westernisation and sexual exploitation that ICTs may bring. This precedes some of the key debates on women's limited access and mobility in Muslim societies. While there is a great deal of literature which argues that ICTs can greatly benefit social and economic development and the empowerment of women (Kuppuswamy and Rajarathnam, 2009; Pavarala *et al.*, 2006), there is rather little research which explores its effectiveness in specifically patriarchal and Muslim societies.

## **2.2 Setting the Stage: Women and Development**

Before engaging with the debates around ICTs and women, it is first necessary to set the stage of this thesis by highlighting three key debates in the context of women and development, as they demonstrate the complexities that development practitioners have been grappling with for many years (Tripathy, 2010; Boserup *et al.*, 2007; Momsen, 2004, 1993, 1991; Sen and Batliwala, 2000; Presser and Sen, 2000; Mohanty, 1997; Rowlands, 1997; Sen, 1997; Moser 1993). These are:

- i. The Non-Homogeneity of Women
- ii. Women's Diverse Needs and Interests
- iii. Gender Relations and Roles

Progress over the last four decades appears to have unravelled some of the traditional social challenges that underpinned relationships between men and women (Kothari, 2002; Presser and Sen, 2000; Mohanty, 1997) and has shown the necessity of creating 'sensitive' policies (England, 2000; Klugman, 2000), programmes and development initiatives that specifically target women, and more importantly, to recognise that not all

women are the same, that they come from different environments and do not necessarily have the same interests and needs (Momsen, 2004, 1993; Bisnath, 2001). In addition, Reeves and Baden (2000), and Kabeer (1999b) both highlight the dangers of oversimplification in many development projects aimed at women, which often simply attach the word 'women' to a general development project, rather than specifically designing programmes for them (see also Kabeer *et al.*, 2008). They further point out that when designing and implementing social development projects, many development agencies and governments assume that they will benefit men and women equally; but they do not (Kabeer, 2008,1999b; Tiessen, 2007; Pearson, 2006; Steans, 2006; Klasen, 1999; Visvanathan *et al.*, 1997; Batliwala, 1994; Mies, 1986). This issue was addressed in Ester Boserup's (1970) breakthrough work, which noted that there is a growing recognition that modernisation impacts men and women differently; instead of improving women's rights and their status, the development process appears to be contributing to their deterioration.

More recently, Momsen (2004) and Reeves and Baden (2000) have supported this suggestion and raised further concerns about the tendency of governments and development agencies to disregard the complexity of women's roles and social constraints. They argue that women are not on the same level-playing-field and that little effort is made to understand or address their specific concerns, and thus that they cannot benefit from development initiatives (Tiessen, 2007).

Furthermore, there is recognition that the interplay of power relations and influence is highly dependent on the class, age, marital status, religion, ethnicity and race of women, and that all of these factors need to be considered when designing development programmes (Momsen, 2004; Rowlands, 1997; Visvanathan *et al.*, 1997; Molyneux, 1985). Additionally, Presser and Sen (2000:4) argue that "current traditional indicators of women's status, such as education and employment, are useful but are not sufficiently sensitive to capture the nuances of gender power relations". This phenomenon adds to the complexity of devising development initiatives that effectively target different groups of women.

The following section discusses the intricacies and complexities of the non-homogeneous nature of women. It examines the nuances and diversities between women's needs and interests, along with the complexities of gender roles and power relations in the context of social structures, to understand the influence of these on women's engagement with and use of ICTs.



## 2.2.1 The Non-Homogeneous Nature of the Category “Women”

*Women – who are they? What do they need? What do they want? Who decides?*

As my research is focused on women, it is very important to understand and examine the historical debate about the nature of and differences among women, along with the tension between Western feminists and those of the Global South (McEwan, 2001; Mohanty, 1997). This understanding will help highlight the key interlocking points in the women and ICT debate. For many years feminist development agencies and practitioners have all highlighted the risks inherent in assuming women to be a single, homogeneous group with the same desires and expectations (Jafar, 2005; Reeves and Baden, 2000; Mohanty, 1997; Rowlands, 1997; Visvanathan *et al.*, 1997; Molyneux, 1985).

The consequences of this can result in the imposition of one's own perspective and desires on another, which could in fact be diametrically opposed to the other's interests, ignoring the cultural and social context, as argued by Kabeer (1999a; 1999b) and Kandiyoti (1998). There are three fundamental points to this debate: first, there is a risk of treating women as a single, homogeneous category when designing and implementing development programmes (Visvanathan *et al.*, 1997; Rowlands, 1997; Razavi and Miller, 1995). The consequences of this, result in many development projects failing to meet their objectives and in some cases causing greater damage to the target population (McEwan, 2001; Visvanathan *et al.*, 1997). Second, Razavi and Miller (1995:39) suggest that “much of the thinking on women's NGOs falls into a trap of denying the historical and cultural construction of gender”, resulting in the marginalisation of many development programmes from the outset because they do not take account of the interplay between the genders. Third, Molyneux (1985:32) suggests that “social change must begin by recognizing differences rather than by assuming [the] homogeneity” of women. Moreover, Kandiyoti (1998) supports this view and presents a vivid example of how women have skilfully learnt to negotiate and bargain within patriarchal societies. To address this oversight, Marcelle (2000b:7) emphasises that “governments should also recognize that the ‘female’ category is not homogeneous and ensure that policies benefit girls and women of different social, ethnic and racial backgrounds and with different levels of education”. If such an approach is not undertaken, it runs the risk of further increasing the divide between ‘haves’ and have ‘not's’ (see also Torenli, 2006; Huyer and Sikoska, 2003).

Feminist movements had begun to emerge in south Asia by the 1970s and 1980s (Mumtaz, 2005). Many southern feminists have argued that women's oppression and discrimination in the Global South cannot be isolated from the consequences of colonialism (Kabeer, 1999b; Visvanathan *et al.*, 1997; Sen and Grown, 1987). Pearson (2006) and Razavi and Miller (1995) have suggested that Western feminism was primarily a 'white and ethnocentric' perspective that was inappropriate in addressing the diverse sources of oppression of women, as the "development model itself lacked the perspective of developing countries" (Momsen, 2004:14). In many cases, Western feminism is seen as undermining local cultural and religious traditions in the name of women's rights (Rowlands, 1997; Visvanathan *et al.*, 1997). Kabeer (1999b) and Mohanty (1997) have both criticised the generalisation made by some Western feminists who claim to speak with one voice and represent the needs of the South. Kabeer (1999b) further argues that post-colonial feminists essentialise the women of the South and continuously present them as victims longing to be liberated and saved by their sisters from the West. Mohanty (1997) also shares this view and stresses the danger of adopting a binary model of gender, which assumes and portrays all women as a single oppressed category, ignoring the diversities of women's lives in the South. McEwan (2001:98) complements this thinking and points out a tension that exists between white Western feminists and others, who she refers to as "black and third world activists". She suggests that there is an "adversarial" (McEwan, 2001:98) relationship and argues that this group "objects to the western feminism that depicts men as the primary source of oppression" because they argue that "gender oppression is inextricably bound up with race and class". Furthermore, in recent debates the complexity and risks and dangers surrounding the assumptions of uniformity are highlighted in the tension around the 'Burqa' and 'Chadar': Western view of women being suppressed and controlled and a Southern view, that it is their right to wear what they choose (See Hatem's, 2005 research on Egypt) which raises the importance and the necessity of truly understanding the cultural social implications and nuances.

Lastly, feminists from the Global South argue that women's struggles should be focused on their basic rights to attain freedom from the injustices they suffer as a result of race, class and nationality, as all of these are intertwined with the generalised oppression that they experience as women (Momsen, 2004; Sen and Grown, 1987). Moreover, the founder of DAWN, Peggy Antrobus, argues that "advocacy must be based on an analysis of what needs to be changed and why ... this analysis must be feminist because only feminism gives an analysis of patriarchy and how it is linked to the structures and relationships of power between men and women that perpetuate violence, poverty – the crises that confront us" (Evans, 2005:10). McEwan (2001:98) supports this view, noting

the “differences in tradition, culture, personality, beliefs and desires” and that “therefore [there is no] demand for the interrogations and destabilization of dominant western feminist discourse” (see Momsen, 1993, 1991). My research will strive not to fall into the common trap of some Western feminists of essentialising women by focusing on untangling and understanding the nuances of their diversity across each of the areas researched in the field, along with examining the extent to which the diversity of women is internalised and addressed in ICT policies. This will provide valuable empirical data that will contribute to highlighting the inadequacies and inconsistencies in the space of ICT policy formulation, along with supporting the development of holistic policies inclusive of the needs of diverse women.

## **2.2.2 Diverse Needs and Interests**

Recognising that women are not a single homogeneous group, it stands to reason that their interests and needs are also diverse. This section therefore presents some of the debates about women’s needs, interests and choices that have been argued over the past three decades. They represent three schools of thought, which have expressed their understanding of women in a similar manner, but using different terminologies (Table 2.1).

Rowlands (1997) and Molyneux (1985) discuss strategic and practical gender interests, Momsen (2004, 1993) and Reeves and Baden (2000) address strategic gender needs and practical gender needs, and lastly, Kabeer (2005b) refers to strategic interests and strategic life choices. Nonetheless, it is important to note that the practical interests of one group of women could actually be the strategic interests of another group on the basis of their class, race, situation and the political climate (Kabeer, 1999b; Visvanathan *et al.*, 1997; Molyneux, 1985). This is illustrated by Mohanty (1997), who notes that women in urban Africa do not have the same needs and interests as women in rural Africa, and that for that matter, women in South Asia cannot represent women in Africa. Placing emphasis on the need to understand the subtleties of different geographical locations, classes, races and ethnicities, Molyneux (1985:232) suggests that it is “difficult, if not impossible, to generalize about the interests of women” and goes on to argue that women’s strategic and practical perspectives are different and need to be understood. She continues that “we need to specify how the various categories of women might be affected differently and act differently on account of the particularities of their social positions and their chosen identities” (Molyneux, 1985:232). Furthermore, she suggests that women may have certain common general interests, which she

describes as “gender interests to differentiate them from the false homogeneity imposed by the notion of ‘women’s interests’”.

S/N	Terminology	Definition	Author
1	Strategic Gender Interests	Strategic gender interests “are those that women and men may develop by virtue of their social positioning through gender attributes” (Molyneux, 1985:232).	Molyneux (1985)
	Practical Gender Interests	Practical gender interests are “usually a response to an immediate perceived need and they do not generally entail a strategic goal such as women’s emancipation or gender equality” (Molyneux, 1985:233).	Molyneux, (1985)
2	Women’s Practical Needs	“Women’s practical needs result from their position in society” (Rowlands, 1997:7).	Rowlands (1997)
	Women’s Strategic Needs	“Strategic needs that challenge gender hierarchies and other mechanisms of subordination” (Rowlands, 1997:7).	Rowlands (1997)
3	Practical Gender Needs	“Practical Gender Needs (PGNs) according to Moser (1989) are the immediate needs identified by women to assist their survival in their socially accepted roles, within existing power structures” (Reeves and Baden, 2000:14).	Reeves and Baden (2000)
		“Items that would improve women’s lives within their existing roles” (Momsen, 2004:13).	Momsen (2004)
	Strategic Gender Needs	“Strategic gender needs (SGNs), are those needs identified by women that require strategies for challenging male dominance and privilege. These needs may relate to inequalities in the gender division of labour, in ownership and control of resources, in participation in decision-making, or to experiences of domestic and other sexual violence” (Reeves and Baden, 2000:14).	Reeves and Baden (2000)
		“That seek to improve women’s ability to take on new roles and to empower them” (Momsen, 2004:13).	Momsen (2004)
4	Strategic Interests	“There are other strategic interests that do not have this self-evident nature because they derive from a deeper level of reality not evident in everyday life because it is inscribed in the taken-for-granted rules, norms and customs within which everyday life is conducted” (Kabeer, 1999b:9).	Kabeer (1999b)
	Strategic Life Choices	“Strategic life choices include where to live, whether and whom to marry, whether to have children, how many children to have, who has custody over children, freedom of movement and association, and so on”(Kabeer, 2005a:14).	Kabeer, (2005a)

**Table 2.1**  
**Diverse Terminologies Used to Define Women’s Needs and Interests**  
**(Source: Author)**

However, there is some homogeneity among women's practical needs, as these tend to focus on employment, healthcare, childcare and education (see Kabeer, 1999b; Rowlands, 1997; Visvanathan *et al.*, 1997). These typically require immediate attention to improve women's lives within existing roles and social structures (see Pearson, 2006; Momsen, 2004), supporting the idea that all development initiatives will impact women differently depending on their cultural environment, social situations, chosen role and cultural and social constraints (Pearson, 2006; Momsen, 2004, 1993; Molyneux, 1985).

The notion of women's strategic needs embodies strategic social structures and focuses on fundamental inequalities, such as male dominance, the division of labour, decision-making and the control of resources (Pearson, 2006; Reeves and Baden, 2000). Kabeer (2005a:14) expands on this by further defining strategic life choices to include where to live, whether and whom to marry, whether to have children, how many children to have, who has custody of the children, freedom of movement and association, and so on. Furthermore, Kabeer (1999a) suggests that some of these strategic interests may challenge local cultural and social norms and therefore need to be addressed at the societal level, arguing that these "cannot be addressed by individuals alone" (Kabeer 1999a:457). Malhotra *et al.* (2002:18) reinforces this, underlining the point that initiatives to address strategic needs "which empower women, tend to be idiosyncratic rather than universal".

However, Molyneux (1985:232) notes that the concept of 'women's interests' is "highly contentious" because "women are positioned within their societies through a variety of different means, among which are class, ethnicity, and gender". Hence, the "interests that they have as a group are similarly shaped in complex and sometimes conflicting ways and it is therefore difficult if not impossible to generalize about the interests of women" (Molyneux, 1985:232). She continues that strategic gender interests "can be either strategic or practical, each being derived in a different way and each involving differing implications for women's subjectivity". However, she also notes that practical interests "cannot be assumed to be innocent of the class effect" (Molyneux, 1985:233). To date, there has been little detailed research addressing the influence of class towards women's access to ICTs in Muslim countries and thus my research has taken account of this, which will contribute to the further refinement and design of ICT initiatives to understand and overcome the constraints for access that occur due to class differences. Additionally, this will also provide 'grounded' recommendations in the local context of Pakistan that will enable ICT access for marginalised women, specifically in rural areas.

### 2.2.3 Gender Relations and Roles

The social relationship between men and women is a complex and dynamic social construct that needs to be continuously analysed (Roberts, 2011; Razavi and Miller, 1995). Therefore, there is a need to conduct a detailed analysis that encompasses the unpacking and disaggregation of the category of 'women' in order to see "women and men [as] bound up in a web of conflictual and co-operative relationships" and understand that gender interests are continuously evolving and are "socially and historically constructed" (Razavi and Miller, 1995:37). There are four key elements of gender relations that need to be understood in the context of development.

First, responding to the critique and shortcomings of previous development approaches, the *gender and development* perspective emerged, which recognised the need to focus on what Rowlands (1997:5) refers to as the "dynamics of gender relations" and "the interaction of women's various roles with those of men" (see also Luttrell *et al.*, 2009). Second, Momsen (2004:13) emphasises the need to understand the "socially constructed pattern of relations between men and women". Third, Young (1997) and Moser (1993) suggest that the resulting approach moves away from the economic and motherhood aspects of women's lives and embraces a more holistic perspective that focuses on understanding the complexities and power relationships between family, household, domestic life and the community from both political and economic perspectives. Furthermore, the roles typically designated to women are deemed to be less valuable (Visvanathan *et al.*, 1997; Rowlands, 1997). Women are generally expected to fulfil the reproductive role of bearing and raising children, caring for other family members and household management, as well as home-based production (Reeves and Baden, 2000:8). Many of the roles that women undertake are not paid, which leaves them at the disadvantage of having little or no income (Thas *et al.*, 2007; Primo, 2003; Hafkin and Taggart, 2001).

Lastly, Momsen (2004:13) argues that this approach conceives of women as active "agents of change" and not merely passive recipients of welfare and development, as suggested in earlier approaches (Beneria and Sen, 1997; Rowlands, 1997). However, this approach relies on women to "make changes in their activity patterns" (Rowlands, 1997:6) and find time to get involved without addressing existing gender inequalities that are both significant and universal (Bruno, 2006; Perrons, 2004; Visvanathan *et al.*, 1997). This remains an unaddressed barrier and continues to marginalise development initiatives directed towards women (Kabeer, 2005a; Momsen, 2004, 1993, 1991; Kawano, 2002; Mohanty, 1997; Visvanathan *et al.*, 1997). Building on the work of Saghir

*et al.* (2009), Siegmann (2009) and Mahmood (2005), my research critically assesses specific cultural and social barriers in the context of Pakistan that prevent women's engagement with ICTs and their subsequent impact. This enables a better understanding of the barriers that prevent women's engagement with ICTs and facilitates the design of more effective and culturally sensitive, grounded ICT initiatives.

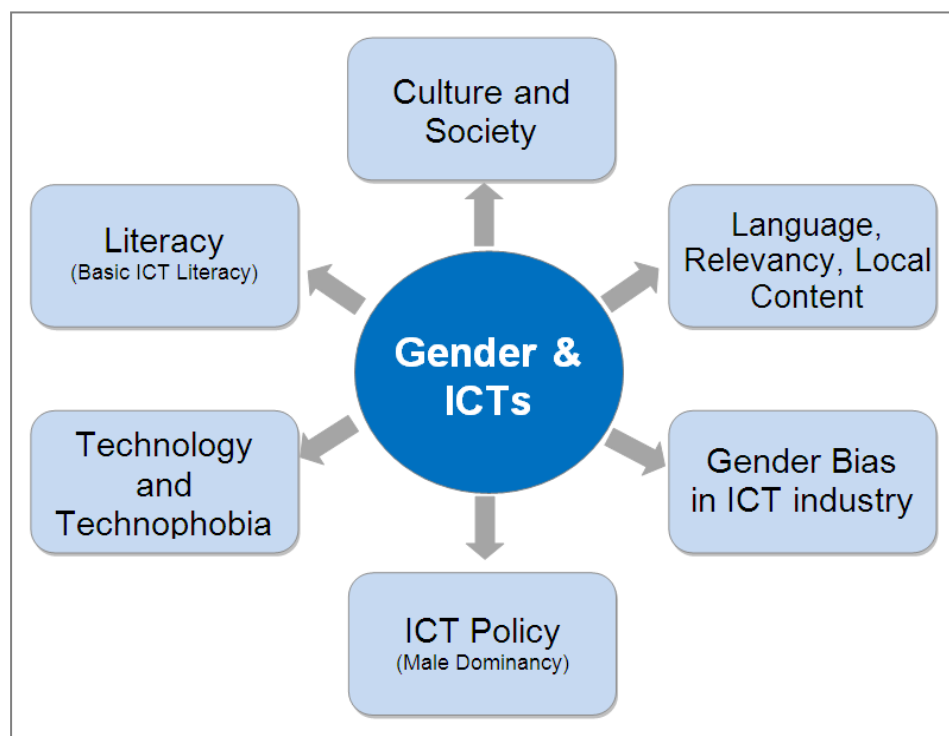
## 2.3 ICTs and Women

There are widely held expectations that the extensive use of ICTs can empower individuals and drive significant political, economic and cultural changes in society (Friedman, 2006; USAID, 2005; Sharma and Maindiratta, 2005; Isaacs, 2005; Marcelle, 2005; Rose, 1997b). Furthermore, advocates of ICTs have highlighted their positive effects in creating new economic, social and political opportunities for developing countries and the poor (Yuen *et al.*, 2010; Souter, 2010; Kuppuswamy and Rajarathnam, 2009; Olla, 2008; Rossener, 2006; Odame, 2005). In addition, Pettit *et al.* (2009:451) suggest that "ICTs have the potential to empower marginalized communities by helping to reshape and create the social, cultural and political space in which their voices find expression" (see also Marker *et al.*, 2002; Rose, 1997b). However, Wade (2002) identifies the concern regarding the scarce evidence to prove this point (Mansell, 2005). Furthermore, Pavarala *et al.* (2006) hypothesise that ICTs have the potential to liberate marginalised and disenfranchised women across the world from repressive societies and persecution in multiple dimensions, transcending the invisible barriers of patriarchal social structures. Moreover, for the past decade, ICTs have been considered by some to be an answer for development, with the potential to enable women's equality and inclusion (Kuppuswamy and Rajarathnam, 2009).

However, this myth is being rapidly eroded in light of the marginal impact of ICTs on women, due to the underlying complexities, challenges and barriers that continue to reinforce women's exclusion in multiple dimensions (Thas *et al.*, 2007; Isaacs, 2005; Heeks, 2005, 2002). There are three prevailing concerns that highlight the dangers of further marginalisation that ICTs may cause: first, Heeks (2005) notes that ICTs may further advantage the privileged segments of society, while further entrenching existing socioeconomic inequalities (see also Unwin, 2009; Wagner and Kozma, 2005; Ayeni and Ramnarine, 2005; Wade, 2002). This aspect is particularly relevant to women living in Muslim societies and is therefore incorporated into the design of my research, which will be discussed later in this chapter. Second, Pichappan (2003:7) suggests that "ICT is running way ahead of the third world's capacity to respond. This is not just the question of technology availability; it creates new sociological pressures, new cultural paradigms

and the digital divide in society”. Third, Elnaggar (2007) and Huyer and Sikoska (2003) raise concerns that the rapid progress of ICTs into all aspects of our lives is further broadening the gender digital divide, resulting in women’s further exclusion and marginalisation (Huyer, 2005).

Despite many attempts to launch global initiatives during the past decade, which have chiefly focused on addressing gender neutrality, equality and empowerment across developed and developing countries, very few actual impact studies have been performed that demonstrate benefits (Heeks, 2005; Unwin, 2005, 2004; Hafkin and Odame, 2002). Furthermore, Unwin (2009) suggests that there is a risk of further reinforcing existing social structures, resulting in further marginalisation. There has been much rhetoric and debate regarding the commitment of governments and development agencies to ensuring that women can equally participate in the information society. Nonetheless, the barriers and constraints that women face outweigh these efforts, often leaving them excluded from the information society (Huyer and Sikoska, 2003). Therefore, it is critical to understand the fundamental barriers that prevent women’s engagement with ICTs. This is a complex task though, due to the multiple casual factors that contribute to women’s lack of engagement with ICTs. Nonetheless, synthesising the current debates highlights six key elements which appear to be the main barriers as illustrated in Figure 2.2 and are discussed in the following sections.



**Figure 2.2**  
**Synthesis: Key Barriers - ICTs and Women**  
**(Source: Author)**



Key barriers summarised in Table 2.2 below;

S/N	Key Barriers
1	<p><b>Culture and Society</b></p> <p>(See Vodanovich, <i>et al.</i>, 2010; Tafnout and Timjerdine, 2009; Arun <i>et al.</i>, 2004; Colle and Roman, 2002; Hafkin, 2002; Hafkin and Taggart, 2001; Rodriguez, 2001; Jorge, 2000b)</p>
2	<p><b>ICT Policy</b></p> <p>(See Saghir <i>et al.</i>, 2009; Mbambo-Thata, 2009; Labelle, 2005; Wangmo <i>et al.</i>, 2004; Jorge, 2002; 2000a; Marcelle, 2002, 2000a, 2000b)</p>
3	<p><b>Literacy (Basic and ICT)</b></p> <p>(See Saghir <i>et al.</i>, 2009; Comfort and Dada, 2009; Hassanin, 2009b; Elnaggar, 2007; Primo, 2003)</p>
4	<p><b>Technology and Technophobia</b></p> <p>(See Sinha, 2009; Olatokun, 2007; Elnaggar, 2007; Green and Trevor-Deutsche, 2002; Gurer and Camp, 2002)</p>
5	<p><b>Language, relevancy and local content</b></p> <p>(See Saghir <i>et al.</i>, 2009; Wagner, 2009; Comfort and Dada, 2009; Elnaggar, 2007; Reddi and Vemraju, 2006; Gurusurthy and Singh, 2006; Wagner and Kozma, 2005; Green, 2004; Jorge, 2002; Kenny, 2002)</p>
6	<p><b>Gender Bias in ICT industry</b></p> <p>(See Vodanovich <i>et al.</i>, 2010; Upadhya, 2006)</p>

**Table 2.2**  
**Key Barriers**  
**(Source: Author)**

### 2.3.1 Cultural and Social Barriers

Cultural and social factors play a critical role and need to be comprehensively analysed to gain an insight into their influence and impact on women's engagement with ICTs (Thas *et al.*, 2007; Loh-Ludhar *et al.*, 2006; Arun *et al.*, 2004; Primo, 2003; Colle and Roman, 2002). This has also been identified in *women and development* theory, and in practice (Kabeer, 2005a; Momsen, 2004). Furthermore, reports commissioned by APDIP (Gurusurthy *et al.*, 2006), the ITU (Wangmo *et al.*, 2004), UNESCO (Primo, 2003) and independent studies conducted in Oman (Elnaggar, 2007), Sri Lanka (Wanasundera, 2006) and Bangladesh (Ahmed *et al.*, 2006) all strongly demonstrate the need to understand the unique subtleties of culture and society which are critical to ensuring that

women benefit from the information society. Moreover, Salazar (2009:510) suggests that “many UNESCO and other similar projects in communication and media for development seem to lack a deeper understanding or reference to the social movement in which these projects are grounded or a more profound acknowledgement of the key role of civic agency in social and cultural change”, which impacts both marginalised men’s and women’s access to ICTs. In addition, Marker *et al.* (2002:16) argues that “women tend to be poorer, face far greater social constraints” than men. This view is echoed by Hafkin and Taggart (2001:26), who note that “girls’ and women’s ability to access IT is also shaped largely by socio-cultural norms that determine female behaviour and interests”. Elnaggar (2007) and Thas *et al.* (2007) also articulate this view and suggest that cultural barriers hinder women’s access to ICTs (also see Odame, 2005).

Ahmed (2008) suggests that geographical location has a major bearing on the community, its culture and its values. In addition, customs and traditions define the roles, responsibilities and accepted behaviours of men and women. Furthermore, patriarchal structures are found to be relatively stronger in rural and tribal settings where local customs entrench male authority and power over women’s lives (Kandiyoti, 2007; Sonbol, 2005; Kabeer, 2005a, 1999a). These structures “reinforce male power and the idea of women’s inferiority” and restrict women’s “access to and control over resources, and participation in decision-making” (Reeves and Baden, 2000:4) (see also Aftab (2008) in the context of Pakistan and Patel (2005) in the context of India). However, the manifestation of these controls by male family members in the context of constraining women’s engagement with ICTs has not been examined, and thus I have incorporated this aspect into the research, which will allow a deeper understanding of the key drivers of these ‘controls’ and provide recommendations to enable ICT access for women in their specific environments and paying specific attention to their social structures.

Molyneux (1985:231) argues that women’s subordination in these contexts is “multi-causal”. If parallels are drawn with early development debates, it can be noted that women’s subordination, controls and lack of power have been driven by multiple causes, as discussed by Kabeer (1999a; 1999b) and Molyneux (1985). However, the nature and degree of women’s oppression/subordination may vary across classes, regions, and the rural/urban divide. To further understand the nuances in this area, Wanasundera (2006), Jorge (2002) and Hafkin and Taggart (2001) have all argued the need for multiple categorisations of women so that the varying constraints inflicted on them on the basis of their social classes can be understood. Nonetheless, there appears to be little literature that discusses the specific cultural and social impact of women’s engagement with ICTs, along with addressing the precise types of barriers that women face in the relation to

their different classes, levels of education and geographical locations (Conroy, 2006; Offenhauer, 2005; Heeks, 2005). This factor needs to be understood if women are to engage effectively with ICTs.

Elnaggar (2007) and Ahmed *et al.* (2006) have argued, in the context of Oman and Bangladesh respectively, that cultural and social barriers greatly hinder women's access to ICTs. However they suggest that further research is needed. Furthermore, Torenli (2006) has shown how class impacts women's access to ICTs in Turkey. Building on this, my research will include women from different backgrounds, classes, literacy levels, households and geographical locations in the context of Pakistan, which will contribute to filling the gap in the literature by providing a deeper understanding of the cultural and social barriers that prevent women's engagement with ICTs and, moreover, support the effective deployment of ICTs targeted towards women living in Muslim countries, building on the work of Saghir *et al.* (2009) and Elnaggar (2007). Furthermore, the findings will contribute to the design and development of effective ICT4D programmes, benefiting diverse women from different backgrounds and geographical locations, overcoming their specific cultural environments and limitations.

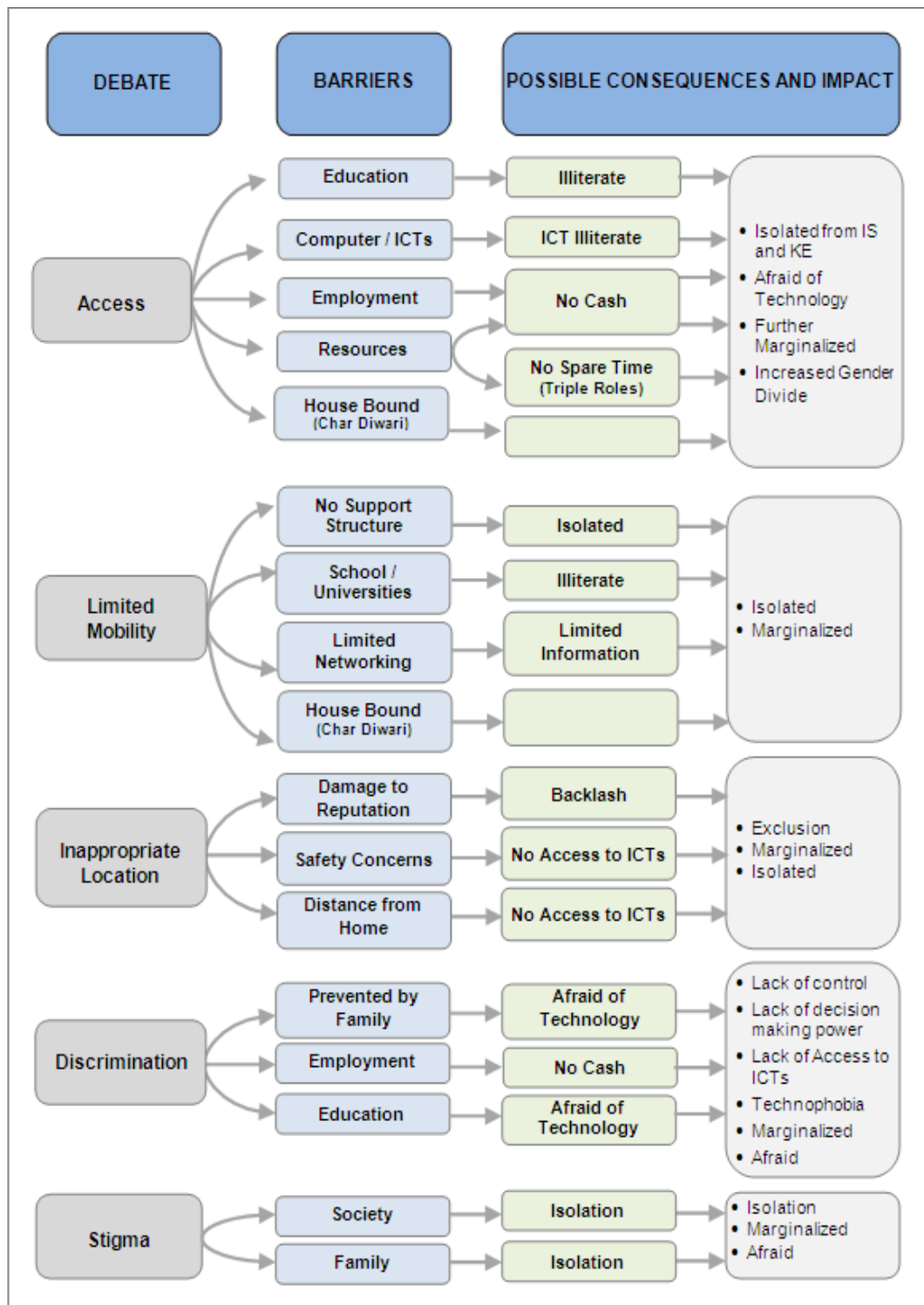
### **2.3.1.1 *In Harmony with the Community***

There has been much debate regarding the problem of development initiatives created with Western concepts without these being truly contextualised in the Southern environment (Pettit *et al.*, 2009; Unwin, 2009; Dagron, 2009, 2001a, 2001b; Heeks, 2002). Therefore, this section discusses the importance of contextualisation, localisation and relevance in development programmes to ensure that the desired benefits are achieved by the targeted communities. Colle and Roman (2001) and Dagron (2009; 2001a, 2001b) all emphasise the importance of understanding cultural norms when designing and implementing development initiatives. Puri and Sahay (2007:138) argue that the current thinking in development studies focuses on the development agenda being defined and "decided by and for the community as per local needs and knowledge". Furthermore, it has been found that without community buy-in and ownership, development initiatives always remain on the outside of communities and are never truly owned by the community that they have been designed to serve (Dagron, 2009, 2001a; Rossener, 2006; Heeks, 2002).

Nonetheless, Unwin (2005), Heeks (2002) and Colle and Roman (2002) all suggest that the success of ICT initiatives is dependent on community ownership and acceptance of development projects. Moreover, Mahmood, (2005) warns of the effect of a lack of

community awareness of the actual value of ICTs and the internet, resulting in a lack of support for and engagement with them. Furthermore, he notes communities' concerns and perceptions of the internet as "just an entertainment medium", (Mahmood, 2005:9) which could have a negative moral effect on the vulnerable. He also discusses how communities can react and notes that "it is not wise for the women and children to learn [about] and use it". Mahmood (2005) points out the example of the lack of community engagement in Pakistan, which is resulting in the total failure of development initiatives launched to support marginalised communities; a view that is also supported by Heeks (2002) and Colle and Roman (2002). Tripathy (2010) and Dagon (2009) further reinforce this, noting that without understanding the impact of the influence of power relations in the context of the local community, development initiatives will fail (Alim, 2009). Mills (2009:554) furthers this point, stressing the importance of understanding the "power relations within the community and family". She goes on to emphasise the importance of recognising that "internal diversities will exist as either constraints or the freedom in the ability to participate" (Mills, 2009:554). Thus, Mills (2009:554) draws attention to the danger of assuming a community's "collective interest" and ignoring "existing power structures".

Hence, the subtleties within the cultural and social structural barriers need to be understood and integrated into development initiatives. Despite much debate in this area, the complexities and subtleties of understanding the sub-cultures and traditions within communities still remain critically unaddressed (Tripathy, 2010; Saeed, 2009; Dagon, 2009; Kabeer, 1999b). This is discussed later in this chapter and is a key part of my research work. However, Figure 2.3 provides a broad synthesis of the main themes relating to these barriers and identifies a range of possible consequences.



**Figure 2.3**  
**Synthesis: Key Debates on Cultural and Social Barriers**  
 (Source: Author)

### **2.3.2 Dilemmas with Obtaining Practical Literacy**

There has been much debate about the importance of literacy for women in the Global South, literacy often being identified as a critical success factor for participation in the information society (Thas *et al.*, 2007; Elijah and Ogunlade, 2006; Green and Trevor-Deutsche, 2002; Gurer and Camp, 2002; Hafkin and Taggart, 2001). Wagner (2001) posits that development practices place considerable emphasis on the enhancement of basic education and literacy. Therefore, this section discusses the debates concerning both basic and IT literacy. Primo(2003:14) notes that “two-thirds of the world’s 870 million illiterate people are women” and the latest reports published by the UN show these figures broken down by country and demonstrate the huge gender literacy gap (UN, 2011). INSTRAW’s report on the gender digital divide, by Huyer and Sikoska (2003:17), identified that out “of all the barriers to women’s access to and use of ICTs. Language and literacy should be considered among the most important”. This issue is demonstrated by the research of Green and Trevor-Deutsche (2002:5), who suggest that “in most sub-Saharan African Countries, about 70% of adult women are illiterate with similar figures for those Asian countries that cited data”. Similarly, Mahmood (2005:6), in his study on multipurpose community telecentres for rural development in Pakistan, states that “women, who are almost half of the rural population, are only 10 percent literate”.

Elnaggar (2007:6) reinforces this point in his study of women in Oman, emphasising the difference in literacy levels between men and women but also suggesting that further research is needed. My research therefore incorporates a comparative analysis of how formal and informal education influences women’s engagement with ICTs (Sinha, 2009; Elnaggar, 2007; Huyer and Sikoska, 2003). The findings will contribute to the efforts of ICT development practitioners who use ICTs to target women, building particularly on the work of Sinha (2009) in Bhutan. The findings will provide a deeper understanding for ICT4D practitioners in designing development programmes for varying illiteracy levels, along with recommendations as to the appropriate ICT services for women. Furthermore, to better understand the challenges that women face to obtain basic literacy and ICT literacy, I have highlighted the key current debates in this field in the sections below.

### **2.3.2.1 Discrimination Towards Women's Access to Education**

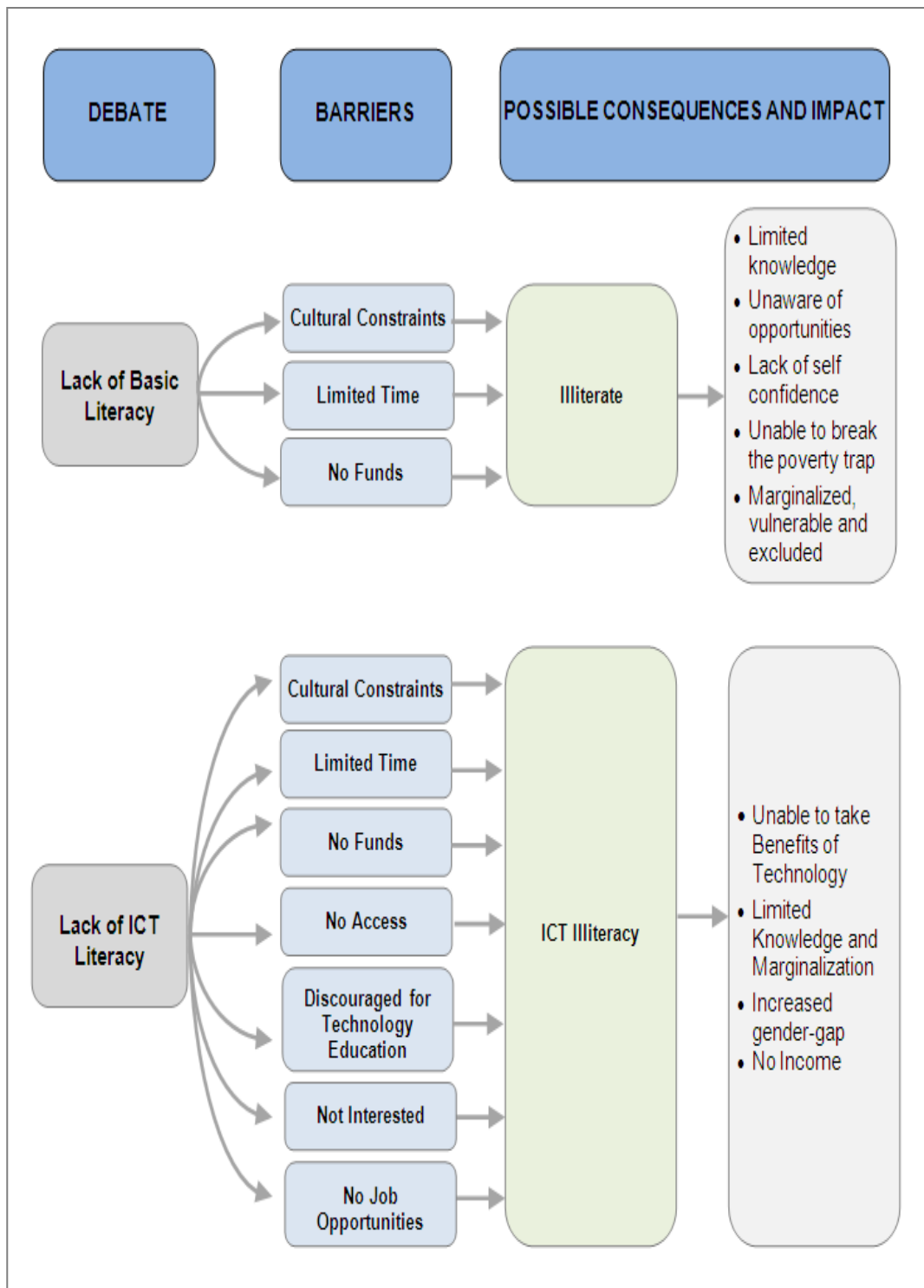
In reviewing the current literature, five key factors that impede women's access to education, and which subsequently become barriers to their engagement with ICTs, are evident. First, there appear to be major cultural and traditional influences that play a critical role in restricting women's access to education (see also Elnaggar, 2007; Sharma and Maindiratta, 2005; Sada *et al.*, 2004; Johnson 2003; Primo 2003; Adam, 2002; Hafkin and Taggart, 2001). Second, there appears to be a common attitude in some cultures that invalidates girl's *right* to education and that views her as merely an extra resource for conducting domestic chores, hawking, begging and farm work (Primo, 2003; Ramilo, 2002). Third, Sada *et al.* (2004:9) suggest that many parents "push their children into hawking for economic reasons, to supplement the family income", putting girls at a major disadvantage. She gives the example of a case study in Nigeria (see also Sweetman, 2005). Fourth, and amplifying this point, Primo (2003) states that in many societies a girl's education is considered less important than a boy's, which results in the girl's access to computers being restricted. Lastly, an interesting study conducted by Green (2004:31) across Pacific Asia reveals that girls had limited access to computers at schools due to a number of factors that included "high students-to-computer ratios and first-come, first-served policies [that] did not favour the girls; girls' access time was limited by earlier curfew hours and domestic chore responsibilities; and local patriarchal beliefs allowed boys to dominate the computer lab environment" (see also Kirkup, 2002). All of these factors are possible causes of girls' and women's lesser engagement with ICTs, and in some cases fear of computers later in life (Thas *et al.*, 2007; Gurer and Camp, 2002; Ramilo, 2002).

### **2.3.2.2 Basic ICT Literacy**

In the context of basic ICT literacy, Huyer and Sikoska (2003:12) argue that the "lack of education impeded women from engaging effectively with ICTs". Therefore, women need to gain both basic literacy and ICT literacy in parallel to ensure that they are fully equipped to take part in the information age (Elnaggar, 2007; Thas *et al.*, 2007; Alampay, 2006; Gurumurthy, 2004; Primo, 2003; Gurer and Camp, 2002; Ramilo, 2002). In addition, Thas *et al.* (2007) examined e-primers for the information economy and gender equality in Asia, emphasising the importance of ICT familiarity and exposure in enabling women's engagement in the information society. Similar thoughts were articulated by Primo (2003) in the UNDP report examining gender issues in the information society: "The under-representation of women in computing is alarming since it raises the disturbing possibility that the field of computer science functions in ways that

hinder or discourage women from becoming a part of it” (Gurer and Camp, 2002:32). This could be explained by the fact that “young women are not encouraged to take up science and technology related subjects in schools and/or they feel that this would be an area in which they cannot excel” (Wangmo *et al.*, 2004:12). Hafkin and Taggart (2001:77), in their study on gender and IT in developing countries, argue that “the single most important factor in improving the ability of girls and women in developing countries to take full advantage of the opportunities offered by information technology is more education, at all levels, from literacy through scientific and technological education”. They continue that “beyond access to basic education, girls and women must be equipped with skills to prepare them for a range of roles in information technology as users, creators, designers and managers”. This lack of exposure can lead to a widespread fear of technology in women that manifests itself as ‘technophobia’, which is sometimes coupled with the fear of entering what some perceive to be a male domain (Elijah and Ogunlade, 2006; Loh-Ludher *et al.*, 2006). A synthesis of the overall debates and potential consequences creates further obstacles for women’s engagement with ICTs (Figure 2.4, also see Saghir *et al.*, 2009; Hafkin and Taggart, 2001). Although my research is not explicitly focused on examining lack of education, by considering the use and impact of ICTs, its outcomes provide insight into the degree of women’s engagement with ICTs and the subsequent impact of education.

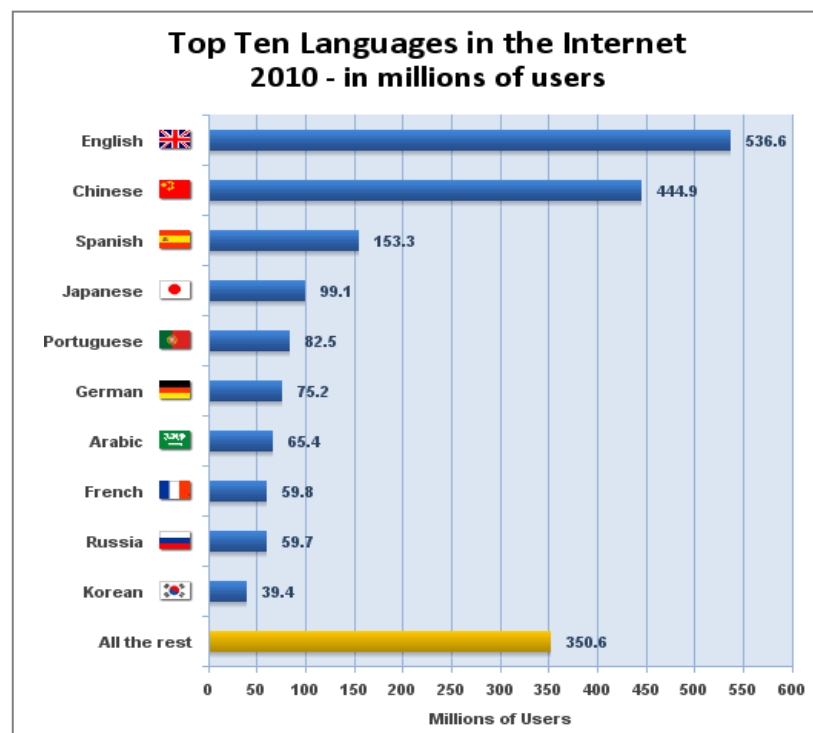




**Figure 2.4**  
**Synthesis: Key Debates on Literacy Barriers**  
 (Source: Author)

### 2.3.3 Language, Relevance and Local Content

There has been a long-running debate about the language of the internet, which has been predominantly English (see Wagner, 2009; Pimienta *et al.*, 2009; Wagner and Kozma, 2005; Slater and Tacchi, 2004; Kenney, 2002), with its content also being very Western-centric (Gurumurthy and Singh, 2006), thus limiting its benefits for the countries of the Global South. Nonetheless, there has been a slow but successful movement towards supporting other indigenous languages and the inclusion of hitherto marginalised communities. Moreover, a critical statistic is that the majority of languages on the internet exclude any African or South Asian languages (with the exception of Chinese)(Figure 2.5).



**Figure 2.5**  
**Top 10 Languages on the Internet**  
Source: Internet World Stats - [www.internetworldstats.com/stats7.htm](http://www.internetworldstats.com/stats7.htm)

It is understood that this factor affects both men and women, though since women's literacy rates are lower than those of men it affects women to an even greater degree. Thus, this section explores these debates, which concern the need for indigenous languages and relevant localised content online.

### **2.3.3.1 Implications of Indigenous Language**

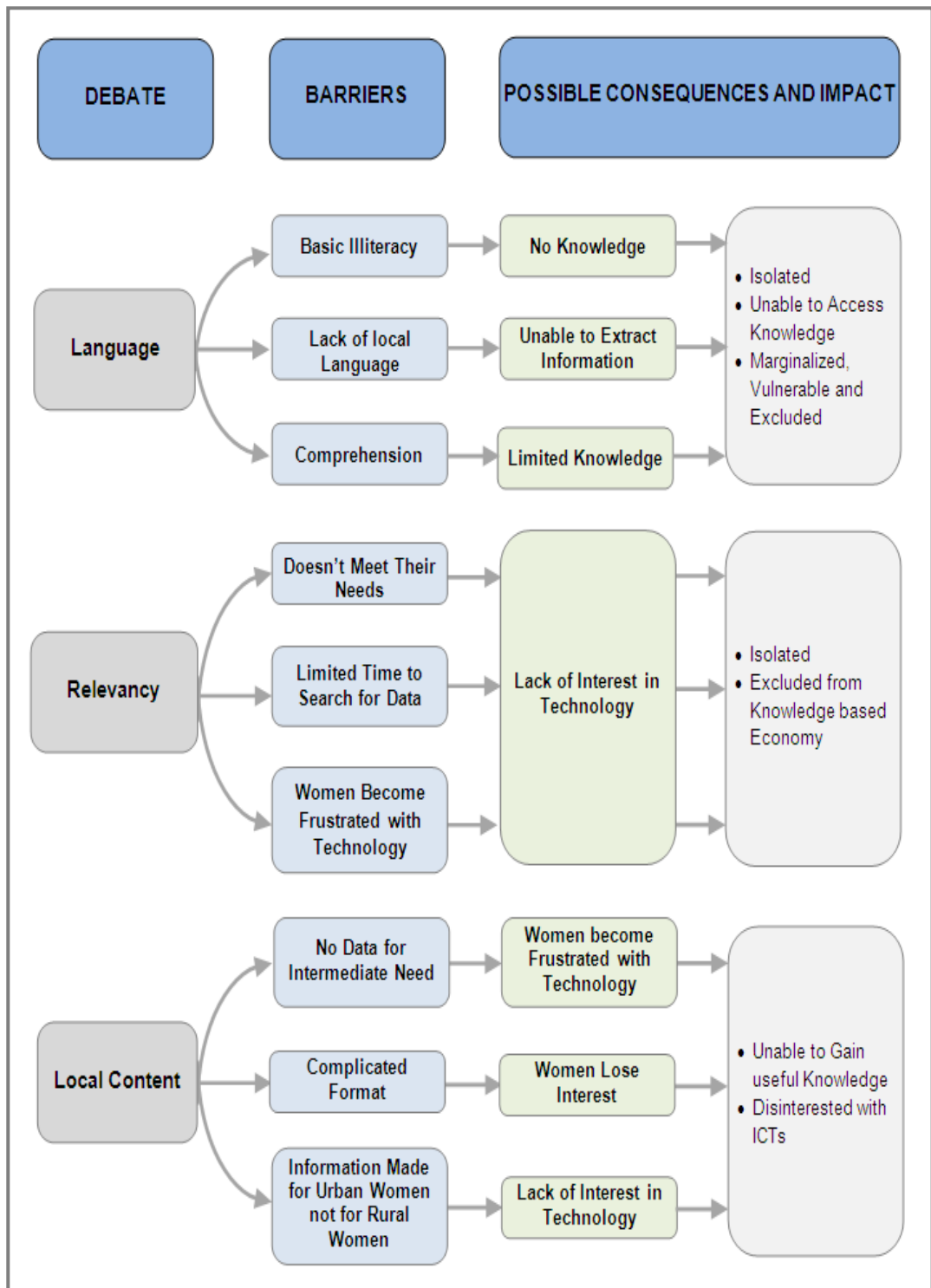
Many ICT practitioners argue that some of the main reasons for the exclusion of certain groups relate to language, content, literacy and access (Thas *et al.*, 2007; Slater and Tacchi, 2004; Primo, 2003; Marcelle, 2002; Colle and Roman, 2002; Green and Trevor-Deutsche, 2002; Hafkin and Taggart, 2001). Due to illiteracy and lack of access, the marginalised women of the South are particularly impacted by this (Saghir *et al.*, 2009; Loh-Ludher *et al.*, 2006; Jensen, 2006; Gurumurthy and Singh, 2006; Hafkin and Taggart, 2001). A lack of local languages is seen as a tremendous barrier for women's inclusion in the information society and particularly to access to the internet (Elnaggar, 2007; Thas *et al.*, 2007; Hafkin and Taggart, 2001) because the "majority of poor women in the world do not speak the languages that dominate the internet" (Primo, 2003:43) (see also Crystal, 2003; Forestier *et al.*, 2002; Wade, 2002). Loh-Ludher *et al.* (2006:41), in a report entitled Home Workers and ICTs in Malaysia, identifies that "Language, literacy and comprehension" present significant "obstacles to the use of ICT tools, as many of the websites are in English with only a few being multilingual". A similar point is raised by Elnaggar (2007:1), who identifies barriers that prevent Omani Women from engaging with ICTs, since limited "Arabized content" is available. Furthermore, women-sensitive language, format and relevant localised content are seen to be key enablers for women. Their absence acts as a barrier that prevents women from engaging with ICTs (Thas *et al.*, 2007; Elnaggar, 2007; Primo, 2003; Green and Trevor-Deutsche, 2002).

### **2.3.3.2 Relevant and Localised Content**

It is widely acknowledged that the online information available today is "not gender sensitized, not localized, and not in local languages" (Gurumurthy *et al.*, 2006; Thas *et al.*, 2007; Huyer *et al.*, 2005; Primo, 2003). Furthermore, Primo (2003:43) notes that "women's viewpoints, knowledge, experience and concerns" are "inadequately reflected on the internet". In a report published by APDIP, Reddi and Vemraju (2006:57) discuss how ICTs can be used to bridge the digital divide. They argue that content development requires special attention to create content that is "relevant, timely, local, gender-sensitive and gender-friendly", but that this takes time and costs money to produce. Tacchi (2007) emphasises the importance of content creation for ICT development. Moreover, Gurumurthy and Singh (2006:54) raise a critical point, asking: "who determines what is relevant, timely and local? Unless it is the beneficiary herself" (also see Withrow, 2004; Downing, 1999). In a similar vein, Mackay *et al.* (2000) emphasise the importance of understanding diverse users and their needs in ICT and content design and creation (see also Suchman, 2007).

Thus, a tremendous obstacle is experienced by many women of the South who try to access ICTs, because much of the information they find should they venture to do so is irrelevant to them (Thas *et al.*, 2007; Huyer *et al.*, 2005; Primo, 2003; Green and Trevor-Deutsche, 2002). The lack of relevant local content has thus created a 'content divide' (Cheneau-Loquay, 2007; Wagner and Kozma, 2005; Roman and Colle, 2005, 2003, 2002; Unwin, 2004). This, coupled with a lack of time, has become a major discouraging factor for women to making the necessary effort to engage with the internet (Gurumurthy, 2004; Primo, 2003; Green and Trevor-Deutsche, 2002). Overall, I have attempted to synthesise the key debates in order to isolate the main barriers and a range of possible consequences of these which is illustrated in Figure 2.6.

However, there appears to be a limited amount of research that has specifically discussed the degree to which language and relevant content are barriers that prevent women's engagement with ICTs. Green and Trevor-Deutsche (2002:7) suggest that the lack of relevant data is one of "the major barriers to the use of ICTs for women". Thas *et al.*(2007:20) also support this view, suggesting that "content must match women's needs in order for ICTs to remain relevant in women's lives". Additionally, Green (2004:37) suggests that "the mandatory ingredient is relevancy". Therefore, in my research I examined this aspect. The findings will provide a deeper understanding regarding the impact of irrelevant and non-localised ICT content on the engagement of women with ICTs in Pakistan, along with insight into needs for the localisation of ICT content for diverse women.



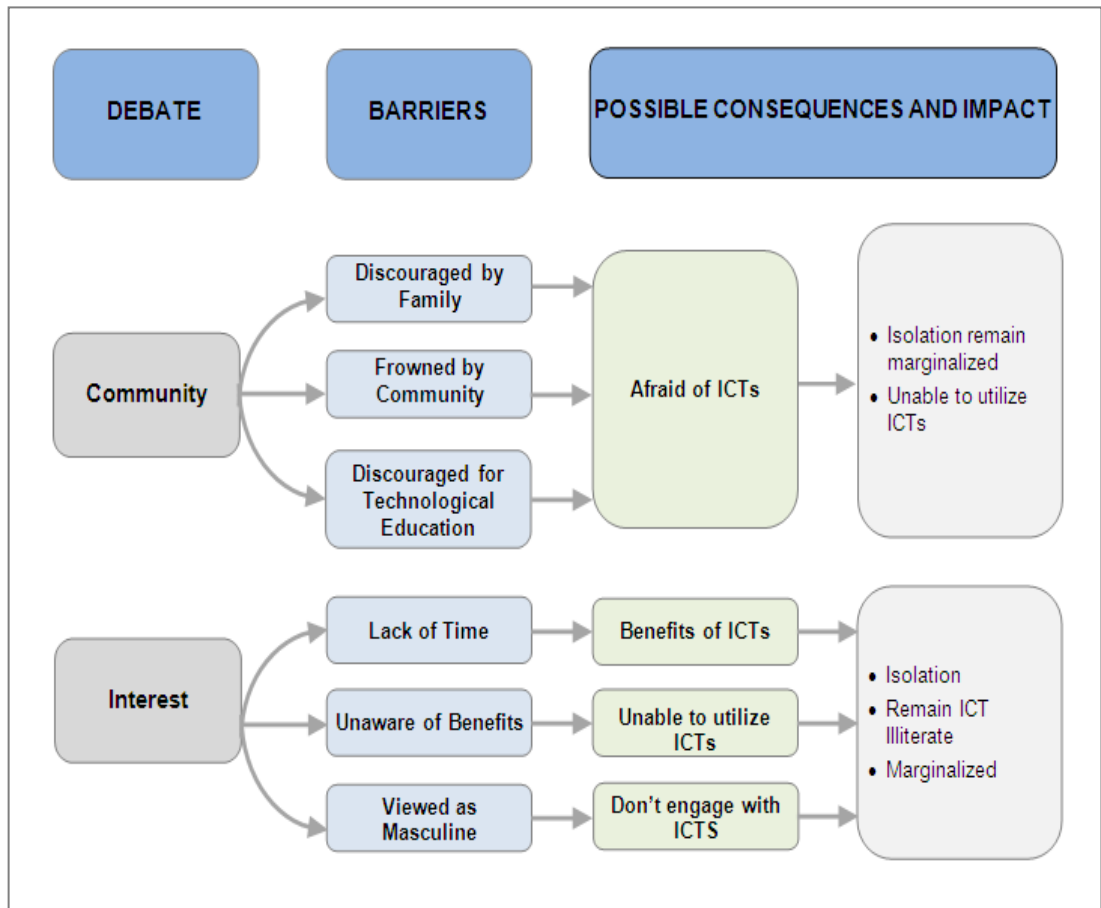
**Figure 2.6**  
**Synthesis: Key Debates on Language, Relevancy and Local Content**  
 (Source: Author)

### 2.3.4 Technology and Technophobia

It is often assumed that 'technology is for boys', and that some societies reinforce this mentality, resulting in girls being kept away from technology from a very early age (Johnson, 2003; Gurer and Camp, 2002; Green and Trevor-Deutsche, 2002). Two studies in particular demonstrate this. One, conducted by Gurer and Camp (2002:32) in the US, found that due to teachers rewarding children with computer time for completion of their homework, girls would "help their friends finish up their homework assignments or refuse to use the computer because they viewed computing as a boy's activity". However, there is little literature available for understanding this phenomenon and identifying which ICT tools women prefer, and furthermore, which factors influence their preferences in developing countries.

Second, a similar study conducted in Malaysia found that many "women who could use ICTs suffer from technophobia" (Green and Trevor-Deutsche, 2002:13) and preferred to ask "their husbands or sons to obtain whatever information they need from the internet on their behalf". It is widely believed that since girls have been given limited exposure to computers, both by their parents and teachers from an early age, an understandable behavioural fear of ICTs has emerged (Green, 2004; Primo, 2003; Ramilo, 2002; Gurer and Camp, 2002). Furthermore, Johnson (2003:50) raises the issue that "deeply embedded cultural norms, coupled with low levels of female literacy, have made it difficult for girls and women to realize the relative advantages of having access to ICTs" and consistently put women at a greater disadvantage than men (see Kline, 2003; Oudshoorn and Pinch, 2003; Hafkin and Taggart, 2001).

Recognising that women suffer from cultural restrictions on mobility and access to education and ICTs, along with limited resources, both financial and in terms of time, women also need to be given greater freedom and made aware of the benefits that ICTs can bring them in their daily lives if they are to really engage with them (Conroy, 2006; Huyer and Sikoska, 2003; Green and Trevor-Deutsche, 2002). This dilemma places women in a 'Catch 22' situation, whereby unless they are given education and access to ICTs and realise the benefits from ICTs, they will be afraid and unwilling to explore how ICTs might be used and thus remain excluded from the information society by choice (Thas *et al.*, 2007; Elnaggar, 2007; Green 2004; Primo, 2003; Gurer and Camp, 2002). In conclusion, I have attempted to synthesise the key debates to isolate the main barriers and address the possible consequences which are shown in Figure 2.7.



**Figure 2.7**  
**Synthesis: Key Debates on Technology and Technophobia**  
**(Source: Author)**

These challenges magnify the difficulty that women face in even beginning to enter into the information society, let alone become active participants in the knowledge economy. Nevertheless, the relationship between women's preference for ICTs and the technological complexity of ICT tools has not been adequately researched. Therefore, my research will examine the relationship between women's choice of engagement with ICTs, based on their relative degree of complexity. The findings will provide empirical data on the most preferred ICT tools of women, which could in turn be used by ICT4D practitioners to target women from different backgrounds and diverse geographical locations.

### 2.3.5 Gender Bias in the ICT Industry

This section outlines the key debates and barriers for women in the IT industry. The ICT sector is approximately US \$3.7 Trillion (WITSA, 2008). The rapid social and economic growth in India is caused by the IT boom and is globally recognised. Therefore, it seems logical that developing countries are very interested in similarly engaging their “gender taskforce”, which constitutes approximately 50% of their population, to capitalise on the immense social and economic development opportunity that ICTs offer (Gillard *et al.*, 2007; Phiphitkul and Sodarak, 2002). Nonetheless, from the synthesis of the current debates there appears to be a growing perception that the IT industry is actually not providing an equal platform for men and women (James *et al.*, 2006; Webb and Young, 2005; Kirkup, 2002).

This disproportionality is mainly caused by time limitations on women because of their triple roles,(care givers, housekeepers, breadwinners) along with cultural and social biases and barriers, that prevent full engagement (Elnaggar, 2007; Reddi and Vemraju, 2006; Upadhya, 2006; Wangmo *et al.*, 2004; Gurer and Camp, 2002). Elnaggar (2007) suggests that this could be because the ICT industry is viewed as being a male-dominated one requiring many long hours to be spent by women at work with young men; a view echoed by Upadhya (2006) and Kirkup (2002). This observation alone causes tremendous resistance both in the minds of families and girls to the latter’s entry into an IT profession in cultures that are sensitive to women working closely with men due to the potential stigma and damage to reputation that they may experience, along with harassment (see also Upadhaya, 2006; Webb and Young, 2005; Phiphitkul and Sodarak, 2000). Furthermore, Elnaggar (2007) and Upadhaya (2006) suggest that social and family restrictions limit women’s ability to work longer hours in order to compete with men, drawing on their research in Oman and India respectively. The environment in ICT work places is seen as not being safe and as inflexible for women (Ramilo, 2002; Hafkin and Taggart, 2001), because they are dominated by men and discourage women from working freely. Furthermore, women are not only discouraged and discriminated in the work place but are also harassed by men (Phiphitkul and Sodarak, 2000). This makes women feel uncomfortable in continuing with their jobs, resulting in their isolation from the knowledge society. Therefore, this section will examine corporate perspective and perceptions that are impacting women’s inclusion in the ICT workforce by way of a critique of current debates. However, for the purpose of this review, an overview of the current debates in the following two areas will be discussed: the recruitment process; and the compensation and promotion process, along with their consequences.



### **2.3.5.1 Recruitment Process**

Marcelle (2000b:11) identifies “gender biases limiting women’s access” to “high status positions within ICT firms”. Likewise, studies conducted by Upadhya (2006) and Marcelle (2000b) in the Indian IT industry point out that there is discrimination against women in the hiring process itself. In fact, Upadhya (2006:77) argues that “there appears to be a process of exclusion operating even at the entry point of the IT industry”, which manifests itself throughout the company in relation to promotion opportunities for women. “These include unfairness in the reward system – men earn more than their women counterparts in the same positions” (James *et al.*, 2006:47).

A World Bank (2006) report, entitled ICT and Women’s Enterprise and Participation in the Labor Force, states that even though women are entering the IT industry in developing countries, they “are contracted in routine jobs at lower levels and lower salaries than men” (Jensen, 2006:1) (see also Kirkup, 2002). It is further noted that the “ICT industry is the one industry in which the pay gap between men and women is increasing” (James *et al.*, 2006:46). The report also specifically identifies the fact that “women constitute a disproportionately high number” of those performing the laborious, routine jobs such as “call centre services, data entry and programming”, but that “there are very few women at the management level” (James *et al.*, 2006:1). Marcelle (2000b:11) raises the same concern, namely that women are often “relegated to low-status jobs while men are disproportionately represented in positions of authority and high status”.

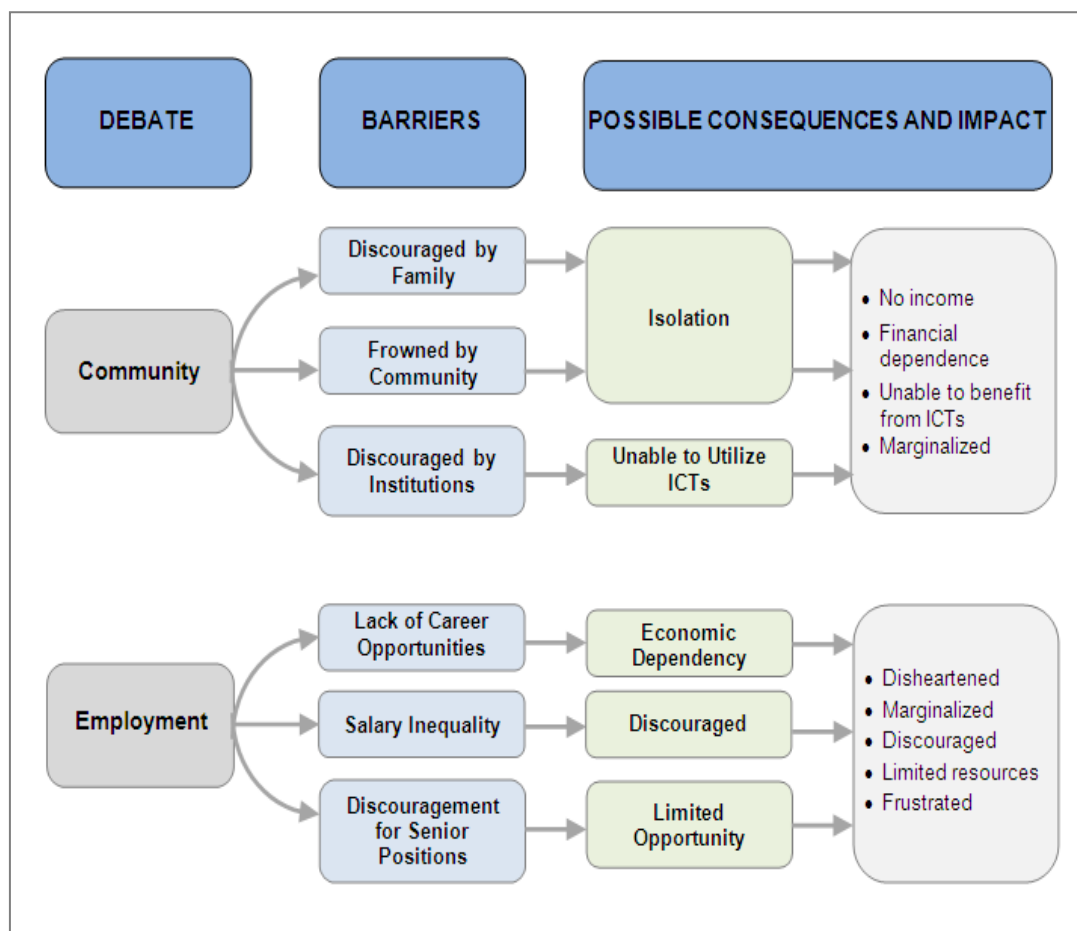
### **2.3.5.2 Compensation and Promotion Process**

Four studies conducted across Oman (Elnaggar, 2007), South Africa (James *et al.*, 2006), India (Upadhya, 2006) and Tasmania (Webb and Young, 2005), along with the World Bank Report (2006) on gender equality, suggest that gender inequality in compensation exists in the ICT industry around the world. In addition, James *et al.* (2006) note that women are paid less than their male counterparts for performing the same jobs (see also Johnson, 2005, Rose, 1993). Jensen (2006:9) reinforces this, reporting that “women who are employed in this sector tend to hold low paying and less prestigious positions”; an observation also made by Kirkup (2002) and (Kottegoda 2007). Women are aware of this phenomenon and it causes them to feel undue pressure in the performance of their tasks (James *et al.*, 2006; Primo, 2003).

In a study conducted in South Africa, James *et al.* (2006:46,47) note that women knew “that they had to work harder than their male counterparts to be recognized”. As would be expected, this is having a negative impact on the attitude of women towards ICT professions and the wider industry. “Being unable to work flexible hours impacts negatively on women’s advancement opportunities” in the ICT industry. This also leads to their being viewed as non-serious about their work and careers (Elnaggar, 2007; Upadhya, 2006). On the other hand, as has been identified by research conducted on Omani women, women themselves can become the barrier because their thinking can grow entrenched, resulting in “self imposed limitations on the type of job she can do. Therefore, the perception of future work in the ICT sector to be hard with long hours and late nights spent at work prohibits women from contemplating it as a career” (Elnaggar, 2007:9). This phenomenon has also been documented by Upadhya (2006) and Primo (2003). Another problematic issue is that many human resource departments in the ICT industry discriminate against promoting women to positions of management and high responsibility, due to concern about their domestic responsibilities (World Bank, 2006; James *et al.*, 2006; Upadhya, 2006; Huyer and Sikoska, 2003; Marcelle, 2000b). Despite the fact that software companies “maintain that their hiring and promotion practices are gender neutral” (Upadhya, 2006:77), evidence discussed by Upadhya (2006) on the Indian software industry and James *et al.* (2006) on South Africa highlights that women face ‘invisible barriers’ that prevent their promotion on the grounds of their domestic responsibilities (Upadhya, 2006; Wangmo *et al.*, 2004).

Gurer and Camp (2002) note that some IT companies do not believe that women are actually committed to their careers and are simply waiting to get married and therefore do not want to invest resources in their development. “Even though women focus completely on their career and opt not to have children, they are often treated as though their commitment is not strong enough” (Gurer and Camp, 2002:32). A similar study conducted in India by Upadhya (2006:76) found that girls opted for computer science degrees “because it led to office based work and was not associated with shop floor or dirty jobs as are other engineering specializations”. This results in women creating their own boundaries and limitations (James *et al.*, 2006). Moreover, my own career path has evolved through the ranks from an engineer to a senior vice president in a fortune 500 technology company. Nevertheless, I did change my field from Civil Engineering to Electrical Engineering because of the rough masculine environment that I was exposed to at construction sites. However reflecting back on my career, the most memorable moments for me were as a process engineer working in different factories, building products and ‘getting my hands dirty’. In conclusion, I have attempted to synthesise the

key debates to extract the main barriers and a wide range of possible consequences as illustrated in Figure 2.8.



**Figure 2.8**  
**Synthesis: Key Debates on Gender Bias in the ICT Industry**  
**(Source: Author)**

As Vodanovich *et al.* (2010) and Upadhya (2006) have argued, there appears to be gender bias against employment in the ICT sector. Nonetheless, little research has been conducted in support of this point for women in Muslim countries. This research explains the degree to which women experience discrimination in the workplace in the IT sector of Pakistan. This research will make an important contribution to policy makers and feminists who are fighting for gender equality, empowerment and equity. This thesis will also build on the work conducted by Saghir *et al.* (2009) and Elnaggar (2007) in relation to women and ICTs in Pakistan and Oman, respectively, along with providing a deeper understanding in support of the creation of women-friendly working environments in the IT sector and policy development to prevent discrimination and harassment in the workplace.

## 2.4 ICT Policies in Relation to Women

It is important to examine the debate on ICT policies because there is a belief that national ICT policies are “a mechanism for reducing poverty, overcoming women’s isolation, giving women a voice, improving governance and advancing gender equality if all the factors which contribute to the current “gender digital divide” are recognized and addressed in policy” (Wangmo *et al.*, 2004:77). A synthesis of the current debates on women and ICTs reveals that ICT policies play a vital role in enabling women’s inclusion in the information society (Elnaggar, 2007; Thas *et al.*, 2007; Wanasundera, 2006; Lal, 2006; Chowdhury and Khanam, 2005; Wangmo *et al.*, 2004; Jorge, 2002, 2000b). Primo (2003:52) supports this view, stating that “global and national ICT policies can either foster full participation in the information society or inhibit people’s access to technology, information and knowledge”. Thus, ICT policies are believed to play a key role in creating an inclusive environment for women in the information society, and it is therefore important to examine the current debate on ICT policy formulation from their perspective. Thas *et al.* (2007) and Primo (2003) both stress the importance of acknowledging the complexities of policy formulation and its subsequent impact on women.

However, since “the process of ICT policy making is a relatively new experience for policy makers around the world”, policy makers in “the developing world are facing considerable challenges” (Chowdhury and Khanam, 2005:3). This view is also supported by the ITU report which examined ICT policy formulation in South Asia and noted that ICT policy planners were unfamiliar with the “gender perspective” (Wangmo *et al.*, 2004:94). In addition, Chibba (2009:366) states that policies also fail to address “social, cultural and socioeconomic factors” and subsequently fail to alleviate continuing issues of poverty and inequality. Labelle (2005) builds on this view and further asserts that ICT policies still do not take into account the inclusion of certain marginalised groups in society, such as women, youth, the elderly and the disabled. Moreover, policy makers continue to fail to recognise and analyse the diversity of women at any level of detail that will make policies effective (see Marcelle, 2000b). Furthermore, a report published by UNESCO (Primo, 2003) describes the challenges of incorporating a gender perspective into the ICT policy formulation process. Jorge (2002) and Marcelle (2000b) both support this view and also emphasise the importance of gender analysis. These debates have highlighted the complexity and importance of creating effective and inclusive ICT policies for women (Chowdhury and Khanam, 2005). However, it is interesting to note that feminist advocates who work in development have made great progress and are now driving women’s empowerment on multiple planes to ensure that the policy agenda promotes women’s rights (see also Isenhour and Ardenfors, 2009; Kabeer, 2004, 2003;

England, 2000; Klugman, 2000; Barroso and Jacobson, 2000). The interventions they have carried out have aimed to increase access for girls to education and resources to support women's reproductive rights (see also Kabeer, 2005a; Klugman, 2000).

Isenhour and Ardenfors (2009:146) emphasise the importance of breaking down "structural barriers that prevent sustainable living" and note the importance of creating contemporary policies that harmonise the requirements of today's society to ensure that women can attain and maintain "sustainable lifestyles" (Isenhour and Ardenfors, 2009:135). Nonetheless, my research to date has made it gravely apparent that despite the progress being made by feminist advocates in the context of development policy in general, this knowledge is not being leveraged or integrated into current ICT development policy thinking. The exception to this has been some African countries that have recently begun to buck the trend by creating national strategies, policies and plans to meet the objectives of MDGs for gender equality and inclusion in the information society. However, it is very difficult to validate or confirm the implementation success and impact of any of these policies because sex-disaggregated data is still missing. The following sections will examine the debates around gender sensitivity and the need for gender analysis in the context of ICT policies, followed by a review of the debates about the need for women's engagement in the ICT policy formulation process, touching upon the benefits of using a consultative process for policy formulation. Lastly, a review will be conducted of the various ICT policy guidelines and toolkits to explore and critique their effectiveness.

### **2.4.1 Gender Sensitivity in ICT Policies**

As discussed above, the need for gender inclusion and the creation of gender-sensitive ICT policies has been discussed for over a decade, but with limited results (Elnaggar, 2007; Wanasundera, 2006; Marcelle, 2002; Jorge 2002, 2000a). The question of *why* this is the case though remains unaddressed. On examining the issue of gender sensitivity, six key arguments emerge. First, Primo (2003:53) asserts that "the evidence so far suggests that policy-making in technological fields often ignores the needs, requirements and aspirations of women unless gender analysis is explicitly included". This is echoed by Elnaggar (2007) and Chowdhury and Khanam (2005), based on the research they conducted in Oman and Bangladesh, respectively. Second, Jorge (2002), in a study conducted for the ITU, suggests that in addition to gender analysis, women's class, education and financial positions need to be taken into account, as these factors play a significant role in enabling or preventing ICT access (see Kabeer, 2008; Loh-Ludher *et al.*, 2006; Kabeer, 2004; Adam, 2002). A third perspective is presented by

Wangmo *et al.* (2004), in a report commissioned by the ITU, examining the trends and status of the gender perspective in the ICT sector in South Asia, notes that “National ICT policy, programs and activities in many countries in this region fail to account for the gender perspective at any level” (Wangmo *et al.*, 2004:12). Fourth, despite much debate, policy makers still do not appear to be adequately addressing the heterogeneous population of women or their diverse needs, or showing ‘sensitivity’ to the diversity of the environment and conditions that affect them (see Kabeer, 2003). The fifth point is argued by Thas *et al.* (2007), Reddi and Vemraju, (2006) and Gurusurthy, (2004), who state that “Men’s and Women’s differentiated social positions are not considered and addressed in policy” (Wangmo *et al.*, 2004:77). Thus, the degree to which ICT policies address cultural and societal influences on women from different backgrounds is not well documented.

Lastly, Chowdhury and Khanam (2005), in a pre-WSIS assessment of ICT policy-making in South Asia, assert that not including a gender perspective and analysis in an integrated manner from the beginning of the development of national ICT policies could result in policies being ineffective overall. Loh-Ludher *et al.* (2006), Lal (2006), Reddi and Vemraju (2006) and Wangmo, *et al.* (2004) also strongly support this hypothesis and continue to raise awareness of this issue at the international level to lobby for support and action. Moreover, ICT practitioners continue to stress the importance of engineering ICTs to ensure that their benefits truly reach women (Loh-Ludher *et al.*, 2006; Lal 2006; Reddi and Vemraju 2006; Chowdhury and Khanam, 2005; Wangmo *et al.*, 2004). Unfortunately, it is my observation that the current debates and actions underway in the space of women and ICT policies appear to resonate with the earlier arguments of exclusion put forward by development feminists and practitioners over two decades ago in the context of ‘women and development’, as discussed earlier, which raises concerns about actual commitment to the inclusion of women (see also Mbambo-Thata, 2009).

Nevertheless, the extensive discourse on the need for gender sensitivity in ICT policies reveals considerable debate about whether policies designed to be gender-neutral actually perpetuate existing inequalities in society. Thas *et al.* (2007:37) argue that “ICT is not gender neutral” and Jafar (2009:10) suggests that gender-neutral policies often result in “misguiding the different impact of the policies on each group and the systems and organizations that support them”, because men and women are different groups. Despite this, a number of countries have opted for gender-neutral ICT policies (see Section 4.2.1). However, this view is in complete contrast to, and contradicted by, that of Professor Dato Shahabuddin, president of the National Council of Women’s Organizations in Malaysia, who argued that “technology is gender neutral, policies are

not” at the Asian forum on ICT Policies and e-Strategies (APDIP, 2003:2) in Kuala Lumpur, and urged that emphasis be given to women’s unique requirements. This view is shared by many ICTs for development practitioners and feminists (see Wanasundera, 2006). Similarly, Elnaggar (2007:12) argues that due to the “gender blindness” of ICT strategies and policies, the Omani economy is being damaged by an inability to allow a “female contribution to its development”. Ahmed *et al.*(2006:1) raises similar issues, noting that due to the “marginalization of women” and their exclusion from the decision-making process, they are unable to participate in and influence decisions and solutions that reflect their needs.

As Donner (2003:7) suggests, “gender-based analysis acts like a camera lens, filtering distortions and inaccuracies that are not immediately obvious”, providing valuable information to ensure that subtleties and grounded realities are understood. In short, a lack of women’s input and understanding at the ICT policy level is negatively impacting social, economic and political development with regard to women (Saghir *et al.*, 2009; Saeed, 2009; Stivachtis and Georgakis, 2008). Furthermore, Chowdhury and Khanam (2005) and Wangmo *et al.* (2004) have argued that ICT policies in Muslim countries neither understand nor address women’s diverse needs. However, there is little existing empirical research to support this point. My research will therefore examine the extent to which ICT policies reference women’s diverse needs, along with assessing the level of sensitivity to the multitude of cultural and social barriers that impede women’s engagement with ICTs. This research thus aims to contribute to addressing this gap in the literature and further highlights the work required at the ICT policy level in Muslim countries in ensuring the inclusion of women in the knowledge economy. This research will also augment existing knowledge by building on the work of Chowdhury and Khanum (2005) and Wangmo *et al.* (2004).

#### **2.4.1.1 Women Specific Data**

There is a phrase that I have been using in my professional life for many years and that I believe is a critical success factor for nearly everything, namely: ‘what gets measured, gets done’. This allows facts to be squarely presented and argued. It stands to reason that one would expect the same to hold true for women’s inclusion in the information society (Hafkin, 2003). Therefore, I deliberately took on board a quantitative study of the key words in ICT policies to be able to demonstrate and bring to light the true reference to women. It appears that Primo (2003:67) also shares this view, as she suggests that “sex-disaggregated statistics and indicators are integral to policy frameworks that aim to track women’s participation in the planning, production and use of ICTs”. Elnaggar

(2007:7) raises this issue in a study that examines the status of Omani women in the ICT sector, noting that “few if any regional statistics were available on the status of women in the ICT sector” and highlighting the fact that without such data it was impossible to create effective ICT policies (Labelle, 2005; Hafkin, 2003). Furthermore, Ahmed *et al.* (2006:3) point out that measuring the impact of ICTs on women in Bangladesh showed that “internationally comparable information society statistics on women are very limited”, continuing that specific indicators need to be created for women so that decisions and policies can be made more effective. The authors go on to propose the creation of “women informationization indicators”, which they suggest could be used by multiple organisations. They maintain that “these indicators would be very useful for developing countries in creating and developing their statistical data collection programmes”, leading to “women’s empowerment through ICT”. This is also supported by a report by Wangmo *et al.* (2004:94) commissioned by the ITU, which investigated trends and positions from the perspective of women in Bhutan, Bangladesh and Indonesia, and also raised the same issues. Due to a “lack of sex segregation in national statistics” though, it was inconclusive on the taking of any action.

Once again, a lack of sex-segregated data has resulted in an inconclusive report being published in a study of the position of women in Bangladesh in 2004. This begs the question though of how ‘meaningful and actionable’ the findings can be if they cannot be quantified. My research examines the extent to which sex-segregated ICT data is available for measuring the impact of ICT policies in Muslim countries (as suggested by Hafkin, 2003). This analysis highlights the level of importance that is actually being attached to ensuring women’s inclusion in the knowledge-based economy in the context of ICT policies, thereby supporting the creation of effective and measurable ICT policies specifically to impact to women.

## **2.4.2 Women’s Engagement in Policy Formulation**

One of the fundamental issues that appears to have remained unaddressed over the past decade is the fact that women are under-represented as policy makers (Thas, *et al.*, 2007; Chowdhury and Khanam, 2005; Jorge, 2002, 2000a; Marcelle, 2000b). This is highly problematic, as “the participation of women and individuals with expertise in gender issues is essential at all stages of the ICT policy elaboration process, so that the gender dimensions of policy areas can be identified and addressed” (Primo, 2003:67). Labelle (2005) and Marcelle (2000a) echo this point, and suggest that a diverse range of women should be engaged in the process. Nonetheless, the empirical data to support this is missing, and so this is something that my research will address. In addition,



Wangmo *et al.* (2004:76) argue that “in ICT policy, there is no special provision for women who are underprivileged in reaping benefits from the existing policy intervention because of their systematic subordination”.

Primo (2003) raises this issue in her report, published by UNESCO, on gender issues in the information society, paying particular attention to women’s absence from decision making structures and suggesting that women are “underrepresented in all decision making structures, including policy and regulatory institutions, ministries responsible for ICTs and boards and the senior management of private ICT companies” (Primo, 2003:55), which leads to gender issues not being addressed. Moreover, in a study conducted in Bangladesh which focused on incorporating gender issues into ICT policy making, Chowdhury and Khanam (2005:8) note that since policy making is “heavily dominated by males”, this imbalance causes “many gender-sensitive issues” to be relegated to “the sidelines”. Likewise, in a study conducted in Oman that highlights the same dangers, Elnaggar (2007:11) suggests that policy makers should take into account “the needs, aspirations, and constraints of women in the Omani society”. This point is reflected in research examining the capacities of Ethiopian civil society and perfectly illustrates the influence of ICT policies, it being noted that “women were not part of the design, implementation and evaluation of information and communication technology policy and projects in Ethiopia” (Adam, 2002:13). It is further asserted that women are “grossly under-represented in the ICT policy formulation process; all those that drafted the policy document were men” (see also Gurumurthy, 2006, 2004; and Jorge, 2002).

Nevertheless, there is very little literature and data available to demonstrate the degree to which women are actually involved in ICT policy formulation in Muslim countries and the factors that contribute to their exclusion from it. Unfortunately, four years after Primo’s (2003) report, the same situation was reported by UNDP-APDIP, Thas *et al.* (2007:5) also noting that at the “macro-political level, most government bodies are dominated by men”. The consequences of this disparity are believed often to render ICT policy ineffective at creating an inclusive environment or addressing the specific needs of women (Thas *et al.*, 2007; Elnaggar, 2007; Lal 2006; Wanasundera, 2006; Wangmo *et al.*, 2004; Primo, 2003; Jorge, 2002). As Chowdhury and Khanam (2005) have argued, women need to be involved in policy making to ensure that their needs are addressed. My research will examine women’s involvement in the ICT policy formulation process and the subsequent influence on the policies’ sensitivity towards women. This will provide critical empirical data, contributing to the current debate that women need to be policy makers in order to ensure that ICT policies adequately address their needs (Chowdhury and Khanum, 2005).

### **2.4.2.1 Consultative Process for Policy Formulation**

Labelle (2005) and Wangmo *et al.* (2004) both suggest that if ICT policies are designed to cater to women, it would stand to reason that women's groups, ministries, civil society, activists and NGOs would be consulted as part of the policy design and review process, since they would have first-hand knowledge of relevant subject-matter. However, as the earlier debates in this chapter have identified, this is not a simple task: women have diverse needs and requirements (see Marcelle, 2000a). This is underscored by Jorge (2002:13) in the context of the challenges and practical strategies for the use of ICTs for women's economic empowerment, and who also stresses the importance of engaging women's organisations in the ICT policy formulation process, noting that with "access and cost being some of the greatest barriers for ICT use", it is critical to engage women in the consultation and policy making processes to ensure that policies are effective.

Labelle (2005:30) also stresses the need for special "steps to be taken to ensure that consultation is representative and that marginalised groups, such as women, poor, rural dwellers, youth and the handicapped are included". Such a consultative process with gender experts and advocates would ensure that their needs were understood and incorporated, not only into the policy design but also the implementation process (Wanasundera, 2006). This linkage and integration into other policies and organisations was seen as a critical success factor to ensuring not only effective implementation but also sustainability for maintaining gender inclusion in the information society in multiple dimensions (Thas *et al.*, 2007; Labelle, 2005; Jorge, 2002; Marcelle, 2000a). Nevertheless, there is very little empirical data that verifies the impact that the consultative process has on the extent to which ICT policies are sensitive to the ground realities that women face when engaging with ICTs. The findings of my study will substantiate whether the cumulative process is effective in the context of influencing references to women and sensitivity to barriers faced by women. In addition, the findings will also highlight and identify the most effective formulation process for effective policy formulation.

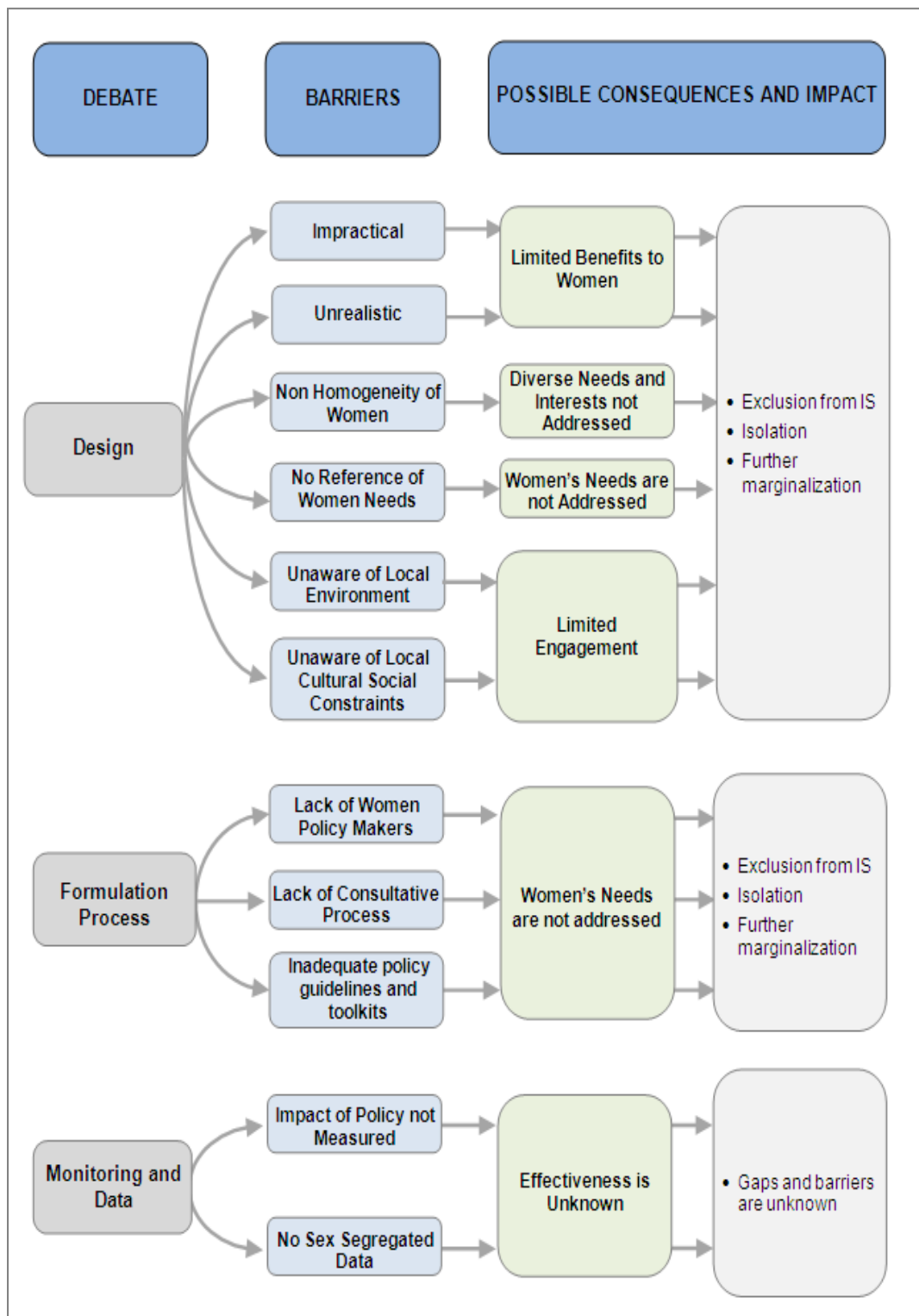
## 2.4.3 Effectiveness of ICT Policy Guidelines and Toolkits

Recognising that many countries have only recently begun grappling with creating ICT policies and establishing dedicated ICT ministries, there appears to be a huge learning curve (see Chowdhury and Khanam, 2005). Acknowledging this gap, a series of ICT policy formulation guidelines, toolkits and handbooks have been developed by a variety of organisations and agencies, (see Table 2.3).

S / N	Guidelines, Toolkits and Handbooks
1	World Bank, ICT toolkit – ICT projects and policy (2009)
2	UN-ESCAP, considerations for ICT policy formulation in developing countries (2009)
3	UNDP-APDIP, ICT policy formulation and e-strategy development – a comprehensive guidebook (2005)
4	Association for programme communication, handbook, ICT policy: A beginners Handbook (2003)
5	FAO manual for the design and implementation of national information and communication policies for sustainable development in Africa: issues and approaches (2002)
6	COMNET-IT, guidelines for sectoral ICT policy and planning; a consultation document: regional initiative for informatics strategies (2001)
7	ITU and InfoDev, ICT regulation toolkit, policy formulation (2000)

**Table 2.3**  
**Guidelines, Toolkits and Handbooks**  
**(Source: Author)**

There appears to be no consistency in the content of these with reference to women. Ramilo and Cinco (2005), ICT practitioners from the South, along with other ICT practitioners such as Anita Gurumurthy (2006, 2004), have actively raised the issue of power relations between men and women on the basis of class, race, ethnicities, disabilities and religion. They argue, it is these factors that define women's positions in society, and from this they have created a gender evaluation methodology (GEM, 2005) that incorporates all of these elements to make it relevant in the context of ICTs. Furthermore, it is a living system that is continuously being enhanced on the basis of the experiences of the projects that are evaluated. The key debates are synthesised to extract the main barriers and identify an overall range of possible consequences (Figure 2.9).



**Figure 2.9**  
**Synthesis: Key Debates on ICT Policy Barriers**  
 (Source: Author)

There does not appear to be any existing empirical research examining the degree to which these guidelines and toolkits consider the 'cultural and social' environment and constraints faced by women while taking into consideration their diverse needs. Therefore, building on Labelle (2005) and Hafkin (2003), my research will also examine ICT guidelines and toolkits to understand the degree to which they reflect and address the diverse needs of women along with the level of sensitivity to cultural and social constraints. This research will thereby be an important contribution to policy makers and to development practitioners who utilise these guidelines, since it will provide a detailed critique in an overall manner in relation to women, building on the work of Ramilo and Cinco (2005).

## **2.5 Muslim Societies, Women and ICTs**

Elnaggar (2007:1) writes that "women's access and utilization of Information and Communication Technology among Arab countries continues to lag behind men, creating a widening gender digital gap". The current debates on women in Muslim societies are multifarious and range from issues of subordination and subservience and forced marriages, to violence against women and sexual exploitation (Ayub *et al.*, 2009; UNAMA, 2009; Kandiyoti, 2007; Khalafallah, 2005; Tucker, 1998; Afshar, 1997; Baden, 1992; Keddie, 1991). Therefore, it is important to understand how religious factors affect women.

The extent to which women are marginalised in these societies has been described by Syed (2006:11) in research on the Islamic Perspective of Adaptation and Social Choice in the Context of the Gender Division of Labour, in which he indicates that "women's subjugation to patriarchal structures results in women who are mal-nourished and under-educated, whose physical and emotional honour is frequently violated and whose mobility, status and roles are stringently monitored by male elites". In addition, Syed and Ali (2005:2) suggest that the ideology of male supremacy infuses Islamic societies and beliefs to such an extent that it has represented Islam as a religious patriarchy that embeds hierarchical and unequal relationships between men and women and "puts a sacred stamp [onto] female subservience" (See also Kandiyoti, 2007, 1998, 1991; Khalafallah, 2005).

While Muslim societies are considered to be patriarchal and strongly influenced by male-dominant structures (Aftab, 2008; Appold and Hong, 2006; Offenhauer, 2005; Kabeer, 1999b), it has been noted that patriarchy transcends religion and is a masculine societal formation whose structure is based on the subordination of women (Momsen, 2004;

Moghissi, 1999; Kabeer, 1999b). Furthermore, Sonbol (2005:224), in her study on Egypt, suggests that “Muslim societies in particular have been subjected to exceptionalism because of Islam and Islamic traditions”. She goes on to argue that “many of the problems faced by Muslim women today were not owing to Islamic traditions or to the particularities of Islam” (see also Esposito and Haddad, 1998; Mohamad, 1991; Sirman, 1991). Sonbol’s (2005) research is complemented by Khalafallah (2005) and Hatem (2005), who both examine the changing situations of women in Islamic law and tradition in the context of contemporary Egypt, which demonstrates how the Qur’an and Hadith have been manipulated by some Islamic scholars to deliberately humiliate women and keep them out of public life and minimise their role in society (see also Cosgel, 2007; Moghissi, 2005). In addition, Rahman (1991:30) also highlights traditional quotes that equate to women “as a source of evil”. Furthermore, a study by Afshar (1997) on Iran highlights some of the daunting issues and difficulties that women were subjected to after the Islamic revolution with respect to male superiority and the apparently innate “biological inferiority of women” (Afshar, 1997:319). This emphasised the constant denouncement of the evil ways of the West and reinforcement of the importance of going back to the ‘shackles’ of the ‘natural and humane’ domestic environment that women belonged in –the home. These debates demonstrate the magnitude of the complexity of the lives of women in the social structure of some Muslim societies (Khalafallah, 2005; Sonbol, 2005; Bodman and Tohidi, 1998; Mohamad, 1991). Recognising that there is a vast body of literature discussing the multiple facets and social structures of Muslim societies, I only review here the current literature that is pertinent to the potential barriers that limit women’s engagement with ICTs, which are: the subordination and subservience of women and their lack of decision making authority and power. This is followed by an overview of the debates around cultural attitudes towards modesty and the fear of modernisation and sexual exploitation. Lastly, the debates around access and the mobility of women in Muslim societies are discussed.

## **2.5.1 The Subordination and Subservience of Women**

The subordination of women in Muslim societies has been discussed for decades, but with limited progress having been made (Chaudhry and Nosheen, 2009; Kandiyoti, 2007, 1998, 1991; Syed and Ali, 2005; Moghissi, 1999; Stowasser, 1996). The degree to which women are subordinated varies tremendously on the basis of their class, race, ethnicity, geographical location and nation (Hatem, 2005; Momsen, 2004, 1993; Rowlands, 1997). In fact, Afshar (1997:317) suggests that “Islamic ideology regards women with a mixture of fear and paternalism, and sees them both as a source of all evil and as the most vulnerable members of the household, in need of constant surveillance and protection”.

She continues that the “policies of the majority of Muslim states are framed accordingly, often equating women with children and the insane”. Moreover, Kabeer (1999a) suggests that one of the most powerful aspects of social and cultural context is the internalisation of patriarchal norms by women and the instrumental role that they play in transferring and recreating gender ideology through the process of the socialisation of children. She goes on to give an example of her research in Pakistan, where a woman equated herself to cattle in terms of her sense of subservience and ownership. Chaudhry and Nosheen (2009:217) reinforce this, describing the continuing patriarchal nature of Pakistani society and attributing it to the “age-old traditions of a subservient and subordinate role of women”. Furthermore, Hassan (1991:26) argues that this has nothing to do with religion, and posits that under the cover of “Islamization” women are being oppressed. Kabeer (1999a; 1999b) also notes that women are often subordinated by other women, usually their mothers-in-law, because they have very domineering positions and levels of control in joint family structures, with some daughters-in-law living in fear of them. The subservient role of women is so embedded and continues to be sustained through cultural and religious norms within Muslim societies that it cannot be reversed through policy or changes in laws; fundamental social change is required to address the inequalities (Stivachtis and Georgakis, 2008; Sirman, 1991). Furthermore, Elnaggar (2007:11) underlines this when he argues that unless “cultural transformation” is addressed, policy reorientation is difficult.

However, Stivachtis and Georgakis (2008:1) argue that “until women cease to be the transmitters and protectors of dominant social values and norms there cannot be fundamental change”. Khalafallah (2005:40) also observes that “women must be excluded from any civic jobs” because there is a belief that women are inferior and “not fit for civic responsibilities in particular”. However, she also contrasts this with how the Queen of Sheba was noted to be “an effective leader of her people, ruling by consensus and eventually delivering her community to ‘what pleased God’” (Khalafallah, 2005:46). She concludes that “the status of women in Muslim societies has neither been fixed nor static”. This supports the view that women have diverse positions, roles and rights within a given Muslim society, which need to be taken into consideration when designing development initiatives (Saghir *et al.*, 2009; Kabeer, 1999b; Sathar and Kazi, 1997).

Moreover, Kandiyoti (1998) suggests that the subtleties of different types of patriarchal society are based on their environments and cultural norms and notes how women have accepted their roles, and in some cases thrived, by learning to negotiate and bargain within their patriarchal constraints (see Section 2.2.2). Thus, it has been observed that some women in Muslim countries themselves argue that women need to be guided and

protected and that their roles lie within their homes (Syed, 2006; Sonbol, 2005; Kandiyoti, 1998). Nonetheless, Elnaggar (2007) highlights the obvious dangers of this level of seclusion for women, and raises the concern that these restrictions further exclude women from society, deprive them of opportunities and life exposure and accentuate existing inequalities. An example of the lack of decision making authority for women is highlighted in two case studies. In the first of these, Sada *et al.* (2004:14) conducted research in Nigeria and suggested that in Muslim countries, “women are generally excluded from decision making at the family and community levels” (see also Nkealah, 2006). Second, Sathar and Kazi (1997), in their research in Pakistan, reinforce this suggestion by arguing that the only area of decision making in which women were involved was in relation to the purchase of food. Ahmed *et al.* (2006:2) adds to this, noting that some women are excluded from decision making processes because “they are often illiterate, they lack confidence”.

Nonetheless, in stark contrast, a woman – Benazir Bhutto –was the Prime Minister of Pakistan twice, and Pakistan currently has over 35 female ministers in the government (see also Chaudhry and Nosheen, 2009; Jafar, 2005). The findings of this research will provide valuable insight that will contribute to the effective development of ICT programmes that target diverse women with careful consideration to their social and geographical positions. This variation once again reinforces the complexity and disparity that affects women on the basis of their class, race, ethnicity and geographical locations, which visibly impacts their access to resources and participation in the public arena (Hatem, 2005; Patel, 2005; Momsen, 2004; Rowlands, 1997), and which has also been examined in this research in the context of women’s access to ICTs.

## **2.5.2 Cultural and Social Attitudes Towards Modesty and Honour**

The patriarchal power structures in some traditional Muslim societies have been further reinforced through the concept of modesty, which imposes specific physical (veil, ‘*hejab*’ and ‘*chadar*’) and psychological boundaries on women, and restricts their access to education, employment and even their capacity to leave the home (Hatem, 2005; Khalafallah, 2005; Afshar, 1997; Hoodfar, 1997; Stowasser, 1996; Mernissi, 1996). Syed and Ali (2005) shed further light on these matters and suggest that in the context of Pakistan, in order to “ensure that they do not dishonor their families, society limits women's mobility, places restrictions on their behaviour and activities, and permits them only limited contact with the opposite sex (Baxi *et al.*, 2006). These popular perceptions have severe implications for women’s participation in economic activities, in particular in



the domain of formal work” (Syed and Ali, 2005:3). This thinking also interjects into the domain of ICTs (see Mahmood, 2005). Nonetheless, there is little empirical data that explores these implications, as barriers specifically impacting women’s access to ICTs, which is incorporated into my research. The findings of my study will therefore identify the extent of influence of modesty and honour on women’s access to ICTs, along with key recommendations to enable ICT access for women within their cultural and social boundaries.

Syed and Ali (2005:4) emphasise that culture limits women’s mobility “outside the chardiwari” and continue that the restrictions are mainly due to the “rationale of modesty (Haya), family honour (Ghairat) and tribal traditions (Rivaj)”. Moreover, they state that “most women spend the major part of their lives physically within their homes and courtyards and go out only for serious and approved reasons with the permission of their fathers, brothers or husbands. Outside the home, social life generally revolves around the activities of men” (Syed and Ali, 2005:3). In addition, Stark (2010:149) points out that this restriction is not just within the home, but also that a “major barrier to women’s mobile phone use is cultural attitudes which emphasize that it is primarily men who should maintain contact with persons outside the household or community”. However, Sansui (2004:81) argues that restrictions on women’s mobility may be driven by a fear of the contamination and breakdown of Muslim society through “western cultural influences and innovations”. Furthermore, Vodanovich *et al.* (2010:11) suggest that “westernization was seen as being in conflict with the Islamic culture of the UAE and something that needed to be averted at all costs”. They further argue that modernisation through the implementation of ICTs needed to take place, but without a concomitant westernisation.

### **2.5.3 Concerns over Harassment and Sexual Exploitation from ICTs**

There has been a global outcry from feminists regarding the damage that the internet is perceived to be doing to women’s dignity (Jensen, 2006; and Gurumurthy and Singh, 2006). Therefore, I have selected two positions that highlight the main debates in the context of women. First, Saeed (2009:468) argues that “what is put on the platter today is a multi-cuisine mix of entertainment, sensationalism, sex and violence; in short, just about anything that sells”. She also raises concerns about the deterioration of the media. Furthermore, a UNESCO report by Primo (2003:45) states that “information and communication content is of masculinity, rhetoric, and a set of representations which are frequently sexualised and often sexist”. The issue of irreverent and sexist content on the

internet is further emphasised by Thas *et al.* (2007), Green (2004) and Green and Trevor-Deutsche (2002). Second, Gurumurthy and Singh (2006) and Menon (2006) build on this view and argue that women have made little progress in the fight to protect their digital dignity and prevent pornography, sexual exploitation, email harassment, cyberstalking, the stereotyping of women, paedophiles and human trafficking through the media and internet, or “flaming (abusive or obscene language)” (Primo, 2003:55; see also Downing, 2001). Short and McMurray (2009) have further highlighted the development over the last two decades of sexual harassment through the mobile phone in the context of their research on women in the UK (see also Stark, 2010).

Nonetheless, there is very limited research on how mobile phone harassment is experienced by women in Muslim Countries. My findings will contribute to filling the current gaps in the literature to date on the mobile phone harassment of women in Pakistan. It will also provide a deeper understanding of the subsequent consequences for women, along with providing key recommendations to monitor and control mobile phone harassment. Sensitivity to the phenomenon of sexual exploitation is even more pronounced in Muslim societies. This is demonstrated in a study that was conducted in Pakistan which noted that the vast majority of internet use was for the purposes of entertainment, online chatting and e-mail, and that it was perceived to be mainly used to view “pornographic sites” (Mahmood, 2005:212) rather than “for educational or research work or to gain knowledge”. The elders [men] of the community feared women’s exposure to men and that this would increase promiscuity. Elnaggar’s (2007:14) research in Oman also reinforces this point, as he suggests that “chatting is considered the most common usage of the internet in Oman among females”. Nonetheless, Mahmood (2005) notes that there is a lack of awareness of the benefits of the internet in Pakistan. He further suggests that in some communities, the internet is often seen as synonymous with cyber cafes, which are perceived as places ‘for men’, where moral issues become a concern and subsequently raise questions about a girl’s character were she to visit one. These play on the concerns of many societies of the South and increase the fear that ICTs may accelerate the deterioration of their particular traditions and values (Vodanovich *et al.*, 2010).

However, it is interesting to note that Barendregt (2009:2) suggests that some Muslim countries are “largely influenced by the political climate; external observers have often been quick to associate mobile religiosity in a Muslim context with extreme practices ranging from SMS divorces by Malaysian Muslims or cell phones being used as detonators by Thai Muslim separatists”. However, there is very little existing empirical research to support this point. This research also examines the degree to which women

experience any sexual harassment or exploitation when engaging with ICTs and if so, in what shape it has been and more importantly, what the consequences have been, building on Mahmood's (2005) research in Pakistan. Moreover, the research will also examine whether parents view ICTs as tools that promote promiscuity and sexual exploitation. My research will therefore address the current gap in understanding the concerns of parents for their daughters' engagement with ICTs in Pakistan and its consequences (GSMA, 2010). The findings will contribute to providing a deep understanding of the consequences of the sexual harassment or exploitation of women when engaging with ICTs, and provide critical insight into regulatory agencies for monitoring and addressing this issue, as well as uncover the key concerns of parents to be addressed by ICT4D practitioners.

#### **2.5.4 Access and Mobility (Restrictions and Controls)**

There has been considerable debate about the cultural attitudes that prevent women's travel outside the house (World Bank, 2006; Syed, 2006; Syed and Ali, 2005; Tohidi, 2002; Afshar, 1997). In their study in Nigeria, Sada *et al.* (2004) suggest that mobility constraints on women transcend religion and are more closely related to tradition and culture. Understanding the thinking and restrictions regarding women's mobility is a controversial and complex phenomenon. "In most countries, women's mobility is much more restricted than that of men, [and] this may be the result of social customs that forbid women to travel unaccompanied" (Primo, 2003:49).

Furthermore, Elnaggar (2007) argues that in Arab countries, women's access to, and utilisation of, technologies lags behind that of men. A lack of access to resources limits women's ability to gather the means to improve their situations (Ayub *et al.*, 2009; Stivachtis and Georgakis, 2008; Syed, 2006). This perpetuates the existing inequalities within society and creates a cycle of further marginalisation of women. The variation in women's mobility has been eloquently described by Sada *et al.* (2004), in their study of Nigeria. They find that the range of mobility given to women with education and class contrasts to the restrictions imposed on them in rural Nigeria. However, their report emphasises that the mobility constraints on women transcend religion, and are more closely related to tradition and culture (Huyer *et al.*, 2003; Primo, 2003; Hafkin and Taggart, 2001).

Therefore, "cultural attitudes and practices can preclude both opportunities for the use of ICTs as well as training in their use in restricting or prohibiting women's interaction with men in public and, in some areas, preclude women's travel outside the home" (Huyer

and Mitter, 2003:9) (see also Slater and Tacchi, 2004). Furthermore, Elnaggar (2007:9) suggests that “mobility in terms of travelling for business or education is another restricting factor for the female depriving her of specialized training, life exposure and the chance to further her career”. Moreover, Proenza (2001:6) states that care must be taken when considering access for rural and marginalised communities, since distance can be a “daunting challenge” and is difficult to overcome for women because of their limited resources and other limitations (see Elnaggar, 2007; Colle and Roman, 2001; Hafkin and Taggart, 2001). While it has been widely argued that women have limited mobility in Muslim countries, there is little existing empirical research in this area to support this point with respect to technology and no specific case studies on Pakistan in relation to ICTs. My research also explores whether women are restricted from travelling outside their homes and how this impacts their engagement with ICTs (Elnaggar, 2007). Moreover, it teases out their views and opinions about these restrictions (See also Syed, 2006). Thus, my research will shed further light on this issue and support development practitioners in understanding this very important cultural barrier that women face in Pakistan. This will provide deeper insight for ICT4D practitioners to design development projects with careful consideration to women’s mobility restrictions given in the context of their local cultural constraints. Furthermore, this research will contribute to breaking down the barriers that prevent women’s engagement with ICTs due to the lack of understanding of cultural boundaries and controls.

## **2.6 Conclusion**

From these reflections on the analysis and synthesis of the current debates, it is apparent that cultural and social influences and ineffective ICT policies play a critical role as barriers preventing women’s participation and engagement with ICTs on multiple planes. Moreover, cultural and social influences exert invisible restrictions, pressures and controls on all forms of access and therefore present a very complex and difficult challenge when creating policies and strategies for gender inclusion. While there is only limited literature that defines the barriers and constraints that women face when engaging with ICTs in Muslim countries, certain cultural factors provide some clues as to the key barriers and challenges that may impact women’s inclusion in the information society. The complexities and interdependencies between policy effectiveness and culture are explicitly argued by Stivachtis and Georgakis (2008). In addition, Elnaggar (2007:11) suggests that unless “cultural transformation” is addressed, policy reorientation is difficult. This is also reflected by an ITU report by Wangmo *et al.* (2004:7) of case studies in South Asia, which specifically covered the trends and status from a gender perspective and concluded that in the National ICT policies of Bangladesh,

Bhutan and Indonesia, “the gender perspective was still missing”. This exclusion thus ignores the “cross-cutting issues of gender in almost every aspect of ICT policy” (Chowdhury and Khanam, 2005:3).

Furthermore, Wanasundera (2006:51) suggests that unless policies adopt “proactive strategies” which sensitise programmes for women’s needs and ensure women’s access to ICTs, “existing inequalities” will not only continue but will be exacerbated. This is reinforced by Wangmo *et al.* (2004:8) who state that “ICT related programs, policies and activities rarely explicitly recognize and account for differentiated needs, interests and limitations of men and women”. They further suggest that there is still hope for gender mainstreaming, but urge “gender advocates” to form “strong lobbies immediately to influence National Governments to take action to incorporate gender sensitivity in ICT policies”. The literature has provided insights into the context of this research. It has given an understanding of the concepts and findings of previous scholars and provides the academic and theoretical basis that helped shape this research. The failure to incorporate local contexts, particularly social and cultural imperatives in designing ICT projects, has caused tremendously high failure rates (Colle and Roman, 2002).

It appears that male dominance has the most direct impact and is responsible for multidimensional restrictions on women’s engagement with, and use of, ICTs. This manifests itself in the form of fundamental barriers that prevent and block women’s and girls’ access to education, the use of ICTs, mobility to ICT access points, funds and freedom of choice. Women face restrictions on access to basic education and discrimination against their access and the use of ICTs in schools, which manifests itself in instilling some form of technophobia from an early age in girls. Sadly, this reinforces the marginalisation of women with regard to basic and technological literacy. The challenge that prevents women from leaving the home is probably one of the biggest issues that is driving the gender digital divide in Muslim societies, because ‘access’ is closely coupled with mobility. Nonetheless, the perception and concern that ICTs will bring dishonour and affect the modesty of women needs to be understood and appreciated, whether this is a myth or reality (Sinha, 2009; Mahmood, 2005).

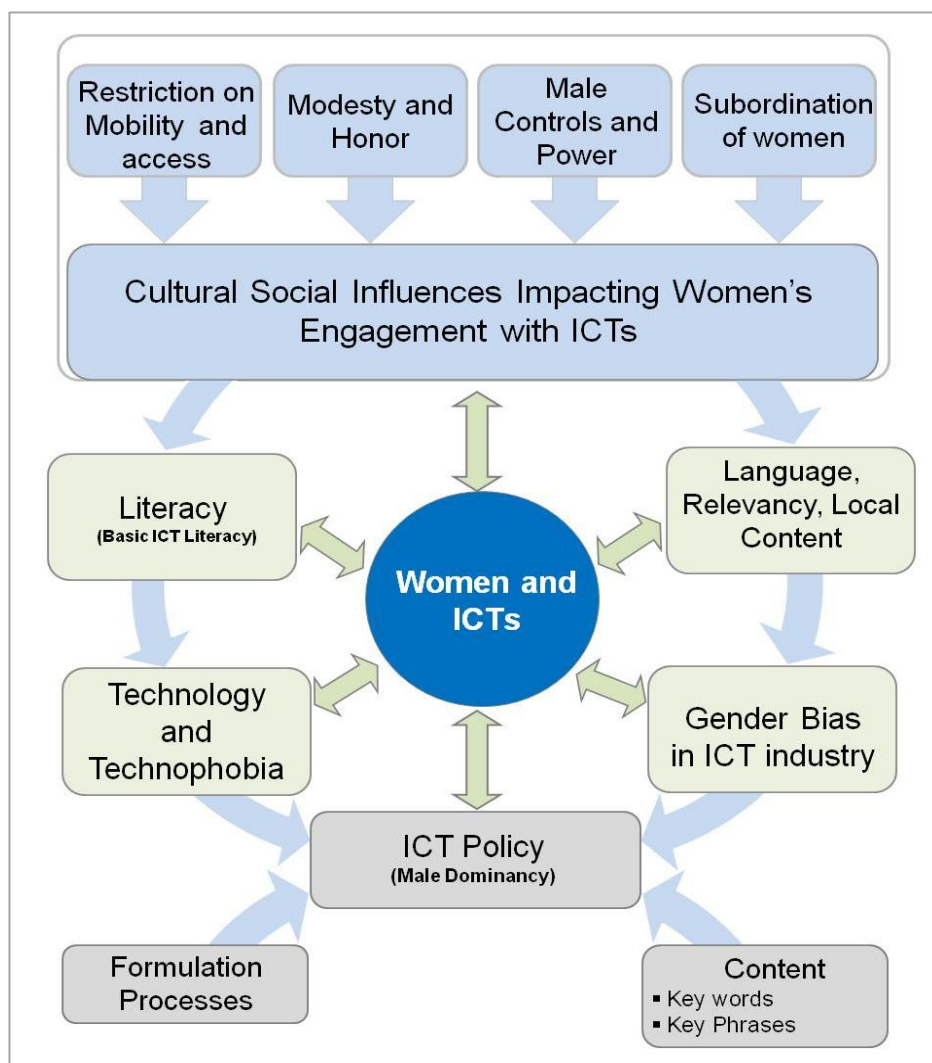
Furthermore, the fundamental restrictions on women’s mobility are not only preventing them from accessing ICTs but also from joining the workforce and exercising the fundamental right to become economically engaged in society. Moreover, even if some women are able to gain employment in the technology sector, they are marginalised and kept in non-essential roles. This phenomenon also ensures that ICTs remain masculine (Webb and Young, 2005 and Kirkup, 2002), thus reinforcing the gender digital divide and

continuing to exclude women from the benefits of the knowledge-based economy. The norms of behaviour, including the threat of dishonour, and the exclusion, stigma and 'taunting' from society, need to be carefully understood and consciously addressed with care, sensitivity and awareness in the design of development projects to ensure that women are not essentialised (Walsham *et al.*, 2007; Wanasundera, 2006; Huyer and Sikoska, 2003). However, there is little research that identifies the factors that prevent women from Muslim countries bridging the gender digital divide (See also Vodanovich *et al.*, 2010; Sinha, 2009; Elnaggar, 2007; Elijah and Ogunlade, 2006;). There is also limited research on the critical success factors for enhancing women's inclusion in Muslim countries.

My review of the current debates has identified that national ICT policies are not always conducive to women's engagement with the information society, due in part to the lack of their involvement in the entire policy formulation process. It appears that the problem is not only at the level of policy makers from the government, but that it also lacks the true engagement that could be derived from a consultative processing aging women's groups, civil societies, and women's ministries. ICT policies appear to lack any real consideration regarding the needs of women and are unable to capture and create an infrastructure that supports the inclusion of women from a social perspective (Jenson, 2006; Wanasundera, 2006; Chowdhury and Khanam, 2005; Jorge, 2000b, 2002; Hafkin, 2002; Marcelle, 2000b). However, there is limited literature available on the level and type of involvement that women have in policy formulation in Muslim countries, and their subsequent impact on the degree to which women's needs are taken into consideration in policies. Furthermore, little work has been done on the assessment of ICT policies in Muslim countries and to understand the extent to which they enable women's engagement with ICTs and address the cultural and social constraints that women face.

Frequently, assumptions are made that equate the internet with ICTs; if this is the case, then many women, particularly in Pakistan, are immediately excluded from the information society because they cannot read, write or understand English. Therefore, my research deliberately addresses diverse aspects of ICTs – and not just the internet – since it is my belief that the mobile phone, for example, has great potential to be a wonderful, empowering tool for women. The fundamental gap is that much of the content that is available through the internet is not accessible, relevant, useful or comprehensible to the majority of women in Muslim countries (Elnaggar 2007; Conroy, 2006; Green, 2004; Primo 2003; Green and Trevor-Deutsche, 2002; Colle and Roman, 2002).

Synthesising the complete debates around the six main elements that have been identified by development practitioners and scholars as key barriers that impede women’s engagement with ICTs, I can conclude that all six elements not only present barriers but are also closely inter-related to and interwoven with each other. Consequently, in synthesising the key debates across the four bodies of literature, it is evident that cultural and social influences play a far more critical role in women’s engagement with ICTs in Muslim societies. They manifest themselves in numerous ways of subordination, restrictions and controls, which further enhances my synthesis of the earlier women and ICT debates captured in Section 2.2. This now reflects a broader realm of influence of the cultural and social barriers along with the importance of ICT policies, which results in interwoven and integrated controls that appear to accumulatively marginalise and exclude women’s engagement with ICTs. This encompasses the overall framework of my research and is indicated in Figure 2.10 and discussed in detail in Section 3.2.



**Figure 2.10**  
**Overall Research Framework**  
**(Source: Author)**

## 3 Methodological Research Design and Process

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### 3.1 Introduction

This chapter sets out how my research was conducted, including an overview of how the countries and participants were selected, as well as how the selected research methods and techniques were actually used. This is followed by a discussion of the issues that arose when working in the field within different cultures, along with sensitivity to ethical concerns and positionality. The chapter concludes with an account of how the data was collected and analysed.

As Kalof *et al.* (2008:23) observe, “Science is a social process, it is not free from the cultural presumptions and power differentials in the larger society, nor is it free from the perceived notions and biases of individual researchers”. In the light of this, I made a concerted attempt to optimise the research techniques and settings by continuously adjusting the interview environment and approaches used in engaging with the research participants to ensure that they were comfortable and relaxed (Buskens, 2009; Anderson and Jack (2006), Darbyshire, *et al.*, 2005; Smith, 2003; Valentine, 1997; Creswell, 1994). Nonetheless, as Kalof *et al.* (2008:23) have argued, “despite trying to be extremely meticulous with methods, biases” do emerge and researchers need to be critical of how their own subtle biases may skew the results. In an attempt to overcome this, I incorporated *reflexivity* as the fundamental principle of my design framework, allowing for regular reflection on how my own characteristics, values and history could influence my choices, and more importantly, how they could impact my respondents and the results obtained (Groenewald, 2004; Clifford and Valentine, 2003; Miles and Huberman, 1994). The methodological design enabled a holistic, reflexive and iterative research process which allowed my research design to evolve as my actual research developed and crystalized (O’Leary, 2004; Gray, 2004; Valentine, 2001). Formulating an adequate research methodology to examine and explore the current and potential impact of ICTs on Muslim women living in Muslim societies required a detailed investigation of the “intersection” which falls between ICTs, Muslim women and Muslim societies (see Figure 2.1)



## 3.2 Evolution of the Research Design

As the previous chapter has shown, there is surprisingly little literature on the role of ICTs in the context of women living specifically in Muslim countries. Furthermore, the impact of ICTs on Muslim women has not yet been sufficiently researched or evaluated. Therefore, it was difficult to draw upon any previous literature or established methodological approaches in carrying out this study (O’Leary, 2004; Orum *et al.*, 1991; Sarantakos, 1998). The basic process underlying the methodological design enabled a far-reaching, reflexive and iterative research process, which is detailed in this chapter (see O’Leary, 2004; Smith, 2001; Miles and Huberman, 1994; Creswell, 1994). This section discusses the challenges of designing and selecting the research methodology and techniques for examining and investigating the three themes of this research: 1. the extent to which women are referenced in ICT policies of Muslim countries; 2. women’s engagement with ICTs and subsequent impact; and 3. the cultural and social barriers that women face when engaging with ICTs (Hall, 2007; O’Leary, 2004).

As Kallet (2004:122) has stated, a research methodology “should describe what was done to answer the research question, describe how it was done, justify the experimental design and explain how the results were analyzed”. However, Parfitt (1997:79) has suggested that researchers should “think through the research process from back to front: start with a sketch of the final analysis and work backwards to the original research objectives”, writing down the main dependent variables that are central to the research, and identifying the independent variables along the way. This approach seemed very logical to me, as it allowed me to visualise my research goal and the potential path I was aiming to take. I began by making a series of diagrams that mapped out my various goals, aims, objectives and possible discoveries on large graph paper, and drawing circles around those words that resonated with my thoughts (Rea and Parker, 2005; Miles and Huberman, 1994).

My mind was continuously exploring, asking ‘*what?*’, ‘*why?*’ and ‘*how?*’ It was an exciting but also confusing time because in some cases I felt I was going round in circles and not really getting anywhere or being able to make any sense of what I thought I was going to do. I ended up with piles of folded, messy graph paper. Nonetheless, this approach helped me eventually to develop some structure in my research thinking. This resulted in the development of a conceptual framework identifying the initial four key themes that I was going to explore; to what degree do ICT policies refer to women?, engagement with ICTs, impact of ICTs, cultural and social barriers (Figure 3.1).

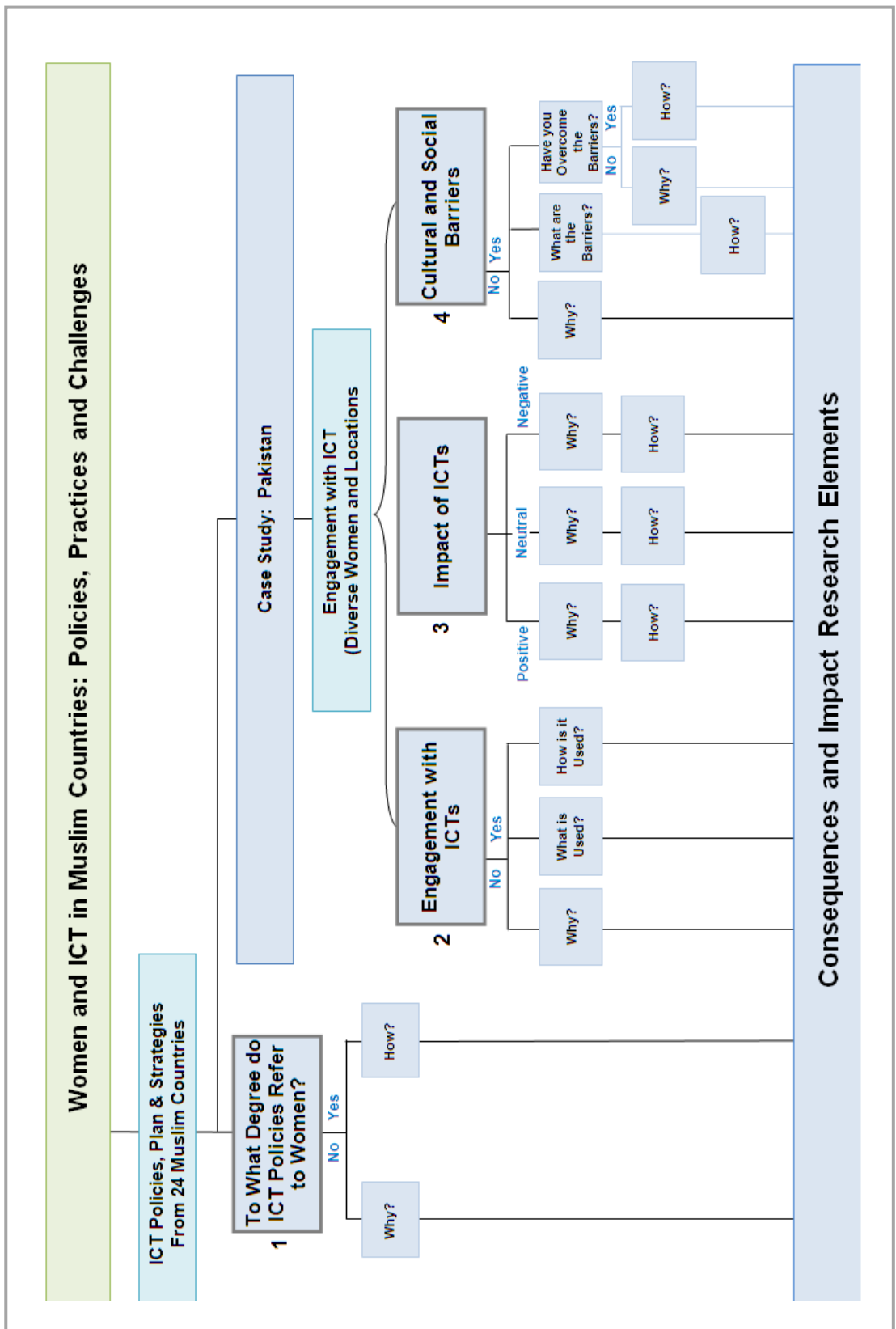


Figure 3.1  
 Conceptual Framework of Questioning  
 (Source: Author)

This was a pivotal point for me as an engineer, since it was extremely helpful to be able to visualise the specific questions that needed to be investigated, as I had been very uncomfortable with having to deal with the 'abstract and the unknown'. I needed to have some idea of where I was trying to go and how I was planning to get there.

As argued by O' Leary (2004), since the research primarily focused on developing a scientific understanding of how women interacted with ICT tools, coupled with exploring and interpreting their social world, I positioned myself within interpretivist thinking. This resulted in the adoption of a blended research methodological approach which incorporated in varying degrees, ethnography and ethnomethodology and action research which allowed me to create a multi-faceted research framework (Bennett, 2005; O' Leary, 2004; Creswell, 1994). Moreover the research addressed both the cultural context and ICT policies; I selected qualitative methodologies to be the essential part of my research for examining the cultural social context of women's experiences with ICTs: preferences, uses, impact and barriers. However, I used quantitative methodologies to examine the ICT policies to provide specific empirical data to clearly highlight the content analysis of ICT documents (Mason, 2006; O' Leary, 2004; Smith, 2001; Braden, 1999; Graham, 1997). This blended research methodology allowed me to investigate and understand the research elements from different perspectives in a progressive and reflexive manner (O' Leary, 2004; Miles and Huberman, 1994; Creswell, 1994). The rationale of the specific methodologies selected is discussed in Sections 3.3 and 3.6.

The framework of the entire research process (see Figure 3.2) was designed to allow me the opportunity for continuous reflexivity and reflection from the initial document review process, in parallel with my exploratory field research. This enabled me to explore, examine and make informed decisions about modifications and any changes necessary to the methodology's design. The diagram also indicates the three feedback loops (A, B and C) utilised, from the very onset of my research which assisted me to organise, synthesise and make sense of the data, throughout my research (see also Hall, 2007; O'Leary, 2004). Nevertheless, it is important to note that nothing worked out the way I planned, however, I was able to adapt by staying flexible and allowing things to change, as had been emphasised by O'Leary (2004) and Miles and Huberman (1994), whose books were my constant companions over the past five years. To provide an alternative perspective to my research, I have also incorporated comments from elite women (EIW) and elite men (EIM) interviewed throughout my thesis, who have kindly given me permission to quote them, which are cited in italics and identified with single quotes (see Section 1.3 and 3.6.1.4).

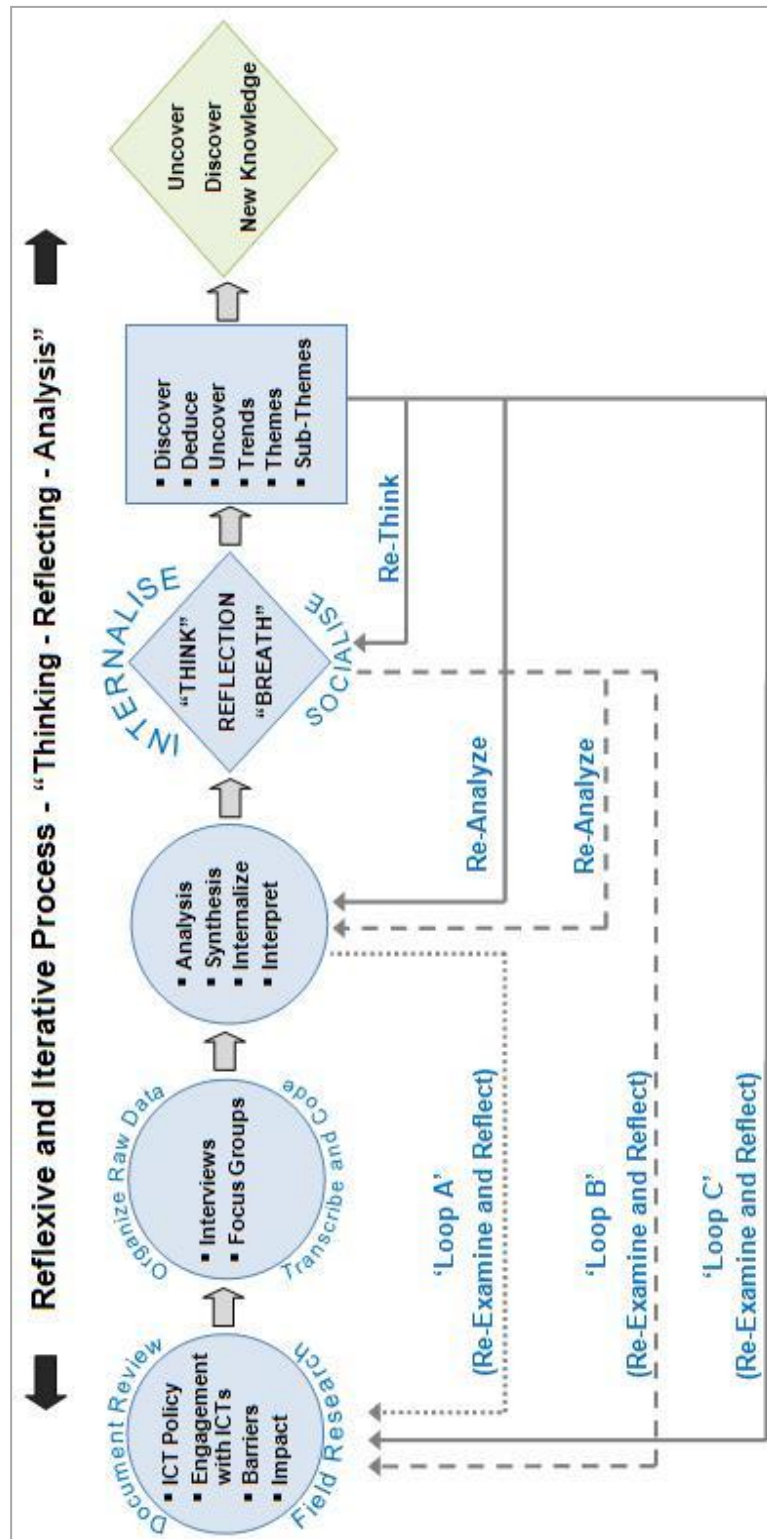


Figure 3.2  
 Reflexive and Iterative Process  
 (Source: Author)

### **3.3 ICT Document Analysis Methodology**

“In most ICT policy documents of developing countries, gender issues are not explicitly taken into consideration; in some, it is perfunctorily treated as a separate item, thus ignoring the cross-cutting issues of gender in almost every aspect of ICT policy” (Chowdhury and Khanam, 2005:3). Given that, there had been limited research in this area, I chose to examine to what extent this issue manifested itself across ICT policies in the Muslim world. I paid particular attention to ensure that regional, cultural and social influences could also be examined and analysed from the perspective of women, as the literature has identified this to not only be a major gap, but also a key factor in obstructing women’s access to ICTs (Tafnout and Timjerdine, 2009)

ICT policies were examined in terms of three key themes: the policy formulation process, the perspective of women, and policy effectiveness. As Thas *et al.* (2007:32) state, “Women are under-represented in all ICT decision-making structures including policy and regulatory institutions, ministries responsible for ICT, boards and senior management of private ICT companies”. The policy formulation process was therefore examined particularly to identify the degree to which it was consultative, and whether women were a part of it.

#### **3.3.1 Sampling and Selection of Countries**

I began by conducting a survey across multiple international databases and institutions to verify which countries could be considered to be ‘Muslim countries’. Information was initially acquired from the Organisation of Islamic Conference, OIC (2006) website, which named 57 countries and compared this with lists from UN websites: UNDP, (2006), UNICEF (2006) along with the e-Islamic portal (2006) ([www.elislamicarabic.com](http://www.elislamicarabic.com)). The analysis showed that all of these sources identified different countries as being Muslim. Therefore a second criterion was utilised to refine my initial list, which was based on a countries Muslim population (above 90%) and cross-checked against membership with OIC. This resulted in an initial sample list of 32 countries (Table 3.1).

The ICT policies were originally searched via the countries’ respective government websites. However, a series of difficulties arose. First, the government websites were not easy to navigate through, they were often not in English and often did not have dedicated ICT ministries. Some ICT departments were hidden under other Ministries such as post and information or transport and tourism. Second, in some countries ICT policies did not exist. The policies were either completely missing or there was an

overarching ICT policy, plan or strategy document that was being used in place of a policy. This demonstrated different interpretations and confusion over the terminology at a country level as to what constitutes an ICT policy (see Unwin 2009). Nevertheless for the purpose of this research I decided to examine each type of document, namely, policy, plan and strategy separately, to be able to determine any patterns (see Chapter 4).

As I hit various roadblocks, I contacted the relevant ministries directly, by telephone, and followed up with faxed letters, requesting assistance and copies of their ICT policies. Unfortunately, very few responses were given. After discussing this issue with Director, ITU-D, Sami Al Bashir (EIM-1), I learnt that there could be several reasons for this: *'countries did not have an ICT policy document, people were afraid to send the document to you and people simply did not know which document you wanted'*(EIM-1). Therefore, I excluded countries where policy documents were not accessible and modified my selection criterion to include countries with a lower level of Muslim population (above 50%), resulting in my final sample size of 24 countries (Table 3.1).

S/N	Countries	OIC Membership	% of Muslim Population	Final Countries
1	Afghanistan	Yes	100	✓
2	Algeria	Yes	99	
3	Azerbaijan	Yes	93.4	✓
4	Bahrain	Yes	100	✓
5	Bangladesh	Yes	85	✓
6	Djibouti	Yes	94	✓
7	Egypt	Yes	94	✓
8	Gambia	Yes	90	✓
9	Indonesia	Yes	95	✓
10	Iran	Yes	99	
11	Iraq	Yes	97	
12	Jordan	Yes	95	✓
13	Kazakhstan	Yes	51.2	✓
14	Lebanon	Yes	70	✓
15	Libya	Yes	100	
16	Malaysia	Yes	52	✓
17	Maldives	Yes	100	✓
18	Mauritania	Yes	100	
19	Morocco	Yes	98.7	✓
20	Niger	Yes	91	
21	Nigeria	Yes	75	✓
22	Oman	Yes	100	✓
23	Pakistan	Yes	97	✓
24	Qatar	Yes	100	✓
25	Saudi Arabia	Yes	100	✓
26	Senegal	Yes	95	
27	Somalia	Yes	100	
28	Syria	Yes	90	✓
29	Tunisia	Yes	98	✓
30	Turkey	Yes	99.8	✓
31	UAE	Yes	96	✓
32	Yemen	Yes	99	✓

**Table 3.1**  
**Muslim Countries Sampled for ICT Policy Analysis**  
 (Source: [www.oic-oci.org](http://www.oic-oci.org) , [www.islamicweb.com/begin/population.htm](http://www.islamicweb.com/begin/population.htm))

However, during the course of my research five countries (see Table 3.2) identified that they had used ICT policy formulation guidebooks and toolkits to create their ICT documents. During the course of my research five additional guidebooks were identified, and included in my analysis to provide a richer context, which is discussed in detail in Section 4.2.5, Chapter 4.

S/N	Countries	Guidebooks and Toolkits Used	
1	Afghanistan	UNDP – APDIP ITU - InfoDev	<ul style="list-style-type: none"> <li>▪ United Nations Development Programme-Asia Pacific Development Information Programme</li> <li>▪ International Telecommunication Union and Information Development Programme</li> </ul>
2	Djibouti	UNDP – APDIP ITU - InfoDev	<ul style="list-style-type: none"> <li>▪ United Nations Development Programme - Asia Pacific Development Information Programme</li> <li>▪ International Telecommunication Union and Information Development Programme</li> </ul>
3	Lebanon	UNDP – APDIP	<ul style="list-style-type: none"> <li>▪ United Nations Development Programme-Asia Pacific Development Information Programme</li> </ul>
4	Saudi Arabia	UNDP – APDIP	<ul style="list-style-type: none"> <li>▪ United Nations Development Programme-Asia Pacific Development Information Programme</li> </ul>
5	Syria	UNDP – APDIP	<ul style="list-style-type: none"> <li>▪ United Nations Development Programme-Asia Pacific Development Information Programme</li> </ul>

**Table 3.2**  
**Countries that Used Guidebooks and Toolkits**  
**(Source: Author)**



Furthermore, five countries (Table 3.3) identified that they had used benchmarking as another technique to create their ICT documents which were also included in my research (Table 3.4). The details are discussed in Section 4.2.6, Chapter 4.

S/N	Countries	Countries Whose ICT Documents were Used as Benchmarks
1	Afghanistan	USA, Indonesia, Switzerland, Malaysia, India
2	Bangladesh	Pakistan, Vietnam, India
3	Malaysia	UK, Australia, Hong Kong
4	Pakistan	UK, India
5	Saudi Arabia	Australia, Belgium, Brazil, Chile, China, Egypt, Germany, Hong Kong, India, Italy, Jordan, Malaysia, New Zealand, Russia, Singapore, Sweden, Turkey, UAE, UK, USA

**Table 3.3**  
**Countries that Benchmarked Other Countries**  
**(Source: Author)**

S/N	ICT Documents Examined	Total
1	ICT Policies	10
2	ICT Strategies	11
3	ICT Plans	10
4	ICT Guidebooks	7
5	ICT Documents from Countries used as Benchmarks: <ul style="list-style-type: none"> <li>▪ ICT Policies (8)</li> <li>▪ ICT Strategies (3)</li> <li>▪ ICT Plans (5)</li> </ul>	16
<b>Total ICT Documents Examined</b>		<b>54</b>

**Table 3.4**  
**ICT Documents Examined**  
**(Source: Author)**

The process of researching and analysing the ICT policies plans and strategies took a period of four years, from 2006 to 2010. During this period, I accumulated a huge collection of ICT documents in hard copy. This made it easy for me to continuously refer

back to my notes as required during the analysis. I carefully filed and organised the documents by country, as shown in Figure 3.3. However, prior to the submission of my thesis, I once again reviewed the ICT policies in December, 2010 to confirm that no changes had been made since my initial study and if they had been, that they could be re-analysed and incorporated into my policy analysis.



**Figure 3.3**  
**Collection of ICT Documents**  
**(Source: Author)**

## 3.4 Document Review Technique

A triangulated approach for document review was adopted: key word search through manifest coding, key phrase analysis and latent coding of textual analysis (Bennett, 2005; Longhurst, 2003; Bouma, 1993). These techniques combine both quantitative and qualitative methods in order to obtain rich data (Kalof *et al.*, 2008; Bouma, 1993). Aitken (1997) has argued that textual analysis allows the researcher to uncover the subtleties with which a text is inscribed with masculinity and/or femininity – a highly relevant technique to use for examining the extent and degree of inclusion of women in ICT policies. Furthermore, the patriarchal discourse and practices of “social relations of power and ideology” (Aitken, 1997:211), gives authority to some, while subverting others and this is also demonstrated in the style of text. As Kalof *et al.* (2008:105) have argued, “text can provide a wealth of information about a society”. Building on this, Doel (2003) suggests that it is also possible to obtain a deeper understanding of the context in which the text was written, thereby allowing an insight into “lifestyles, belief systems and practices” (Doel, 2003:512).

The textual analysis provides an opportunity to examine both the content and underlying subtext of the written word. It can be performed using either quantitative or qualitative methods and a systematic classification of words, phrases and sentences, which are synthesised to provide relevant categories that can be further sub-divided into meaningful data as suggested by Kalof *et al.* (2008). Furthermore, Kalof *et al.* (2008) have argued that content analysis is an ideal means of analysing government documents and gender-related studies. Nonetheless, as Miles and Huberman (1994) and Fielding (1993) it requires a clearly defined coding scheme, which can be used for either qualitative or quantitative analyses.

### 3.4.1 Key Word Analysis (Quantitative and Qualitative)

As Kalof *et al.* (2008) has argued there are two ways of conducting textual analysis: manifest coding and latent coding (see also Purdon *et al.*, 2001). I first chose to use the *manifest coding* technique – a quantitative methodology based on counting the number of times that something occurs in a document (Kalof *et al.*, 2008; Flick, 2006). This was followed by latent coding which allowed me to familiarise myself with the style of writing and use of language, and to ascertain and understand where the primary emphasis was given by reading the documents. Lennie (2002) and Hafkin (2002) stress the importance of women’s issues being specifically addressed in ICT policies. Furthermore, from the synthesis of the literature it became evident that five key words could be used to assess

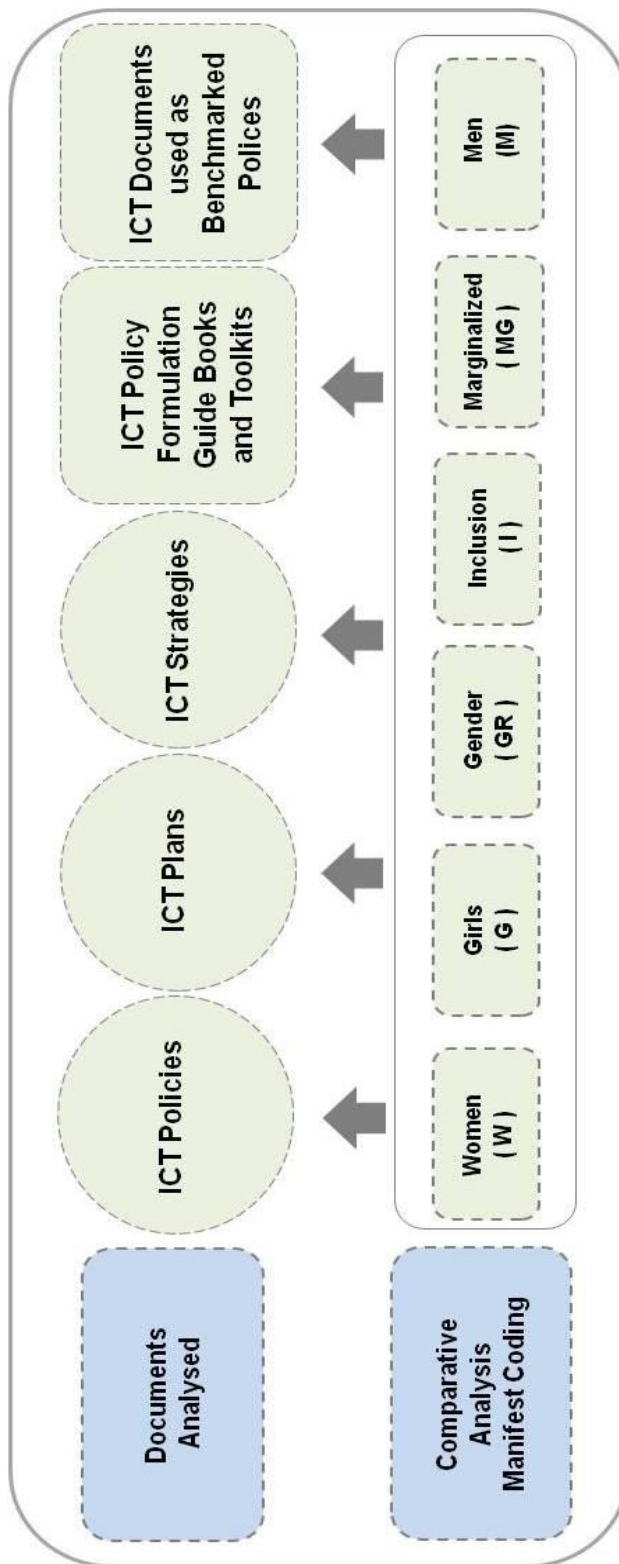
the level of reference and appreciation of the different circumstances and requirements between men and women, boys and girls and the marginalised (Hafkin, 2002, Jorge, 2000a): ‘women’, ‘girls’, ‘gender’, ‘inclusion’ and ‘marginalised’ (see Lennie, 2002). I also included the term ‘men’ in my analysis, so that I could also compare the level of gender neutrality that existed in the text (Wanasundera, 2006; Aitken, 1997). Therefore, six main words were selected for the key word analysis (Table 3.5)

Key Words	Women	Girls	Gender	Inclusion	Marginalized	Men
Code	W	G	GR	I	MG	M

**Table 3.5**  
**Keywords Analysis Coding**  
**(Source: Author)**

I created a template (Appendix 1) which included the six words that I used to tally as I read the documents. I performed the word count using two methods: one by reading the documents in their entirety with a highlighter (colouring the desired words) and searching for each of the six words individually, noting the count in the template. Although this was a fairly tedious process, I conducted this review manually to gain a deeper understanding of the words as they were embedded in the text around it. I repeated this process four times: the first two times identified a few discrepancies, but the third and fourth times all the numbers were repeated. Thus I was able to ensure a higher degree of accuracy and quality control (Doel, 2003).

In addition, I was able to use a second method of an electronic key word search for each of the six key words, one-by-one because I had an electronic version of all the documents. This acted as an electronic quality check to supplement my manual effort. I also tabulated the findings into my template. This process was also repeated twice, and the results then cross-checked. Upon completion of these iterations, I did not find any discrepancies in my counts. Furthermore, as Kalof *et al.* (2008) has argued, using multiple techniques ensures a greater degree of accuracy for the data analysis. Thus the analytical framework used for the key word analysis is based on a quantitative analysis of the documents using the manifest coding technique, as suggested by Kalof *et al.* (2008). Figure 3.4, illustrates the five types of documents that were analysed against the six words.



**Figure 3.4**  
**Analytical Framework for Keywords Comparative Analysis**  
 (Source: Author)

Due to the disappointingly low results from this analysis, I expanded this search to include five additional countries (seven ICT documents) which had a comparatively lower Muslim population (Table 3.6). This provided a broader comparison between the percentages of Muslim population of a country against the key word analysis.

S/N	Countries	Percentage of Muslim Population	ICT Documents
1	Ethiopia	65 %	Policy (2005) Plan (2006)
2	Ghana	30 %	Policy (2003) Policy (2005)
3	Mauritius	19.5 %	Plan (2006)
4	Tanzania	65 %	Policy (2003)
5	Uganda	36 %	Policy (2003)

**Table 3.6**  
**Additional Countries Used for Comparative Analysis**  
(Source: Author)

### 3.4.2 Phrase Analysis (Quantitative and Qualitative)

The second technique that I used was more difficult to design, as it sought to discern and interpret the implicit or underlying meaning of the text in the context of: level of reference to women and sensitivity to barriers that they could experience when engaging with ICTs (Kalof *et al.*, 2008). For this, I used the technique of latent coding which focused on identifying and capturing the key phrases and sentences of the text. I also created a template to guide me through this process (Appendix 2). This allowed me to further synthesise my findings and subsequently identify reoccurring themes which led to a deeper understanding of the cultural phenomenon under investigation to be developed (Miles and Huberman, 1994). The following sections discuss how the phrases and key themes for the level of reference and sensitivity to barriers were identified.

### 3.4.2.1 Content and Context Analysis - Level of Reference

The documents were manually read four times to identify key phrases and sentences referring to any specific statement about the inclusion of women or girls in the information society. Different phrases were highlighted in different colours for the purpose of categorisation and identification of the key themes which became the variables I used for this analysis. Through analysing the highlighted phrases from the ICT documents, I created a template of 15 elements that was used for the comparative analysis (Table 3.7). For example, the ICT plan for Saudi Arabia refers to creating 'remote teleworking' (ER-4) opportunities so that women can be employed (KSA, 2007)

S/N	15 Elements of Variables for Phrase Analysis	Code
1	Employment in ICT	ER – 1
2	Job Opportunities	ER – 2
3	Economic Impact	ER – 3
4	Remote Tele-working	ER – 4
5	SME's and Entrepreneurs	ER – 5
6	Education and Training	ER – 6
7	ICT Learning for Disabled Women	ER – 7
8	Awareness and Knowledge	ER – 8
9	Relevant Content	ER – 9
10	Solving Gender Problems	ER – 10
11	Positive Values, Social Improvement	ER – 11
12	Geographical Location(Rural/Urban)	ER – 12
13	Women Specific programs and initiatives	ER – 13
14	Indicators	ER – 14
15	Statistics	ER – 15

**Table 3.7**  
**Coding: Key Reference Elements**  
**(Source: Author)**

This allowed me to establish a baseline for the comparative analysis against variables (Daly, 2003; Thas *et al.*, 2007). Synthesis of these variables against the current debates: women and ICT policies (see Section 2.4), allowed me to draw out four distinct themes: i) economic empowerment, ii) knowledge and capability empowerment, iii) cultural and social empowerment and iv) implementation and monitoring. These themes were subsequently coded and are indicated in Table 3.8. These were used as a common platform for the next level of comparative analysis for the phrase analysis process.

S/N	Themes for Comparative Analysis	Code
1	Economic Empowerment	EE
2	Knowledge and Capability Empowerment	KCE
3	Cultural and Social Empowerment	CSE
4	Implementation and Monitoring	IAM

**Table 3.8**  
**Coding: Key Reference Themes**  
**(Source: Author)**

This list is supported by Thas *et al.* (2007:42), who argued that “issues of training and literacy (basic skills and skills through training), issues of human resources and employment (employment schemes, paid and unpaid work in the area of ICT) and other related issues that can impede women’s active and substantive participation” need to be covered in ICT policies (See also Chowdhury and Khanam, 2005). My field research also confirmed that there are critical cultural parameters that need to be addressed at a policy level to ensure that women have access. In fact, an elite woman from Pakistan, working in Punjab for large NGO, pointed out that *‘it was imperative for the government to ensure that the policies took into consideration the local context and situation in which girls lived in both rural and urban areas of Pakistan, because in some cases it was unimaginable’* (EIW-29). Table 3.9 identifies the combined four themes along with the 15 elements’ final coding that was used for the sorting, filtering and subsequent comparative analysis and trending in Chapter 4.



S/N	Themes	Elements of Variables		Code
1	Economic Empowerment	1.	Employment in ICT	EE-ER – 1
		2.	Job Opportunities	EE-ER – 2
		3.	Economic Impact	EE-ER – 3
		4.	Remote Tele-working	EE-ER – 4
		5.	SME's and Entrepreneurs	EE-ER – 5
2	Knowledge and Capability Empowerment	6.	Education and Training	KCE-ER – 6
		7.	ICT Learning for Disabled Women	KCE-ER – 7
		8.	Awareness and Knowledge	KCE-ER – 8
3	Cultural and Social Empowerment	9.	Relevant Content	CSE-ER – 9
		10.	Solving Gender Problems	CSE-ER – 10
		11.	Positive Values, Social Improvement	CSE-ER – 11
		12.	Geographical Location(Rural/Urban)	CSE-ER – 12
4	Implantation and Monitoring	13.	Women Specific programs and initiatives	IAM-ER – 13
		14.	Indicators	IAM-ER – 14
		15.	Statistics	IAM-ER – 15

**Table 3.9**  
**Integrated Coding: Reference Themes and Elements**  
**(Source: Author)**

### 3.4.2.2 Content and Context Analysis - Sensitivity to Barriers

The specific elements of the analytical framework used to examine the level of sensitivity to the barriers faced by women when engaging with ICTs was a complex process. This was because there has been very little research in the context of understanding the multiple dimensions of the barriers that women face in local contexts which reflects the diversity of the ground reality of the constraints. Thas *et al.* (2007) and Jorge (2002) have both identified this as a grossly neglected area. Therefore, it was critical to create a comprehensive tool to act as a baseline to analyse the level of sensitivity across the ICT documents in the context of barriers. Therefore, I developed a framework by synthesising and extracting the specific barriers discovered during my field research and focus groups in Pakistan and the literature. This resulted in a list of 51 barriers, which have been uniquely coded (Table 3.10). An example of this is demonstrated by frequent remarks from my focus group participants who raised issues of 'harassment in the workplace' (LSB-3)

S/N	51 Barrier Elements used for Analysis	Code
1	Lack of opportunity in employment	LSB -1
2	Discrimination at work place	LSB -2
3	Harassment at the workplace	LSB -3
4	Unsafe work environment	LSB -4
5	Inflexible timings	LSB -5
6	Lack of access to funds for SMEs& Entrepreneur	LSB -6
7	Limited protection of personal funds	LSB -7
8	Impractical cost of the use of ICTs	LSB -8
9	No segregation at work place for women	LSB -9
10	Inequity in Salary	LSB -11
11	Lack of Teleworking and remote employment opportunities	LSB -11
12	Limited ICT facilities in rural areas	LSB -12
13	Limited access to ICT education at primary level	LSB -13
14	Discouragement for higher technology education	LSB -14
15	Lack of IT training and skill development	LSB -15
16	Lack of awareness campaigns on the use of ICTs and it values	LSB -16
17	Cost of ICT education is high	LSB -17

S/N	51 Barrier Elements used for Analysis	Code
18	Poor quality of ICT education for women	LSB -18
19	Limited relevant content appropriate to geographical locations (rural and urban).	LSB -19
20	Limited content in local language	LSB -20
21	Inappropriate and complex format	LSB -21
22	Format incompatibility for diverse levels of literacy.	LSB -22
23	Lack of distant education and distant learning facilities	LSB -23
24	Limited access to basic education and discrimination towards education for Girls	LSB -24
25	Irrelevant and sexist content	LSB -25
26	Restrictions from family towards using ICTs (brothers and husbands)	LSB -26
27	Lack of protection from harassment from mobile phones and its consequences	LSB -27
28	Restrictions for travelling to schools, work and ICT Access Points	LSB -28
29	Lack of personal time to access ICTs	LSB -29
30	Lack of awareness campaigns on benefit from ICTs for women	LSB -30
31	Lack of awareness campaigns to protect women from the dangers of ICTs	LSB -31
32	Lack of policies, regulation and laws to provide a secure environment for women ICT users	LSB -32
33	Insensitive environment and location of ICT access points	LSB -33
34	Unsafe environment for accessing ICTs i.e., Cyber Cafes	LSB -34
35	No safe transportation to ICT access points and technology parks for women	LSB -35
36	No protection of women's rights in community and work	LSB -36
37	Lack of awareness campaigns for benefits of ICTs to prevent backlash from community and family	LSB -37
38	No geographical considerations for constraints faced by women	LSB -38
39	Fear of using mobile phone in public space- self imposed	LSB -39
40	Fear of damage to reputation from using ICTs	LSB - 40
41	Fear of stigma and backlash	LSB - 41
42	Fear of negative publicity and backlash	LSB – 42
43	Fear of getting traced and harassed through SIM Cards	LSB – 43
44	Lack of positive role models in Muslim countries for women in ICTs	LSB – 44

S/N	51 Barrier Elements used for Analysis	Code
45	Technophobia - women are afraid of using ICTs	LSB – 45
46	No specific data and statistics on women in the context of ICTs	LSB – 46
47	No women specific programs and initiatives	LSB – 47
48	No women specific ICT impact indicators	LSB – 48
49	No monitoring of women’s program	LSB – 49
50	No implementation of policy or commitment for women	LSB – 50
51	Lack of multiple women categories and definitions	LSB – 51

**Table 3.10**  
**Coding: Key Barrier Elements**  
**(Source: Author)**

Once again similar to Section 3.4.2.1 the elements were further synthesised to create logical themes, as indicated in Table 3.11. These themes were used to determine a level of understanding as to which aspect was emphasised and subsequently used for further categorisation of the 51 barrier elements identified from the field research.

S/N	Themes	Code
1	Economic Aspect	EA
2	Knowledge and Capability Aspect	KCA
3	Cultural and Social Aspects	CSA
4	Implementation and Monitoring	IAM

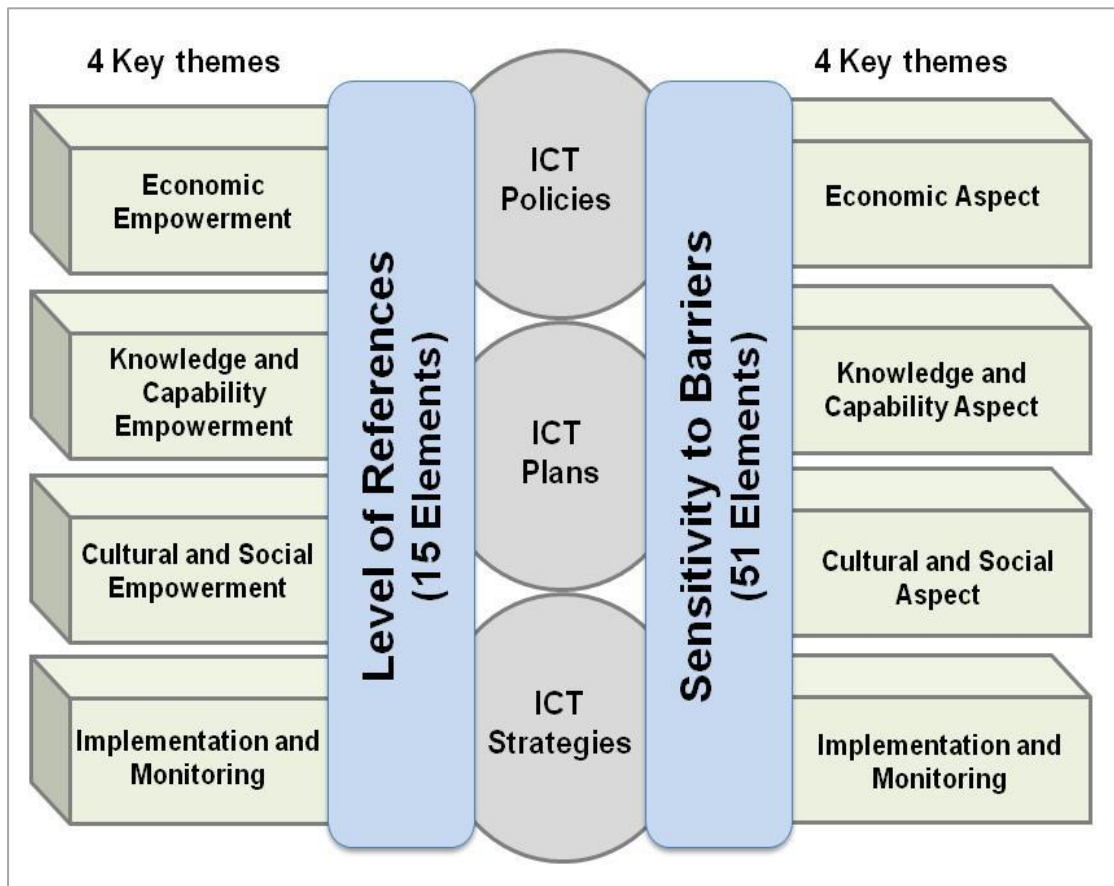
**Table 3.11**  
**Coding: Key Barrier Themes**  
**(Source: Author)**

Subsequently, once again the four themes were used to further categorise the 51 elements and tabulated using integrated coding, an example for the economic aspect is indicated in Table 3.12. The coding for the three other themes is shown in Appendix 3. The coding was subsequently used for sorting, filtering and subsequent comparative analysis and trending in Chapter 4.

SN	Elements	Code
1	Lack of opportunity in employment	EA-LSB -1
2	Discrimination at work place	EA-LSB -2
3	Harassment at the workplace	EA-LSB -3
4	Unsafe work environment	EA-LSB -4
5	Inflexible timings	EA-LSB -5
6	Lack of access to funds for SMEs& Entrepreneur	EA-LSB -6
7	Limited protection of personal funds	EA-LSB -7
8	Impractical cost of the use of ICTs	EA-LSB -8
9	No segregation at work place for women	EA-LSB -9
10	Inequity in Salary	EA-LSB -11
11	Lack of Teleworking and remote employment opportunities	EA-LSB -11

**Table 3.12**  
**Coding: Barrier Themes and Elements – Economic**  
**(Source: Author)**

Thus an overview of the complex analytical framework for the key phrase analysis model is indicated in Figure 3.5, which demonstrates the matrix of analysis across the multiple elements (level of reference to women and sensitivity to barriers), along with the four key themes which have been discussed in Section 3.4.2.1 and 3.4.2.2.



**Figure 3.5**  
**Analytical Framework for Comparative Analysis**  
 (Source: Author)

### 3.5 ICT Document Formulation Process Analysis

Doel (2003:512) has argued that it is equally important to know “who produced the text, why they produced it, how they produced it and for whom they produced it”. Therefore, in line with these four themes, I conducted a series of telephone surveys with the relevant Ministry representatives to identify who wrote the ICT policies, what the objectives of the ICT policies were, what the formulation process consisted of and who they were targeted at (Wanasundera, 2006). In the ICT policy discourse, Wanasundera (2006) and Wangmo *et al.* (2004) both advocated this line of investigation. Synthesising the arguments Jafar (2009), Thas *et al.* (2007) and Hafkin (2003) to ensure the effectiveness of ICT policies, I extracted six key aspects that needed to be investigated (Table 3.13)

SN	Elements
1	Women's involvement in policy formulation process
2	Gender Analysis
3	Policy formulation process
4	Gender specific initiatives
5	Sex – segregated data and statistics
6	Impact of ICT policy

**Table 3.13**  
**Key Elements of ICT Policy Formulation Effectiveness for Women**  
**(Source: Author)**

### 3.5.1 Electronic Questionnaire Survey

Therefore, to collect, organise and analyse the data in this process, I created two separate templates. The first was focused on examining the six elements of the ICT policy formulation process that had been derived from the synthesis of the literature: women's involvement in policy formulation, gender analysis, policy formulation process report, policy formulation plan and gender specific initiatives (Appendix 4). A second template was created to help understand the ICT policy evaluation process. This comprised the six themes extracted from the synthesis of the literature: the formal method for the evaluation of policies, the evaluation method for women-specific plans and initiatives, sex-disaggregated data and statistics, the impact of policy on gender equality, the impact of policy on women and if there was an ICT policy evaluation report (see Appendix 5) (see also Wanasundera, 2006; Jorge, 2002).

As Parfitt (1997) has stated, questionnaire surveys are an indispensable tool for gathering data. Nonetheless, it is very important that the sequence of the questions is designed in an appropriate manner for obtaining the required information. I therefore attempted to anticipate how respondents would interpret these questions, creating them in the simplest and clearest manner possible in order to be able to obtain information on the policy formulation and evaluation processes (see also Flick, 2006). The questionnaire was then reviewed with policy makers from the Pakistan IT Ministry (EIM-16 and EIM-19) who brought a public sector perspective and helped me ensure that the questions would be meaningful to respondents (Parfitt, 1997:85). This exercise helped refine the initial questions (Kalof *et al.*, 2008). A cover letter explaining the objectives of

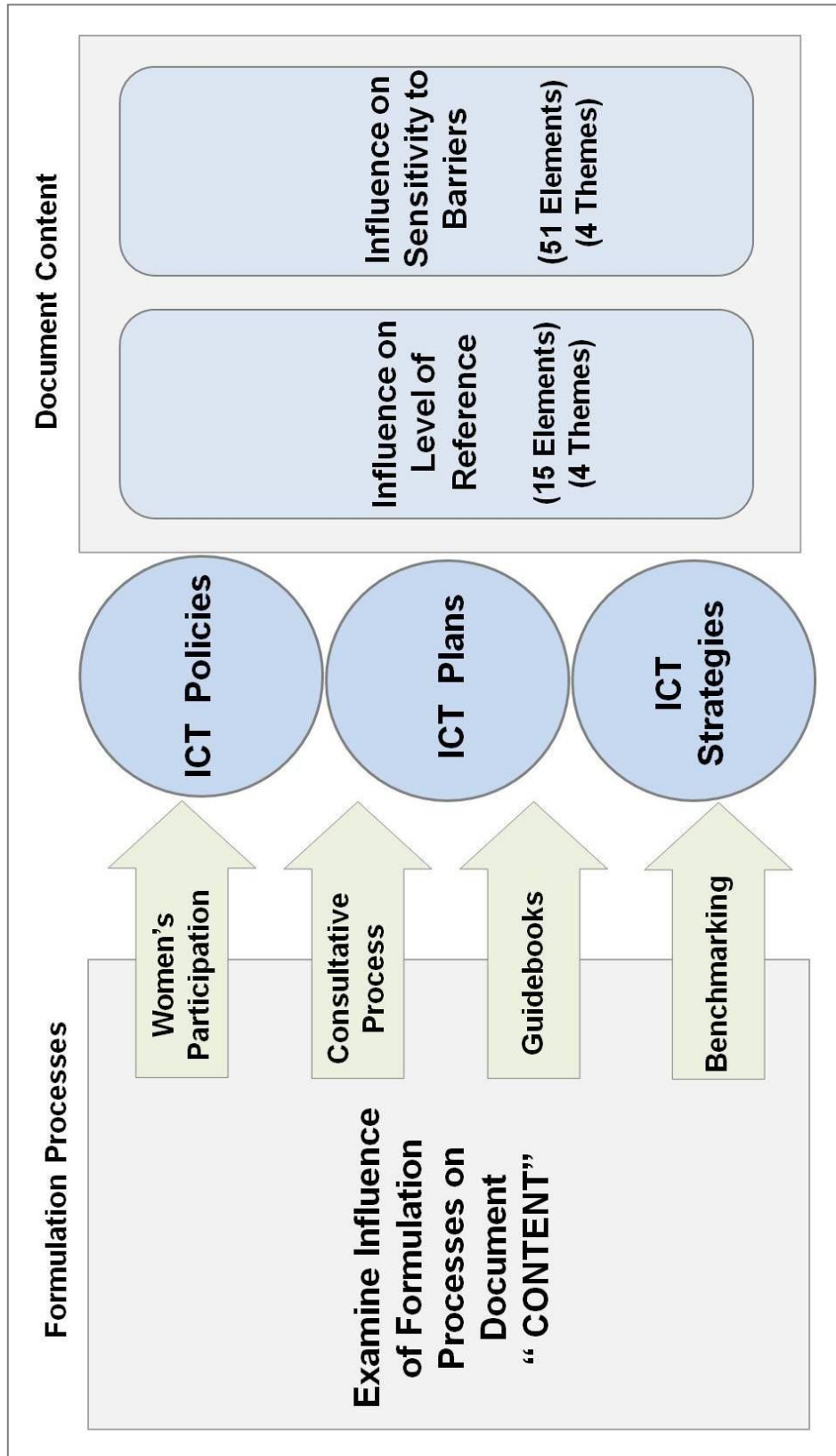
my research and instructions on how the checklists were to be used was also prepared (Flick, 2006; Parfitt, 1997). I then sought to approach the various government ministries to explain the purposes of my research and to try to solicit their involvement.

This was perhaps the most challenging part of my entire research, because it required over 300 telephone calls and approximately 18 months to identify the key people who were the most knowledgeable on the relevant topics and were willing to participate in my research. The process required a lot of patience and was often very frustrating (see Miles and Huberman, 1994). I was often referred from one person to another, with little success in reaching the responsible and relevant person. Eventually, I would find a person who was willing to provide me with the required information, and to whom I emailed and faxed the questionnaires. However, I frequently received no response, even several weeks after sending the checklists, and had followed-up with the contact persons. As a result of these follow-up calls, many people said that they would respond, but I did not receive any replies, apart from responses from Bangladesh, Malaysia and Afghanistan. Due to the disappointingly low number of responses from the ministries, I eventually decided to call the contact people and fill in the forms in real-time, by hand. As a result of this exercise, I was able to complete three additional checklists for the policy formulation process from Saudi Arabia, Qatar and Pakistan. However, none of these six countries responded to the ICT policy evaluation checklist. Interestingly enough Clark (1997:63) has argued that governments that typically have embarrassing data tend not to collect data because they believe it would be “politically embarrassing”. Therefore, I was not too surprised by this reaction, because the Ministries probably knew that they had not addressed any part of my questionnaire at all. Nonetheless, the findings are discussed in Chapter 4.

### **3.5.2 Influence of the Formulation Process on Documents ‘Content’**

To understand the impact of multiple document formulation processes, I have compared and contrasted the influence of four different types of formulation processes (women’s participation, consultative process, guidebooks and benchmarking) to examine and ascertain the level of influence they had on the level of references and the sensitivity to barriers. Guidebooks and benchmarking were also included in the analytical framework as government officials interviewed, mentioned that these methods were also used (Figure 3.6, see also Section 3.3.1).





**Figure 3.6**  
**Influence of Formulation Process on Documents "CONTENT"**  
 (Source: Author)

## 3.6 ICT Engagement

This section discusses the rationale, data collection methods and sampling processes undertaken for the core of my research. This consisted of an attempt to examine and understand the challenges and barriers that influence and constrain women's engagement with ICTs in Pakistan. The heart of the research was based on understanding the influences of cultural sensitivities and exploring social norms and behaviours, since the literature had suggested this to be a critical factor (see Section 2.6). Fortunately, despite the fact that my research was conducted in Pakistan where multiple tribal and provincial languages are spoken, 'Urdu' remains a national language and I speak it fluently. This helped greatly negate any translational errors, nuances and loss of the sensitivity that was shared by my participants in a personal context (Veeck, 2001; Strauss and Corbin, 1998; Smith, 1996). Therefore, as Harrison (2006) and Smith (2003,1996) have both suggested, when researching cultural sensitivities and behaviours, the attitudes of the researched community need to be carefully taken into consideration so as to design appropriate research methods (See also Buskens, 2009; Tacchi, 2007a, 2007b; Slater *et al.*, 2002; Li, 1981; Cassell, 1980). This greatly influenced my choice to use multiple qualitative research methods as my primary methodology. Nonetheless, these were supplemented by a quantitative analysis in the form of a questionnaire survey that was used to gather empirical data on the use and impact of ICTs, which is discussed in Section 3.6.4.

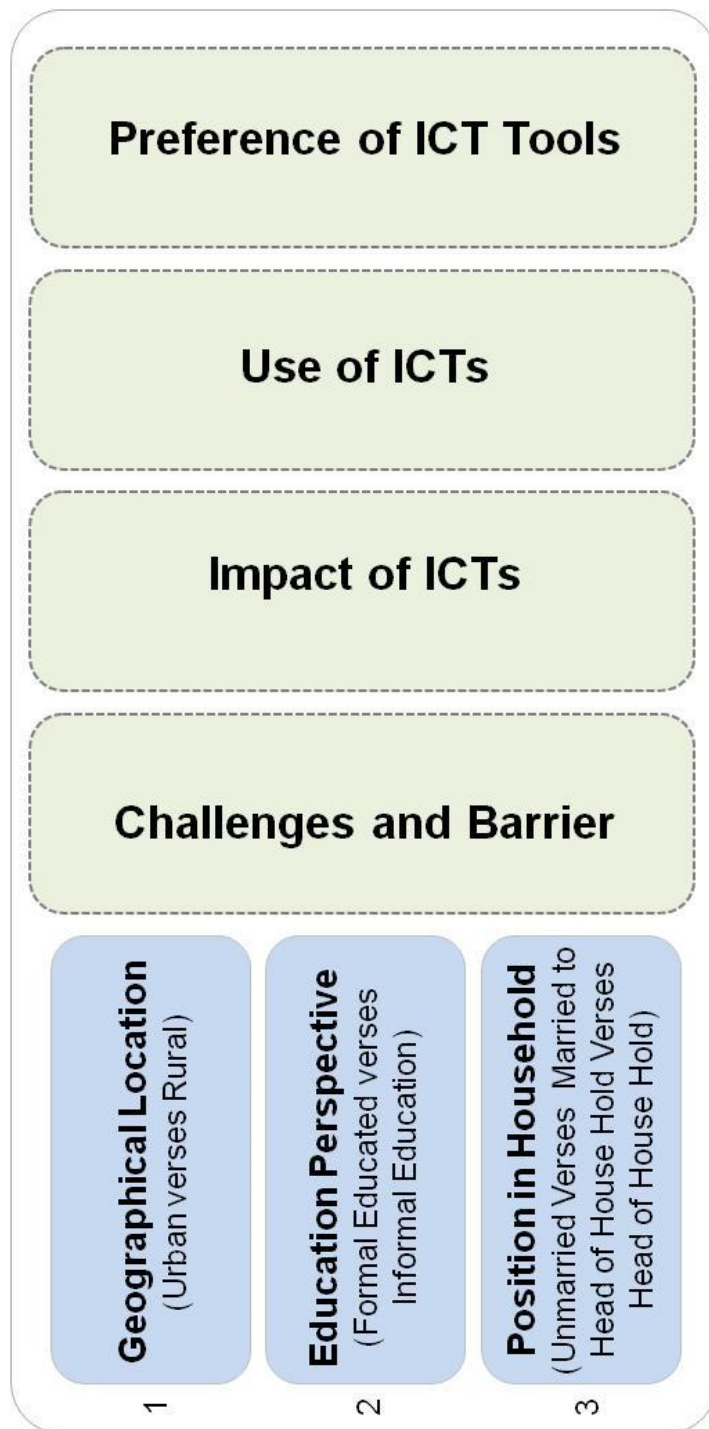
The richness of qualitative methodologies and their applicability to researching cultural sensitivities, human behaviours and power relations was pivotal to this research (Gray, 2004). Furthermore, the appropriateness of the qualitative paradigm is reflected in the four main factors that underpinned my research:

- Understanding the Impact of ICTs on Muslim women fundamentally concerns Muslim women's thinking and behaviours in the context of a Muslim society. It is, therefore, logical that the research design should allow for a detailed exploration of the various issues and stakeholders, and their perception of the issues in a natural setting (Tacchi, 2007b; O'Leary, 2004; Rose, 2001).
- The impact of ICT and the subsequent changes in behaviour and working practices is ultimately a subjective process. Subjectivity is inherently recognised in all qualitative research methods (O'Leary, 2004; Rose, 2001).

- The impact of ICTs on Muslim women has not yet been formally evaluated. Qualitative research is well suited to uncovering the unexpected and exploring new avenues (Rose, 2001; Marshall and Rossman, 1995).
- The strength of qualitative research "lies in the power of its language to display a picture of the world in which we discover something about ourselves and our common humanity" (Silverman, 1997:19). This quality enables the research itself to become a mutual learning experience (Tacchi, 2007a, 2007b; Rose, 2001).

Therefore, within the qualitative methodology, I adopted a triangulated approach that allowed me to incorporate three different methodologies for data collection: focus groups, interviews and observations (Kalof *et al.*, 2008). This permitted a better understanding and consideration of alternative perspectives than would have been gathered by adopting a single method. Furthermore, as Harrison (2006) has suggested, I also set out to ensure that the appropriate and suitable environments were established and that they were in harmony with the participants through all the stages of my research by initially conducting a series of exploratory visits to observe and pay special attention to the dynamics between the men and women, power relations and cultural sensitivities in all of the field locations (see also Flowerdew and Martin, 1997). The primary research method selected for my thesis was focus groups, since this allowed me to engage with women from different geographical locations, backgrounds, marital statuses and education levels (Ahmar, 2006; Offenbauer, 2005). Semi-structured interviews were used to complement my primary field data methodology which helped build the case study in the context of Pakistan.

The analytical framework used to examine, analyse and address the research questions, focused on examining; women's preference of ICT tools, their use of ICT tools, barriers from engaging with ICTs and impact from ICTs (Figure 3.7). This was conducted across three variables; geographical location, education level and position in household (see Section 3.6.1).



**Figure 3.7**  
**Analytical Framework for Analysis**  
 (Source: Author)

The focus groups revealed that three themes were important in analysing the impact of ICTs: economic factors, knowledge and capability, and cultural and social issues. The literature also points to the possible benefits of ICTs of falling around these three areas (see Section 2.3). The primary data was gathered from the focus group discussions and supplemented by the results from the questionnaire surveys and semi-structured interviews conducted with the participants in Pakistan. The data were also compared with the responses from interviews with elite women to ascertain the social construction of the particular behaviours and responses.

### **3.6.1 Sampling and Selection of Participants**

The use of focus groups, interviews and questionnaires was a critical step, given their impact on its outcomes and conclusions (Kalof *et al.*, 2008; Bailey, 2007; Miles and Huberman, 1994). This section discusses the process I undertook in trying to identify and select the appropriate categories, participants and sampling for my research. As this research was focused on examining the cultural and social challenges and barriers that women face when engaging with ICTs, it was very important for me to develop suitable selection criteria and categories for the participants. This was a complex process that needed to incorporate the critical variables which needed to be considered during the data analysis to allow evaluation against the arguments discussed in the literature (Chapter 2). Class and household position were identified as two very important variables; along with education level and age (Kalof *et al.*, 2008; Rea and Parker, 2005). Furthermore, geographical area (urban versus rural) has also been emphasised as a variable to be considered; Elnaggar (2007) and Statistic Finland (2007) both having argued that access to ICTs varies according to geographical and socio-economic location.

Pakistan's Gender Assessment Report (World Bank, 2005) has also used the categories of urban versus rural, along with education level, employment status in terms of labour force participation, along with head of household versus not being the head of the household. Similarly, the Global Employment Trends Report for Women (ILO,2004), used the categories of working women and non-working women on the basis of participation in the labour force. These reports used different categories in different contexts, and I was unable to find any common agreement on the most suitable categories to be used for classifying women in Pakistan for my research(see also Jensen, 2006; Jorge, 2002). The lack of gender-segregated data was apparent, along with the lack of thought on specific factors that would be useful to measure the position of women in the information society (Elnaggar, 2007).The rationale behind selecting

these five categories was also validated by experiences and exposure to the diversity within these groups, along with a synthesis of the current, limited literature available, which identified the different levels of 'access for women' based on their class, education, geographical location and social and economic background (Offenhauer, 2005; Elnaggar, 2007). Hence, a matrix was created identifying the specific areas within Pakistan that were sampled, along with the categories that were created for the sample population.

This led to the identification of five categories that were used for the selection of the participants: class, household position, education level, and geographical location (urban versus rural). On the basis of this, I developed the classification for the respondents across three contextual variables, namely: differing geographical locations (urban (U) vs. Rural (R)), educational aspects (formally educated (FE) vs. informally educated (IE)), and position in household (Unmarried (U) vs. married to head of household (MHH) vs. head of household (HH)). These three variables have been identified in the literature as key factors influencing women's access to and uses of ICT tools (see Chapter 2), and were therefore chosen for examination to see the extent to which they are indeed important in contemporary Pakistan.

Despite Greenbaum's (1998:4) position that "diverse geographical representation cannot adequately represent the entire country", I still decided to examine this factor, since in Pakistan, tribal and cultural differences are significantly influenced by geographical areas, as argued by Syed and Ali (2005) (see also Nosheen and Chaudhry, 2009). These factors greatly influence the degree of freedom and access that women have (also see Jafar, 2005 and Kabeer 1999). Hence, I initially planned to draw participants for focus groups, interviews and questionnaires across the whole country, from six distinct regions: Sindh, Punjab, Khyber Pakhtoon Khwa (KPK), Balochistan, the Federal Capital and Azad Jammu and Kashmir (AJK) as indicated in Figure 3.8. However, due to the serious safety risks from terrorists, Balochistan had to be excluded from my research and only limited research was conducted in KPK in the Internally Displaced People (IDP) camps. Nonetheless, I was able to conduct my field research in both urban and rural areas across the other five regions.



Figure 3.8

Regions for Field Research in Pakistan

(Source: <http://www.worldatlas.com/webimage/countrys/asia/lcolor/pkcolor.htm>,  
<http://www.mod.gov.pk/>)

### **3.6.1.1 Selection of Participants**

As Kalof *et al.* (2008) have suggested great care needs to be taken when selecting the participants for research. This was particularly critical to my research since I was examining cultural and social barriers faced by women and this was very dependent on their backgrounds and class. Thus it was imperative to ensure that a diverse cross section of the population was sampled (also see Torenli, 2006). The sensitivity and awareness of the interpersonal dynamics, due to class and hierarchy in Pakistan, added another degree of difficulty for me in initialising the participant selection process for my research. This was particularly crucial because I wanted to ensure a degree of homogeneity within each of my research categories. As Rea and Parker (2005) have argued, this would greatly influence the dynamics within the focus groups and the ability to create safe environments, where the participants would not feel any fear of repercussions caused by their participation in my research (see also Harrison, 2006; Bedford and Burgess, 2001).

Having conducted business and supporting a series of social welfare programmes with marginalised women and youth in Pakistan over the past ten years, I have begun to develop an understanding of the diversity, freedom and power structures that exist between the feudal lords, the traders, farmers, labourers and untouchables (Jamadars) along with the injustices that seem to co-exist in Pakistani society (see Kabeer, 1999a). In addition, I have also established two very valuable networks: 1) an understanding within marginalised rural and urban communities as a supporter and in some cases an 'insider'; 2) Like-minded contacts within the government (federal and local), NGOs, local businesses and multi-nationals, providing me unique access for my research. I greatly relied on my formal and informal networks to help identify appropriate participants, as they had tremendous access (see Figure 3.9 and 3.10). To complement this technique, I also used cluster sampling from selected participants (Gomm, 2008) in the given areas, along with using snowball sampling from individuals who I had met and who fitted the initial criteria, who recommended others that were also appropriate for my research (see Kalof *et al.*, 2008). This was especially useful in the rural areas, where I had had little previous exposure to the population. I utilised this method for identifying the respondents for focus groups, interviews and questionnaires.





**Figure 3.9**  
**Identifying Participants – Urban Areas**  
(Source: Author)



**Figure 3.10**  
**Identifying Participants – Rural Areas**  
**(Source: Author)**

### 3.6.1.2 Sampling – Focus Groups

I initially planned to conduct 144 focus groups, 24 in each region, to provide a broad and rich pool of data to draw for the analysis. This was based on having 12 focus groups in each geographical location, 24 per region. However, due to the increasing number of security threats, I was only able to conduct a total of 99 focus groups (Table 3.14).

Focus Groups				
S/N	Province	Urban (Towns)	Rural (Villages)	Total No.
1	Federal Capital	12	12	24
2	Punjab	12	12	24
3	Azad Jammu and Kashmir	12	12	24
4	Khyber Pakhtoon Khwa	2	1	3
5	Sindh	12	12	24
<b>Total</b>		<b>50</b>	<b>49</b>	<b>99</b>

**Table 3.14**  
**Number of Focus Groups Across Pakistan**  
**(Source: Author)**

The exact number of focus groups conducted for each region was broken down by category, area, location and date (Table 3.15). This table also displays the precise details of the focus groups conducted in Punjab. Similar details for each of the other five regions are provided in Appendix 6. Each focus group was conducted with eight formal participants, following Rea and Parker's (2005) and Greenbaum's (1998) suggestions that this is an appropriate size to stimulate and allow for open discussion amongst the participants. Occasionally, some of the women arrived with their mothers and others brought their children, due to their family situations and local cultures. This was very difficult to manage and prevent even though the participants were aware of the overall process prior to the session. Nevertheless, as Devereux and Hoddinott (1993) have pointed out, I was concerned about the level of openness the participants would have if their mothers were present, and so I distracted the mothers with other actions that would take them outside the focus group room, such as asking them to show me some of the handicraft work they had created. This allowed a degree of privacy. It is important to note

that this problem only arose in some of the rural areas, but I expected this from the experience of the exploratory visits I made prior to commencing my research (see Neuman, 2006; Mohammad, 2001; Greenbaum, 1998; Devereux and Hoddinott, 1993). This family environment actually enriched the exchanges and allowed me a deeper understanding of the culture.

<b>Focus Groups Sessions in PUNJAB: Total 24</b>					
<b>Sr#</b>	<b>Categories of Women Sampled</b>	<b>Area</b>	<b>Location</b>	<b>No. of Sessions</b>	<b>Date</b>
1	Head of Households (Formal education - Graduate)	Rural	Community Centre, Gojra	2	12 <sup>th</sup> Apr, 2006
		Urban	Local hotel, Faisalabad	2	16 <sup>th</sup> Apr, 2006
2	Head of Households (Illiterate)	Rural	Woman's Home, Taxila	2	24 <sup>th</sup> Apr, 2006
		Urban	Community Centre, Lahore	2	23 <sup>rd</sup> Jun, 2006
3	Married to Head of Households (Formal education - Graduate)	Rural	Woman's Home Gujar Khan	2	30 <sup>th</sup> Jul, 2006
		Urban	Computer Training Centre, Lahore	2	19 <sup>th</sup> Sep, 2006
4	Married to Head of Households (Illiterate)	Rural	Woman's Home, Dina	2	25 <sup>th</sup> Sep, 2006
		Urban	Local Hotel, Rawalpindi	2	11 <sup>th</sup> Oct, 2006
5	Unmarried (Formal education - Graduate)	Rural	At Vocational Training Centre, Gujar Khan	2	12 <sup>th</sup> Nov, 2007
		Urban	Local College, Lahore	2	19 <sup>th</sup> Nov, 2007
6	Unmarried (Illiterate)	Rural	Local Community Centre, Dina	2	21 <sup>st</sup> Dec, 2007
		Urban	Training Centre, Lahore	2	30 <sup>th</sup> Dec, 2007

**Table 3.15**  
**Focus Groups Sessions Details – Punjab**  
**(Source: Author)**

### 3.6.1.3 Sampling – Semi-Structured Interviews

To complement the focus group data collection, I also conducted semi-structured interviews using the same sample population to create an additional pool of data as Longhurst (2003) has suggested. I used cluster sampling (Gomm, 2008) at the focus group locations to identify additional participants. The candidates were also selected through snowball sampling from individuals who I had met and who fitted the initial criteria, who recommended others that were also qualified and appropriate for my research (see Kalof *et al.*, 2008). This was especially useful for me to use in the rural areas where I had little exposure to the population and needed to ensure that I could reach the local women. Due to time and budget constraints, I was only able to conduct 127 interviews, alongside the focus groups (Table 3.16). Nonetheless, this reduction in interview numbers does not appear to have had a significant influence on my overall conclusions because the data that I was collecting during the interviews demonstrated a pattern of consistency and similarity with their responses. As Bailey (2007) has argued, once the data begins to show no change, a reliable sample size has been reached (also see Parfitt, 1997; Miles and Huberman, 1994).

<b>No. of Interviews in Pakistan</b>				
<b>S/N</b>	<b>Province</b>	<b>Urban (Towns)</b>	<b>Rural (Villages)</b>	<b>Total No.</b>
1	FC	18	10	<b>28</b>
2	PUNJAB	12	15	<b>27</b>
3	AJK	18	18	<b>36</b>
4	KPK	0	0	<b>0</b>
5	SINDH	18	18	<b>36</b>
<b>Total</b>		<b>66</b>	<b>61</b>	<b>127</b>

**Table 3.16**  
**Number of Interviews**  
**(Source: Author)**

### 3.6.1.4 Sampling - Elite Interviews (Women and Men)

As Elnaggar (2007) has argued, class plays a critical role in the access and degree of freedom that women have with respect to ICTs (also see Offenhauer, 2005). As discussed in Chapter 1, my unique access made it possible to reach elite Muslim women from different backgrounds. Thus I created a second group of participants on the basis of their social class, power base and realm of influence (see Kalof *et al.*, 2008; Momsen, 2006; Oppenheim, 1996) to gain the perspective of elite, privileged and influential women in the Muslim world (Offenhauer, 2005; Kabeer, 1999b). The perspectives provided by the elite, privileged women's interviews were only representative of a very small group of Muslim women, but they provided an invaluable and unexplored perspective (see Flick, 2006; Mohammed, 2001). A total of 39 interviews with elite women were conducted and coded as 'EIW': 20 from the Muslim world (EIW 1- 19 and 39) and 19 specifically from Pakistan (EIW 20-38). In addition, as Chowdhury and Khanam (2005) and Primo (2003) have argued men typically hold positions of power and are mostly the key stakeholders in the realm of ICTs (see Section 1.3). Thus interviews with 40 elite men were also conducted, coded as 'EIM' (EIM1-40) (Table 3.17, Appendix 7).

Elite Interviews			
S/N	Elite Interviews	Code	Total No.
1	Elite Women	EIW	<b>39</b>
2	Elite Men	EIM	<b>40</b>

**Table 3.17**  
**Elite Women and Men in the Muslim World**  
**(Source: Author)**

### 3.6.1.5 Sampling – Questionnaire Surveys

As part of the quantitative analysis, I also used questionnaire surveys (see Section 3.6.4) to provide supplementary data to that gained from the focus groups and interviews (see Longhurst, 2003; Parfitt, 1997). It is important to note that the objective of these questionnaires was to be able to provide empirical data regarding the preference and use of ICTs by women in Pakistan. The questionnaire surveys were distributed to 768 participants (from the 96 focus groups), illustrated in Table 3.18. I attribute this high level of completion to the fact that the questionnaire surveys were conducted immediately after the focus group discussions. The participants were comfortably sitting in a relaxed environment, and ‘eating samose and fruit chart’ with their friends and us discussing freely anything that they wanted to and more importantly not feeling any pressure (see Derbyshire *et al.*, 2005).

No. of Questionnaires in Pakistan				
S/N	Province	Urban (Towns)	Rural (Villages)	Total No.
1	FC	96	96	192
2	PUNJAB	96	96	192
3	AJK	96	96	192
4	KPK	N/A	N/A	N/A
5	SINDH	96	96	192
<b>Total</b>		<b>384</b>	<b>384</b>	<b>768</b>

**Table 3.18**  
**Number of Questionnaire Surveys in Pakistan**  
(Source: Author)

### 3.6.2 Focus Groups

This section discusses the rationale for selecting focus groups as the primary data collection method, comparing the advantages and disadvantages of the method along with the technique used for conducting the focus group sessions across Pakistan. Focus groups were selected because they create an ideal situation for groups of peers to express their perspectives in a non-threatening environment (Rea and Parker, 2005). Morgan (1993) has also noted that having the security of being among others who share many of their feelings and experiences provides participants with a supportive environment that encourages them to share their own views (see also Greenbaum, 1998). Thus, the non-threatening and amiable environment of focus groups was especially helpful for working with women, who historically have had limited power and

influence (see Bedford and Burgess, 2001; Taylor-Powell and Steele, 1996). This was a very effective technique for bringing out the nuances and subtleties of the challenging experiences of my respondents (also see Tacchi *et al.*, 2003; Darlington and Scott, 2002).

Nonetheless, it was important to take account of, and strive to mitigate, the risks inherent in first empowering people to express their views and then not acting on those expressed views in a practical way. As Greenbaum (1998) has pointed out, it is the researcher's responsibility to act as a moderator and be responsible for acknowledging and showing tolerance for a wide range of perspectives, without showing support for particular views (Bedford and Burgess, 2001). The challenge was to moderate the discussion without dominating or influencing its direction and allowing it to drift in different directions, allowing the unexpected to be naturally revealed (see Tacchi *et al.*, 2003; Greenbaum, 1998). As Rea and Parker (2005) have noted, focus groups offer a way to bridge the gap between researchers and their participants. As the language and logic of researchers can be very different from that of the people they are investigating, the interactional forum of focus groups can provide clear insights into how and what their research subjects think, and are thus a powerful means of exposing researchers to the circumstances of their participants (see Conradson, 2005; Longhurst, 2003; Bedford and Burgess, 2001). Furthermore, Litosseliti (2005) has argued that this technique allows the researcher to learn more about the range of opinions, attitudes and experiences of respondents in a consensual manner. Despite Kalof *et al.* (2008) suggesting that focus groups are not appropriate for examining personal experiences, feelings and sensitive topics, Greenbaum (1998) has argued the opposite and asserted that focus groups actually give the respondents a sense of confidence and safety to share personal experiences and feelings, similar to that amongst a group of friends, rather than relaying this information in the one-to-one setting of interviews.

Although focus groups carry these and other advantages, Litosseliti (2005) has argued that employing them to generate information is not without its disadvantages. The first of these arises from the fact that, like most qualitative research, focus groups are based on trust and open communication (see Bedford and Burgess, 2001; Rose, 2001). Therefore, to be successful, it is as important for the target population to provide the researcher with truthful information as it is for the researcher to be considerate to, respectful, and tolerant of, the target audience and participants (O'Leary, 2004; Genzuk, 2003; Erlandson *et al.*, 1993). Furthermore, focus groups have the ability to self-regulate the information being shared by a respondent, who they may agree or disagree with, allowing for a check and balance to be in place (see Longhurst, 2003). This was very beneficial because it



allowed the comments to be clarified during the course of the discussions in the focus groups. Litosseliti (2005) has also suggested that issues which may have been equally important to those raised but that were considered to be too personal or controversial may not be discussed. However, Bedford and Burgess, (2001) have asserted that due to the sense of friendship and community that focus groups can foster, respondents may feel more comfortable about actually discussing sensitive and difficult issues, rather than in an interview setting, where they would be more likely to feel shy and self-conscious. Thus, I took great care to select participants for the focus groups from the same communities who knew each other, as discussed in Section 3.6.1.2 (see also Kalof *et al.*, 2008; Greenbaum, 1998).

The third disadvantage that Litosseliti (2005) has pointed out stems from the fact that there is often a tendency in discussions for certain individuals to be especially influential or domineering, while the rest of the group defers to them throughout. Such a power differential can occur in focus groups, even when care is taken to bring people together that are of equal rank, class and status (Litosseliti, 2005; Hancock, 1998). This can sometimes happen because a certain person in the group is particularly loud or verbose. Nonetheless, this situation can be managed if the researcher acts as an effective moderator and seeks to foster equal participation by participants (Greenbaum, 1998). In the focus group discussions that I conducted, I found this to be one of the biggest challenges to overcome, due to the presence of certain over-bearing women whose views were more stridently articulated than those of other, shyer participants. To try to ensure equal engagement, I always attempted to draw some of the quieter participants into the discussion (also see Rea and Parker, 2005). Nonetheless, this was very tricky to manage without my actions being interpreted as favouritism or as a possible effort to move the discussion in a different direction, as Greenbaum (1998) has noted.

At other times, an imbalance can be created in focus groups due to factors such as age, class, and social norms. Whatever the case, when this happens the opinions and ideas being expressed can become skewed in one direction, and it is up to the researcher to ensure that everyone in the group has adequate opportunities to air their individual ideas (see Litosseliti, 2005). I addressed this potential weakness by carefully selecting and screening the participants of each focus group to ensure that a homogeneous group was formed, so that a balance could be maintained in the environment and the discourse would remain harmonious (Greenbaum, 1998). As Bedford and Burgess (2001) have suggested, I employed a research assistant to help facilitate the pre-screening process with me. This process involved my informally talking to each of the potential participants

to ensure that they adequately met the selection criteria of the focus groups participants, to maintain group homogeneity as much as possible.

Kalof *et al.* (2008) and Rea and Parker (2005) have argued that conducting focus groups with open-ended questions offers the researcher(s) the advantage of being able to examine human needs, motivations and actions to a more complex degree than is available with other methods. Therefore, I developed a series of open-ended questions that were in line with my research objectives, allowing for each of the themes to be discussed in a broad context. This was done to ensure that no mere 'yes' or 'no' responses were possible (see Rea and Parker, 2005), allowing me to encourage a free-flowing discussion, while also interjecting some probing questions from time-to-time, as suggested by Bedford and Burgess (2001). By this, the participants became comfortable with each other and began to build a sense of trust and rapport amongst themselves. I was then able gently to probe for further elaboration in some of the more sensitive discussions (Greenbaum, 1998). Moreover, in light of Rea and Parker's (2005) suggestion, I also paid great attention to ensure that the participants did not feel uncomfortable and/or afraid about the directions that the discussions took. Nonetheless, the pre-determined questions for my focus groups were used with a degree of flexibility to adjust to the situation and environment (see Appendix 8 for the focus group guidelines).

In accordance with the recommendations of O'Leary (2004), I did this by taking care to maintain eye contact with the women during the focus group sessions, and relied on my judgement of their body language and non-verbal communication signals to address any discomfort and fears that arose. I also kept checking with everyone if they were happy with the direction and context of the discussions. In some cases, I also said to some participants that they were perfectly free to leave if they were uncomfortable, but they seemed to all enjoy the opportunity to vent their expressions and the fact that someone was asking them questions and inquiring about their thoughts and views. The experience and value afforded by the focus group sessions could never have been obtained from relying on interviews and questionnaires alone (Bedford and Burgees, 2001) A detailed log was maintained for each of the focus groups (Table 3.19), capturing personal data for all of the participants: their name, contact details (where possible), address, age, education, marital status, position in the home, size of the family, economic position and employment status (paid or unpaid) (see Kalof *et al.*, 2008).

<b>Focus Group Participant's Data</b>										
S/N	Name	Age	Mother Tongue	Language Spoken at home	Marital Status	Education Level	Size of Family	Economic Position	Employment Status	Contact Details (Address / Tel)

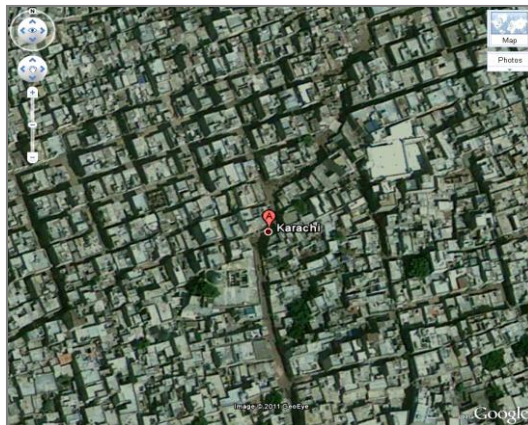
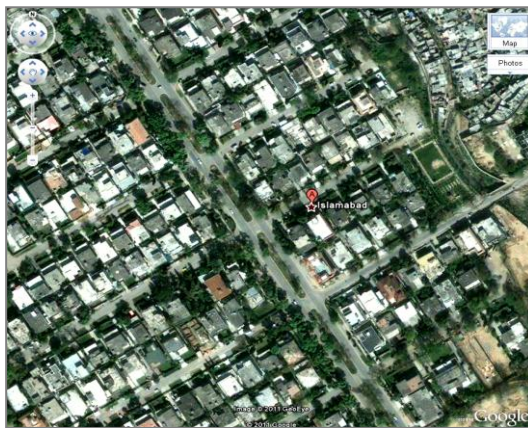
**Table 3.19  
 Log Sheet – Focus Group Participant's Data  
 (Source: Author)**

All of the focus group sessions began with me giving a brief overview of my research and sharing some background information on the community and the location where I was, so that the participants felt that I knew something about them and their environment. I spoke in Urdu at all of the sessions to further reinforce my position as an insider, as suggested by Mohammad (2001) in relation to her work in Pakistan, but I was flexible with my language throughout because I found that the women in the urban areas often preferred to speak in English.

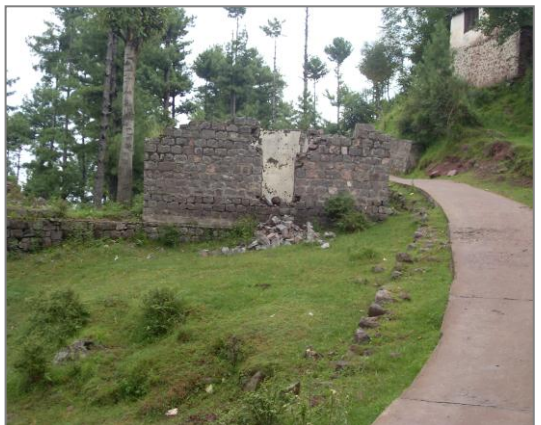
Once I had opened a session, the formal aspect of the focus group began. The structured introduction of the process, was followed by the participants introducing themselves to each other and my reiterating the fact that all of the discussions and notes that were to be subsequently taken, were going to be kept in full confidence, and that participant anonymity would be fully observed (see Babbie, 2007; Parfitt, 1997; Erlandson *et al.*, 1993). Each of the focus group sessions lasted between one and two hours, and notes were kept of each of these (see Litosseliti, 2005). I was unable to use a tape or video recorder because my participants were uncomfortable and objected to this. Nevertheless, I was given permission to take photographs during some of the focus groups along with some individual participant's photographs that have been integrated into the thesis (Kalof *et al.*, 2008; Flick, 2006). The primary reason for this was fear of the possible repercussions and disclosure of any sensitive information by an individual by which she could be identifiable at a later stage. This exclusion caused the process of analysis to be much more difficult, because I could only rely on the notes that I had taken during the focus groups. This did not allow me the luxury of replaying tapes or videos during the analysis and synthesis stages. Therefore, the accuracy and reliability of note-taking throughout the focus groups sessions was very important and relied heavily on not only capturing the discussions, but also on noting the passion, energy and subtleties, and sensitivity to the fear, hesitation and caution, that certain questions provoked. This was very helpful to gauge and ensured that I was able to maintain an awareness of the comfort level of participants throughout the focus group discussions. This was a very exhausting and tiring procedure due to the long distance, heat, dust and bad roads, particularly in the rural areas which only allowed me to conduct one focus group session per day. Figures 3.11, 3.12, 3.13 and 3.14 provide examples of the focus group sessions, their specific setting and GIS maps for urban and rural areas respectively.



**Figure 3.11**  
**Focus Groups – Urban Areas**  
**(Source: Author)**



**Figure 3.12**  
**GIS Images of Focus Groups Locations – Urban Areas**  
**(Source: Google)**



**Figure 3.13**  
**Focus Groups – Rural Areas**  
(Source: Author)



**Figure 3.14**  
**GIS Images of Focus Groups Locations – Rural Areas**  
**(Source: Google)**



An additional point that Kalof *et al.* (2008) and Bailey (2007) have argued is that it is very risky for the researcher to be the sole note-taker and moderator during focus group sessions and interviews. This is because it increases the possibility of researcher missing parts of the valuable discussion, human interaction and other observations that provided valuable background in the social context and human dynamics between participants. Therefore, I used a research assistant to help me overcome this issue, who was from the same area and spoke the same local language and would not be seen as an outsider. We both discussed and compared our observations and experiences of the group dynamics and synthesised these at the end of each session. This practice helped ensure a degree of reliability, accuracy, quality and richness in my field research work (see Flick, 2006).

It was interesting to note that despite the differences across the groups in terms of their levels of access to formal education and exposure to computers, all of the participants were familiar with mobile phones. However, it was difficult to shift the discussion towards an examination of their views on other ICT tools, particularly in the rural areas, where only a few participants had even seen computers. All the same, the discussions that were centred on the challenges and barriers and the impact and controls imposed by the patriarchal society, along with the influence of the male members of the families, were very lively and rich. The questions were discussed in a light manner exploring differences in access to using ICTs in comparison to male members of the family, experience of others listening to conversations, family views on travelling to visit ICT centres or telecentres and any particular negative remarks from men about them using ICTs. A comment from a participant often seemed to trigger immediate responses from the other participants, who began to share similar or completely contrary experiences. This provided a very rich source of information that demonstrated the range of diversity within the family structures (see Rea and Parker, 2005).

Nonetheless, in reflecting on my observations across both interviews and focus groups, both of these methods actually led to a certain degree of discomfort, embarrassment and shyness among some participants, which caused them stridently to deny experiences for which they felt that the group would judge them and/or their families. This sometimes put me in the awkward position of having to challenge or more assertively moderate the discussion to move it forward and not allow the group to ponder their response for too long. This moderating of the focus groups was a learning experience through which I became more confident in exploring new ways to navigate through these sensitive areas, yet also created an environment where I could draw out and probe the participants to talk about their experiences (See Bishop 1998).

Initially, I had thought that being a frequent visitor to Pakistan; nothing would surprise me, given that I have had exposure to women from different ranks, classes and statuses. However, I was greatly mistaken because some of the educated, confident, professional women raised certain social and cultural issues as fundamental barriers, which I found to be extremely difficult to appreciate. In some cases, in fact, they often left me shocked and speechless. Being helpless only to listen and make futile notes in my log book of the anguish and desperation that my fellow women had accepted as part of their lot in life made me very sad (see Bedford and Burgess, 2001). Throughout the analytical chapters, I introduce some of the notes from my field diary in order to reflect these reactions.

### **3.6.3 Interviews (Interviews and Elite)**

This section discusses the rationale for selecting interviews as a data collection method along with details of the techniques used for conducting interviews with women from Pakistan as well as the elite professional women from the Muslim world. Feminist researchers have tended to advocate the use of “‘insiders’ for interviewing in order to minimise distance and power inequities between the researcher and the researched, and to ensure that the subject’s views are accurately reflected” (Rose, 2001:1). An interview is an accumulation of dialogue and interaction between an interviewer and interviewee, which provides a qualitative description of the experiences of the interviewee (Kalof *et al.*, 2008; Longhurst, 2003; Kvale, 1996). Furthermore, as Valentine (1997) has also argued, interviews are an ideal technique for conducting research on sensitive areas because they allow the researcher to develop a rapport and a sense of empathy with the interviewee. Furthermore, Gabb (2008) and Gomm (2008) also state that interviews are apt for researching cultural and social settings, and are an ideal technique to use when interviewees may be of low literacy (also see Gray, 2004; Smith 2003). Therefore, the interview technique was selected as an appropriate method to address the needs of my investigation. This allowed me to gather direct information about the experiences, challenges and barriers from the women themselves, in their own context, because only ‘they’ could describe their own experiences in a true and meaningful manner (see Harrison, 2006; Momsen, 2006; Valentine, 1997).

Nonetheless, there are many challenges in interviewing, such as the fact that the interviewee can very easily misinform the interviewer based on what they think that the interviewer wants to hear and there is no way to measure the authenticity of information provided (Bedford and Burgess, 2001). Thus, interviews were used as a supplementary method of data collection, to complement the data gathered through focus groups (see

Longhurst, 2003) and questionnaires. The interviews also provided me with the opportunity to investigate, refine and clarify issues, and build an understanding of new themes that I had not anticipated and that I subsequently incorporated into my living research methodology (see Willis, 2006; Parfitt, 1997).

I chose to use semi-structured interviews, as Valentine (1997) has argued that they are less controlled and allow the interview the flexibility to drift into those areas that are of interest to the participant (see also Parfitt, 1997). Despite the fact that Longhurst (2003) argued that semi-structured interviews are harder to manage for the interviewer, they provide a richer source of information (also see Flick, 2006). I designed five interview themes in accordance with my research objectives: familiarity with ICTs; use and impact of ICTs; influence on empowerment; social barriers; and Government policy (see Appendix 9 for interview guideline). The interview themes primarily revolved around the participants' experiences with barriers and challenges encountered in their engagement with ICTs, as well as general issues of access to ICTs. Additionally, I explored their thoughts on how these challenges could be overcome. Open-ended questions were used in this process, since they granted flexibility to the interviewee to drift from topic to topic, and for me to react to something interesting that I had not anticipated, thus allowing me to capture and build upon the richness of knowledge imparted by each interviewee (see Section 3.6.1.3) (see also Parfitt, 1997; Valentine, 1997).

However, in order to assess and debug my questions of any of the biases that I may have introduced in writing them (see Bailey, 2007; Flick, 2006), I tested the interview questions on the staff from my Pakistan office, since they were from different parts of Pakistan and from a variety of social classes, along with their friends and relatives, who were living in rural areas of Pakistan. There was no chance that my staff would not be critical of my questionnaires because they felt Pakistan and Pakistan's cultures and sensitivities was one area that they could definitely have more knowledge than me and were only too willing to give me some candid feedback. This process highlighted that my questions were initially geared toward emphasising the positive aspects of ICTs by the way that they were phrased. It was also important to make it easy for the participants to reply by creating a friendly and non-judgemental environment, and ensuring that the questions were phrased in a neutral manner (see Gabb, 2008; Harrison, 2006; Rea and Parker, 2005). Due to the fact that the field research was a continuous learning experience, I continuously changed and updated the interview template, as suggested by Parfitt (1997). Nonetheless, going into the field and developing a rapport with participants for the purpose of delving into personal experiences on sensitive subjects was not easy. As Valentine (1997) has stated, it is critical that the interviewer establish a relationship

with the interviewees so that they can begin to feel a sense of trust and to foster a non-threatening environment in which they can share their personal feelings.

The interviews were carried out in either English or Urdu, depending on the interviewee's preference. I began by introducing the research objectives to the interviewees and in some cases showing them the template that I was going to use during the interview. I also explained that the entire process would take between 45 and 60 minutes, checking that they were comfortable and aware of the process and time. This was followed by a statement that the information I was going to write down was going to be confidential and that full anonymity would be upheld (see Gabb, 2008; Bailey, 2007). At that time, I also asked if I could record and/or film the discussion, but in all cases the interviewees declined. The primary reason for this was fear of possible repercussions from the disclosure of any sensitive information being shared by an individual who could later be identified. I also showed them the area on the template where I had written their names as 'A' or 'B' or 'C', etc., so that they could see that I was using an alphabetical code instead of writing their actual name, to ensure that their identities would be safe and secure (see Bailey, 2007; Harrison, 2006). I also showed them a separate notebook where I had written their location, age, education, mother tongue, class (if applicable), profession and household position, and linked this to the alphabetical code on the template. This allowed me to keep track of what I was doing in the field, as well as to organise my data during the analytical stage. I could see a distinctive sigh of relief and overall change of my participants' facial expressions when I did this, and in some cases, some of the women smiled. One participant told me that she was initially afraid to talk to me about the restrictions that her family had placed on her use of the computer, and was worried about how this information would be used, since it could entail consequences for her in relation to her family. However, after I explained my procedure to her, she felt that I had taken sufficient steps to alleviate her concerns (see Bailey, 2007). Although my respondents felt reassured by these steps, I continuously took precautions to ensure the confidentiality and safety of my notes while I was in the field by keeping the personal data of the participants completely separate from the notes and observations I was making (also see Harrison, 2006; Parfitt, 1997).

The interviews were conducted as far as possible in non-threatening environments, either over lunch, coffee or in the interviewee's house or office, or at a local hotel; in short, wherever they felt comfortable and non-threatened (O'Leary, 2004; Rose, 2001; Bouma, 1993). Gillham (2000:30) has stressed the importance of being aware of and listening "to the non-verbal dimension", as one of the most important aspects of

conducting interviews. Nonetheless, Bouma (1993) has pointed out that this aspect is typically overlooked and difficult to record in a conversational manner.

Special attention was therefore paid to making sure that time was given to “listening, rather than talking” (Gillham, 2000:34) (see also Longhurst, 2003; Valentine, 1997). I tried to observe the interviewees continuously (O’Leary, 2004; Gillham, 2000; Bouma, 1993) and take detailed notes in parallel to listening to their comments. This proved to be extremely challenging, and often I wrote with extremely large letters because I frequently did not look at the page. Even though this was a very messy technique, it allowed me to be sensitive to the interviewees’ body language and facial expressions, as well as gestures such as head-nodding throughout the discussion, so that I could sense any discomfort arising from my questions (see Gabb, 2008; Harrison, 2006; Greenbaum, 1998). I needed to maintain eye contact and speak slowly in order to allow the discussion to be open and comfortable. In many cases, this required me to write very quickly without looking at my paper. The interviews were then written up in more detail immediately afterwards because “any delay in writing up an interview undermines the record’s accuracy and reliability” (Bouma, 1993:181). The notes were transcribed into electronic form right away, while it was fresh in my mind.

These semi-structured interviews provided a deeper understanding of the factors involved, and identified additional issues that were relevant to women’s engagement with ICTs, cultural and social barriers, and recommendations for creating an inclusive information society (Kawulich, 2005; O’Leary, 2004; Rose, 2001). I also used this opportunity to obtain their perspectives on the level of women’s considerations and involvement in their respective countries on ICT policies. Furthermore, they provided me with a better understanding of the factors involved, and identified additional issues that were relevant to women’s engagement with ICTs (Kawulich, 2005; O’Leary, 2004; Rose, 2001). This enabled me better to understand the views of women whose backgrounds had afforded them different levels of access, based on their class, education, geographical location and social and economic positions, as the literature suggests (Flick, 2006; Offenbauer, 2005). All citations of interviews are integrated into the text of the thesis in italics.

### 3.6.4 Questionnaire Surveys

This section discusses the rationale for using questionnaire surveys as a supplementary data collection method for gathering quantitative data, along with the technique used for designing the questionnaire and conducting the questionnaire surveys. I discuss the quantitative analysis process that I used to identify the ICT tools that were used by my research participants, and in what way. The richness of the empirical data provided by questionnaire surveys helped identify the preferences that women had with respect to ICTs. Valentine (1997) has suggested that questionnaires are the least effective way of gathering data about people, as they are unable to capture any personal comments and understanding of the context (See also Jackson, 1988). However, Kalof *et al.* (2008) have argued that questionnaire surveys are an optimum method to gather empirical research data. Therefore, since my research objective was simply to quantify which tools were most preferred and why, I chose to use questionnaire surveys for this purpose. Despite Kalof *et al.* (2008) arguments, questionnaires have some limitations due to the fact that the respondent is limited to reply to a fixed framework of questions that the researcher has developed along with a limitation for the researcher to be able to gather depth around the response from the respondent. Nonetheless, I opted to use this method because as Parfitt (1997) has argued, it is appropriate for gathering such data. Questionnaires were used for the triangulation of my data collection methodologies, and for combining quantitative and qualitative techniques of the focus groups and interviews, to provide a rich pool of information.

As Kalof *et al.* (2008) and Parfitt (1997) have argued, closed questions possibly force respondents to adopt a false position in selecting one of the pre-defined options and this can also encourage them to reply in accordance with the categories provided in the form. Furthermore, it can be heavily biased in favour of the views of the person creating the questions. Nonetheless, closed questions are relatively easy to analyse, since there is “no need for categorisation” of the data after it has been collected (Parfitt, 1997:89). On the other hand, open-ended questions contribute to a much more free-flowing environment, which allows for “spontaneous responses unencumbered by the sorts of answers the researcher regards as valid” (Parfitt, 1997:90), providing a richness that could not be achieved by closed questions (also see Rea and Parker, 2005). Nonetheless, these can prove to be a significant challenge to analyse, since they tend to require a plethora of coding and cross-tabulation of the results. Taking into consideration the advantages and disadvantages of both of these styles, I decided to use more closed questions than open ones, since I was primarily using the questionnaire survey as a supplementary technique to gather data for my research, which would be combined with

qualitative techniques such as focus groups and interviews. Furthermore, as recommended by Kalof *et al.* (2008), I created close-ended questions to facilitate analysis and comparison for the questionnaire survey. I faced significant challenges, because as Parfitt (1997:77) has argued, data related to “people’s attitudes, opinions and beliefs tends to be the most difficult” to collect. Therefore, I paid special attention to the wording and format of the questions to ensure that they would be readily understandable to my respondents and would allow me to gather the appropriate and relevant information regarding which ICT tools they preferred and why.

As one of the key aspects, I wished to examine was the difference in the preference and use of ICT tools between formally and informally educated women, the questionnaire survey was preliminary formed by incorporating a series of large, clear photographs of a broad variety of ICT tools as defined by Hamelink (1997) (see also Singhal and Rattine-Flaherty, 2006; Baxter and Eyles, 1997). As there is no fixed and defined list of ICT tools, I selected 15 of the most commonly used ICT tools. This allowed me to present a wide variety of ICT tools in a neutral, non- threatening format. This ranged from the old: radios and televisions, to the new: ipods and laptops (see Hamelink, 1997, Appendix 10). This provided an understanding of the degree of familiarity across the multiple categories of my participants. Subsequently, to also take the opportunity to understand where and for what purpose the ICT tools were used by the participants, I incorporated two open-ended questions. Furthermore, to investigate and understand the level of ownership of the mobile phone, I also incorporated this element into my questionnaire survey. As discussed in Section 2.3 as Pettit *et al.* (2009), Sharma and Maindiratta (2005) and Isaacs (2005) have argued, ICTs have been seen to have great potential for empowering women. Nonetheless, in the context of Pakistan, there was no empirical data to validate this. Therefore, this aspect was also incorporated into the questionnaire survey, as a closed question. As Parfitt (1997:81) has argued, a good survey design can only be achieved “by attempting to anticipate and minimise various types of errors”. This was achieved by conducting 15 pilot surveys in Pakistan during my exploratory field trips in 2005 and 2006 with the cross-section of the population that I was going to examine, to identify any “redundancies or omissions in the questions” (Parfitt, 1997:85) (see also Brydon, 2006; Oppenheim, 1992). This also helped me to address any questions that could have caused a sense of embarrassment to the respondents that I was unaware of, along with uncovering any question design biases that I may have unconsciously or unintentionally introduced into the questionnaire that reflected a positive view of the impact of ICTs.

Owing to the general difficulty of accessing the diverse female population I wanted to investigate in my survey, I decided to conduct the questionnaires at the end of the focus group sessions for reasons of convenience and the more relaxed state of my respondents at this stage (see Section 3.6.2). Once I had identified the respondents, I gave verbal instructions on how to complete the questionnaire survey individually, along with the estimated time that it would require, which I assured them would not “exceed half an hour” (Parfitt, 1997:85). This assured the respondents that this was not a complex process and would be easy to do, so that they would not feel embarrassed completing it in front of their friends and family. Furthermore, I also informed and assured the respondents that these forms did not require their name, just the variable details that were needed for the comparative analysis, ensuring full confidentiality and anonymity, so that they would feel comfortable and safe to share what they felt. This allowed me to gather very useful and rich information (Parfitt, 1997). The questions were mainly image based to ensure ease of completion for the informally educated participants and designed to take approximately 30 to 40 minutes to complete. My research assistant and I were easily available in case any questions arose, yet at the same time not standing over the respondents. This process ensured the completeness and legibility of the questionnaire survey and possibly was the cause for me getting 100% of my survey questionnaires back.

The responses from the survey questionnaire were carefully read, coded and tabulated into a logical sequence so that patterns from the respondents could be identified (discussed in Section 3.7). This process was repeated three times so that I could crosscheck and verify the multiple uses identified from each tool and then further synthesised the results to identify the appropriate categories. This data was subsequently coded, so that implementations and analysis could occur, thus reducing the probability of errors (Kalof *et al.*, 2008; Parfitt, 1997). This is illustrated in Table 3.20. However, as the number of respondents grew, additional codes needed to be created which is assessed in detail in the analysis chapters.



ICT Tools	Multiple Uses	Category of Themes
Telephone	Talking to family	Communication
	Talking to friends	
	Music	Entertainment
	Stories Listening	
	Knowledge Sharing	Information and Knowledge
	Cooking Recipes	
	Connecting to Suppliers	Business Economic Aspect
	Connecting to Vendors	
	Connecting to Customers	
Television	Game shows	Entertainment
	Dramas	
	Movies	
	Songs	
	News	Information and Knowledge
	Quizzes	
	Cooking Shows	
	Virtual University	
	AIOU	
Computer	Connecting to Family	Communication
	Connecting to Friends	
	Video Chatting	
	Games	Entertainment
	Videos	
	Music	
	News Update	Information and Knowledge
	Weather Updates	
	Job Searching	
	Fashion Updates	
	Office Work	
	Making Assignment	
	Research for Assignments	
	Listening Lectures	
	Listening to Naats	
	Listening to Recitals (Quran)	
	Islamic Lectures	
Mobile	Talking to family	Communication
	Talking to friends	
	Chatting	
	SMS/MMS/Social Networking	Entertainment
	Music/Radio	
	Games	
	Camera	Information and Knowledge
	Location Locator	
	Connecting to Customers	Business Economic Aspect

**Table 3.20**  
**Example of Template for the Multiple Uses of ICT Tools**  
**(Source: Author)**

### **3.6.5 Appreciation and Transformation from Field Work**

This section covers the procedure adopted when the field research was conducted. Particular attention is paid to the interactions with people, ethical considerations, and my own positionality (Kawulich, 2005, Rose 2001). Detailed descriptions of the rationale and techniques used for conducting the semi-structured interviews and the focus groups are also given. Much literature addresses the importance of ethical considerations in conducting social science research (Bailey, 2007; Darlington and Scott, 2002; Madge, 1997; Wilson, 1993). This is a complex and very sensitive issue, as participants generously give their time and thoughts to the researcher. Gregory (2005) thus notes the importance for researchers of understanding the shortcomings and consequences of conducting research with regard to human life (see also Kawulich, 2005). “The researcher has to accept responsibility for the resolution of moral perplexities”, and the “judgments made are inescapably personal” (Gregory, 2005:3). The relevance and seriousness of this statement can never be known unless one meets truly marginalised women. My own prior understanding, as a frequent visitor and business woman in the country, changed immensely once I started to conduct the preliminary field investigation and engage in discussions with the women.

The fears of repercussions they experienced were, and still are, unimaginable. Sitting safely in London, and being from a privileged background, one can never really appreciate the situation on the ground in Pakistan. The more I discussed with them, the harder I found it to listen, and this began to transform the way I thought about conducting my field research. As O’Leary (2004) has argued no amount of reading can truly help the researcher prepare and imagine the impact that they could have on the lives of the researched. Moreover, “researchers are unconditionally responsible for the integrity of the research process”, and this places responsibility upon the researcher “to ensure the dignity and well-being of the researched” (O’Leary, 2004:50) is maintained at all times. Furthermore, SRA (2003:13) posits that researchers’ “must conduct their work responsibly and in light of the moral and legal order of the society in which they practice”. After conducting field research in Pakistan, I am even more aware of the importance of O’Leary’s (2004) emphasis on the impact on the researched. In addition, the Ethical Guidelines (SRA, 2003:11), recommend that the researcher’s “first intention is thus to be informative and descriptive rather than authoritarian or rigidly prescriptive”. Moreover, the accuracy of the knowledge produced is also vital, as well as its integrity and authenticity (O’Leary, 2004). Jameson and Hillier (2003) and Cassell (1980) build upon these points, asserting that above all it is important that the researcher should maintain high ethical standards to ensure that the participants do not feel mistreated or harmed in any way

that makes them feel depersonalised or more importantly, breaching their privacy and dignity. This issue has also been raised by O'Leary (2004), who reiterate that participants should not be harmed in any way during the research process. Here, it is important to define the concept of 'harm', because "harm in social science research generally refers to emotional or psychological harm, rather than physical harm" (O'Leary, 2004:53).

As Harrison (2006) has impressed, I constantly had to gauge the discussions and pay attention to the body language during the focus groups to ensure that I was not unintentionally crossing any boundaries when I was asking sensitive and probing questions with the women from the villages. I did this by carefully observing the facial expressions and changes in the intensity of the discussions. It was very evident to see that girls were uncomfortable when SMS messages from boys were mentioned, and they often looked towards the people in the room that they did not know in obvious embarrassment. Nonetheless, this tension often seemed to move on in a different direction, without requiring me to intervene. There always appeared to be one or two participants in the focus groups who steered the discussions in a different direction that usually uncovered something very interesting, which would not otherwise have come up (also see Smith, 2003; Mohammed, 2001).

More importantly, "there are often issues of confidentiality in linking records which may affect what can be done. Individual subjects should not be affected by such uses, provided that their identities are protected and that the purpose is statistical, not administrative" (SRA, 2003:26). Therefore, I kept the personal data collected during the focus groups *confidential* and anonymous by using the coding technique and duplicating field notebooks to ensure that privacy was maintained at all times (Bailey, 2007). According to Litosseliti (2005:51), before gaining access to information in "community based research, it is a good practice to inform the participants about the purpose of the research and the benefits that can be achieved through their honest contribution". Therefore, in recognition of the social consequences that could result from this research, great care was taken to ensure not only that "fully informed voluntary consent" (Gregory, 2005:35) was obtained from each of the participants, but also that the principle of confidentiality was maintained. This was achieved by anonymising the data collection process and transcribing all the information collected into a coding mechanism with the relevant identifiers that captured the relevant information required for the analysis.

### **3.6.5.1 Sensitivity and Positionality in the Field**

England (1994:248) states that “we are differently positioned subjects with different biographies; we are not dematerialized, disembodied entities”. Thus the importance, influence and complexity that positionality has on the outcome and objectivity of field research needs to be adequately understood and addressed (see also Chavez, 2008; Sultana, 2007; Srivastava, 2006; Neuman 2006). The complexity and importance of understanding one’s positionality is best described in the “context of multiple axes of differences” (Sultan, 2007:374). The consequence of the considerations of positionality and the need for reflexivity when undertaking field research are stressed by Chavez (2008), Kobayashi (2001), Jackson (2001) and England (1994). The practical aspect of this is vividly demonstrated by Sultana (2007) and Srivastava (2006), when they discuss their positionality in the local context of their field research in Bangladesh and India, respectively (See also Rose 1997a). They both describe their experiences and transformations from outsider to insider, and emphasise the importance of the researcher having the sensitivity to take the smallest level of detail into account. Sultana (2007), for example, was aware of the impact that her trainers (shoes) and short hair had on her research population, and how such things can unknowingly push the researcher from being an insider to an outsider. Their work was extremely helpful for me in understanding my own approach and in helping to understand the meaning of the work and the importance of positionality during my field research (see also Mohammed, 2001).

Nevertheless, Sultana (2007:375) hastens to point out that “over-concern about positionality and reflexivity appears to have paralyzed some scholars into avoiding field work and engaging more in textual analysis”. It can be noted that both Sultana (2007) and England (1994) caution researchers against extensive ‘naval gazing’ and of falling into an ‘analysis paralysis’ trap. Thus, in order to avoid this trap, I submerged myself in the field research component from the very beginning of my research, in September 2005, so that I could begin expanding upon my literature review in the context of what I experienced in the field, and could thus constrain the expression of some of my biases (see Kalof *et al.*, 2008). This process continued for a period of four years, through which I found myself spending three to four months a year in the field. This allowed me continuously to learn, change and adapt my behaviour to my experiences in the field (see Brydon, 2006; Smith, 2003; Valentine, 1997). By this, I was able to gain maximum exposure and understanding of the nuances and I increased my awareness of, and sensitivity to, the common pitfalls frequently mentioned in the literature as I progressed through the design and development of my methodological framework.

The importance and impact of insider and outsider perceptions of the researcher by the researched must also be carefully taken into context when designing field research procedures (see Sultana, 2007; Srivastava, 2006). However, as Chavez (2008) has argued, drawing on the work of Banks (1998), Merton (1978) and Naples (1996), “the outsider-insider distinction is a false dichotomy since the outsiders and the insiders have to contend with similar methodological issues around positionality, a researcher’s sense of self, and the situated knowledge she/he possesses as a result of her/his location in the social order” (Chavez, 2008:474). Chavez (2008:475) further argues that “for an outsider, the danger is the imposition of the researcher’s values, beliefs, and perceptions on the lives of the participants, which may result in a positivistic representation and interpretation”, while for the “insider, who possessed deeper insight about the people, place, and events, were believed to hold a biased position that complicated their ability to observe and interpret”. These points were very relevant to my research, since my background had a huge impact on my field research. However, being aware of these phenomena, allowed me constantly to work toward self-neutralisation to the greatest degree possible. My ultimate goal, in other words, was to become effectively invisible as a researcher in the context of allowing the dialogue and circumstances to continue in a natural manner.

Sultana (2007) and Domosh (2003) have both stressed the importance of reflexivity when conducting feminist research from multiple perspectives, as being a “reflection on oneself, the processes, and representation, and critically examining power relations and politics in the research process and researcher accountability in data collection and interpretation” (Sultana, 2007:376). Paying attention to the process of conducting field research by feminist geographers emphasises the importance of a reflexive approach that eliminates and neutralises, as much as possible, any positionality of the researcher, challenging pre-given categories, biases and narratives (see also Srivastava, 2006; Domosh, 2003). Thus, reflexivity incorporates these considerations into the research and acknowledges the complex issues and nuances where “boundaries between process and content can get blurred” (Sultana, 2007:376). I strove to observe these concepts to the greatest extent that I could, while working in a wide range of remote villages and towns to capture and understand the cultural and traditional diversity among people from various socio-economic backgrounds (see Smith, 2003; Mohammed, 2001). I was viewed by each of the groups differently, depending on their perspective of what someone like me might actually be like or want. So who or what was me to them? The very choice of words could set up an adversarial stance between the researcher and the research participants (Sultana, 2007; Srivastava, 2006).

Reflecting and internalizing on Sultana's (2007) experiences in the field, provided a deep insight into the complexity and the sensitivity that I needed to be aware of. This required me to calibrate and understand the possible impact that every part of *my being – Salma* - could have on my research participants. It was very difficult for me to internalise this and it took a great deal of soul-searching and reflection before, during, and after the field research, to allow me to gauge my positionality and impact on the research participants in a reflexive manner. The very attributes that made me successful in the business world needed to be completely toned down and/ or dissolved, including stature, confidence, tone-of-voice, clothes, shoes and language (Sultana, 2007; Srivastava, 2006; Domosh, 2003). In some circles of the big cities of Pakistan, I was actually viewed as an *insider*, but in the overall context of my research, I was always viewed as an *outsider*. It was initially very problematic for me to internalise this sense of rejection and exclusion. Being viewed with distrust and suspicion needed to be carefully understood and taken into account at every step of the field research process (Chavez, 2008; Sultana, 2007; Srivastava, 2006). Thus, a constant reflexive approach helped me to navigate through the situation.

I paid a particular attention to my physical stature, appearance, style of speaking, accent in Urdu and English, tone of voice, and many other aspects of *me*, so that I could minimise, wherever possible, the influence that I would have on the research participant's responses. My personal style, education, professional background and exposure to the world all needed to be kept in check in accordance with the local context that I was in. Sultana (2007:378) echoes similar thoughts when she shares her field research experience in Bangladesh: "what perhaps concerned me the most about my positionality was the clear class difference. I was from the city, from an educated background, could read and write (in English no less!). Such overt differences immediately put me in a different location, and often in one of hierarchy, where people in rural areas have come to respect and be deferential to urban, educated elites". However, "acknowledging one's positionality or subjectivity should not mean abandoning field-work; rather, it can strengthen our commitment to conduct good research based on building relations of mutual respect and recognition" (Sultana, 2007:3).

Nevertheless, the researcher must also be aware of the problem of not getting close enough to the research participants to be able to gain a real understanding of their behaviour, perspectives and motivations (see O'Leary, 2004; Kawulich 2005). Limited information is available on the sensitivities that the researcher needs to acknowledge personally and keep in mind, both mentally and physically, to engage in such a sensitive research area as the understanding of women's personal experiences. Recognising the

low literacy level and limited exposure to outsiders, I paid special attention to adopting conservative local dress, causing a recognisable transformation (see Figure 3.15) along with speaking as much as possible in Urdu – the national language of Pakistan. Nevertheless, to ensure that I was familiar with all the cultural nuances and subtleties, I also hired a local interpreter, who acted as my local guide for each region. Care was taken also to ensure that the individuals were in good standing with the community leaders, and were ethical and respected people by conducting confidential inquiries through local NGOs and local union councils so that the level of acceptability to my presence and research caused minimal disturbance and attention (see Sultana, 2007; Mohammad, 2001; Merriam *et al.*, 2001, 2000).



**Figure 3.15**  
**Transformation of 'Salma' - 'Outsider' to 'Insider'**  
(Source: Author)

The villages in the rural areas that I visited were governed by a completely rigid patriarchal society, and care needed to be taken to navigate through this, since it would have a great influence on my access to the participants. Formal meetings were conducted with what could be described as 'feudal lords', the community elders and different key stakeholders at multiple locations, such as local schools and community centres (O'Leary, 2004; Genzuk, 2003). An example of these visits and discussions is demonstrated in Figure 3.16.

The purpose of the research was discussed in a constructive, positive light, with an explanation of why it was necessary to visit the villages, and more importantly, what the direct benefits to the community would be, such as greater visibility on the issues of electricity and lack of access to mobile phones and computer training in schools. This helped establish a degree of comfort with the male population of the community to create and strengthen trust; several visits to the community schools, community centres, mosques and Madaris were also made (Kawulich, 2005; O'Leary, 2004; Genzuk, 2003). This helped build trust and confidence in the fact that I was not just making a one-time visit and would then disappear. This methodology was deliberately undertaken in light of the information gained from the initial situation-assessment visits. The community men were very frustrated by the people who came from the government and NGOs, who wasted their time and then never followed up on any promises they made. This barrier was very evident and needed to be overcome, because it had left the local people very disenchanted and reluctant to give any more time or information to outsiders.





**Figure 3.16**  
**Gaining Access to Rural Communities**  
(Source: Author)

### 3.7 Data Analysis

As Kalof *et al.* (2008) and Miles and Huberman (1994) have both argued, data collection and analysis are complex processes and need to be undertaken from the outset of the research. In fact, Flowerdew and Martin (1997) have argued that a researcher should begin the journey with the end in mind to ensure that the research objective is achieved. Not all would agree with this view, but I feel this type of approach would help a researcher stay focus. Miles and Huberman (1994) have also stressed the importance of organisations from the early stages of research in order to minimise difficulties in analysing the data. Therefore, I designed my data analysis process from the onset of my research (also see Kalof *et al.*, 2008; Parfitt, 1997).

As O'Leary (2004) has stressed, data management and analysis need to be conducted in a creative and intuitive manner from the outset of research in order to avoid confusion. Miles and Huberman (1994) have also emphasised the importance of analysing the qualitative data on a continuous basis, in an iterative manner to allow for the initial themes, patterns and relationships to emerge. The systematic organisation and storage of the data in a logical manner allows for easy access and retrieval over the journey of the research is also suggested by Bouma (1993). On the basis of this literature, I too began defining my initial data analysis strategy at an early stage, categorising the variables and the possible emerging themes, and developing coding systems from emerging patterns by organising and grouping the comments captured during the focus group discussion and semi-structured interviews (see Kalof *et al.*, 2008). I also used this opportunity to glean an early interpretation of my raw data to refine and tweak my field data collection techniques, questions and also helped me develop a comprehensive framework for the barriers elements, used in the ICT document analysis (see Table 3.10). The results of my pilot field research resulted in at least four revisions of my questionnaires, which was very helpful. This enabled me to be able to create a streamlined process of coding that could be adjusted for the various anomalies and unexpected themes that emerged from my discussions in the field (see Section 3.6.4). In some cases I also informed the participants of how their comments had influenced my research and this often made them feel proud of their contributions. As I discussed earlier, due to the dyslexic nature of my thinking, my data analysis techniques and identification of patterns heavily relied on the creation of flow diagrams and mapping techniques so that I could see the linkages and the patterns that emerged (see Section 1.3).

Building on this approach, I also incorporated multiple mapping techniques, which enabled me to examine the data from different perspectives, trying to make sense of the complexity of peoples' minds and investigating possible multi-causal models from the initial data, although this is a process that "involves much guess work" (Miles and Huberman, 1994:77). Nonetheless, it greatly reduced the chances of researching and measuring something that was irrelevant to my original objectives. The bulk of my field data was in the form of transcriptions from the 99 focus groups, 127 interviews, 768 questionnaire surveys complemented by the elite interviews (39 women and 40 men). This was complemented with my personal field notes and diaries which captured the observations of human behaviour, interaction and other experiences that I had had in the field. Tragically, the bulk of my original field research notes, papers from the focus groups, interviews, field diaries and other documents were all destroyed by a terrorist attack on the Marriott Hotel in Islamabad, Pakistan, in 2008. The level of destruction is indicated in Figure 3.17. Only a handful of my hand written notes from some focus groups and interviews with the elite women remained, but luckily I had methodically transcribed all of the notes electronically at the end of each day into my laptop, working over dinner and on the journeys back to the hotel (O'Leary, 2004; Miles and Huberman, 1994). This allowed me to contextualise the observations and experiences and not lose the nuances and the feel and energy from each of the locations. This approach enabled me to clarify, validate and discuss my experiences and observations with the research assistants at the end of the day, when everything was fresh in our minds. More importantly, I organised the data and coded the files, so that the appropriate locations could be cross-checked with the transcribed electronic data. This allowed me easily to distinguish and capture my personal observations throughout the process. This was not easy to do, and would probably be an impossible task for a single researcher, such as a lone student. As Kalof *et al.* (2008) has argued, resources and time often limit researchers' ability to do the field research. Therefore, having a multi-lingual note taker was an advantage that I sincerely appreciated.



**Figure 3.17**  
**Terrorist Attack (Marriott) – Destroyed Office**  
**(Source: Author)**

All of the digitised data from the focus groups, interviews, questionnaires and ICT policies was analysed to identify preliminary themes and to note patterns, trends and possible relationships between variables in accordance with the conceptual categories, sub-categories and codes that I had created in the context of references, use and barriers (see Miles and Huberman, 1994). This process was repeated three or four times in an iterative manner and refined through a continuous analysis, extrapolations and reflections to attempt to make sense of the data. The details of the empirical and conceptual analysis are defined in detail in Chapters 4, 5, and 6. Furthermore, with the aim of not losing the passion with which comments were shared and to protect those who expressed them from any personal harm that may occur due to the consequences of their comments, I have chosen to integrate the voices of my participants throughout the empirical chapters in their exact words written in italics, using their exact words by making reference only to the geographical location, their particular category and the number of the focus groups (as defined in section 3.6.2). This provides an added richness and opportunity for the reader to truly experience the issues in the appropriate context (Baxter and Eyles, 1997).

### **3.8 Conclusion**

In this chapter, I have summarised the research approach, the methodological design framework, the document review process and the field research methods used for data collection, in order to answer the five research questions stated in Chapter 2. The research approach identifies the blend of quantitative and qualitative research methods utilised for the purpose of this study. The methodological design framework provided an overview of the research methods for each question, the different types of data collection tools and how they were used. The document review process provided insights as to the rationale and techniques used for the ICT policy analysis.

The methodological design for the field research addressed the ethical considerations and preparation for it through an understanding of my positionality. Additionally, a description of the rationale and techniques used was provided for the three different methods of field research undertaken, namely semi-structured interviews, focus groups and questionnaire surveys in Pakistan.

## 4. Women and National ICT Documents: Policies, Plans and Strategies

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### 4.1 Introduction

The importance of creating comprehensive, inclusive and implementable policies from women's perspectives has been emphasised by Wanasundera (2006) and Primo (2003). Wanasundera (2006:44) stresses the importance of conducting the appropriate level of analysis before developing the policy to ensure that the "equity is explicitly stated without an objective". Gurusurthy (2004) has developed a form of gender analysis called Gender Evaluation Methodology (GEM, 2005) which helps identify the diverse needs of women so as to assist policy-makers in creating more inclusive policies. Furthermore, Jafar (2009) has further modified this approach for the Arab nations, recognising the social and cultural differences. Therefore, as part of my investigation I have taken note of the extent to which a gender analysis was undertaken during the ICT policy formulation process in the countries in question.

Recognising that men and women occupy different spaces in the social structure of society (Jafar, 2009; Syed and Ali, 2006; Kabeer, 1999), I have explored how effectively gender neutral ICT policies have been able to remain sensitive to the barriers faced by women when engaging with ICTs (Jafar, 2009; Wanasundera, 2006; Sayo *et al.*, 2004; Hafkin, 2003, 2002). Therefore, this chapter presents the investigation and findings of the analysis that was conducted into the ICT policies, plans and strategies of the selected Muslim countries. This analysis has been undertaken in three distinct parts: i) Key word analysis (analytical framework discussed in Section 3.4.1 and Figure 3.4), ii) Key phrase analysis assessing the extent of reference to women and the degree of sensitivity to barriers limiting women's engagement with ICTs (analytical framework discussed in Section 3.4.2 and Figure 3.5), iii) document formulation processes and their impact on the content of the documents themselves (analytical framework discussed in Section 3.5.2 and Figure 3.6).

This research was undertaken with the objective of investigating four key current debates in the context of the role and impact of ICT policy effectiveness in enabling and including women in the information society. The analytical framework (see Section 3.4) lays out the intersection points of this investigation. Furthermore, this chapter provides a detailed overview of how ICT documents from 24 Muslim countries have responded to the challenges that women face when engaging with ICTs. While Labelle (2005) has

suggested that ICT strategies tend to address the overall strategic approach to the use of ICTs, and that ICT policy and plans are more focused on implementation issues, my experience is more in accordance with Unwin (2009), who argues that the terms ICT policies and plans are often used interchangeably. The results of this ICT document analysis highlight inconsistencies and a lack of standardisation in how different countries define these documents and their contents. This lack of standardisation made the analysis much more complicated, although I was able to select compatible ICT documents from across the researched countries and draw on the extensive documentary analysis literature (see Section 3.3.1).

While this is covered in detail in Chapter 3, I have summarised the scope of the analysis here. The analysis covers a total sample size of 54 ICT documents, comprising 31 ICT documents from 24 Muslim countries (10 policies, 11 strategies and 10 plans), along with 7 ICT guidebooks and 16 ICT documents from 10 additional countries that were used as benchmarks by the Muslim countries (see Table 3.4). Table 4.1 identifies the four distinct dimensions that I have used to examine the ICT documents.

S/N	Research Areas
1	Level of use of the six keywords: 'women', 'girls', 'gender', 'inclusion', 'marginalised' and 'men'.
2	Extent of reference to women across four distinct areas: economic; knowledge and capabilities; cultural and social; and implementation and monitoring.
3	Degree of sensitivity to the barriers and challenges faced by women when engaging with ICTs from multiple dimensions in these contexts.
4	Influence of four different ICT document 'formulation processes' on the above factors: women as policy-makers; use of consultative processes; use of guidebooks and tool kits; and the use of benchmarking other countries' ICT policies.

**Table 4.1**  
**Research Areas**  
**Source: (Author)**

## 4.2 Key Word Analysis and Findings

This section discusses the analysis findings and conclusions uncovered from the investigation and research across the 54 ICT documents. The following three sections discuss the analysis and findings of the key words' frequency across the ICT policies, strategies and plans.

## 4.2.1 ICT Policies: Analysis and Findings

This section discusses the key word frequency analysis of the ICT policy documents. The findings of this analysis were tabulated and are presented in Table 4.2. The frequency of occurrence of each word is mapped against each country's ICT policy. The ten countries were ordered alphabetically for clarification and ease of analysis. The results show that only four countries (Afghanistan, Jordan, Nigeria, and Pakistan) used the word 'woman or women' in their ICT policies and that Afghanistan also used the word 'marginalised' in its document. None of the other countries (Bangladesh, Malaysia, Maldives, Qatar, and the United Arab Emirates) referenced any of the six key words (highlighted in yellow in the table). The results indicate that Afghanistan is ranked the highest overall, given its use of two of the six words in its ICT policy. Despite this fact, Afghanistan nonetheless has a despicable record for the treatment of women (Ayub *et al.*, 2009; UNAMA, 2009) and, moreover, throughout the past decade many women who have publically engaged with ICTs through TV, radio or other media have been brutally murdered (The Guardian, 2007). Consequently, this demonstrates that there is not a linear relationship between achieving a 'high word count' in ICT policy documents and actually enabling women's effective engagement with ICTs. This is a truly complex situation with multiple dimensions that need to be addressed for effective policy intervention (Wanasundera, 2006), because power relations and social structures play a critical role in the nature of women's engagement with ICTs. Furthermore, as Sayo *et al.* (2004) argue, it is imperative to create policies that are in harmony with local cultural and social structures and appreciate the challenges and barriers that women face. Moreover, Gurumurthy (2004) has argued that it is important to undertake an extensive gender analysis to ensure that the policies will be effective and practical.

The results of this analysis stand at odds with the recommendations of recent studies from the United Arab Emirates (Vodanovich *et al.*, 2010), Oman (Elnaggar, 2007) and Nigeria (Olatokun, 2006). These studies all stressed the importance of ICT policies, referring specifically to the word 'inclusion' for women and reinforcing Wangmo *et al.* (2004), Lennie (2002) and Hafkin's (2002) views about using key words to ensure women's inclusion. Furthermore, it is very difficult to ascertain the existence of genuine political will to drive change in society and establish the degree of a government's true commitment and desire to engage women in the information society (see also Chowdhury and Khanam, 2005).



S/N	Country	# pg	Key Words – ICT Policies						Total (f)	Ratio (f / pg)
			W	G	GR	I	MG	M		
1	Afghanistan (2003)	28	4	0	0	0	1	0	5	.17
2	Bangladesh (2002)	14	0	0	0	0	0	0	0	0
3	Jordan (2007)	47	3	0	0	0	0	0	3	.06
4	Maldives (2006)	21	0	0	0	0	0	0	0	0
5	Malaysia (1994)	12	0	0	0	0	0	0	0	0
6	Nigeria (2001)	59	4	0	0	0	0	0	4	.06
7	Pakistan (2000)	42	3	0	0	0	0	0	3	.07
8	Qatar (2005)	4	0	0	0	0	0	0	0	0
9	Saudi Arabia (2006)	7	0	0	0	0	0	0	0	0
10	UAE (2006)	8	0	0	0	0	0	0	0	0
<b>Total 242</b>			<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>15</b>	<b>.06</b>

**Reference:**

**Afghanistan:** <http://www.mcit.gov.af/Documents/PoliciesandLaws/Afghanistan%20ICT%20Policy-english.pdf>

**Bangladesh:** [http://www.btrc.gov.bd/policy/ICT\\_Policy\\_2002.pdf](http://www.btrc.gov.bd/policy/ICT_Policy_2002.pdf)

**Jordan:** [http://www.moict.gov.jo/MoICT/MoICT%20Strategic%20Plan%20V3%2000\\_2008.pdf](http://www.moict.gov.jo/MoICT/MoICT%20Strategic%20Plan%20V3%2000_2008.pdf)

**Malaysia:** <http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN002712.pdf>

**Maldives:** [www.tam.gov.mv/downloads/Telecom\\_Policy\\_2006\\_Eng.pdf](http://www.tam.gov.mv/downloads/Telecom_Policy_2006_Eng.pdf)

**Nigeria:** <http://www.nitda.gov.ng/agency/document/nigeriaitpolicy.pdf>

**Pakistan:** [www.pseb.org.pk/UserFiles/documents/National\\_IT\\_Policy.pdf](http://www.pseb.org.pk/UserFiles/documents/National_IT_Policy.pdf)

**Qatar:** [www.comminit.com/en/node/148348](http://www.comminit.com/en/node/148348)

**Saudi Arabia:** <http://css.escwa.org.lb/ICTpolicymaking/5.pdf>

**United Arab Emirates:** [http://www.tra.ae/pdf/legal\\_references/national\\_telecom\\_policy\\_uae.pdf](http://www.tra.ae/pdf/legal_references/national_telecom_policy_uae.pdf)

**Table 4.2**  
**Frequency Analysis of Keywords Across ICT Policies**  
**(Source: Author)**

I have had first-hand experience of this from my discussions with the Kuwaiti Communications Minister, H. E. Dr. Mohammad Mohsin Al Busairy (EIM-9) and Deputy Chairman of the Central Agency for Information Technology (CAIT), Dr. Qusai Al-Shatti (EIM-10), who were very keen to understand how ICTs can support development, specifically creating ICT indicators, but once again due to bureaucracy and lack of political will, nothing has moved forward in Kuwait in that context. Despite personally knowing and meeting several advisors to the Minister, I was unable to acquire any ICT related policy or plan. This can only indicate that, as Aitkens (1997) has argued, governments are concerned about exposing bad data. This was also reflected by a government official interviewed:

*'Fear of being seen to perform poorly than their neighbours in the Gulf'* (EIM-20)

Kuwait did not wish to participate in this research. In contrast, the ICT Minister of Uganda, Salam Taki (EIM-28), not only supports practical ICT4D initiatives but also joined hands with UNIDO and Microsoft to implement pilot District Business Information Centres (DBIC), which were localised to the particular rural needs and in one case specifically established a DBIC SME ownership for a woman in Uganda. Figure 4.1 illustrates that when there is political commitment, will and focus, women could reap some benefits of the knowledge economy. Furthermore, the photography also indicates how some women in Uganda are in leadership positions, actively working at the grassroots levels, indicating some supportive system through multi-stakeholder, multi-sector partnerships (see also Unwin, 2005).

The complexity of understanding a government's 'will' was reflected in a discussion with Mustafa Khan, an advisor to the ICT minister of Saudi Arabia:

*'Despite Saudi Arabia benchmarking ICT policies from 20 countries from Europe and Asia, along with the USA, to create its ICT Policy, we still did not have any of the key words. I know it is critical to specifically refer to women in ICT policies due to our society'* (EIM-25).

However, he implied that many other things in society needed to be changed first, because there is a very strong influence of tradition that is difficult to change. These views echo many of the concerns raised by Afghanistan's ICT Minister, H. E. Amirzai Sangin (EIM-16). This supports the shared assertion of Kalof *et al.* (2008), Wanasundera (2006), Sayo *et al.* (2004) and Doel (2003) that written text enables us to gain an insight into a society, its lifestyles and practices.



**Figure 4.1**  
**An Example from Uganda**  
**(Source: Author)**

A possible explanation for the lack of key words in ICT policies was offered by an official who suggested:

*'The government's strategy is to create gender neutral policies because they felt that women were not discriminated against'. (EIW-3)*

This was reinforced by Sheikha Lubna Al Qasimi, the UAE's Minister of Economy at the time of my research, who stated:

*'We have an equal society and women do not need to be mentioned explicitly in policies' (EIW-9).*

Further reinforcing this statement, another government official from Qatar went so far as to suggest:

*'It is men that need to be protected; women have all the access and benefits' (EIW-39).*

Nevertheless, this stands in direct contrast to arguments in the current literature from the region, as presented by Vodanovich *et al.* (2010) and Elnaggar (2007), whose views also reinforce the current debate opposing gender neutral policies due to their risk of further "exacerbating existing gender inequalities" (Wanasundera, 2006:44) (see also Hafkin, 2003, 2002). Furthermore, Wanasundera (2006) continues to argue that policies are not gender-neutral and thus need to be carefully crafted to ensure that they address women's unique needs and social structures. Nonetheless, this contradicts the comments made by some of the elite women interviewed and sheds light on an important tension between the current debates.

However, on a recent trip to Qatar to attend an ICT Conference and Exhibition (Qitcom, May 2011) I was informed by a senior government official (EIW-6) there was a growing gender imbalance in society favouring women, which was cutting across multiple sectors, including education, the academy, government and business. This was causing the government to develop special initiatives to engage and include young men as active participants in the knowledge economy, thus creating an apparent '180 change' in their thinking and views on the impact of gender-neutral policies. As a result, Qatar is now considering non-gender-neutral 'policy interventions'.

## 4.2.2 ICT Strategies: Analysis and Findings

This section discusses the key words' frequency analysis for the eleven countries that had ICT strategy documents. The results from the ICT strategies of these countries are presented in Table 4.3 and show that nine of the eleven countries used one or more words in their document(s). Oman and Tunisia did not use any of the key words (highlighted in yellow in the table). Both Lebanon and Turkey used four of the six words. Lebanon had the highest frequency of usage of these words, in bold in the table. Nevertheless, due once again to the fact that the sex-disaggregated data is missing key indicators, it was not possible to demonstrate any influence or correlation between the impact of including high numbers of key words in their documents on women in the information society.

The results also indicate that the word 'men' did not appear in any of the strategy documents, reflecting exactly the same findings as the analysis of the ICT policy documents. A possible cause for the low usage of the keywords could be the strategy formulation process, along with the possible influences of cultural and social biases of the people engaged in the formulation process, as argued by Chowdhury and Khanam (2005). A further in-depth analysis and exploration of other possible elements that influence the context of the strategy and the subsequent causalities for the results with reference to inclusion of these key words is discussed in Section 4.4.

## 4.2.3 ICT Plans: Analysis and Findings

This section discusses the key word frequency analysis of ICT plans and documents from ten countries. Table 4.4, thus shows that four countries (Djibouti, Lebanon, Saudi Arabia and Turkey) used the keywords, with Djibouti having used five out of the six words in its ICT plan. The rows highlighted in yellow show zero usage of the keywords by six countries (Bangladesh, Indonesia, Kazakhstan, Malaysia, the UAE and Yemen). This type of analysis would suggest that Djibouti and Saudi Arabia should have the most inclusive societies of all of the countries reviewed, as their ICT plans include most of the keywords and they appear most frequently (Wanasundera, 2006). Nonetheless, this is difficult to verify at this point because there is still very limited and patchy sex-disaggregated data available at a country level to demonstrate the degree of impact of ICTs among women (Melhem and Tandon, 2009; Hafkin, 2002; Jorge, 2002).

S/N	Country	# pg	Key Words – ICT Strategies						Total (f)	Ratio (f / pg)
			W	G	GR	I	MG	M		
1	Azerbaijan (2003)	25	0	0	1	0	0	0	1	.04
2	Bahrain (2007)	25	0	0	0	2	0	0	2	.08
3	Egypt (2007)	49	1	0	2	1	0	0	4	.08
4	Gambia (2003)	18	2	1	3	0	0	0	6	.33
5	Jordan (2007)	59	0	0	0	1	0	0	1	.01
6	Lebanon (2003)	28	<b>5</b>	<b>3</b>	<b>8</b>	0	<b>1</b>	0	<b>17</b>	<b>.60</b>
7	Morocco (2007)	33	0	0	0	<b>3</b>	0	0	3	.09
8	Oman (2007)	10	0	0	0	0	0	0	0	0
9	Syria (2004)	64	1	0	0	0	0	0	1	.01
10	Tunisia (2009)	12	0	0	0	0	0	0	0	0
11	Turkey (2006)	57	1	1	1	1	0	0	4	.07
<b>Total</b>		<b>380</b>	<b>10</b>	<b>5</b>	<b>15</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>39</b>	<b>.10</b>

**Reference:**

**Azerbaijan:** <http://unpan1.un.org/intradoc/groups/public/documents/UNTC/UNPAN018110.pdf>,  
**Bahrain:** <http://www.e.gov.bh/wps/wcm/connect/58feb68045832f389b92bfca5cf22077/eGovernment+Strategy+English+Summary.pdf?MOD=AJPERES>  
**Egypt:** <http://www.mcit.gov.eg/Brochures/Egypt-ICT-Strategy.pdf>  
**Gambia:** <http://www.uneca.org/aisi/nici/Documents/e-GovStrategyPaperforTheGambia.pdf>  
**Jordan:** <http://www.intaj.net/sites/default/files/National-ICT-Strategy-of-Jordan-2007-2011.pdf>  
**Lebanon:** <http://www.egateway.gov.lb/docs/OMSAR/eStrategy/Document%204%20-%20ICT%20Policies%20.pdf>, [www.omsar.gov.lb](http://www.omsar.gov.lb)  
**Morocco:** [www.septi.gov.ma/Livre\\_Reference\\_strategie\\_eMaroc\\_An.pdf](http://www.septi.gov.ma/Livre_Reference_strategie_eMaroc_An.pdf)  
**Oman:** [www.ita.gov.om/ITAPortal/eServices/eoman\\_strategy.aspx](http://www.ita.gov.om/ITAPortal/eServices/eoman_strategy.aspx)  
**Syria:** [www.undp.org/sy/publications/national/EStrategy/ICT\\_Strategy\\_en.pdf](http://www.undp.org/sy/publications/national/EStrategy/ICT_Strategy_en.pdf)  
**Tunisia:** <http://unpan1.un.org/intradoc/groups/public/documents/unpan/unpan025636.pdf>  
**Turkey:** <http://unpan1.un.org/intradoc/groups/public/documents/unpan/unpan025636.pdf>

**Table 4.3**  
**Frequency Analysis of Keywords Across ICT Strategies**  
**(Source: Author)**

S/N	Country	# pg	Key Words – ICT Plans						Total (f)	Ratio (f / pg)
			W	G	GR	I	MG	M		
1	Bangladesh (2002)	7	0	0	0	0	0	0	0	0
2	Djibouti (2003)	79	15	4	1	0	1	5	26	.32
3	Indonesia (2001)	9	0	0	0	0	0	0	0	0
4	Kazakhstan (2004)	20	0	0	0	0	0	0	0	0
5	Lebanon (2003)	50	6	0	0	1	0	1	8	.16
6	Malaysia (2003)	23	0	0	0	0	0	0	0	0
7	Saudi Arabia (2007)	91	7	0	0	1	0	2	10	.10
8	Turkey (2006)	51	1	2	1	1	0	0	5	.09
9	UAE (2008)	7	0	0	0	0	0	0	0	0
10	Yemen (2005)	18	0	0	0	0	0	0	0	0
<b>Total</b>		<b>355</b>	<b>29</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>8</b>	<b>49</b>	<b>.13</b>

**Reference:**

**Bangladesh:** [http://www.bcs.org.bd/notice\\_board/Synopsis%20on%20National%20ICT%20Roadmap.pdf](http://www.bcs.org.bd/notice_board/Synopsis%20on%20National%20ICT%20Roadmap.pdf)

**Djibouti:** [rlab@sympatico.ca](mailto:rlab@sympatico.ca)

**Indonesia:** <http://www.apdip.net/projects/dig-rev/info/indonesia/resources/action-plan11052001.pdf>

**Kazakhstan:** <http://go.worldbank.org/RFK5T5FK40>

**Lebanon:** <http://www.egateway.gov.lb/docs/OMSAR/eStrategy/Document%204%20-%20ICT%20Policies%20.pdf>, [www.omsar.gov.lb](http://www.omsar.gov.lb)

**Malaysia:** [www.mampu.gov.my/pdf/spict/kk12.pdf](http://www.mampu.gov.my/pdf/spict/kk12.pdf)

**Saudi Arabia:** <http://css.escwa.org.lb/ICTpolicymaking/5.pdf>

**Turkey:** <http://unpan1.un.org/intradoc/groups/public/documents/unpan/unpan025636.pdf>

**UAE:** <http://www.tra.gov.ae/download.php?filename=TRA%20Strategic%20Plan%20Features%202008-2010.pdf>

**Yemen:** [www.hepyemen.org/en/uploads/ict\\_summary\\_eng.pdf](http://www.hepyemen.org/en/uploads/ict_summary_eng.pdf)

**Table 4.4**  
**Frequency Analysis of Keywords Across ICT Plans**  
**(Source: Author)**

## 4.2.4 Synthesis and Impact of Findings (ICT Policies, Strategies and Plans)

The analysis of the 31 ICT documents indicates two distinct patterns. First, there is an increasing trend to include one of the ‘six keywords’ in the documents; in the policies, two words; in the strategies, five words; and in the plans, all six words. Second, an almost doubling effect of the frequency of usage of the keywords is found in the documents: policies, 15 times; strategies, 39 times; and plans, 49 times. To try to make sense of these results, I further compared and contrasted internationally recognised indicators in the context of ICTs (ICT Development Index (IDI)) (ITU, 2010) and women (Gender Gap Rankings World Economic Forum (2005) and Gender Inequality Index (GII)) (UNDP, 2010) against those countries with the highest and lowest frequencies of usage in the documents (highest frequency: Afghanistan (policy), Lebanon (strategy) and Djibouti (plan); and lowest frequency: Bangladesh (policy), Azerbaijan (strategy) and UAE (plan)). Unfortunately, and as indicated in Table 4.5, Bangladesh was the only country that had evidence of all three indicators (IDI, GII, and Gender Gap Rankings), which made it impossible to make direct comparisons with any of the three high-performing countries (see Appendix 11).

Country	( f ) of 'W' in ICT Docs	ITU's ICT Development Index (IDI)		Gender Gap Rankings (World Economic Forum)		Gender Inequality Index (UNDP Human Development Report)	
		Ranking 2008 (1-159)	IDI 2008 (0.79-7.85)	Overall Rank (1-58)	Overall Score ( 1 - 7 )	Rank 2008 (1-138)	Value 2008 (0.17 -0.85)
<b>Countries with the highest frequency of the word 'women'</b>							
Afghanistan	4 (PO)	-	-	-	-	134	0.797
Lebanon	5 (ST, PL)	82	3.17	-	-	-	-
Djibouti	15 (PL)	125	1.57	-	-	-	-
<b>Countries with the lowest frequency of the word 'women'</b>							
Bangladesh	0 (PO,PL)	137	1.41	39	3.74	116	0.734
Azerbaijan	0 (PL)	81	3.18	-	-	62	0.553
UAE	0 (PO,PL)	29	6.11	-	-	45	0.764
<b>Reference:</b> <a href="http://www.itu.int/ITU-D/ict/publications/idi/2010/index.html">http://www.itu.int/ITU-D/ict/publications/idi/2010/index.html</a> <a href="https://members.weforum.org/pdf/Global_Competitiveness_Reports/Reports/gender_gap.pdf">https://members.weforum.org/pdf/Global_Competitiveness_Reports/Reports/gender_gap.pdf</a> <a href="http://hdr.undp.org/en/media/HDR_2010_EN_Complete_reprint.pdf">http://hdr.undp.org/en/media/HDR_2010_EN_Complete_reprint.pdf</a>							

**Table 4.5**  
**Comparative Analysis Across key Indicators**  
**(Source: Author)**



Despite having the highest frequency of usage of the keywords, Afghanistan ranked the lowest on the Gender Inequality Index (Section 4.2.1). The results were inconclusive due to the patchy and missing data points across the countries that I was trying to compare. Furthermore, an alternative combination of countries was also studied to obtain empirical observations, but the relevant data were still missing. Reflecting on the magnitude of the missing data, I was puzzled to see how an agency or government could possibly conduct any real and meaningful comparative analysis in the context of ICTs and women.

This demonstrates the difficulty that arises when one attempts to conduct any analysis of gender issues at a national level in these countries without empirical data relating to how governments can measure the impact of their policies and strategies; a point also raised by Melhem and Tandon (2009) and Wangmo *et al.* (2004). The impact of these findings reinforces Hafkin's (2002:1) argument that sex-segregated data is seriously impoverished and "without data, there is no visibility, without visibility, there is no priority". She continues that "without such data, it is difficult, if not impossible, to make the case for the inclusion of gender issues in ICT policies, plans and strategies to policy makers". Souter (2010:21) in a report by UNESCO argues that "the need for accurate measurement of ICT adoption, use and impact is crucially important if policy makers are to make well – informed decisions". This observation raises questions about the effectiveness, thoroughness and detail in which ICT policies, strategies and plans are created, and also calls into question the actual intention of governments and development agencies to include women (see also Mbambo-Thata, 2009; Hassanin 2009). Furthermore, to compound the problem, it is also difficult to understand how ICTs can impact women's lives either positively or negatively, as Unwin (2009) and Wagner *et al.* (2005) have argued, given that monitoring and evaluation are still missing. This view is also supported by recent work by Melhem and Tandon (2009).

#### **4.2.4.1 Lack of Sex-Disaggregated Data**

The importance of having accurate quantitative data is argued by Jorge (2002:5) when she notes that "despite the increasing amount of qualitative evidence on gender impacts, it is important to collect quantitative data that can be used to support gender-focused policy and programs". Moreover, Ramilo and Cinco (2005:23) have argued that "it is always best to support quantitative data by findings on qualitative changes because quantitative measurements can only give half of a story". Nevertheless, a report published by UNINSTRAW (2005:5) argues that "both qualitative and quantitative indicators that can be used to measure the levels of gender equity or equality [can be] attained through specific projects". Furthermore, Chowdhury and Khanam (2005), Hafkin

(2003) and Jorge (2002) all argue that it is important to have empirical evidence that accurately reflects the impact of ICT policies on women. This view supports Heyzer (2005:10) who argues that it is “absolutely essential” to have sex – disaggregated data and gender - sensitive indicators to ensure progress for women (also see Hayes, 2005).

Moreover, a report commissioned by the ITU to examine ICT statistics and indicators, reemphasises Jorge’s (2002) recommendations and also stresses that “there is virtually no data”. Nonetheless, four years later the ITU published a comprehensive report which extensively discusses composite indices, developing a multi-stakeholder partnership “whose members include ITU, UNCTAD, MIC Korea, KADO, UNESCWA, LBS, LIRNEAsia, and LINKAfrica” (ITU, 2007:14). This committee created the Digital Opportunity Index (DOI) which nevertheless still failed to include any indicators whatsoever that would reflect the position, engagement, inclusion, involvement and impact on women. Consequently, the ITU and other organisations developed an ICT opportunity index (ICT-OI) as “an analytical tool to track the digital divide by measuring the relative difference in ICT opportunity levels among economies and overtime” (ITU, 2007:17), but this once again lacked any considerations for performance-related to women. It should be noted that not only are the indicators for women missing from these two indices, but there is also no mention of any impact on physically-challenged people and the elderly either, who constitute and represent the marginalised community.

In a recent study conducted in Oman to examine the status of Omani women in the ICT sector, it was likewise noted that “unfortunately, few if any regional statistics were available on the status of women in the ICT sector” (Elnaggar, 2007:7). This highlighted that without such data it is impossible to create effective ICT policies, which also supports the assertions of Hafkin and Huyer (2007) and Hafkin (2001) regarding the lack of sex-disaggregated data. Similarly, a report commissioned by the ITU (Wangmo *et al.*, 2004:94), investigating the trends and positions from the perspective of women in Bhutan, Bangladesh and Indonesia, also raised the same issues and stated that due to “lack of sex segregation in national statistics”, it was inconclusive to take any action. Once again, the lack of sex-segregated data has resulted in an inconclusive report being published in a study of the position of women in Bangladesh in 2004, which begs the question of how meaningful the findings can be if they cannot be quantified.

Two years later, a further study was conducted by Ahmed *et al.* (2006:3) to measure the impact of ICTs on women in Bangladesh, which identified that “internationally comparable information society statistics on women are very limited”, further arguing that specific indicators need to be created for women so that decisions and policies can be

made more effective. In fact, they propose the creation of “women informationization indicators” (Ahmed *et al.*, 2006:3), which they suggest be used by multiple organisations, such as the Bangladesh Government, non-governmental organisations, donor organizations, research and academic institutions and the private sector. The authors argue that these indicators would be very useful for developing countries to create and develop their statistical data collection programmes meaning women’s empowerment through ICT.

#### **4.2.4.2 ICT Impact Indicator for Women**

Moreover, my research has indicated a huge gap in the current indicators that are used to measure ICT initiatives, both at the national and international levels and in the ICT policy guidebooks, guidelines and toolkits. Nevertheless, Unwin (2009:151) suggests that the ITU’s ICT Opportunity Index is “the most comprehensive” indicator to date. Kelly (2005) has also discussed in detail the issues with respect to inappropriate indicators in his paper on the missing link. This fact is further expanded upon by Thas *et al.* (2007), Hafkin and Huyer (2007), Hafkin (2003) and Marcelle (2000), who have all discussed the need to develop women-specific ICT indicators and have emphasised it as a critical requirement if a policy is to be truly effective in addressing women’s needs.

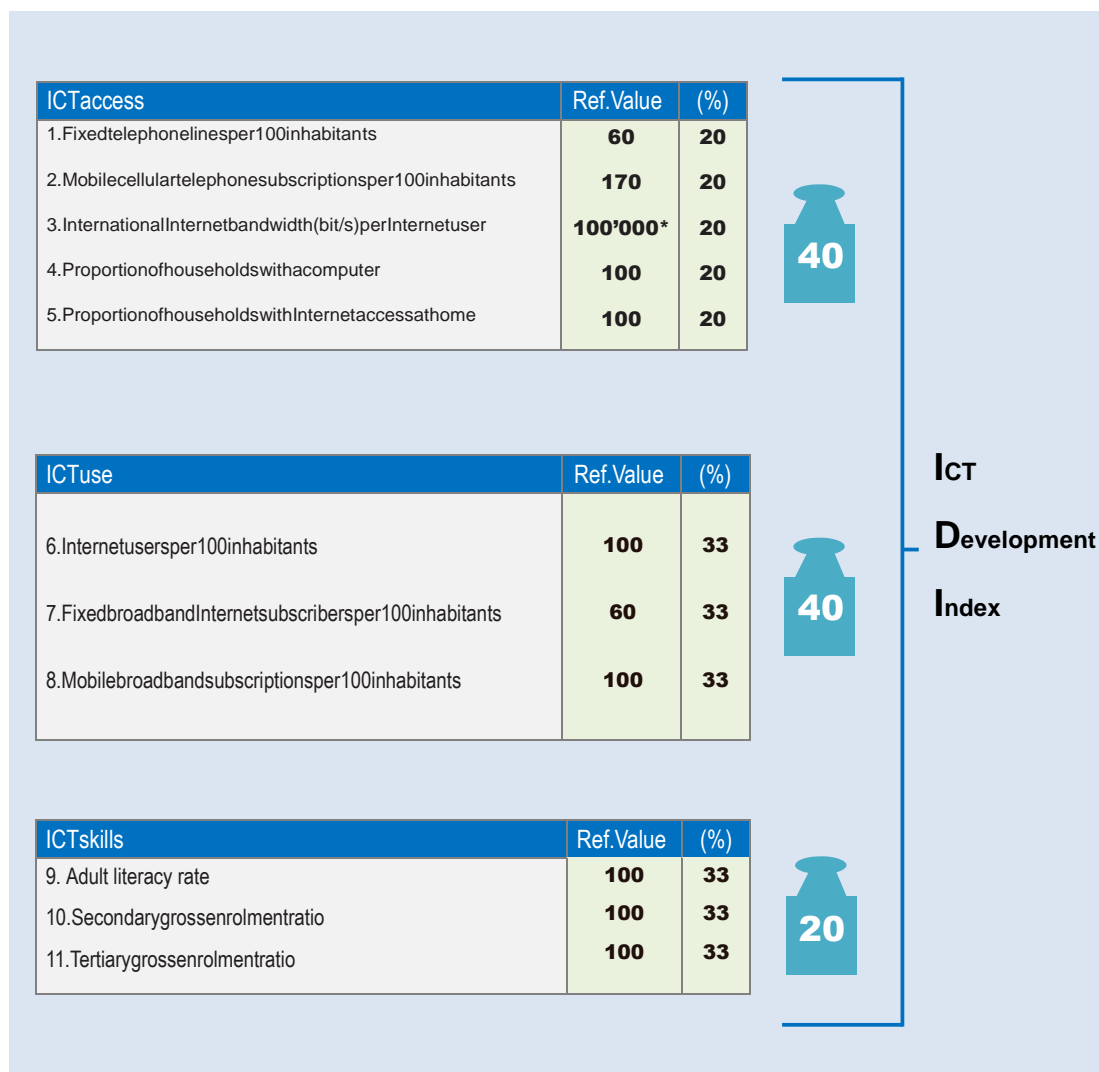
There is much rhetoric regarding the need for women’s inclusion in the information society and the subsequent benefits that women will achieve from ICTs, but the evidence to prove their impact one way or the other is missing, along with the appropriate tools to help countries measure the impact. My research, both from the focus groups and interviews with elite women, suggests that this is a critical failure in driving initiatives that could impact people. In fact, in June 2009, at an ITU and UNESCWA conference (regional follow up on the outcomes of the WSIS in Damascus, Syria), the member countries discussed the difficulties and unavailability of indicators that could help them measure the impact of ICTs at a national level. Indicators for GDP and investment in ICTs are available, but nothing to date helps nations truly demonstrate the benefits to their citizens. Later at the conference, I had a conversation with Sami al Bashir, Director of ITU-D, regarding what the ITU was doing in this space. He referred me to the ITU statistics department, headed by Susan Teltscher, who was setting up a special task force to revise the ICT indicators. Unfortunately, at the WSIS conference this year (May, 2011), several publications were released in relation to measuring the WSIS targets (ITU, 2011), such as *Measuring the Impact of Information and Communication Technology for Development* (UNCTAD, 2011), and *Measuring the Information Society* (2010), which still did not make any reference to sex-disaggregated data, impact

indicators or explicitly to women. This is illustrated in Figures 4.2, 4.3 and 4.4, and is very disheartening, reflecting as it does the lack of importance given to this decades-old debate. If policy makers really want to make informed decisions, then surely they should be demanding data which reinforces the arguments of Jafar (2009) and Heeks and Molla (2009).

Furthermore, a recent UNCTAD Report (2010:94) recognised that ICT policies needed to be more sensitive to the barriers that women may experience to “information access (including educational and social barriers)”. Nonetheless, they still referenced an old quote from Hafkin (2002), making the same argument, with very little action having occurred. Despite the recent work by Hafkin and Huyer (2007:37) providing details on “how gender could be an auxiliary variable in all of the DOI indicators”, this leads me to believe that there is a serious lack of commitment and willingness to take any action, resulting from a lack of political will. A recent working paper by Heeks and Molla (2009) holistically articulates multiple aspects required to conduct impact assessment of ICT for Development projects, which has a dedicated section on Gender ICT4D impact assessments. The analysis of the ICT policies, strategies and plans suggests that none of the countries have covered any form of ICT indicators from a women’s perspective with the exception of Lebanon, which discussed the need to “ensure that all data collection about ICT jobs, education, etc, includes relevant analysis of gender indicators” (Lebanon, 2003:16).

Digital Opportunity Index (DOI)	ICT Opportunity Index (ICT-OI)
<b>Opportunity</b>	<b>Info density: Networks</b>
1. Percent age of population covered by mobile telephony	1. Main telephone lines per 100 inhabitants
2. Internet access tariffs as a percentage of per capita income	2. Mobile cellular subscribers per 100 inhabitants
3. Mobile cellular tariffs as a percentage of per capita income	3. International Internet bandwidth (kbit/s per inhabitant)
<b>Infrastructure</b>	<b>Info density: Skills</b>
4. Proportion of households with a fixed-line telephone	4. Adult literacy rates
5. Proportion of households with a computer	5. Gross enrolment rates (primary, secondary and tertiary)
6. Proportion of households with Internet access at home	<b>Info use: Uptake</b>
7. Mobile cellular subscribers per 100 inhabitants	6. Internet users per 100 inhabitants
8. Mobile Internet subscribers per 100 inhabitants	7. Proportion of households with a TV
<b>Utilization</b>	8. Computers per 100 inhabitants
9. Proportion of individuals that have used the Internet	<b>Info use: Intensity</b>
10. Ratio of fixed broadband subscribers to total Internet subscribers	9. Total broadband Internet subscribers per 100 inhabitants
11. Ratio of mobile broadband subscribers to total mobile subscribers	10. International outgoing international traffic (Minutes) per capita

**Figure 4.2**  
**Digital Opportunity Index and ICT Opportunity Index, 2007**  
 (Source: <http://www.ifap.ru/library/book170.pdf>)



**Figure 4.3**  
**ICT Development Index: Indicators and Weights, 2010**  
 (Source: [http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS\\_2010\\_without\\_annex\\_4-e.pdf](http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS_2010_without_annex_4-e.pdf))

SWEDEN				
Indicators		Ideal Value*	2008	
<b>ICT access</b>				
A	Fixed telephone lines per 100 inhabitants	60	57.8	
B	Mobilecellulartelephonesubscriptionsper100inhabitants	170	118.3	
C	International Internet bandwidth per Internet user**	100'000	109'928.4	
D	Proportion of households with a computer	100	87	
E	Proportion of households with Internet access at home	100	84	
<b>ICT Use</b>				
F	Internetusersper100inhabitants	100	88	
G	FixedbroadbandInternetsubscribersper100inhabitants	60	41.2	
H	Mobilebroadbandssubscriptionsper100inhabitants	100	35.5	
<b>ICT Skills</b>				
I	Adult literacy rate	100	99.0	
J	Secondary gross enrolment ratio	100	96.4	
K	Tertiary gross enrolment ratio	100	74.4	
<b>Normalized values</b>				
<b>ICT access</b>		<b>Formula</b>	<b>Weight</b>	
z1	Fixedtelephonenumberper100inhabitants	a/60	0.20	0.96
z2	Mobilecellulartelephonesubscriptionsper100inhabitants	b/170	0.20	0.70
z3	International Internet bandwidth per Internet user	log(c)/5	0.20	1.00
z4	Proportion of households with a computer	d/100	0.20	0.87
z5	Proportion of households with Internet access at home	e/100	0.20	0.84
<b>ICT Use</b>				
z6	Internetusersper100inhabitants	f/100	0.33	0.88
z7	FixedbroadbandInternetsubscribersper100inhabitants	g/60	0.33	0.69
z8	Mobilebroadbandssubscriptionsper100inhabitants	h/100	0.33	0.35
<b>ICT Skills</b>				
z9	Adult literacy rate	i/100	0.33	0.99
z10	Secondary gross enrolment ratio	j/100	0.33	0.96
z11	Tertiary gross enrolment ratio	k/100	0.33	0.74
<b>Sub-indices</b>				
<b>ICT access sub-index (L)</b>		<b>y1+y2+y3+y4+y5</b>	<b>0.40</b>	<b>0.87</b>
y1	Fixedtelephonenumberper100inhabitants	z1*.20	0.19	
y2	Mobilecellulartelephonesubscriptionsper100inhabitants	z2*.20	0.14	
y3	International Internet bandwidth per Internet user	z3*.20	0.20	
y4	Proportion of households with a computer	z4*.20	0.17	
y5	Proportion of households with Internet access at home	z5*.20	0.17	
<b>ICT use sub-index (M)</b>		<b>y6+y7+y8</b>	<b>0.40</b>	<b>0.64</b>
y6	Internetusersper100inhabitants	z6*.33	0.29	
y7	FixedbroadbandInternetsubscribersper100inhabitants	z7*.33	0.23	
y8	Mobilebroadbandssubscriptionsper100inhabitants	z8*.33	0.12	
<b>ICT skills sub-index (N)</b>		<b>y9+y10+y11</b>	<b>0.20</b>	<b>0.90</b>
y9	Adult literacy rate	z9*.33	0.33	
y10	Secondary gross enrolment ratio	z10*.33	0.32	
y11	Tertiary gross enrolment ratio	z11*.33	0.25	
DII	<b>ICT Development Index</b>	<b>((L*.40)+(M*.40)+(N*.20))*10</b>	<b>7.85</b>	

**Figure 4.4**  
**Indicators and IDI Value, 2010**

(Source: [http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS\\_2010\\_without\\_annex\\_4-e.pdf](http://www.itu.int/ITU-D/ict/publications/idi/2010/Material/MIS_2010_without_annex_4-e.pdf))

## 4.2.5 ICT Policy Guidebooks: Analysis and Findings

One of the methods used to gather data was electronic questionnaire surveys, which allowed me to reach out to the individuals responsible for creating the documents. The survey examined the specifics of the ICT document formulation process, and revealed that five Muslim countries used ICT guidebooks and toolkits to help create their ICT policies. This section discusses the analysis of the ICT policy formulation guidebooks in two ways: first, against the number of keywords in the ICT policy formulation guidebooks (the guidebooks are divided into three categories for the purpose of analysis); and secondly, a comparison against the ICT documents of five countries that used these guidebooks. The analysis of guidebooks was conducted across the following three categories, the rationale for which is discussed in Section 3.3.1:

1. Table 4.6 indicates the two guidebooks used by the five countries researched for this thesis (Djibouti, Saudi Arabia, Afghanistan, Lebanon and Syria);

S/N	Guidebooks
1	United Nations Development Programme-Asia Pacific Development Information Programme (UNDP-APDIP), <i>ICT Policy Formulation and e-Strategy Development, a Comprehensive Guidebook</i> (2005) by Labelle (2005)
2	International Telecommunication Union and InfoDev, <i>ICT Regulation Toolkit, Policy Formulation</i> (2000)

**Table 4.6**  
**Guidebooks Used by Five Countries**  
(Source: Author)

2. Table 4.7 indicates the three additional guidebooks that were also examined in the keyword analysis for a comparison against the guidebooks mentioned by officials from the ICT ministries of the five countries;

S/N	Alternative Guidebooks
1	Association for Progressive Communication (APC), <i>ICT Policy Handbook</i> by Nicole (2003)
2	Commonwealth Network of Information Technology for Development (COMNET-IT), <i>Guidelines for Sectoral ICT Policy and Planning, a Consultation Document: Regional Initiative for Informatics Strategies</i> (2001)
3	Food and Agricultural Organisation (FAO), <i>Manual for the Design and Implementation of National Information and Communication Policies for Sustainable Development in Africa: Issues and Approaches</i> (2002)

**Table 4.7**  
**Alternative Guidebooks Selected for Comparison**  
(Source: Author)



3. Table 4.8 indicates two of the most recent ICT policy formulation guidebooks produced during the period of my research were also drawn into this analysis to examine if any new ‘realisations and sensitivities’ had been developed in the context of women’s inclusion or the creation of engendered ICT documents, as indicated in Chapter 3.

S/N	Most Recent Guidebooks
1	United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) <i>Considerations for ICT Policy Formulation in Developing Countries</i> (2009)
2	World Bank, <i>ICT Toolkit - ICT Projects and Policy</i> (2009)

**Table 4.8**  
**Most Recent Guidebooks Published**  
**(Source: Author)**

The results of this analysis are tabulated in Table 4.9, which once again demonstrates the huge variation that exists in the frequency of each of the keywords in the seven guidebooks. Moreover, the variation between the two guidebooks from category (1) that were used by the countries, UNDP-APDIP (Labelle, 2005), and ITU - InfoDev (2000) is a cause for concern. This is because these guidebooks have been created by development agencies with the intention of guiding and assisting governments in creating inclusive documents. Furthermore, the South Asia Region ICT strategy and implementation plan, published by the World Bank (2005a) also failed to shed light on these aspects. It is disappointing to see that documents that have been created by development agencies to support inclusion and effective strategies using ICTs to benefit marginalised and excluded communities can themselves be produced without including any of the key words. This is despite the extensive commentary by Olatokun (2007) and Chowdhury and Khanam (2005), who argue the importance of ensuring that policy interventions understand and address social inequalities and power structures to ensure that women have access to, and can benefit from, the information society. More importantly, Wangmo *et al.* (2004:76) have pointed out that if women are not specifically mentioned, policies will support “their systematic subordination” and potential marginalisation in the knowledge economy, as has also been argued by Wanasundera (2006). I share this view and feel that the behaviour within society can only begin to change once the challenges are openly acknowledged and clearly documented in policies. This is demonstrated in Table 4.9, highlighted in yellow (item numbers 2 and 6). Moreover, this will pose the challenge of countries being guided incorrectly. Furthermore, this ‘exclusion’ and oversight appears to be continuing and is demonstrated in the most

recent documents produced by UN-ESCAP in 2009. The influence of the formulation process is discussed in more detail in Section 4.4.

S/N	Country	Documents	# pg	Key Words – ICT Policies						Total (f)	Ratio (f / pg)
				W	G	GR	I	MG	M		
<b>Guidebooks Used by Six Countries</b>											
1	UNDP – APDIP	Guidebook (2005)	115	23	1	1	1	12	2	40	.34
2	ITU, InfoDev	Guidebook (2000)	4	0	0	0	0	0	0	0	
<b>Alternative Guidebooks Selected for Comparison</b>											
3	APC	Guidebook (2003)	140	108	16	54	7	1	14	200	1.42
4	COMNET – IT	Guidebook (2001)	67	11	0	3	0	0	1	15	.22
5	FAO	Guidebook (2002)	25	4	0	0	0	1	0	5	.20
<b>Most Recent Guidebooks Published</b>											
6	UN – ESCAP	Guidebook (2009)	15	0	0	0	0	0	0	0	.06
7	World Bank	Guidebook (2009)	8	81	2	48	0	0	4	135	.07
<b>Reference:</b> UNDP-APDIP: <a href="http://www.apdip.net/publications/ict4d/ict4dlabelle.pdf">www.apdip.net/publications/ict4d/ict4dlabelle.pdf</a> ITU, InfoDev: <a href="http://www.ictregulationtoolkit.org/en/Section.3264.html">www.ictregulationtoolkit.org/en/Section.3264.html</a> APC: <a href="http://old.apc.org/english/capacity/policy/index.shtml">http://old.apc.org/english/capacity/policy/index.shtml</a> COMNET-IT: <a href="http://www.ictdevlibrary.org/downloads/comnet-it_guidelines.pdf">http://www.ictdevlibrary.org/downloads/comnet-it_guidelines.pdf</a> FAO: <a href="http://ftp.fao.org/docrep/fao/005/Y4338E/Y4338E00.pdf">http://ftp.fao.org/docrep/fao/005/Y4338E/Y4338E00.pdf</a> UN-ESCAP: <a href="http://www.unescap.org/stat/gc/box-ch8.asp">http://www.unescap.org/stat/gc/box-ch8.asp</a> WorldBank: <a href="http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER/EXTICTTOOLKIT/0,,contentMDK:20271920~menuPK:562594~pagePK:64168445~piPK:64168309~theSitePK:542820,00.html">http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTGENDER/EXTICTTOOLKIT/0,,contentMDK:20271920~menuPK:562594~pagePK:64168445~piPK:64168309~theSitePK:542820,00.html</a>											

**Table 4.9**  
**Frequency Analysis of Key Words in the Guidebooks**  
 (Source: Author)

Some development agencies appear to have recognised that there is a need for guidebooks and toolkits to assist policy-makers in creating inclusive ICT documents, policies, strategies and plans (see Melhem and Tandon, 2009; Chowdhury and Khanam, 2005). However, there still appears to be a gap in their quality, appreciation and recognition of ground reality, as indicated by this analysis. A similar analysis was conducted to compare and contrast the similarities across countries that confirmed the use of guidebooks. Table 4.10 indicates the findings from this, showing that there is no visible pattern existing in these data. Furthermore, it is evident from this observation that there are many other factors influencing the content of these documents, which will be discussed in Section 4.3 and 4.4.

To summarise, the keyword analysis was performed on the seven guidebooks, substantial variation in the use of the keywords was found among these. Although drafted by development agencies and despite the consensus in the literature on the importance of making reference to women in the wording of policies, the most widely used of the guidebooks made little or no reference to women themselves. As has been widely argued by scholars in the field, the marginalisation of women in these societies will not be mitigated if this continues.

S/N	Country	Documents	# pg	Key Words – ICT Policies						Total (f)	Ratio (f / pg)
				W	G	GR	I	MG	M		
<b>Guidebooks Used by Six Countries</b>											
1	UNDP – APDIP	Guidebook (2005)	115	23	1	1	1	12	2	40	.34
2	ITU, InfoDev	Guidebook (2000)	4	0	0	0	0	0	0	0	
<b>Countries that Used Guidebooks</b>											
3	Djibouti	ICT Plan (2003)	79	15	4	1	0	1	5	26	.32
4	Saudi Arabia	ICT Policy (2006)	7	0	0	0	0	0	0	0	
	Saudi Arabia	ICT Plan (2007)	91	7	0	0	1	0	2	10	.10
5	Afghanistan	ICT Policy (2003)	28	4	0	0	0	1	0	5	.17
6	Pakistan	ICT Policy (2000)	42	3	0	0	0	0	0	3	.07
7	Lebanon	ICT Strategy (2003)	28	5	3	8	0	1	0	17	.60
	Lebanon	ICT Plan (2003)	50	5	3	8	0	1	0	17	.34
8	Syria	ICT Strategy (2009)	64	1	0	0	0	0	0	1	.01
<p><b>Reference:</b>  Djibouti: <a href="mailto:rlab@sympatico.ca">rlab@sympatico.ca</a>  Saudi Arabia: <a href="http://css.escwa.org.lb/ICTpolicymaking/5.pdf">http://css.escwa.org.lb/ICTpolicymaking/5.pdf</a>  <a href="http://css.escwa.org.lb/ICTpolicymaking/5.pdf">http://css.escwa.org.lb/ICTpolicymaking/5.pdf</a>  Afghanistan: <a href="http://www.mcit.gov.af/Documents/PoliciesandLaws/Afghanistan%20ICT%20Policy-english.pdf">http://www.mcit.gov.af/Documents/PoliciesandLaws/Afghanistan%20ICT%20Policy-english.pdf</a>  Pakistan: <a href="http://www.pseb.org.pk/UserFiles/documents/National_IT_Policy.pdf">www.pseb.org.pk/UserFiles/documents/National_IT_Policy.pdf</a>  Lebanon: <a href="http://www.egateway.gov.lb/docs/OMSAR/eStrategy/Document%204%20-%20ICT%20Policies%20.pdf">http://www.egateway.gov.lb/docs/OMSAR/eStrategy/Document%204%20-%20ICT%20Policies%20.pdf</a>,  <a href="http://www.omsar.gov.lb">www.omsar.gov.lb</a>  Syria: <a href="http://www.undp.org.sy/publications/national/EStrategy/ICT_Strategy_en.pdf">www.undp.org.sy/publications/national/EStrategy/ICT_Strategy_en.pdf</a></p>											

**Table 4.10**  
**Comparative Analysis – Guidebooks and Countries’ ICT Documents**  
**(Source: Author)**

## 4.2.6 Benchmarked Countries: Analysis and Findings

This electronic questionnaire surveys and telephone interviews conducted with the officials from relevant ministries across the selected countries provided an understanding of their specific ICT document formulation processes and evaluation techniques (see Section 3.5.1). This revealed that some countries benchmarked other countries' ICT documents as they developed their own. In this section, therefore, I have analysed the use of the keywords across the ICT documents of the countries that used benchmarking as a method for developing their ICT documents. Only 21% of the countries (5/24) confirmed that they used benchmarking for creating their own ICT documents, namely Afghanistan, Pakistan, Bangladesh, Malaysia and Saudi Arabia as indicated in Table 4.11.

ICT Documents used for Benchmarking	
Countries	Countries Whose ICT Documents are used as Benchmarks
Afghanistan	USA, Indonesia, Switzerland, Malaysia, India
Pakistan	UK, India
Bangladesh	Pakistan, Vietnam, India
Malaysia	UK, Australia, Hong Kong
Saudi Arabia	Australia, Belgium, Brazil, Chile, China, Egypt, Germany, Hong Kong, India, Italy, Jordan, Malaysia, New Zealand, Russia, Singapore, Sweden, Turkey, UAE, UK, USA

**Table 4.11**  
**Countries ICT Documents Used as Benchmarks**  
**(Source: Author)**

The analysis from the electronic questionnaire surveys and interviews from the above five countries revealed that the countries selected to be used for benchmarking were chosen based on their financial performance in the ICT sector, commercial success, global reputation and overall economic success. However, the analysis revealed that due to the selection criteria, Western countries generally, such as the USA, UK and Switzerland, were particularly highlighted as being the better models for benchmarking. However, there is a danger of benchmarking against countries that have completely different cultural and social structures because the analysis revealed a lack of appreciation of the need to develop policies in harmony with one's own cultural and social structures.

Bangladesh, however, selected reference countries with the closest cultural and economic characteristics to its own (i.e. Pakistan, Vietnam and India), so that realistic policies could be created. Pakistan used Indian and UK Policies and as the advisor to the IT Minister, Salman Ansari (EIM-29) explained:

*'Pakistan selected India as a country to be benchmarked due to its recognised advancements in the IT sector. This is despite the fact that India and Pakistan openly compete with each other, but it is recognised that both of our countries are struggling with very similar infrastructure challenges and in principle, Pakistan and India have similar cultural and social structures too'. He noted that in spite of this though, 'India was making much more progress than Pakistan and therefore it needed to be carefully analysed, especially the Indian ICT Industry's growth, direction and business model, outsourcing and call centres' (EIM-29)*

He further provided an interesting perspective as to why the UK's ICT policy was benchmarked, which further adds the complexity in trying to understand the factors that influence the content of policies:

*'For no apparent reason other than possibly the post-colonial influence' (EIM-29).*

Saudi Arabia, meanwhile, benchmarked 20 countries from Europe and Asia, as well as the USA. Mustafa Khan, from the ICT Ministry of Saudi Arabia, confirmed that the countries for benchmarking were selected on the basis of three parameters: as leading in e-government developments, and factors relating to region and size.

The countries used for benchmarking are shown in Table 4.12, along with the results of the frequency analysis of the keywords. The nine countries are artificially grouped into two halves, alphabetically separating the North from the South. As before, the rows and columns with zero are highlighted in yellow and the words with the highest frequency have been put in bold. This was done in order to make it easier to discern any patterns. Nonetheless, the results indicated a very limited usage of any of the words. In fact, it should be noted that only two countries, the United Kingdom and Pakistan, covered any of the key words that had been identified as critical for ensuring focus and consideration in the policies (UNESCO, 2009; Hafkin, 2002). They both used the word 'women' three times and the UK also refers to 'inclusion' twice and 'men' three times. However, none of the countries refer to the words 'girl', 'gender' or 'marginalised'. Out of the nine countries,

seven did not use any of the keywords, which are argued to be important by Olatokun (2007), Wanasundera (2006) and Hafkin (2002, 2003).

S/N	Country	Documents	# pg	Key Words – ICT Policies						Total (f)	Ratio (f / pg)
				W	G	GR	I	MG	M		
<b>Countries Selected to be used for Benchmarking by government</b>											
1	Australia	Strategy (2003)	65	0	0	0	0	0	0	0	0
2	Hong Kong	Strategy (2008)	86	0	0	0	0	0	0	0	0
3	Switzerland	Policy (2000)	8	0	0	0	0	0	0	0	0
4	UK	Strategy (2005)	145	<b>3</b>	0	0	<b>2</b>	0	<b>3</b>	<b>8</b>	.05
5	India	Policy (2008)	23	0	0	0	0	0	0	0	0
6	Indonesia	Plan (2001)	9	0	0	0	0	0	0	0	0
7	Malaysia	Plan (2003)	23	0	0	0	0	0	0	0	0
8	Pakistan	Policy (2000)	42	<b>3</b>	0	0	0	0	0	3	.07
9	Vietnam	Plan (2009)	8	0	0	0	0	0	0	0	0
10	Saudi Arabia	Policy (2006)	7	0	0	0	0	0	0	0	0
	Saudi Arabia	Plan (2007)	91	<b>7</b>	0	0	<b>1</b>	0	<b>2</b>	<b>10</b>	.10
11	Afghanistan	Policy (2003)	28	4	0	0	0	<b>1</b>	0	5	.17
12	Pakistan	Policy (2000)	42	3	0	0	0	0	0	3	.07
13	Bangladesh	Policy (2002)	14	0	0	0	0	0	0	0	0
	Bangladesh	Plan (2002)	7	0	0	0	0	0	0	0	0
14	Malaysia	Plan (2003)	23	0	0	0	0	0	0	0	0
<p><b>Reference:</b>  <b>Australia:</b> <a href="http://www.dbcde.gov.au">www.dbcde.gov.au</a>  <b>Honk Kong:</b> <a href="http://www.info.gov.hk/digital21/eng/">http://www.info.gov.hk/digital21/eng/</a>  <b>Switzerland:</b> <a href="http://www.isb.admin.ch/archiv/index.html?lang=en">http://www.isb.admin.ch/archiv/index.html?lang=en</a>  <b>UK:</b> <a href="http://www.dhsspsni.gov.uk/ict-strategy.pdf">http://www.dhsspsni.gov.uk/ict-strategy.pdf</a>  <b>India:</b> <a href="http://www.tn.gov.in/documents/policies/ictpolicy2008.pdf">http://www.tn.gov.in/documents/policies/ictpolicy2008.pdf</a>  <b>Indonesia:</b> <a href="http://www.apdip.net/projects/dig-rev/info/indonesia.resources/action_plan110502001.pdf">http://www.apdip.net/projects/dig-rev/info/indonesia.resources/action_plan110502001.pdf</a>  <b>Malaysia:</b> <a href="http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN2712.pdf">http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN2712.pdf</a>,  <a href="http://www.smpke.jpm.my">www.smpke.jpm.my</a>  <b>Pakistan:</b> <a href="http://www.psed.org.pk/UserFiles/documents/National_IT_Policy.PDF">www.psed.org.pk/UserFiles/documents/National_IT_Policy.PDF</a>  <b>Vietnam:</b> <a href="http://mams.rmit.edu.au/z6w3qi9imfks.pdf">http://mams.rmit.edu.au/z6w3qi9imfks.pdf</a>  <b>Saudi Arabia:</b> <a href="http://css.escwa.org.lb/ICTpolicy/5.pdf">http://css.escwa.org.lb/ICTpolicy/5.pdf</a>  <a href="http://css.escwa.org.lb/ICTpolicy/5.pdf">http://css.escwa.org.lb/ICTpolicy/5.pdf</a>  <b>Afghanistan:</b> <a href="http://www.mcit.gov.af/Documents/PoliciesandLaws/Afghanistan%20ICT%20Policy-english.pdf">http://www.mcit.gov.af/Documents/PoliciesandLaws/Afghanistan%20ICT%20Policy-english.pdf</a>  <b>Bangladesh:</b></p>											

**Table 4.12**  
**Frequency Analysis of Keywords Used in Benchmarking**  
**(Source: Author)**

It is evident from this analysis that there is a great risk when countries benchmark others as part of their ICT document formulation process, as the apparent success in countries that have been selected as models may be attributed to many other things, over and above their ICT policies (see Section 4.4). This factor, coupled with the different cultural and social contexts, also plays a critical role with regard to the position of women in society and cannot be ignored when designing policies. Nevertheless, this point remains unaddressed in current policy guidebooks. Therefore, I would argue that policies should be qualified as suitable for referencing for benchmark-specific environments and cultures by an independent agency so that ‘innocent’ countries are protected from copying other countries’ mistakes, and also from unintentionally promoting gender exclusion.

To provide another perspective on these disappointingly low numbers indicating the lack of usage of the keywords, I also analysed seven additional ICT documents from five other countries in Africa, namely Ethiopia, Ghana, Mauritius, Tanzania and Uganda, whose ICT ministers and advisors I had personally met at various ITU working sessions in Geneva and at the WSIS ‘ICT4ALL forums’ in Tunisia over a period of 5 years (see Section 1.3). This allowed me to have the unique privilege of exploring their views and thoughts over a period of time. These particular men passionately believed that ICTs could help development and also acknowledged that it was important to provide access for women, but that it was a difficult task. The analysis of these additional ICT documents (Table 4.13) and reflects the considerably higher numbers across all of the word categories, particularly Ethiopia (31 words) and Ghana (31 words). A possible explanation for this performance could be due to the document formulation process and the recognition that these countries have gender issues.



S/N	Country	Documents	# pg	Key Words – ICT Policies						Total (f)	Ratio (f / pg)
				W	G	GR	I	MG	M		
<b>Alternative Countries used for Comparison</b>											
1	Ethiopia	Policy	34	4	1	3	0	0	0	8	.23
2	Ethiopia	Plan (2006)	577	<b>18</b>	2	6	2	<b>2</b>	<b>1</b>	<b>31</b>	.05
3	Ghana	Policy (2003)	86	<b>18</b>	<b>5</b>	<b>8</b>	0	0	0	<b>31</b>	.36
4	Ghana	Policy (2005)	33	1	0	3	0	<b>2</b>	0	6	.18
5	Mauritius	Plan (2006)	184	2	0	1	<b>11</b>	<b>2</b>	0	16	.08
6	Tanzania	Policy (2003)	28	1	0	2	0	0	0	3	.10
7	Uganda	Policy (2003)	61	3	0	7	0	0	<b>1</b>	11	.18
<b>Reference:</b> <b>Ethiopia:</b> <a href="http://www.witfor2007.org/about-ethiopia/ict-in-ethiopia/ethiopian-ict-policy">http://www.witfor2007.org/about-ethiopia/ict-in-ethiopia/ethiopian-ict-policy</a> <a href="http://www.eictda.gov.et/Downloads/Policies/ICT_Policy_English.pdf">www.eictda.gov.et/Downloads/Policies/ICT_Policy_English.pdf</a> <b>Ghana:</b> <a href="http://www.ict.gov.gh/Telecom%20policy/Ghana%20Telecom%20Policy%20Final.pdf">www.ict.gov.gh/Telecom%20policy/Ghana%20Telecom%20Policy%20Final.pdf</a> <a href="http://www.uneca.org/aisi/nici/Documents/Republic%20of%20Ghana.doc">www.uneca.org/aisi/nici/Documents/Republic%20of%20Ghana.doc</a> <b>Mauritius:</b> <a href="http://www.gov.mu/portal/goc/telecomit/file/ICT%20Policy%202007-2011.pdf">http://www.gov.mu/portal/goc/telecomit/file/ICT%20Policy%202007-2011.pdf</a> <a href="http://www.gov.mu/portal/goc/telecomit/files/SFR3.pdf">http://www.gov.mu/portal/goc/telecomit/files/SFR3.pdf</a> <b>Tanzania:</b> <a href="http://www.tanzania.go.tz/pdf/ictpolicy.pdf">www.tanzania.go.tz/pdf/ictpolicy.pdf</a> <b>Uganda:</b> <a href="http://www.comminit.com/en/node/148502">http://www.comminit.com/en/node/148502</a>											

**Table 4.13**  
**Frequency Analysis of Keywords: Used for Comparison**  
**(Source: Author)**

#### 4.2.7 Overall Synthesis of Findings and Discoveries

Overall, the keyword analysis across the ICT documents of the 24 countries shows a distinct lack of consistency. It indicates instead that half of the documents analysed did not use any of the keywords, completely ignoring the arguments of Olatokun (2007) and Hafkin (2003, 2002). The only word that appears inconsistently in the ICT policies, plans and strategies for the rest of the countries is *women*. While four countries (Turkey, Saudi Arabia, Bahrain and Qatar) used the keyword *inclusive* in their ICT documents, Turkey, Qatar and Bahrain have used the term in the context of an inclusive society, whereas Saudi Arabia has only used it with reference to “the inclusion of knowledge of ICT basics” (KSA, 2005:75). These results raise the issue of the ability of ICT policies in many of these Muslim countries effectively to support and enable the engagement of women in the information society, since this is widely argued to be one of the

fundamental requirements (UNESCO, 2009; Hafkin, 2002). The lack of use of the key words may thus reflect their lack of interest in enabling women's engagement with the information society (see also Aitkens, 1997).

Interestingly, this was supported by many comments made during the focus group sessions conducted in Pakistan. One of the main themes that was repeatedly raised in the focus groups was the complete lack of government awareness, commitment, understanding and support for the 'on the ground reality' of women's needs. As a remark by a young professional engineer from the city of Karachi (S-UM-FE-U-1) reflects, *'the government should address the barriers and discrimination that women face in the IT business and the stigma from society that women face and stop girls from getting persecuted'*. Furthermore, one senior government official from Sindh (EIW-20) emphasised the importance of the government specifically addressing the needs of, and including references to, women in its ICT policies. Nonetheless, the interviews with elite women did not reveal this factor to be critical, since they strongly believed that ICT policies should be 'gender neutral', contradicting arguments to the contrary by Melhem and Tandon (2009) and Wanasundera (2006). Similarly, informal discussions with activists from Asia strongly contravened this view and fully supported the need for explicit reference to women.

This reveals a critical 'tension point' which is difficult to overcome, because in many cases women in positions of power and influence appear to be unintentionally missing the subtleties and nuances that exist in society and therefore negatively influencing ICT policies, strategies and plans. This could be due to their personal views on gender neutrality and/or position in society and thus result from a lack of experience of existing 'cross-cutting' cultural and social barriers that may exist in the form of the social power structures that some women face. As I reflect on these findings, I sense troubling similarities to the earlier debates on women and development originally argued by Ester Boserup (1970), which were revived decades later by Kabeer (2005, 1999) and Momsen (2004). These parallels lead me to conclude that history appears to once again be repeating itself. Moreover, the analysis demonstrates that this disconnect is resulting in the continued marginalisation of women's engagement with ICTs. Therefore, unless this is addressed, 'inadequate ICT documents' will continue to be created, excluding women from the benefits of the information and knowledge society and therefore broadening the gender digital divide (Wanasundera, 2006; Hafkin, 2003). Thus, building on the recent work of Melhem and Tandon (2009), I recommend that extensive awareness programmes be conducted through workshops and interactive seminars for all levels of policy-makers. This would be to ensure that they are fully aware and sensitised to the 'on

the ground realities' of diverse social constructs and 'power relations' between 'women and their environments'. Furthermore, policy makers also need to be cognisant of the subtleties of the sub-cultures in the local context that may expose invisible pressures. This process needs to be undertaken on a continuous basis to prevent the fading of priorities and to accommodate the turnover of staff at the policy making level.

Lastly, at the recent ICTD 2010 conference held at Royal Holloway, University of London in December, 2010, I facilitated a special working session on 'engendering ICT policies', which was organised by Sonia Jorge. Leading academics presented papers at this session, which specifically focused on discussing the fact that "efforts to integrate gender and promote gender equality in ICT national policies have not yet resulted in tangible gender-focused actions" (ICTD London, 2010:23). The panelists shared their related "experiences in working with governments, agencies and organisations in crafting, implementing and evaluating ICT policies that promote gender equality and contribute to development" (ICTD London, 2010:23). The discussions focused primarily on the challenges and the dilemma, noting the limited progress that had been made over the past decades, along with understanding what joint actions could be taken to make real progress. Sonia Jorge concluded this session by suggesting that until and unless women are specifically referenced in ICT policies and plans with appreciation for their diversity, progress cannot be made in the context of women benefiting from ICTs. At this conference, I was very fortunate to be able to discuss my research findings and recommendations with leading practitioners and academics in the field of ICTs and gender, particularly with Anita Gurumurthy, (Executive Director of IT for Change (ITfC)), Ineke Buskens (Project Leader at Gender Research in Africa and Arab Countries into ICTs for Empowerment and owner and founder of Research For the Future), Prof. Alison Gillwald (Professor of Information and Communications Technology (ICT) policy and research, Edge Institute), Sonia Jorge (Research Director, Pyramid Research) and Gloria Bonder (UNESCO, Chair in Gender, Science and Technology). These eminent figures completely supported my results and views. Moreover, Gloria Bonder further added that these workshops should be conducted in multiple languages to ensure full comprehension by the participants. Sadly, I must conclude that there still appears to be a tremendous lack of progress in the context of engendering ICT policies, strategies and plans and a significant amount of work is still required to move the level forward.

Even today, at the WSIS 2011 in Geneva, the entire week's agenda did not cover or allocate any space for discussion on ICTs for women, nor did any of the MDG sessions focus on MDG 3 (to promote gender equality and empower women). Furthermore, there were no thematic workshops on how to create effective ICT policies. This reinforces my

concern that there is a critical lack of real political will and commitment, amongst the other priorities, truly to ensure that women are involved in the information society (see Isaacs, 2005). Reflecting on this dilemma and women's open exclusion on key strategic platforms for ICT4 and MDGs, I am led to conclude that women need to be formally engaged in these discussions (see also Jensen, 2006, Lal, 2006 and Gurumurthy and Singh, 2006).

## **4.3 Analysis of Key Phrases**

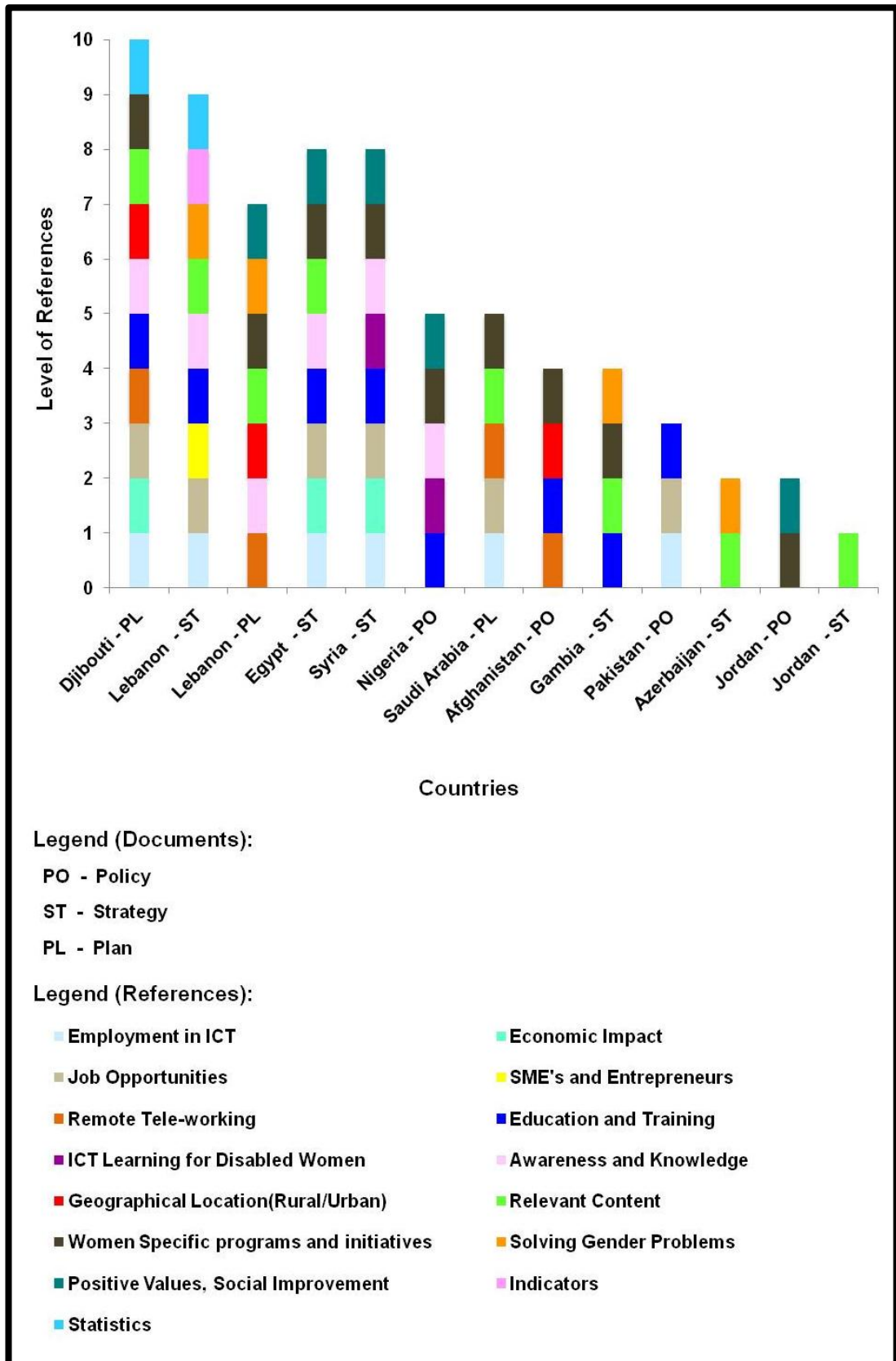
This section discusses the analysis and findings conducted across two main categories: the extent to which women are referenced; and the level of sensitivity to the barriers that women face when engaging with ICTs. The analysis was conducted in the form of a cross-country comparison against the number of elements referenced and barriers addressed, along with a trend analysis to identify which elements were most referenced and addressed. The objective was to identify the most active countries and most frequently referenced elements in the ICT documents. The analysis is presented in the form of Pareto charts and bar charts to provide a visual representation of the findings.

### **4.3.1 Extent of Reference to Women**

In reviewing the ICT documents, I identified key phrases (Table 3.7) that referred to women. These elements were collated into themes for analysis purposes (see Section 3.4.2). This section presents a country-level comparison against the 15 elements to determine which countries addressed the most elements. This is followed by a second comparative analysis across elements to examine how prevalent each element is, providing an insight to their relative importance.

#### **4.3.1.1 Country Level Comparative Analysis and Findings**

This sub-section discusses the findings of the country-level comparison, highlighting the most active countries in terms of the extent to which women are referenced in their ICT documents. The results reveal the countries with the greatest number of references to women in terms of ICT policies, strategies and plans, as indicated in Figure 4.5.



**Figure 4.5**  
**Comparative Analysis across Policies, Strategies and Plans**  
 (Source: Author, January 2011)

Analysis of the 24 countries indicated that Djibouti is the most active country in this area, having the largest number of references 67% (10/15) to women in its ICT plan, followed by Lebanon, with 60% (9/15) in its strategy document, then Egypt and Syria, each having 53% (8/15) references. The results show that from the countries' ICT documents analysed, without applying any causality, the 'ICT strategy documents', in comparison to policies and plans, contained the most references to women. Furthermore, the analysis indicates that in comparison to other countries, Lebanon has referenced women to a greater extent in its ICT documents (strategies and plans). A possible explanation for this may be the different types of formulation processes used by these countries (see Section 4.4).

Nevertheless, it is important to note that out of the 31 ICT documents analysed from the 24 countries, 58% (18/31) of the documents and 54% (13/24) of the countries did not make any specific reference to women. However, in order to try to make sense of the results, I added another dimension to the analysis and drew comparisons against the percentage of the Muslim populations across each of the countries that scored zero. The results are displayed in Table 4.14, which indicates that the countries that scored zero ranged from Kazakhstan, with 51.2%, to those with 100%, Muslim population such as Bahrain, the Maldives and Oman. Thus, questioning if there is any relationship between the percentage of Muslim population in a given country, to the extent to which it makes reference to women in its ICT documents (also see Section 4.2.6 and Table 4.12).

S/N	ICT Documents					
	Policy	% of Muslim Population	Strategy	% of Muslim Population	Plan	% of Muslim Population
1	Bangladesh	85	Bahrain	100	Bangladesh	85
2	Malaysia	52	Morocco	98.7	Indonesia	95
3	Maldives	100	Oman	100	Kazakhstan	51.2
4	Qatar	100	Turkey	99.8	Malaysia	52
5	Saudi Arabia	100	Tunisia	98	Turkey	99.8
6	UAE	96	-		UAE	96
7	-		-		Yemen	99
<b>Total Doc</b>	<b>6</b>		<b>5</b>		<b>7</b>	

**Table 4.14**  
**Countries with Zero References**  
**(Source: Author)**

In the same way, this indifference also appears across the countries that ranked the highest in my research with respect to the extent of references to women in their documents, i.e. Djibouti, with a 94% Muslim population had 67% (10/15) references; Lebanon, with a 70% Muslim population had 60% (9/15) references in its ICT strategy and 47% (7/15) in its ICT plan; and Egypt, with a 94% Muslim population had 53% (8/15) references (as indicated in Figure 4.1). This further demonstrates that there are other factors that influence the extent of references of women (see Section 4.4).

A summary of these results can be categorised according to the three ICT documents: policies, strategies and plans, which are discussed below:

- i) The analysis of the ICT policies indicates that, only four countries, 40%, (4/10) made any reference to women. Nigeria had 33% (5/15) references and Afghanistan had 27% (4/15), followed by Pakistan with 20% (3/15) and Jordan with 13% (2/15) references to women. This stands in contrast to the recommendations of Chowdhury and Khanam (2005) and Elnaggar (2007), who have all argued that it is essential for policies to explicitly reference women. However, a possible cause of the lack of references could be reflected in the responses obtained from three elite women from the Gulf (EIW-2, EIW-3, and EIW-4), who all felt that policies should be gender-neutral.

Nonetheless, during an interview, a government official from Pakistan completely disagreed with this view, arguing that since:

*'Pakistan is a patriarchal and male-dominated society and definitely not neutral and equal for women. Care must be given to ensure that policies address all of the needs of women to ensure that they do not fall behind in the digital revolution'* (EIW-32).

This is supported by Hassanin's (2009a:86) research in Egypt, where she argues that policy makers need to "look with more critical eyes at the needs of women" if female participation is to increase (see also Isenhour and Ardenfors' 2009 study on Sweden). As discussed earlier, there are multiple factors that cause this variation (see Section 4.4)

- ii) The analysis of ICT strategies indicates that only 54% (6/11) made some reference to women. Once again, Lebanon had the highest number of references, at 60% (9/15), followed by Egypt and Syria, both with 53% (8/15)

references. Bahrain, Morocco, Oman, Tunisia and Turkey had zero references. The possible causes of this were discussed earlier. However, it must be noted that despite the Moroccan government conducting a 2003 gender assessment with USAID at the national level (USAID, 2003) prior to the publishing of its ICT policy in 2004, it still did not use any of the keywords in relevant documents, nor were there any references to women, despite this being cited as a critical step in creating gender-sensitive policies, as argued by Gurumurthy (2004) and Primo (2003). Furthermore, Dr. Bassel Khechi, Deputy Minister of Communications and Technology for Syria who shared some insight into the difficulties and dichotomies around the realisation of strategies:

*'Many actions are taken on paper but actually not followed through due to the lack of serious commitment by some government officials'*  
(EIM-6).

- iii) The analysis of ICT plans indicates that only 30% (3/10) made some reference to issues of particular relevance to women. Djibouti is the most active country and includes 67% (10/15) of the elements of reference, followed by Lebanon at 47% (7/15), Saudi Arabia at 33% (5/15), and Afghanistan at 27% (4/15).

The possible causal factors underlying the high level of exclusion could be cultural, social and traditional (see Section 4.5). Nonetheless, the high results obtained from Djibouti, a conservative society, and Lebanon, which is considered a comparatively modern and westernised society, in both the keyword and level of reference of issues of particular relevance to women both score high, which makes it difficult to draw firm conclusions about the impact of the social environment.

#### **4.3.1.2 Comparative Analysis of the Elements of Reference**

This section covers the findings of the frequency analysis of the 15 elements of reference for women in each of the 24 countries' ICT documents. The results are documented in Figure 4.6 in the form of a bar chart, which shows the most referenced elements by country. The analysis indicates that 46% (11/24) of the countries covered these elements in their ICT documents. The elements are presented in their order of frequency of occurrence in the ICT documents. To allow for an understanding and comparison across themes, the elements are represented in four different colours for each of the themes. The results indicate that most of the references to women in the ICT



documents were made in the categories of *education and training* and *relevant content*, covered by 33% (8/24) of the countries, followed by women-specific initiatives and programmes, covered by 30% (7/24) of the countries. A possible explanation for this factor could be deduced from the high number of comments from the interviews which acknowledged and emphasised the need to conduct special training for women in the context of ICTs. Thus, they could have had a positive influence on this thinking (see Section 4.4). The variable elements (see Table 3.7) of 'SME and Entrepreneurs' and 'Indicators' are only addressed by one country, 4% (1/24). This could demonstrate the lack of attention and importance that Country's place on creating enabling environment's for women SMEs or entrepreneurs along with the lack of attention for the need to have women specific indicators. A possible cause for the low recognition of the importance of addressing these factors is offered by the Minister of Communications and IT of Afghanistan, H. E. Amirzai Sangin:

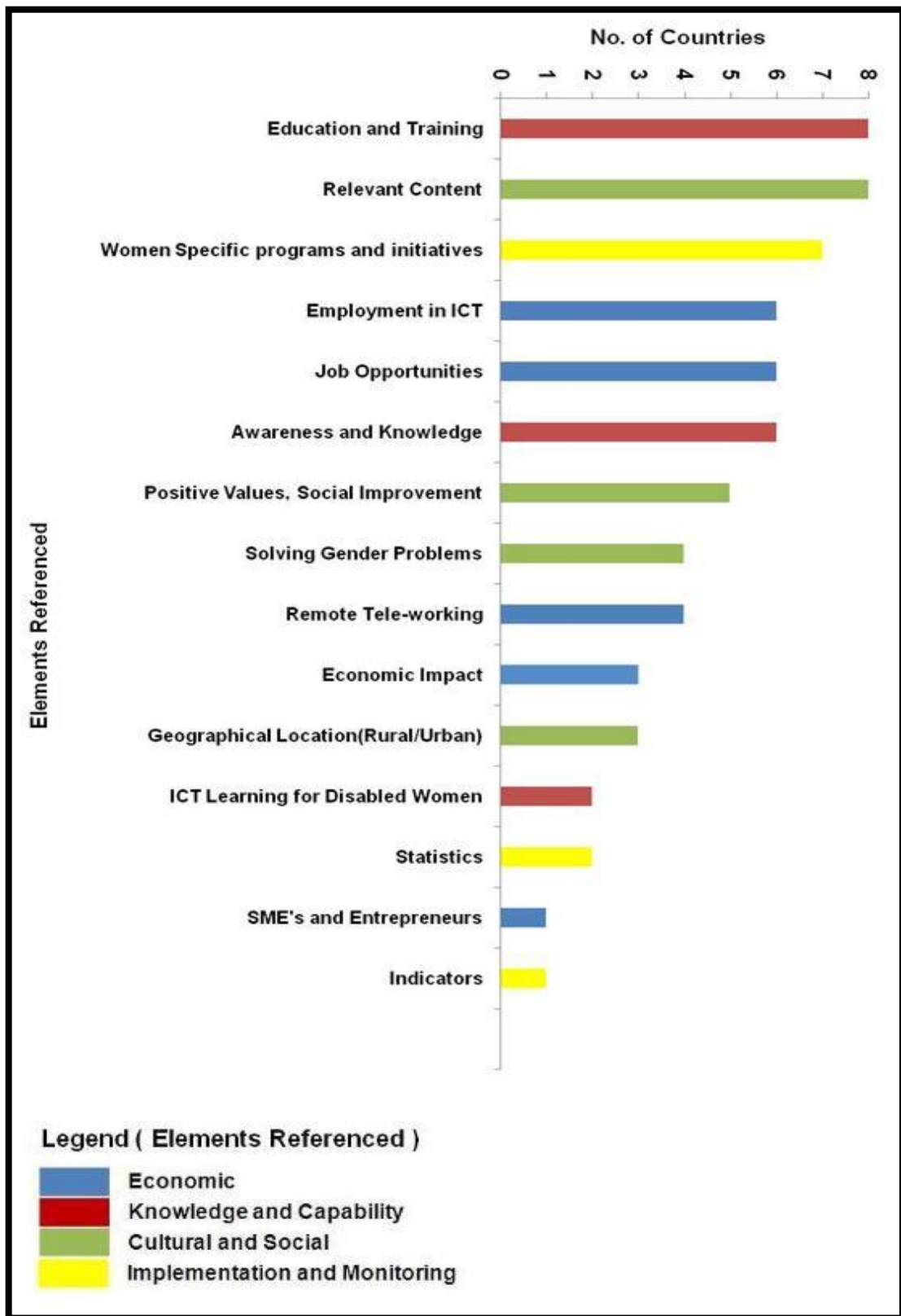
*'Despite having very good ICT documents, who will spend the money to make sure that they are implemented and measure the impact on women? Unfortunately, we all have many other important things to do too. The traditions in Afghanistan will not allow women to become SMEs. We need to be very creative and think outside the box using ICTs in a way that will not offend the traditions'* (EIM-16).

This view was strongly supported by my focus groups across all of the provinces of Pakistan and was captured by a comment made by a young professional woman from Islamabad, who felt that:

*'The government is not really bothered about helping women become entrepreneurs'* (P-UM-FE-U-2).

This aspect is discussed in chapters 5 and 6, where I have investigated the 'use and impact' and 'barriers' respectively.

While Figure 4.6 indicates that the elements from the economic empowerment theme are the most referenced, at 33% (5/15), followed by elements from cultural and social empowerment, at 27% (4/15), my research shows that there is only limited focus on the themes of knowledge and capability aspect and implementation and monitoring 20% (3/15). It is very important to note that the theme of monitoring and implementation is the least addressed, despite being identified as one of the most critical steps in ensuring that policies, strategies and plans effectively impact women, as argued by Wanasundera (2006).

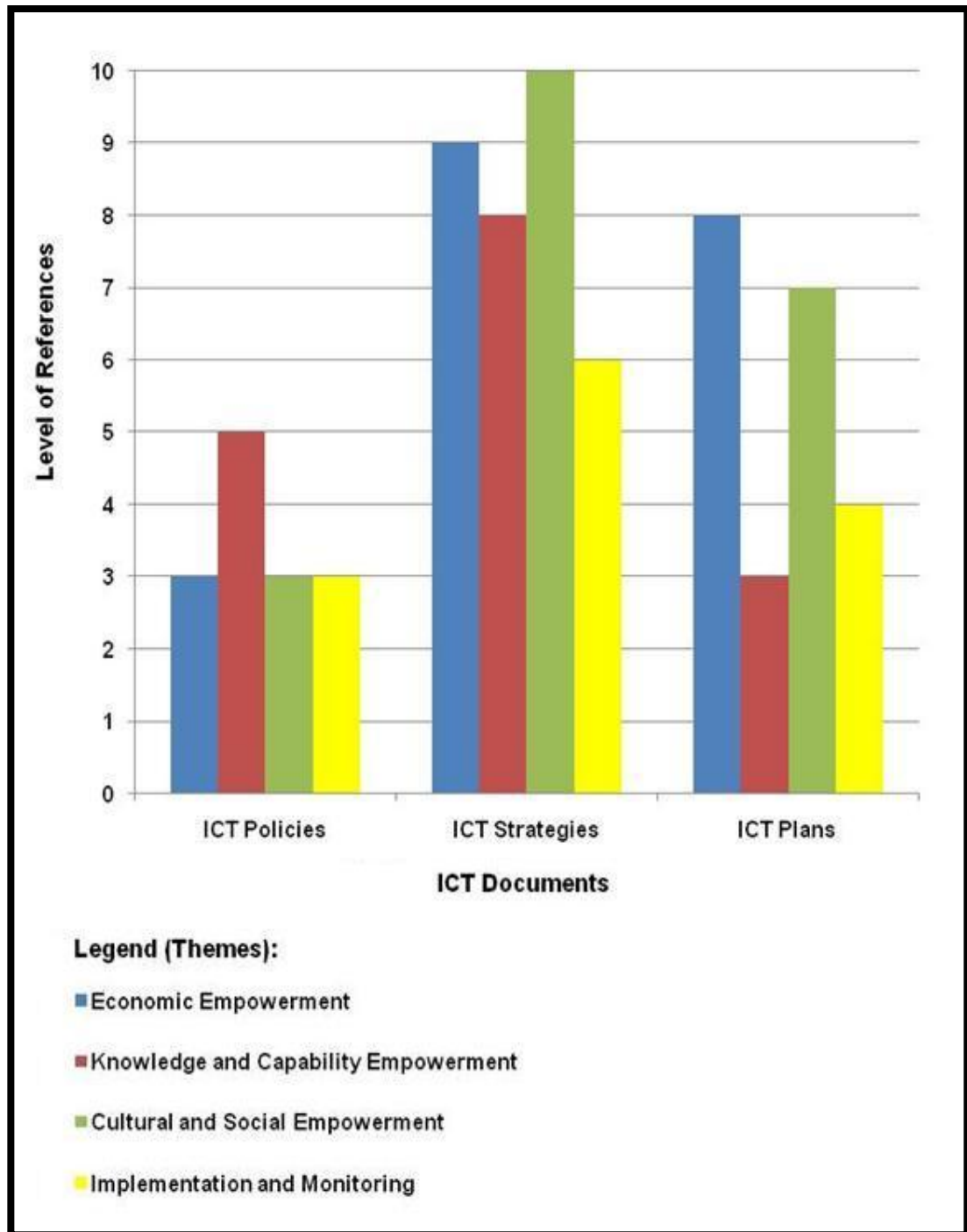


**Figure 4.6**  
**Top Elements Considered in ICT Policies, Strategies and Plans that are of**  
**Some Relevance to Women**  
 (Source: Author, January 2011)

My research suggests that there is generally a low level of reference to women specific elements in the national ICT documents. However, when these documents do refer to women (Figure 4.7) cultural and social empowerment and economic empowerment are the most frequently referenced themes in ICT strategies and plans, whereas knowledge and capability empowerment is the most frequently considered in ICT policies. Since Implementation and monitoring is the least covered theme, countries have little way of knowing whether any of the policies are implemented or whether they have any positive impact on the lives of women, As has been argued by Hafkin (2003, 2002), Jorge (2002, 2000) and Marcelle (2002, 2000a). Once again, this finding is a cause for great concern because it reveals that policy-makers are not thinking beyond the 'paper' and that 'actualisation and real impact' for women remains an afterthought. This sadly reflects the same thinking from early women and development work (Pearson, 2006; Momsen, 2004; Visvanathan *et al.*, 1997)

### **4.3.2 Sensitivity to Barriers Encountered by Women**

As Jorge (2002:13) argues "access" is one of the greatest barriers to ICT use for women. Moreover, women face considerable challenges at the social and cultural levels that prevent them from engaging with ICTs (Thas *et al.*, 2007; Primo, 2003). Therefore, this section assesses how national ICT documents address these issues. The analysis is presented in two main parts: a country-level comparative analysis across the 24 countries; a comparative analysis across the 51 barriers across all three documents – policies, strategies and plans – against the barriers covered by the countries.

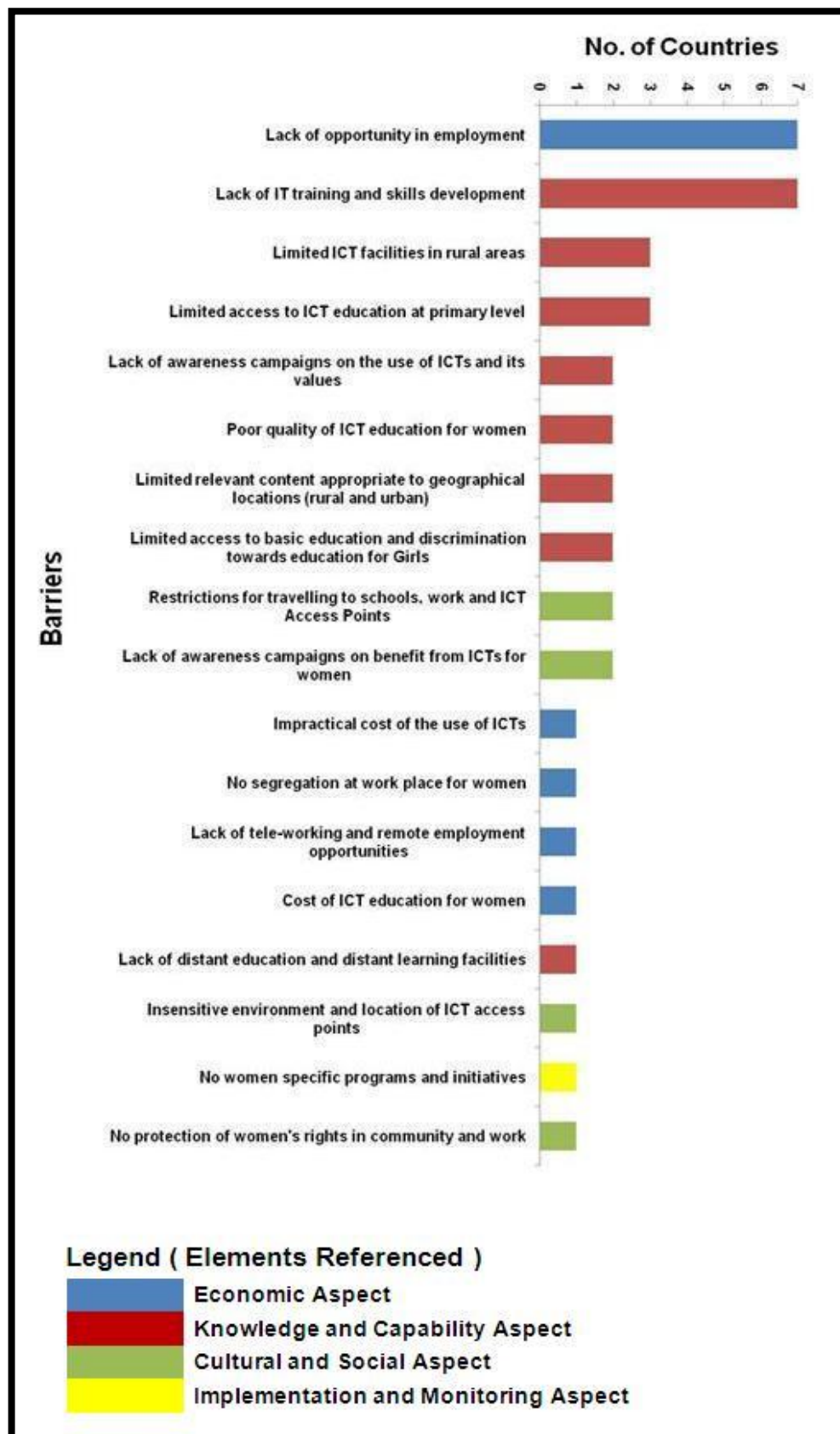


**Figure 4.7**  
**Top Themes for Reference**  
 (Source: Author, January 2011)

#### **4.3.2.1 Comparative Analysis of the Barrier Elements**

This section presents the results from the analysis to ascertain the frequency with which the 51 barrier elements occur in the ICT documents of the 24 countries (Figure 4.8). The results indicate that only 35% (18/51) barriers are addressed in any ICT documents. The majority of the barriers, 65% (33/51), are not addressed by any of the countries. The list of 33 unaddressed barriers, highlighted in yellow, is attached in Appendix 12. Discussions with leading practitioners suggest that there may be a number of causes of this, such as a lack of awareness of the barriers among policy makers, cultural sensitivities that make it difficult to address these in formal documents, a desire to maintain the status quo and a general lack of realisation of the diverse situation that women experience, depending on their background, education level, class and geographical location (see Chowdhury and Khanam, 2005; Jorge, 2002).

To highlight the coverage across the four themes, each of the elements of the barriers are presented in four colours for the four themes: blue for economic aspects, red for knowledge and capability aspects, green for cultural and social aspects and yellow for implementation and monitoring, to understand the trend across countries in the context of covering the barriers faced by women. The results reveal that the barriers that are considered most often are lack of opportunity in employment and lack of IT training and skill development, although even these are only covered by 29% (7/24) of the countries. These are followed by six barriers from the theme of knowledge and capability, demonstrating the focus of ICTs as tools for access to information and potential opportunities for jobs. This seems to be supported by the majority of elite women, who suggested that the primary area in which women need support through enabling policies was economic development. Similarly, only three barriers from the cultural and social aspect are covered and only one from the implementation and monitoring aspect, suggesting that the cultural and social barriers, which are argued to be critical for ensuring access for women (Elnaggar, 2007; Primo 2003), are only addressed to a very limited extent. Furthermore, the barriers of restrictions from family, harassment and lack of transportation facilities, to name but a few, are not covered by any of the countries, despite being critical to ensuring that women can effectively use and engage with ICTs. Moreover, there is a danger that this reinforces the existing disparities in the 'power structure' between men and women. The key point is that while it is important to address these issues, women will only benefit if the social, cultural and patriarchal issues are also formally addressed in the national policies and plans.

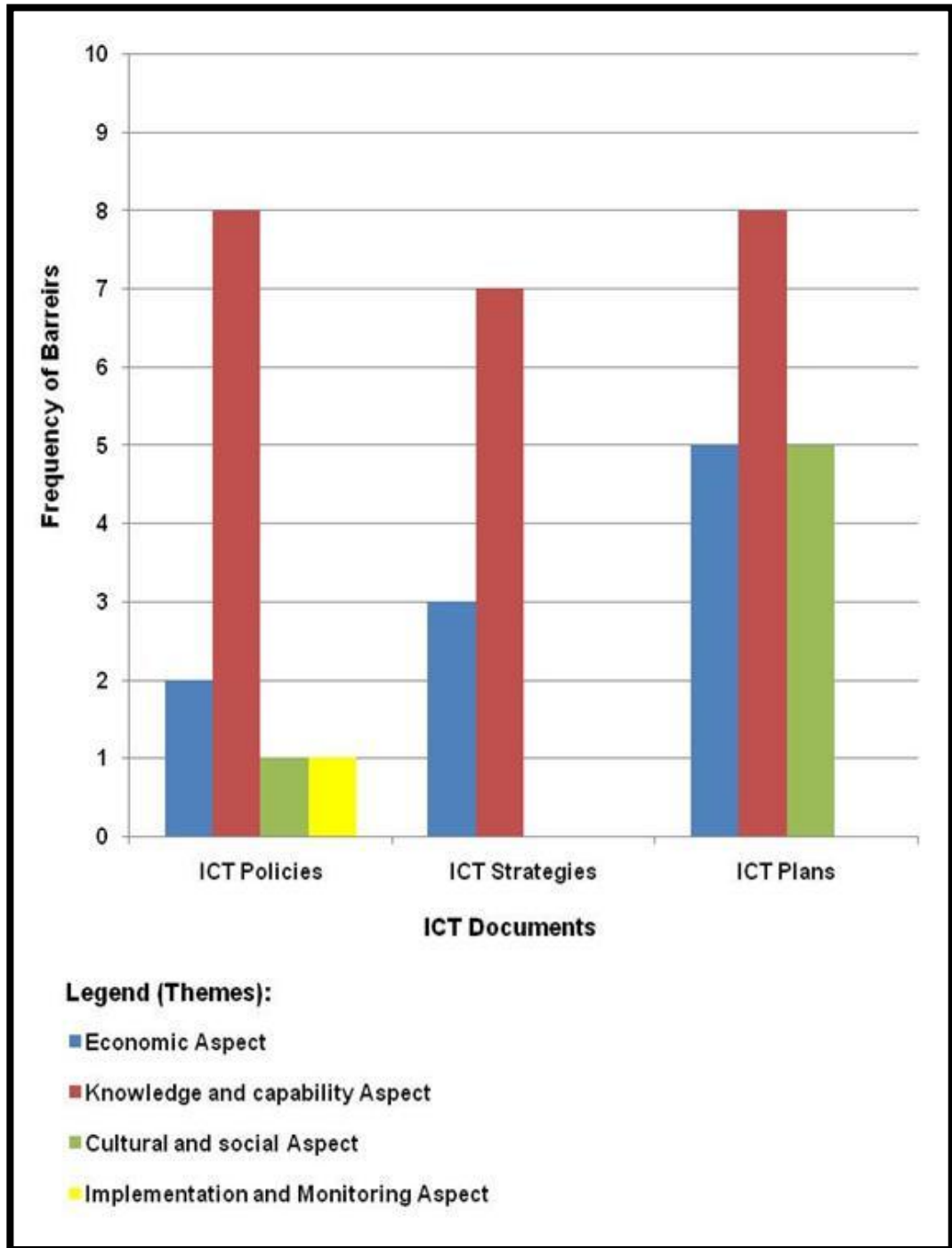


**Figure 4.8**  
**Top Elements of Barriers Covered in ICT Documents**  
 (Source: Author, January 2011)

Furthermore, the importance of this is argued by Chibba (2009:366), who posits that if policy makers fail “to take into account social, cultural and socio-economic factors”, development policies will fail. This was supported by the focus group discussions, which identified that not only is economic empowerment important, but also that in order to take the first step, ‘cultural and social empowerment enablers’ in a policy area must be equipped with the appropriate skills and knowledge.

Further synthesis of the results across the three different types of documents – policies plans and strategies – highlights another pattern in the themes of the elements. Figure 4.9 represents the comparative analysis across the four themes with three types of ICT documents for barriers faced by women when engaging with ICTs. This identifies that the barriers that are considered most frequently are from the knowledge and capability perspective across all three types of documents.

Furthermore, ICT policy documents (as against strategies and plans) are the only ones that cover all four themes of the barrier elements, once again highlighting that the cultural and social perspective has not been covered by any of the ICT strategy documents. A possible explanation for this poor performance can be drawn from comments made during the focus group sessions in Pakistan, which unanimously raised the issue of lack of recognition and appreciation of the multiple cultural and social barriers faced by women, and that the government appears to be completely disconnected from this (see Chapter 6). Moreover, the theme of implementation and monitoring is not covered by any of the ICT strategies and plans. My research undoubtedly demonstrates that despite this progress and the multitude of debates that have been underway for decades in relation to the need for gender analysis both in the context of development theory and ICTs, limited progress has been made. The extent to which ICT documents are aware of the ‘ground practicalities and realities of social power structures’ continues to be ignored, thus raising the risk of women continuing to be marginalised and excluded from the information society and widening the gender digital divide (see Section 4.5).

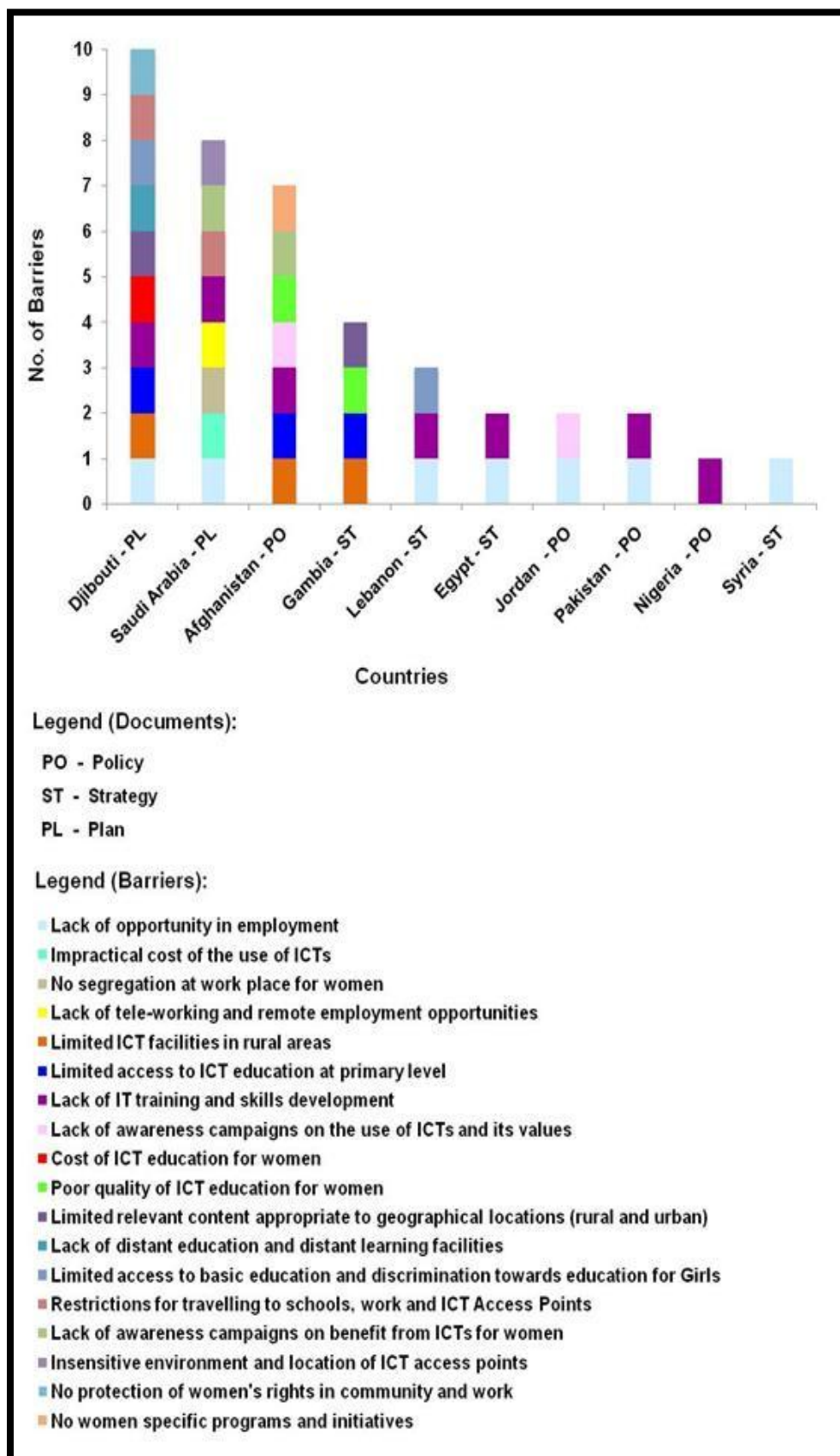


**Figure 4.9**  
**Comparative Analysis Across Themes**  
 (Source: Author, January 2011)



#### **4.3.2.2 Country-Level Comparative Analysis and Findings**

The country level analysis shows that only 42% (10/24) of the countries addressed any of the barriers faced by women when engaging with ICTs. The implications of this gap are discussed further in Chapter 7. The results indicate the countries with the greatest number of barriers addressed in terms of ICT policies, plans and strategies (Figure 4.10). The results show that Djibouti covered the highest number of barriers, with 20% (10/51), followed by Saudi Arabia, with 16% (8/51) and Afghanistan with 14% (7/51). The results for Saudi Arabia and Afghanistan are a little surprising as the general perception is that both these countries suppress women's rights. Notably, the law in Saudi Arabia still prevents women from driving cars and a number of women in Afghanistan who have ventured into work in the ICT sector have been brutally killed, such as Zakia Zaki, who was a radio broadcaster who was murdered in her bed in June, 2007. Similarly, Sanga Amach, a reporter, was gunned down in her home. In discussions with the Minister of Communications and IT in Afghanistan, H. E. Amirzai Sangin, and the Minister of Communication and IT in Saudi Arabia, H.E. Mohammad Jamil Mulla, both acknowledged that there is a great deal of work that still needs to be done to create an environment that will readily accept women in the public spaces of these societies (see also Khalafallah, 2005; Hoodfar, 1997). Nonetheless, there appeared to be a general lack of awareness about this challenge among the elite women with whom I spoke, since none of them made any comments about this issue (see Chapter 6).



**Figure 4.10**  
**Comparative Analysis across Policies, Strategies and Plans**  
 (Source: Author, January 2011)

Of the 31 documents analysed only 68% (21/31) referred to any of the barriers and 14 (out of 24) countries did not address any of the barriers at all. This lack of sensitivity and recognition of the barriers that women face when encountering ICTs is disturbing because it greatly impacts women's inclusion in the information society (Chapter 6). I also investigated whether there was any relationship between the number of barriers addressed in the ICT documents and the percentage of Muslims in a country's population. Table 4.15, indicates that countries that did not address any of the barriers ranged from Kazakhstan (with 51.2% Muslim population), to Bahrain, the Maldives and Oman (with 100% Muslim population). This suggests that there is little evidence of any direct correlation between the percentage of Muslim population and number of barriers addressed.

S/N	ICT Documents					
	Policy	% of Muslim Population	Strategy	% of Muslim Population	Plan	% of Muslim Population
1	Bangladesh	85	Azerbaijan	93.4	Bangladesh	85
2	Malaysia	52	Bahrain	100	Indonesia	95
3	Maldives	100	Jordan	95	Kazakhstan	51.2
4	Qatar	100	Morocco	98.7	Lebanon	70
5	Saudi Arabia	100	Oman	100	Malaysia	52
6	UAE	96	Turkey	99.8	Turkey	99.8
7			Tunisia	98	UAE	96
8					Yemen	99
<b>Total Doc.</b>	<b>6</b>		<b>7</b>		<b>8</b>	

**Table 4.15**  
**Countries with Zero Barriers**  
**(Source: Author)**

In analysing countries that address the most barriers, percentage of Muslims in the population does not appear to be a driving factor e.g. Djibouti, with a 94% Muslim population and having covered 20% (10/51) of the barriers, Saudi Arabia with a 100% Muslim population and having covered 20% (10/51) of the barriers in its ICT plan, and Afghanistan, with a 99.7% Muslim population and having covered 14% (7/51) of the

barriers in its ICT policy. This displays a similar diversity in their Muslim populations, further demonstrating that there are other factors that influence the extent of sensitivity to the barriers faced by women, which supports Klugman (2000).

Key results from the three types of ICT documents (policies, strategies and plans) are summarised below:

- i) Only four out of the ten countries (40%) that had policies addressed any of the barriers. Furthermore, Afghanistan addressed only 14% (7/51) of the barriers, followed by Pakistan and Jordan, which both covered 4% (2/51); Nigeria has only covered 2% (1/51) of the barriers. Both Afghanistan and Jordan have addressed the 'lack of awareness' barrier with campaigns on the use of ICTs and their value at the community level. For example, the ICT Policy of Jordan (2007:24) asserts the need to raise "awareness amongst non-users of the benefits of ICT" and similarly, in Afghanistan's National ICT Policy (2003:25), there is a clear reference to the need to "enhance public access to information regarding ICTs and opportunities in the sector through educational radio programs, distribution of written materials where appropriate and the establishment of kiosks at public locations".
- ii) Only 36% (4/11) of the strategies covered some of the barriers. Gambia covered 8% (4/51), followed by Lebanon with 6% (3/51) and Egypt with 4% (2/51); Syria only covered 2% (1/51) of the barriers.
- iii) Only 20% (2/10) of the plans covered any of the barriers. However, the two countries which have a general reputation for being extremely repressive towards women, namely Djibouti 20% (10/51) and Saudi Arabia 16% (8/51), have the highest-performing ICT plans. In addition, Saudi Arabia was the only country that covered the barriers of the lack of tele-working and remote employment opportunities, along with insensitive environments and locations of ICT access points, which is completely in line with the on-the-ground needs of women in Saudi Arabia.
- iv) When examining the 51 barriers identified against the 24 countries studied, only 42% (10/24) addressed any of the barriers. While Djibouti, Afghanistan and KSA are amongst those countries that address some of the barriers, the general perception is that these countries are some of the most repressive with regard to women. An extreme example of this is demonstrated by the fact that several pioneering Afghan women who have pursued employment in the ICT sector have paid with their lives (The Guardian, 2007).

## 4.4 Influence and Impact of the Document Formulation Process

The process of obtaining information on the ICT documents proved to be a challenging experience, largely because there was a lack of willingness among some government officials to respond to my survey and participate in a telephone interview (see Section 3.3.1). This was a critical part of my research because it provided the avenue for examining the possible causes and explanations of why ICT documents were written in a particular way. Furthermore, I used this technique to examine the influence and impact of women's engagement in the formulation process. This was of particular interest, since the need for women's engagement is a greatly debated issue by feminist academics and practitioners today (Hafkin, 2003). Furthermore, Klugman (2000:95) points out that it is critical for "women's voices" to be heard. Moreover, Jorge (2002) and Marcelle (2000b) have also argued that in order to have effective ICT policies that benefit women and address their needs, women need to be involved in the formulation process as policy-makers.

The view of women's engagement and inclusion in policy formulation was not necessarily shared by the elite women I interviewed, and was greatly contested in the focus groups. However, there is a counter argument which suggests that a consultative process is better suited to representing the overall position of women in social life, taking into account the diversity that is conditioned by social structures (see also Kabeer, 1999). Labelle (2005) supports the view that a consultative process for ICT policy formulation needs to be inclusive of all marginalised groups to ensure that it is complete and effective (see also Wanasundera, 2006; Jorge, 2002). Therefore, the impact and influence of using consultative processes was also included in my comparative analysis. An additional issue that is greatly debated today is the lack of understanding that policy-makers have of women's needs and their position in society. Chowdhury and Khanam (2005:8) suggest that policy-making is "heavily dominated by males, thus causing many gender-sensitive issues to fall to the sidelines". Therefore, the aspect of 'sensitivity to women's needs and issues' was also compared against the multiple formulation processes so that any possible trends could be identified.

The next section discusses the result of the analysis of multiple formulation processes on their influences on the four themes. This is followed by a discussion of the effectiveness of the multiple formulation processes.

#### 4.4.1 Identification of the Formulation Processes

This section outlines the findings from the synthesis of the surveys. The results indicate that countries used four distinct techniques to prepare their documents: women's involvement in creating the policy; consultative processes; ICT guidelines and tool kits; and the benchmarking of ICT policies, 13 countries used more than one technique to create their documents (Table 4.16, see Section 4.5)

S/N	Formulation Processes	No. of Documents	No. of Countries
1	Women Involved	8	5
2	Consultative Process	23	18
3	Use of Guidebook	7	5
4	Benchmarking	8	5

**Table 4.16**  
**Sample Size**  
**(Source: Author)**

The ICT documents are tabulated, alphabetically, and categorised by the multiple formulation processes used (Table 4.17). Countries that did not respond to the survey are indicated with an asterisk.

#### 4.4.2 Influence of the Formulation Processes on the Themes

A comparative analysis was conducted across the policies, plans and strategies. These were subsequently sorted and organised by the four formulation process and analysis against the four themes (Table 3.11) across two distinct categories: (1) Level of reference and (2) Sensitivity to barriers.

Countries		Formulation Processes			
		WP (Women Participation)	CP ( Consultative Process)	GB (Guide Book)	BM (Benchma rking)
Policies	1. Afghanistan		✓	✓	✓
	2. Bangladesh	✓	✓		✓
	3. Jordan		✓		
	4. Maldives		✓		
	5. Malaysia	✓	✓		✓
	6. Nigeria		✓		
	7. Pakistan				✓
	8. Qatar	✓	✓		
	9. Saudi Arabia	✓	✓	✓	✓
	10. *United Arab Emirates				
Strategies	11. Azerbaijan		✓		
	12. Bahrain		✓		
	13. Egypt	✓	✓		
	14. Gambia		✓		
	15. Jordan		✓		
	16. Lebanon		✓	✓	
	17. *Morocco				
	18. *Oman				
	19. Syria		✓	✓	
	20. Tunisia		✓		
	21. *Turkey				
Plans	22. Bangladesh	✓	✓		✓
	23. Djibouti		✓	✓	
	24. Indonesia		✓		
	25. *Kazakhstan				
	26. Lebanon		✓	✓	
	27. Malaysia	✓	✓		✓
	28. Saudi Arabia	✓	✓	✓	✓
	29. *Turkey				
	30. *UAE				
	31. Yemen		✓		
<b>Total</b>		<b>8</b>	<b>23</b>	<b>7</b>	<b>8</b>

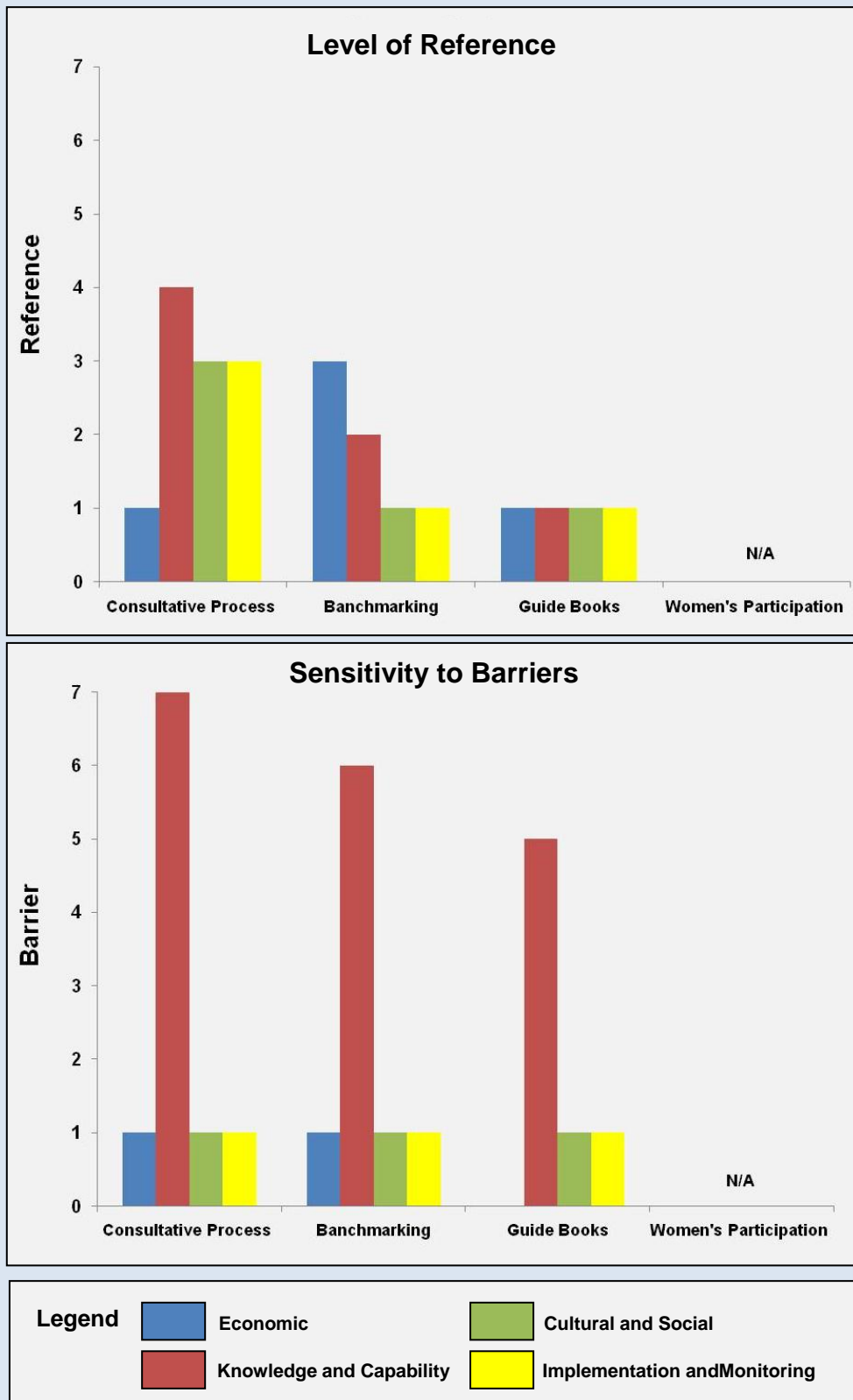
**Table 4.17**  
**Identification of Formulation Processes used at the Country Level**  
**(Source: Author)**

The results have been organised by ICT document type (Figures 4.11, 4.12, and 4.13). The findings are represented in bar charts, indicating the specific trends across the four themes: economic; knowledge and capability; cultural and social; and implementation and monitoring. Each theme has been given a specific colour to highlight the trends. The summary of these results is categorised according to the three types of ICT documents below:

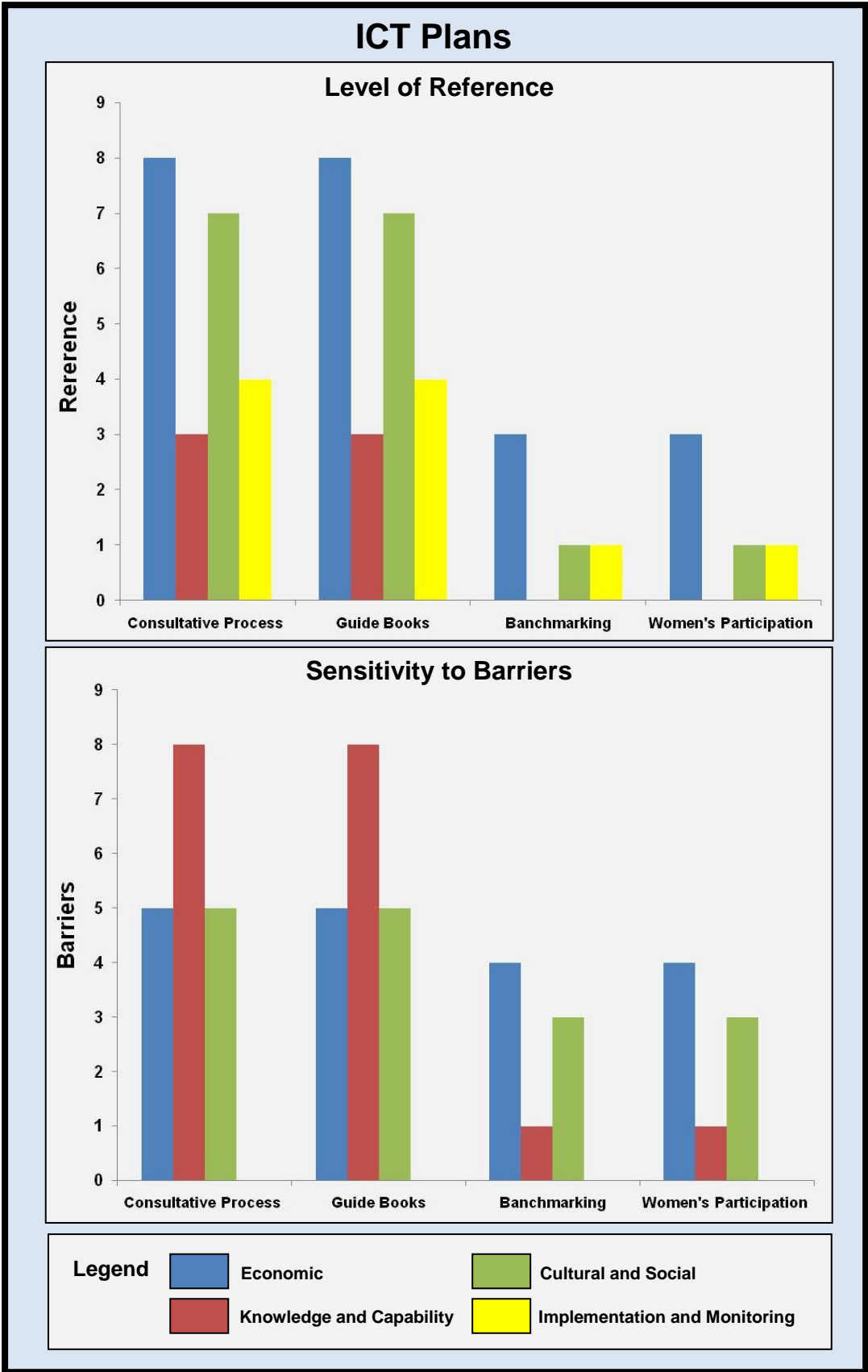
- i) ICT policies indicate that the consultative process appears to lead to more barriers being addressed, followed by benchmarking and the use of guidebooks, respectively (exceptions are discussed in Section 4.4.4). The involvement of women appears to have no significant influence on the themes. The results therefore appear to contradict the literature. As discussed above, women who participate in the formulation process are usually unaware of the reality of the lives of most of their country women and/or believed that policies need to be gender neutral, as argued by several of the elite women interviewed.
- ii) ICT plans indicate that consultative processes and the use of guidebooks appear to have had an influence on the number of references and barriers to women to similar extents. The most considered theme is the economic aspect, followed by cultural and social factors. A comparison across barriers reveals that the themes of knowledge and capability were the most considered.
- iii) For ICT strategies, the consultative process once again appears to have the most impact on the ICT strategy formulation, followed by the use of guidebooks and women's participation, respectively. Interestingly, none of the countries used benchmarking for the formulation of their ICT strategies. The themes that were most considered were cultural and social aspects, followed by economic dimensions, whereas in the context of barriers the cultural and social themes were not addressed at all.



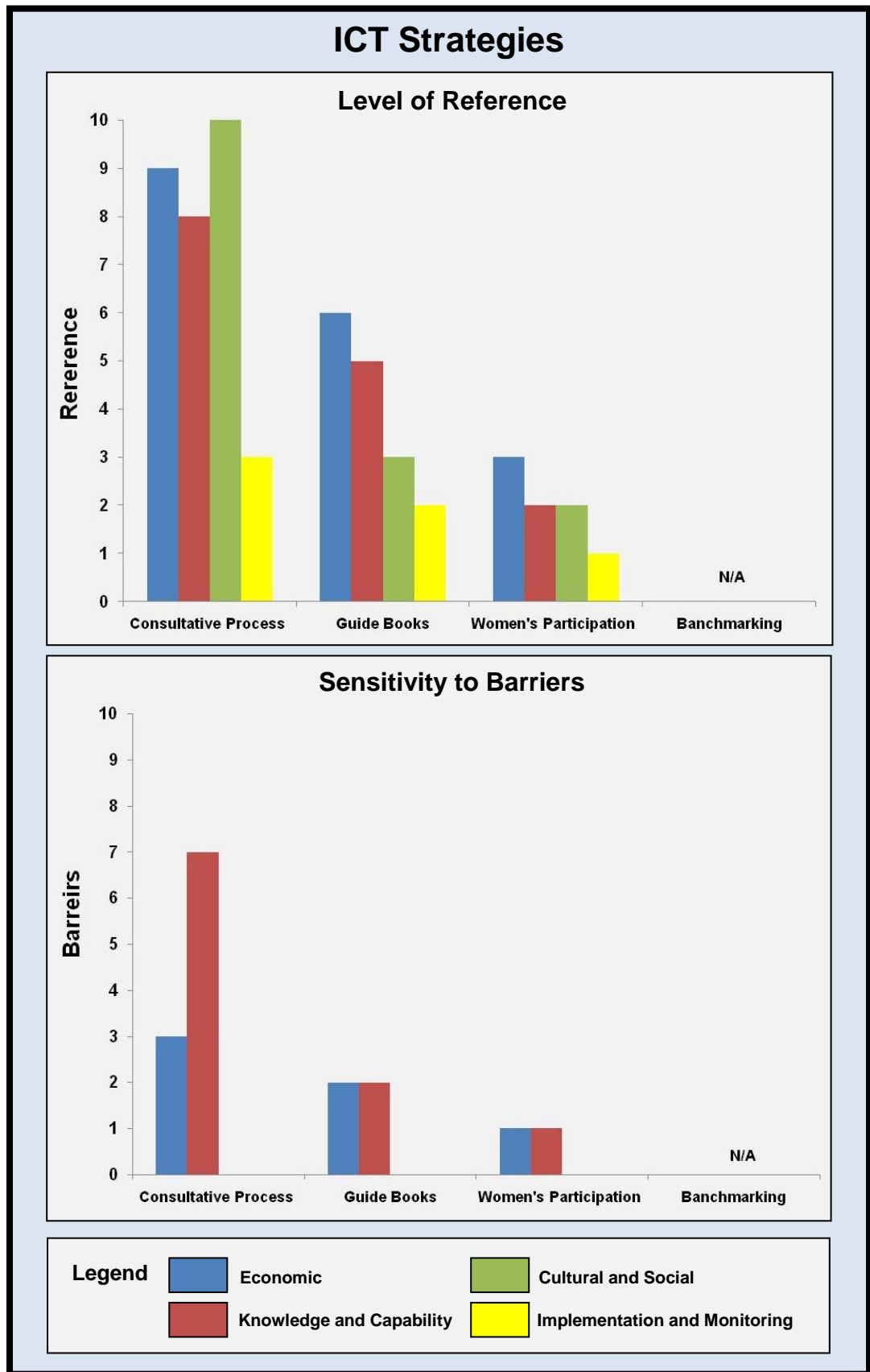
## ICT Policies



**Figure 4.11**  
**Comparative Analysis: ICT Policies versus Themes**  
 (Source: Author, January 2011)



**Figure 4.12**  
**Comparative Analysis: ICT Plans versus Themes**  
 (Source: Author, January 2011)



**Figure 4.13**  
**Comparative Analysis: ICT Strategies versus Themes**  
 (Source: Author, January 2011)

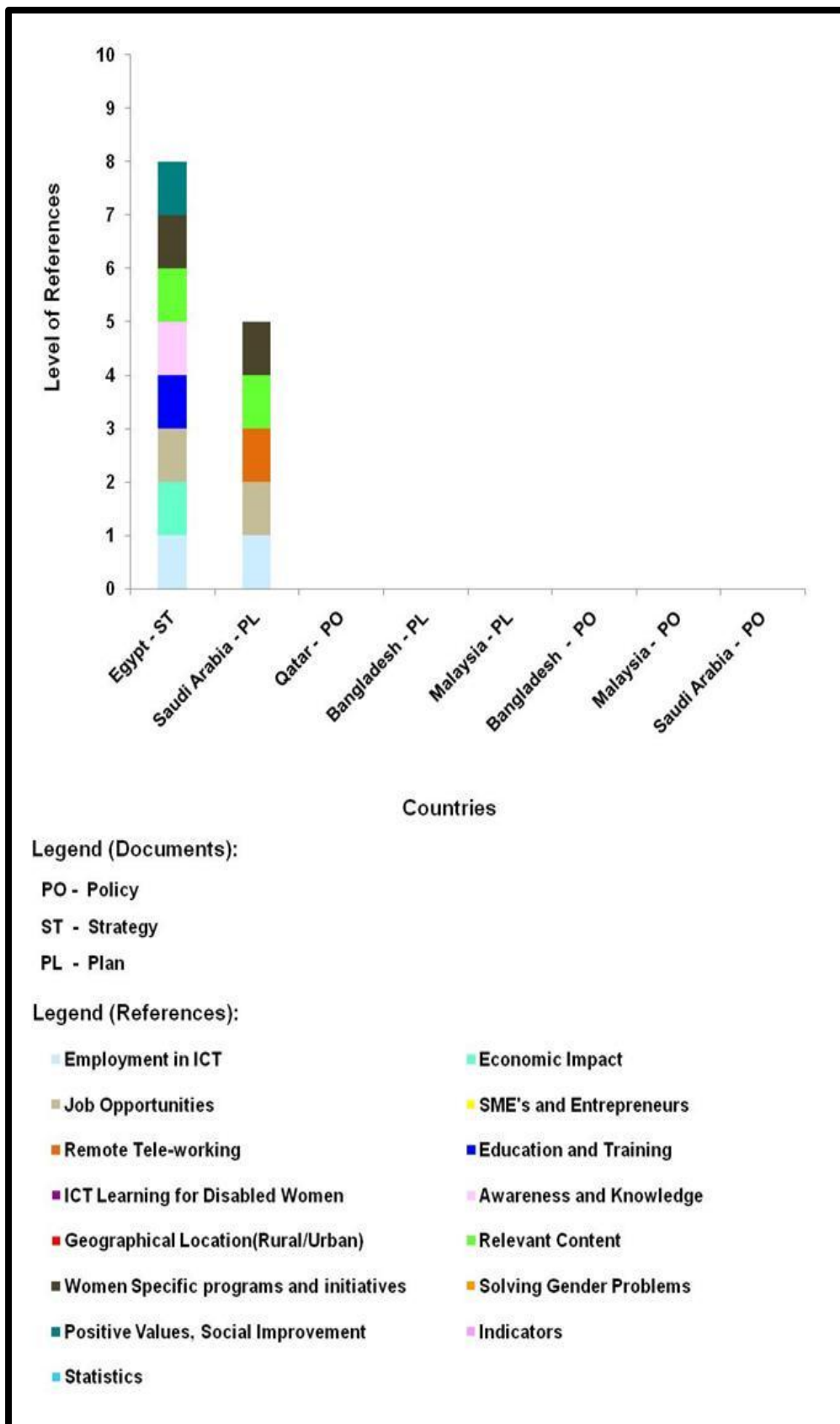
### **4.4.3 Influence of the Formulation Processes at the Element Level**

The following section discusses the analysis and findings of a series of comparative analyses of the four formulation processes against the level of reference and sensitivity to barriers. Analysis of each of the documents at the country and element levels, respectively, has been discussed in Section 4.3. The Pareto representation at the country level against that of the elements is indicated in Figures 4.3 and 4.7. The analysis did not include those countries which had scored zero. The objective of this section is only to highlight the huge variation and contrast in the level of reference and degree of sensitivity to barriers across the ICT documents against the processes used. This section thus highlights the differences between each of the formulation processes separately. Nonetheless, the analysis recognises that many of the countries have used multiple processes (see Section 4.4.4)

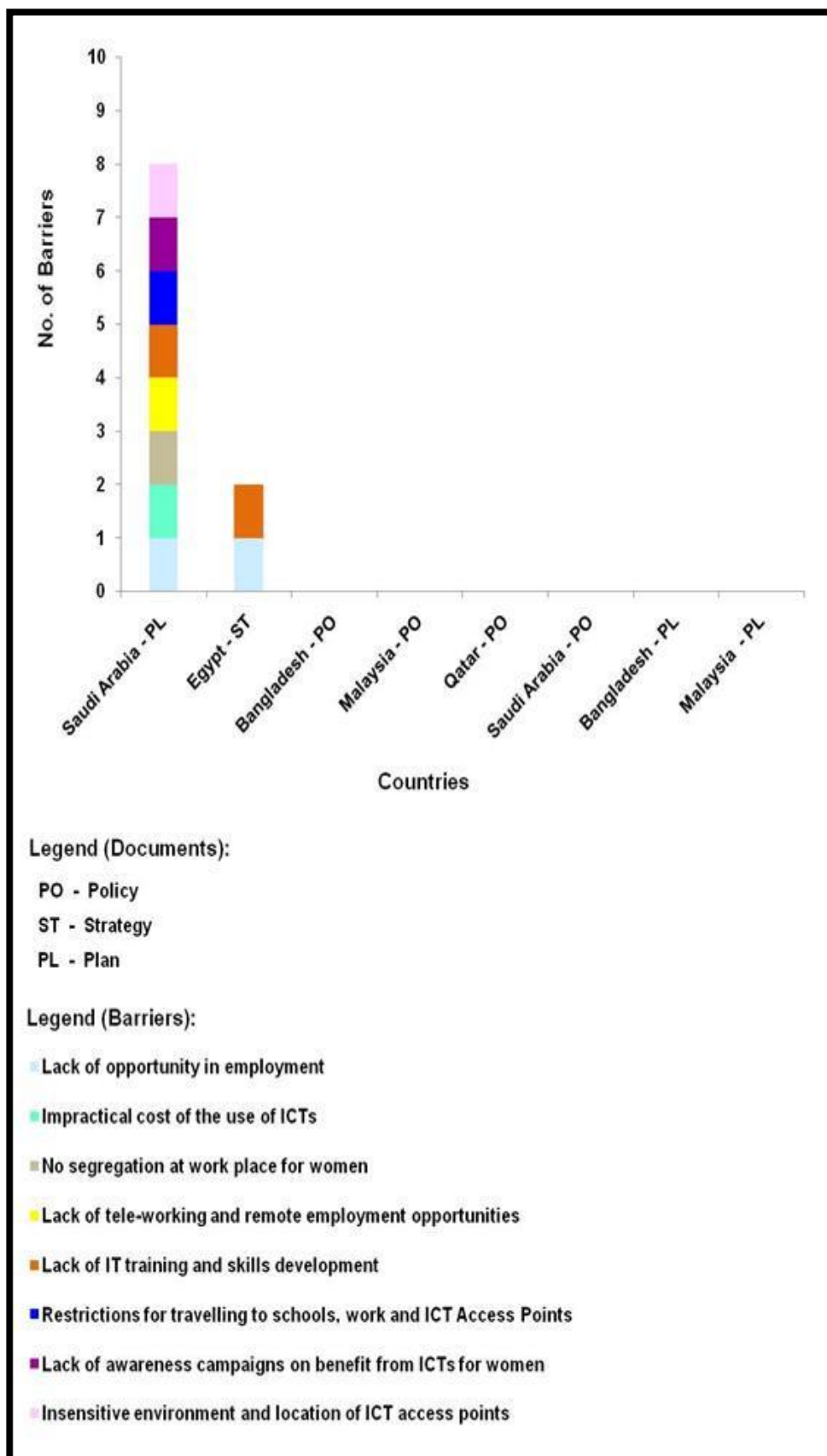
#### **4.4.3.1 *Impact of Women's Participation in the Formulation Processes***

Given the importance attached to the influence and engagement of women in the policy formulation process in the literature and discernible in the findings from my field work, it is unfortunate that only a fairly small sampling of countries for this part of my analysis, as only 21% (5/24) (Saudi Arabia, Egypt, Bangladesh, Malaysia and Qatar) confirmed that women participated in their ICT document formulation processes. Nonetheless, to gain some insights into the impact of such engagement on the documents produced, eight ICT documents were examined.

The findings of the comparative analysis of the influence of women's participation for the eight ICT documents are presented in Figures 4.14 (extent of reference) and 4.15(sensitivity to barriers). The key result from this is that only two of the eight documents, 25% (2/8), namely ICT Strategy for Egypt and ICT Plan for Saudi Arabia, made any reference to women or addressed any of the barriers. The huge variation across these results demonstrates that there are many other factors impacting what is actually covered in ICT documents. This supports Klugman's (2000:96) position that there is no guarantee of the effectiveness of women's advocacy, since policies are "a product of complex interaction between context, political processes and actors". Furthermore, Porter and Hicks (1995) suggests that policies are formed in a complex environment that has interacting forces and multiple sources of information contending with complex power relations and ever changing political positions.



**Figure 4.14**  
**Comparative Analysis: Influence of Women (Reference)**  
 (Source: Author, January 2011)



**Figure 4.15**  
**Comparative Analysis: Influence of Women (Barriers)**  
 (Source: Author, January 2011)

Therefore, in summary, contrary to the expectations from the literature, these results suggest that women's involvement in the formulation process has a limited positive impact with regard to addressing the barriers in the ICT documents. This may be due to the desire of countries such as Bangladesh, Malaysia and Qatar to create gender-neutral ICT policies, as illustrated in the survey response from the Malaysian Ministry of Communication and Multimedia Commissions (MCMC), in which Mohammad Wahyudi stated that *'ICTs are for everyone'* (survey results, December, 2008, see Appendix 4 and 5). This is also supported by many of the comments made by the elite women in interviews. Nonetheless, Professor Dato Dr. Shahabuddin, president of the National Council of Women's Organizations Malaysia, completely contradicts this view, arguing that "technology is gender-neutral, policies are not" at the Asian forum on ICT Policies and e-strategies (APDIP, 2003:2) during her public address. However, Thas *et al.* (2007:37) supports the view that "ICT is not gender neutral" (also see Odame, 2005), with Jafar (2009:10) commenting that gender-neutral policies often result in "misguiding the different impact of the policies on each group and the systems and organizations that support them" because men and women are different groups. As discussed previously, a majority of the comments made during the interviews with elite women do not support this view.

Discussions in one of my focus groups may provide a pointer to understanding the dichotomy between the views advocated in the literature and the results of my research:

*'It is generally elite women who are involved in policy formulation process. These people are highly disconnected from the realities on the ground and have little understanding of the barriers that we face when we try to access or use ICTs (P-UM-FE-U).*

Given the results gleaned from this analysis, I am able to draw one main, initial conclusion: while the literature points to the importance of having women involved in the policy formulation process, my research suggests that it is not sufficient to have women represent women in the ICT policy formulation process, but rather that women from the same backgrounds as those to whom the policy is primarily addressed need to be involved, so that they can truly understand women's barriers and issues and contribute accordingly. This opinion builds on the arguments made by Thas *et al.* (2007), Chowdhury and Khanam (2005), Primo (2003) and Jorge (2002, 2000). Moreover, I would also like to emphasise the pivotal role of enlightened men who respect women as equals and who are willing to take on the existing power structures that exist in their societies.

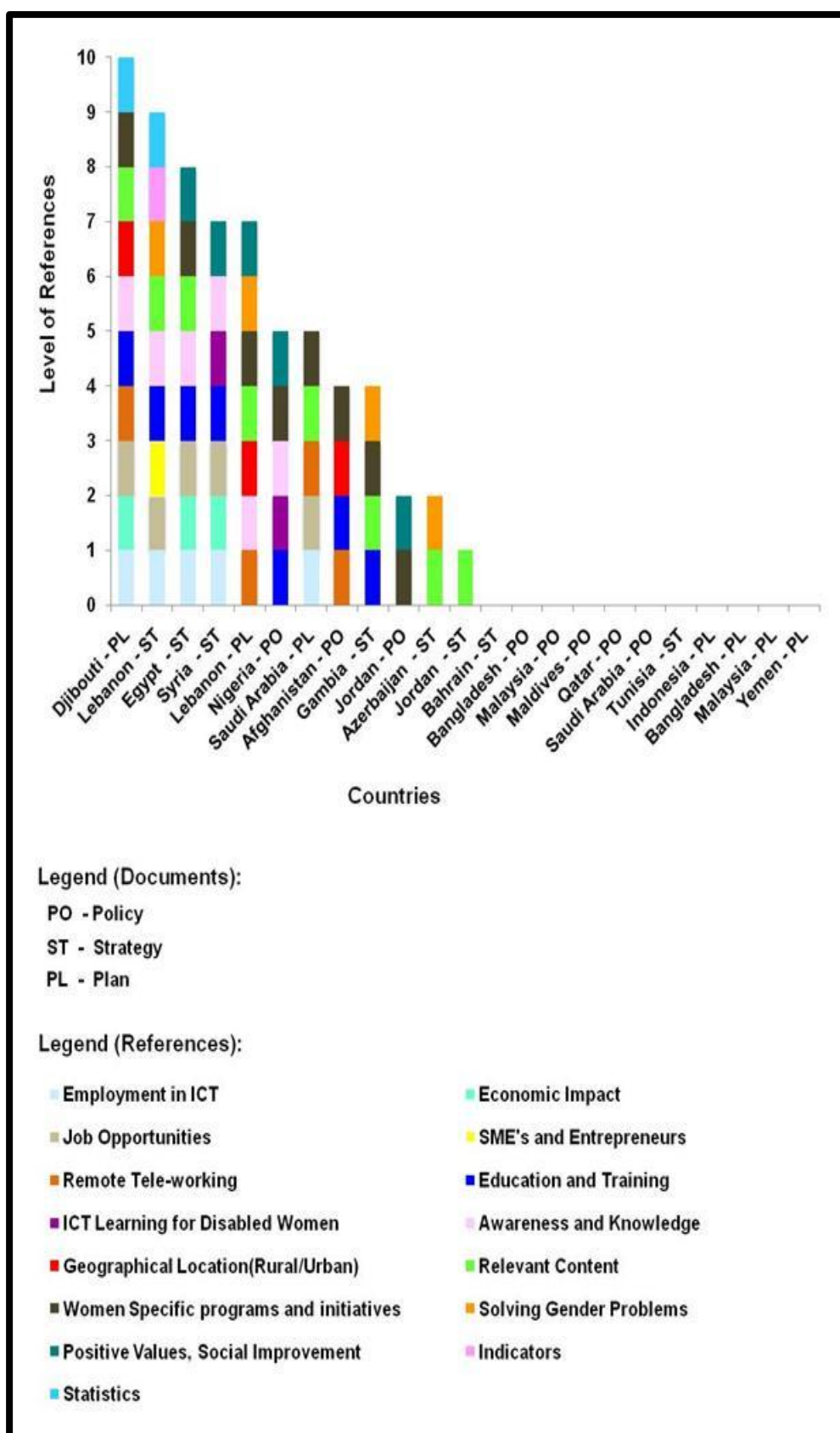
#### **4.4.3.2 Influence of using Consultative Processes**

The use of consultative processes in the formulation of ICT policies and plans has been advocated by Thas *et al.* (2007), Chowdhury and Khanam (2005) and Labelle (2005). As Jorge (2002:6) states, “it is important that women’s ministries or agencies, gender focal points and gender advocates” participate in the formulation process. Therefore, this section discusses the influence of the use of the consultative process on the degree of reference and sensitivity to barriers in ICT documents. Only 10% of the elite women interviewed in my research also felt there to be a need for a consultative process in the formulation of ICT policies and plans to ensure that the realities that women face on the ground in relation to cultural and traditional factors are understood. The participants in the focus groups in Pakistan, however, strongly expressed the need for consultation processes to ensure that policy makers are aware of the problems and issues that women face and so are then able to address these in the ICT policies and plans that they formulate. For this analysis, 75% (18/24) of the countries studied confirmed that they used some kind of consultative process. It should be noted that the remaining nine countries were indeterminate because they did not respond to my questionnaire and their websites were inconclusive. This translates to the inclusion of 74% (23/31) of the ICT documents. These 23 ICT documents were analysed to ascertain their level of reference to the element (see Table 3.7) and the level of sensitivity they paid to the barriers (see Table 3.10). The results indicate that only 52% (12/23) of the documents had some reference to women (Figure 4.16) and only 39% (9/23) demonstrated any level of sensitivity to the barriers women face when engaging with ICTs (Figure 4.17).

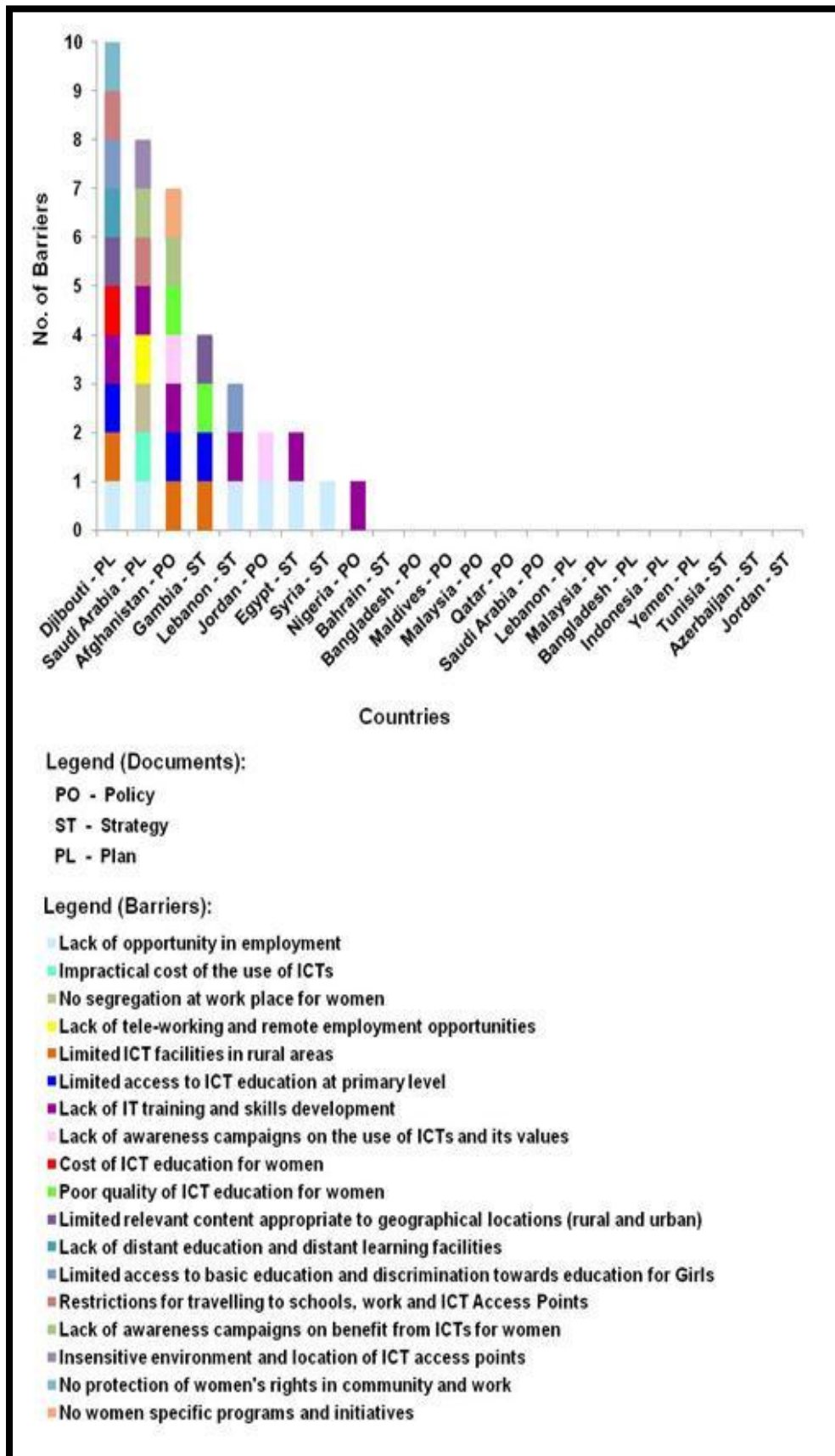
The results reinforce the arguments of Thas *et al.* (2007) and Jorge (2002), who both strongly emphasise consultation as being critical to ensuring that women’s needs are addressed. This point is also clearly documented in the UNDP-APDIP guidebook by Labelle (2005:30), which states that it is critical for steps to be taken “to ensure that consultation is representative and that marginalized groups such as women, the poor, rural dwellers, youth and the handicapped are included”. In 2006, the UN Economic Commission for Africa (ECA) undertook a special initiative to support African countries in fully harnessing the benefits of ICTs for development. They created three sub-programmes, one of which is aimed at integrating ICTs for development into policies, plans and national strategies. This is being executed in partnership with UNESCO and the UNDP (UNECA, 2007). The policy analysis of Djibouti demonstrates the positive impact of this process. Similarly, the performance of Lebanon could be because of the influence of UNESCWA, which is based in the country and works closely with the



government (see UNESCWA 2007). The consultation process appears to deliver much better results in terms of level of reference and sensitivity to barriers.



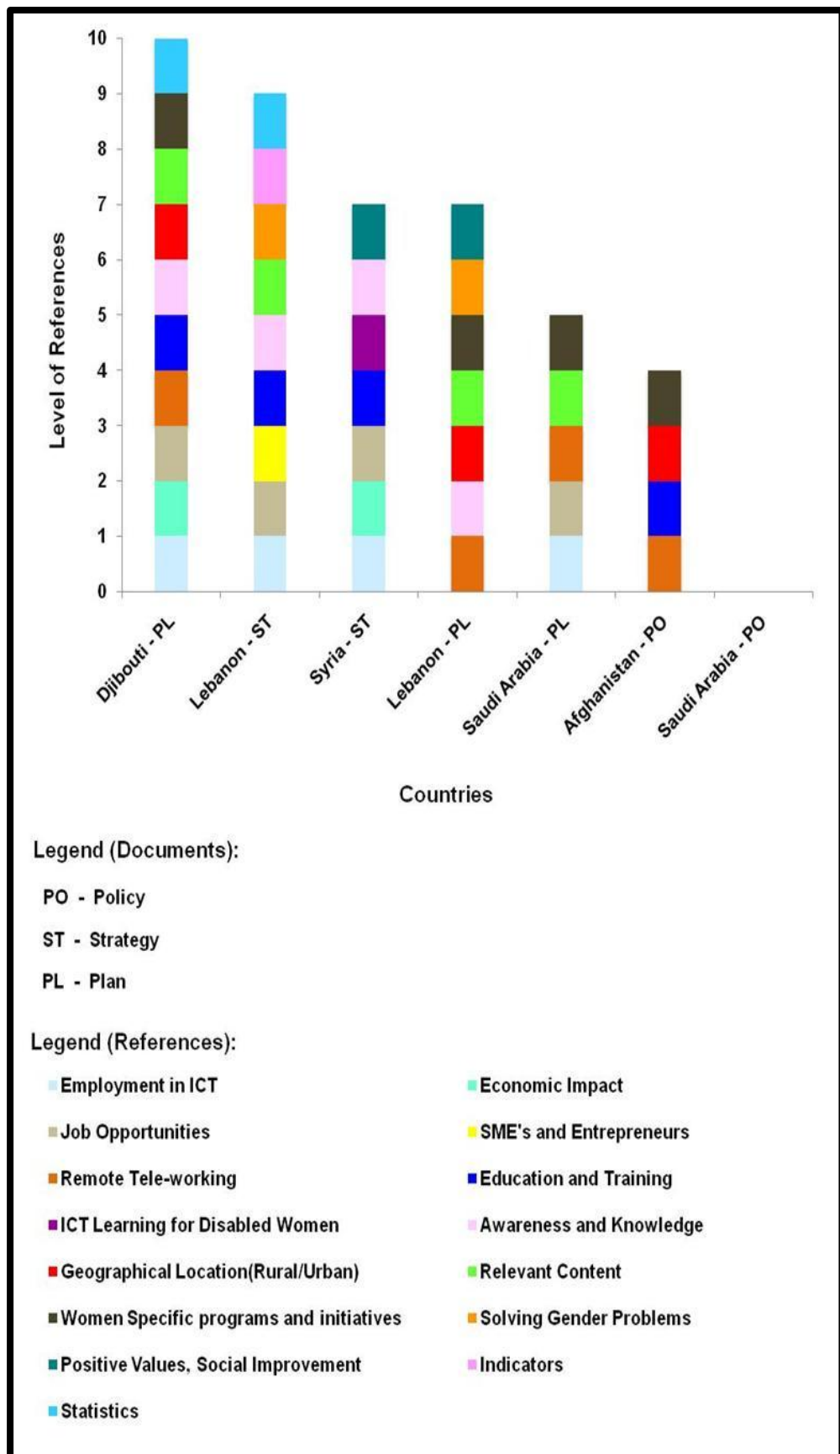
**Figure 4.16**  
**Comparative Analysis: Consultative Process (Reference)**  
 (Source: Author, January 2011)



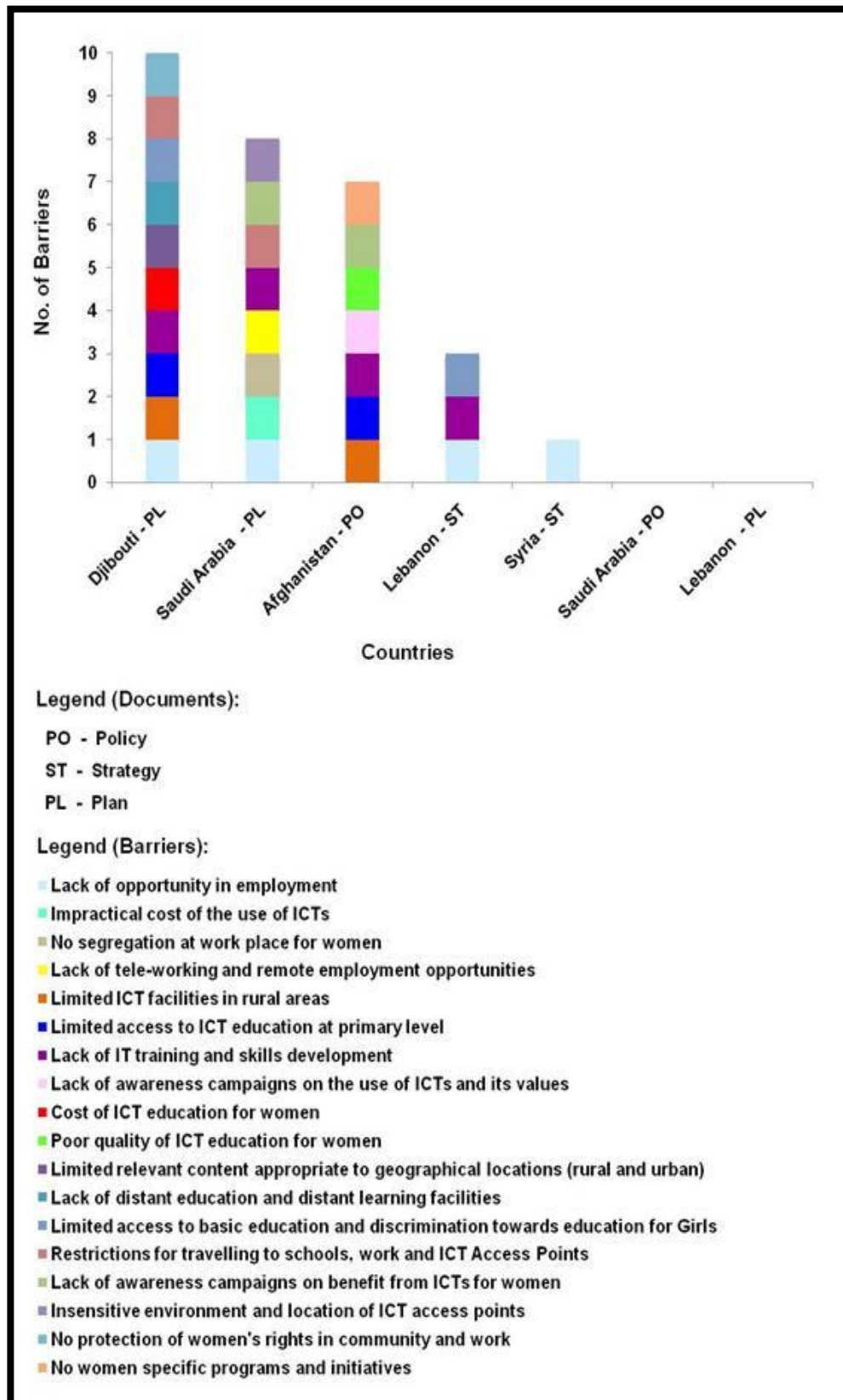
**Figure 4.17**  
**Comparative Analysis: Consultative Process (Barriers)**  
 (Source: Author, January 2011)

#### **4.4.3.3 *Influence of Guidelines, Guidebooks and Toolkits***

This section discusses the influence of using international guidebooks (guidelines and toolkits) for policy formulation with regard to the level of reference and degree of sensitivity to barriers covered in ICT documents. For this analysis, 21% (5/24) countries confirmed that they used guidebooks and toolkits which translated to 23% (7/31) of the ICT documents. These seven ICT documents were analysed to ascertain their level of reference and sensitivity to the barriers. The findings from the comparative analysis are indicated in Figures 4.18 (level of reference) and 4.19 (sensitivity to barriers). The results show that 86% (6/7) of the documents that were developed using guidebooks have referenced women to varying degrees. However, this percentage is reduced to 71% (5/7) which illustrated a gap in the awareness of barriers faced by women in guidebooks which could lead to further exclusion of women.



**Figure 4.18**  
**Comparative Analysis: Impact of Guidebooks (References)**  
 (Source: Author, January 2011)

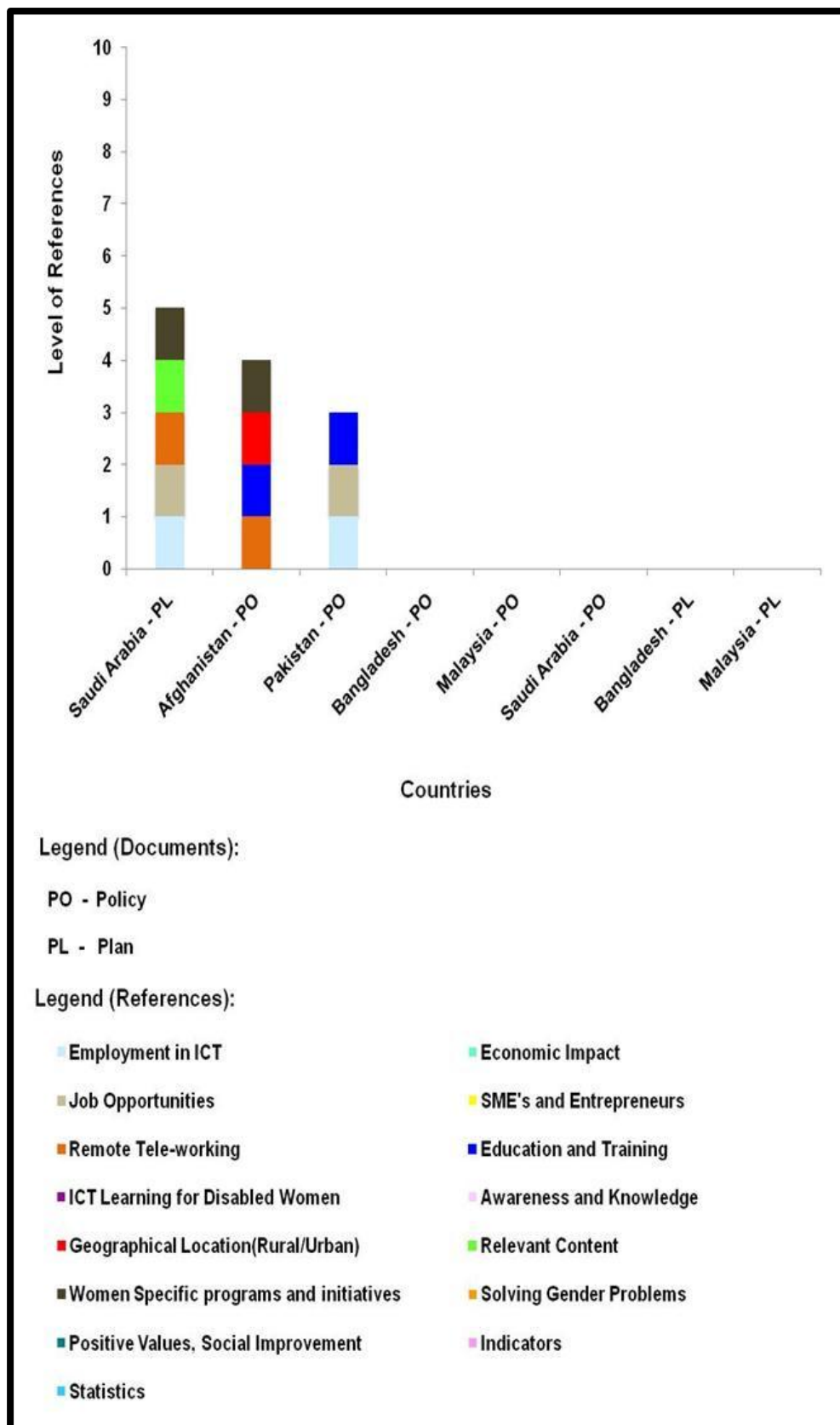


**Figure 4.19**  
**Comparative Analysis: Impact of Guidebooks (Barriers)**  
 (Source: Author, January 2011)

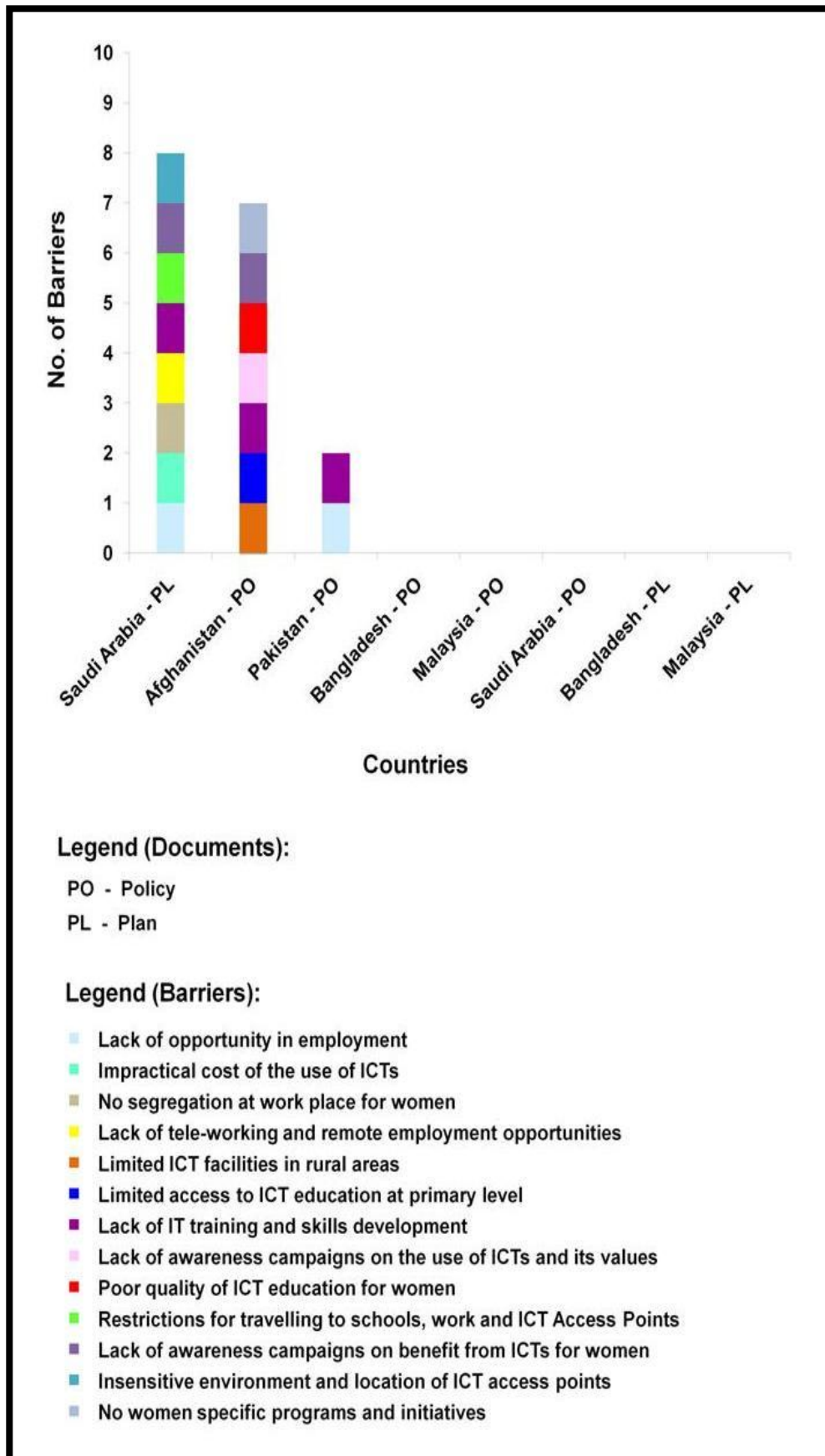
#### **4.4.3.4 Influence of Benchmarking ICT Policies and Plans**

This section discusses the influence and impact of using other countries' ICT policies and plans as a benchmark in developing one's own national ICT documents (see Section 4.2.6). Nonetheless, to be able to highlight the effect of this, a comparative analysis was conducted. For this analysis, 21% (5/24) of the countries researched (Afghanistan, Pakistan, Bangladesh, Malaysia and Saudi Arabia) confirmed that they had benchmarked other countries' ICT documents, amounting to 26% (8/31) of the ICT documents. These eight ICT documents were then analysed to ascertain their level of reference and sensitivity to barriers. The results are displayed in Figures 4.20 (level of reference) and 4.21 (sensitivity to barriers) and indicate that only 38% (3/8) of the documents that were developed by benchmarking other countries' ICT documents made some reference to women, and the same documents demonstrated very little sensitivity to the barriers faced by women when engaging with ICTs.

In conclusion, the results suggest that benchmarking has only had a marginal impact on ICT documents in addressing the barriers to women's engagement with ICTs. The earlier discussion in Section 4.3 may provide some indicators for this. My analysis suggests that if benchmarking is to be used as a process, a list of qualified, verified and ranked ICT policies from the perspective of women's inclusion should be developed, so that the propagation of this problem can be prevented. These also need to be in harmony with the local cultural context of the countries, so that social and traditional behaviours and customs are considered.



**Figure 4.20**  
**Comparative Analysis: Impact of Benchmarking (References)**  
 (Source: Author, January 2011)



**Figure 4.21**  
**Comparative Analysis: Impact of Benchmarking (Barriers)**  
 (Source: Author, January 2011)



#### **4.4.4 Effectiveness of Multiple Formulation Processes**

This section examines and analyses whether there is a relationship between the number of processes used to create the ICT documents and the extent to which reference is made to women and their comprehensiveness in the context of sensitivity to the barriers that women face when engaging with ICTs. The four specific formulation processes (women's participation, the consultative process, guidebooks and toolkits and benchmarking) have been individually discussed in the above four sections. The data was analysed and sorted so that it could be seen whether a relationship existed between the 'multiple number of processes' used to create the ICT documents. This was cross-referenced; (1) the total number of references made to women, and (2) the degree of sensitivity to barriers (the exact details were discussed earlier, in Section 4.4). The results of this comparative analysis are shown in Table 4.18.

The results indicate that Saudi Arabia is the only country that has used all four processes for the formulation of its ICT policy and ICT plan. Nonetheless, it is very interesting to note that the ICT policy document does not refer to women at all. This is in complete contrast to the results obtained from the analysis of the ICT plan, which demonstrates that Saudi Arabia has the second highest level of sensitivity to women in the context of barriers across all of the countries. It is difficult to determine an exact cause for this stark difference between the two documents, since they were both developed using similar processes. However, two possible explanations could be derived from my interviews. The first possibility was proposed by two elite women interviewed, who pointed out that the patriarchal government structure and social biases in Saudi Arabia see policies being viewed as a 'male domain' and so there was no need for women to be mentioned in this space. However, a completely opposite and more positive view was also shared by four other elite women from Qatar, who suggested that this difference existed because the policy was intentionally created in a gender-neutral manner. Nonetheless, this demonstrates a sizable challenge from a cultural perspective.

Country and Name of ICT Document ( PO-Policy) (PL-Plan) (ST- Strategy)	No. of Processes used					No. of References		Total
	Total	CP	GB	WP	BM	Level of References	Sensitivity to Barriers	
1. Saudi Arabia – PO	4	✓	✓	✓	✓	0	0	0
2. Saudi Arabia – PL	4	✓	✓	✓	✓	5	8	13
3. Afghanistan – PO	3	✓	✓		✓	4	7	11
4. Bangladesh – PO	3	✓		✓	✓	0	0	0
5. Malaysia – PO	3	✓		✓	✓	0	0	0
6. Bangladesh – PL	3	✓		✓	✓	0	0	0
7. Malaysia – PL	3	✓		✓	✓	0	0	0
8. Qatar – PO	2	✓		✓		0	0	0
9. Egypt – ST	2	✓		✓		8	2	10
10. Lebanon – ST	2	✓	✓			9	3	12
11. Syria – ST	2	✓	✓			7	1	8
12. Djibouti – PL	2	✓	✓			10	10	20
13. Lebanon – PL	2	✓	✓			7	0	7
14. Jordan – PO	1	✓				2	2	4
15. Maldives – PO	1	✓				0	0	0
16. Nigeria – PO	1	✓				5	1	6
17. Pakistan – PO	1				✓	3	2	5
18. Azerbaijan – ST	1	✓				2	0	2
19. Gambia – ST	1	✓				3	4	7
20. Jordan – ST	1	✓				1	0	1
21. Tunisia – ST	1	✓				0	0	0
22. Indonesia – PL	1	✓				0	0	0
23. Yemen – PL	1	✓				0	0	0
24. Bahrain - ST	1	✓				0	0	0
25. UAE – PO	0					0	0	0
26. Morocco - ST	0					0	0	0
27. Oman – ST	0					0	0	0
28. Turkey – ST	0					0	0	0
29. Kazakhstan - PL	0					0	0	0
30. Turkey – PL	0					0	0	0
31. UAE – PL	0					0	0	0
<b>Total</b>	<b>46</b>	<b>23</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>66</b>	<b>40</b>	<b>106</b>

**Table 4.18**  
**Comparative Analysis – Influence of Multiple Formulation Processes**  
**(Source: Author)**

In an effort to try to make sense of these results, I further synthesised the findings to extract the top five ICT documents which scored the highest overall number of references to women. While the sample size is very small to draw any objective conclusions, the result suggest that the documents were produced with a combination of two specific processes: ‘guidebooks and consultative process’ appear to have produced comparatively higher results in the context of both references to women and sensitivity to barriers. This is demonstrated by Djibouti, which had the highest results across all of the documents analysed, but only used these two formulation processes (see Table 4.19).

Country and Name of ICT Document ( PO-Policy) (PL-Plan) (ST- Strategy)	No of Process Used					No. References		Total
	Total	CP	GB	WP	BM	Level of References	Sensitivity to Barriers	
1. Djibouti – PL	2	✓	✓			10	10	20
2. Saudi Arabia – PL	4	✓	✓	✓	✓	5	8	13
3. Lebanon – ST	2	✓	✓			9	3	12
4. Afghanistan - PO	3	✓	✓		✓	4	7	11
5. Egypt – ST	2	✓		✓		8	2	10
<b>Total</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>36</b>	<b>30</b>	<b>66</b>

**Table 4.19**  
**Top 5 ICT Documents**  
**(Source: Author)**

This analysis uncovers a very surprising phenomenon that stands in contrast to some of the literature (see Thas *et al.* 2007; Marcelle, 2000). It appears that women’s participation does not necessarily provide any particular insight into the representation of women’s needs or any significant sensitivity and awareness of the barriers. Moreover, the documents that were developed with women’s involvement in the formulation process appear to have scored the lowest by referencing women to a lesser extent and demonstrating less sensitivity to the barriers faced by them. Additionally, an insightful perspective was articulated by Dr. Hessa Al-Jaber, ICT QATAR's Secretary General:

*‘It is importance of understanding the multidimensional aspects of ICT policies). The notion of one-size-fits-all policies will not empower women to benefit from or be fully engaged in the information society. We need a paradigm shift in policy-making; policies must be home-grown and customized to meet the real needs and challenges faced by women in different communities’ (EIW-6).*

My research also supports the view that we need to work towards a more enlightened society if we are to engage everyone equally. Thus, the results do not appear to support Jorge's (2002:12) assertion that "it is of [the] utmost importance to engage women and gender advocates in the policy making process and dialogue". In fact, one could argue that the results indicate that women's engagement in the formulation process has actually produced 'weaker' ICT documents. Nonetheless, only 21% of the elite women that I interviewed shared this view and furthermore, only three of them emphasised the importance of women's participation in the formulation process in ensuring that women's particular needs and issues were understood and appropriately addressed. A possible explanation for this could be that the women who engaged in the formulation process did not have a fair understanding of the diverse requirements of women, since they are not a homogenous group and cannot be simply represented by an individual (as discussed in Chapter 2).

## 4.5 Conclusion

The evidence adduced here shows that there are considerable gaps in ICT policies, strategies and plans that can potentially hinder women's effective inclusion in the information society. The overall synthesis of the 24 countries and 31 ICT documents from the perspective of the extent to which they reference women and their level of sensitivity to barriers has shown that many of the countries did not use the keywords or reference women or address any of the barriers. This also reinforces the findings of UNCTAD/IE (2010). Further to this, the following three points are of particular note:

- The keyword analysis across the ICT policies, strategies and plans shows a very low usage of the keywords in question. Despite the literature's (Elnaggar, 2007; Chowdhury and Khanam, 2005; Hafkin, 2002; Lennie, 2002) emphasis on the importance of making specific reference to women, over half of the countries did not use any of the keywords in their documents. The only keyword that was used consistently in the ICT documents for the rest of the countries was 'women'. Only four countries (Turkey, Saudi Arabia, Bahrain and Qatar) used the keyword 'inclusive' in their ICT documents. However, Turkey, Qatar and Bahrain used it in the context of an *inclusive society*, whereas Saudi Arabia only used the term in the context of "knowledge of ICT basics" (KSA, 2005:75).
- 54% (13/24) of the countries examined did not reference women in the ICT documents at all. Out of the ten countries that did, Djibouti, Lebanon, Egypt,

Syria, Nigeria and Afghanistan ranked as the most active countries with regard to referencing women.

- 41% (10/24) of the countries did not address any of the barriers. Furthermore, the majority of the barriers, 65% (33/51), were not addressed by any of the countries. Significant work therefore needs to be undertaken to ensure that there is consistency in the ICT policies, strategies and plans that relate to specific initiatives and programmes for women in order to bridge the gender digital divide.

Moreover, on further examination of the two top-performing countries in the context of 'references to women' (Djibouti and Lebanon) against two countries making zero references (Bangladesh and Indonesia) revealed that there was very little evidence of any relationship between the percentage of Muslim people in a country and whether or not their ICT documentation makes any reference to issues and barriers relating to women's use of ICTs. In addition, the high performance of Lebanon may be attributable to the fact that it is a multi-faith society (which is likely to foster toleration and thereby more liberal, 'women friendly' values) but is rendered inconclusive though, as Djibouti has a 90% Muslim population. Bangladesh has an 85% Muslim population and Bahrain has a 100% Muslim population, and both make *zero* references to women. These countries were compared and contrasted against the IDI, Gender Gap and GII indices, but no firm conclusions because of the lack of pertinent data on many of these countries.

A possible explanation for the low performance of the countries with respect to making references to women and covering barriers faced by women could be their intention to create gender-neutral policies. The confusion caused by gender-neutral policies could be resulting in patriarchal societies not effectively addressing gender biases (Wanasundera, 2006; Hafkin, 2003, 2002; Sayo *et al.* 2004). The results of the comparative analysis across the themes of the references indicates that cultural and social empowerment and economic empowerment are the most frequently considered themes in ICT strategies and plans, whereas knowledge and capability empowerment are the most often considered in the ICT policies themselves. For the thematic analysis across the barriers, the knowledge and capability aspect appeared to be the most widely considered. The cultural and social perspective has not been covered by any of the ICT strategy documents, along with the implementation and monitoring perspective. Implementation and monitoring is the least covered theme for considerations and barriers across all three types of documents, despite the argument by Wanasundera (2006) and Wangmo *et al.* (2004) that effective monitoring and evaluation is critical for effective policies. This

risk is further articulated by Unwin (2009:158), who states that “the effect of poor policy implementation in Africa will continue to have a lasting impact on the continent in the years ahead”.

The overall findings from the investigation of the effectiveness of using multiple formulation processes indicates that to some degree there appears to be a higher overall level of results in the context of references to women and the degree of sensitivity to barriers when the documents are created using the combination of two processes, namely: a ‘consultative process’ and ICT policy guidebooks, guidelines and toolkits. This is clearly demonstrated when examining the results from the Lebanese ICT documents, despite the fact that the Lebanese ICT strategy acknowledges that ICTs are gender-neutral. However, it also acknowledges and recognises that “it may be applied in a manner that is gender sensitive because of content development and presentation, employment opportunities and ICT skills” (Lebanon, 2003:16). This reveals that the participants in the formulation process were clearly more in touch with the realities in their society than were the policy-makers in many other countries. There has also been a growing trend for donor and development agencies to create guidelines and toolkits to assist governments in developing more inclusive policies. The results partly support the benefit of these documents. However, their impact cannot be clearly demonstrated, since they have been used in combination with the consultative process.

The research has also highlighted a significant gap in existing policies, strategies and plans: none of the 24 countries have any indicators that may measure the impact of ICT initiatives for women’s inclusion in the information society. This is despite Hafkin’s (2003) and Jorge’s (2002) warnings that there is a significant gender gap in policies today, which demonstrates the lack of commitment to reinforcing and implementing ICTs for women. Wangmo *et al.* (2004) further elaborates this point, arguing that this is a serious barrier for ensuring women’s inclusion in the information society. There is thus a need for consistency regarding how to ensure specific references to women when developing ICT policies, strategies and plans. Moreover, this research points to the need to develop not only impact indicators for ICTs but also multi-dimensional indicators that can be deconstructed and constructed to adjust and accommodate local settings and social constraints, in a broad context. Furthermore, attention should be paid when assessing and monitoring initiatives (Women’s and ICTs) to ensure that they are completely independent from any influences of existing power structures. This supports Painter’s (2005) position that indicators need to be carefully developed in a broad context to ensure that they are measuring the desired outcome and be aware of just focusing on measuring a narrow aim. In addition holistic impact indicators need to be developed to

understand and ensure the direct, intentional and unintentional consequential impact of ICTs to women and their families, communities, paying special attention to the parameters of the social structures that exists or they create (also see Painter, 2005).

Furthermore, due to the complexities of the social and cultural environments, a holistic approach that addresses all of the issues in an integrated manner needs to be developed. The results indicate that ICT policies and plans need to be possibly formulated within an overall framework that ensures the inclusion of gender references in a cultural and social context. There also needs to be a paradigm shift in the perception and role of women in Muslim societies that can then be reflected in updated and improved ICT policies. This research builds on Baloch's (2007) work in Pakistan and advocates a broader policy approach that includes social, criminal justice policies and others needs to be examined in an integrated manner to ensure that these have consistent gender provisions. The complexity of these issues in terms of the engagement of women with ICTs is heavily dependent on the development of the policies in a cultural context and on the wider development and evolution of Muslim societies. Therefore, for neutralising these barriers and enabling the inclusion of women in the information society, a holistic, multidimensional management framework for ICT policy is required. This framework will also outline the dependencies and linkages required to create a roadmap to enable effective policies to be created in harmony with cultural and social constraints. As Gillwald (2000:18) argues, "ICT policies should also be integrated with other policy areas to ensure that efforts towards sustainable development are coordinated and cohesive".

As for the ICT documents formulation process, the following points are the key findings of my research:

1. The involvement of women in the ICT policy formulation process does not necessarily guarantee effective and inclusive ICT policies. Adding to the arguments of Thas *et al.* (2007), Chowdhury and Khanam (2005), Primo (2003) and Jorge (2002, 2000), my research reinforces the view that women need to be involved in policy-making, but that they should be selected on the basis of their representing diverse segments of society, heterogeneous populations of women, and with knowledge of the local environment of women and the cultural and social barriers encountered by them. Furthermore, my research suggests that using multiple policy formulation processes produces more effective and inclusive policies. A consultative approach, in combination with the use of ICT policy guidebooks and tool-kits,

proved to be the most effective method in relation to the inclusion of women, demonstrating a higher extent of references and greater sensitivity to the barriers faced by women.

2. Building on the work of Wanasundera (2006), Sayo *et al.* (2004) and Hafkin (2003, 2002), this research suggests that ICT policies cannot be gender-neutral. Specifically in the context of Pakistan, due to the prevailing patriarchal social structures that exist, women not only need to be explicitly referenced in ICT policies, strategies and plans, but their diverse needs due to a heterogeneous population and their environments need to be considered and addressed in harmony with social and cultural constraints if policies are to be effective and support women's engagement in the information society
3. Notwithstanding the recent admirable work undertaken by the World Bank (Samia Melhem, 2009) to help create effective toolkits to engender ICT policies, a substantial number of challenges and barriers still remain unaddressed. This is because ICT policy guidelines and toolkits do not have a strong grasp of the complex cultural and social challenges and barriers faced by women when they engage with ICTs.



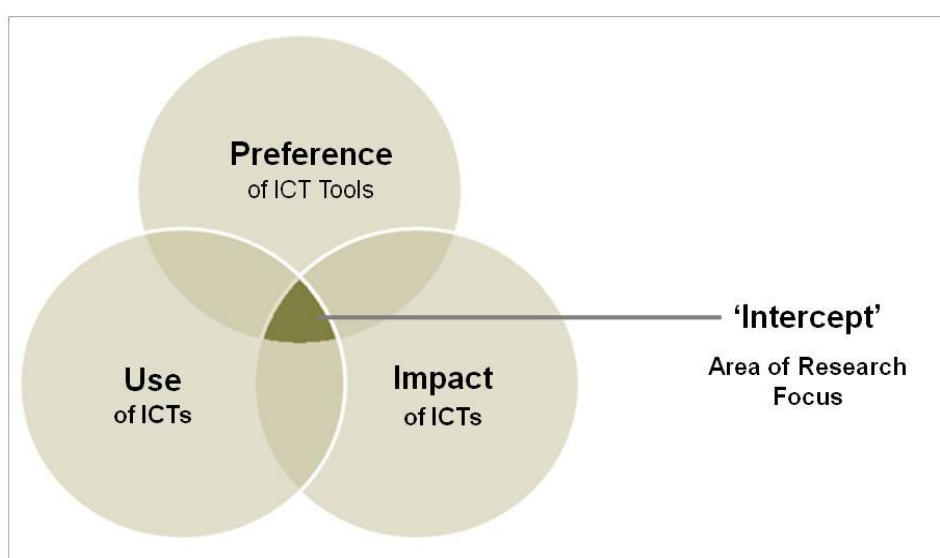
# 5 Use and Impact of ICTs: Understanding Women's Experiences in Pakistan

## 5.1 Introduction

As outlined in Chapter 2, ICTs have great potential to bridge the many divides and act as a catalyst for economic growth, social development and the empowerment of women (Best and Kenny, 2009; Weigel and Waldburger, 2004; Balakrishan, 2002), nonetheless it also highlights extensive barriers and challenges (See Figure 2.10). Therefore, it was critical to develop a deep sense of understanding of women's specific experiences from their engagement with ICTs: preferences, uses and impact (The overall analytical framework is captured in Figure 3.7).

This chapter, analyses the results from the focus groups, interviews and questionnaire surveys to examine Pakistani women's preferences in relation to ICT tools, the scale and scope of their use and the consequential impact of ICTs. Figure 5.1 summarises the three key areas for research in this context that emerged as part of the conceptual framework in Chapter 2:

1. Women's engagement level and preferences for ICT tools – Comfort level with various ICT tools
2. Use of ICT tools –the scale, scope and nature of the usage
3. Impact of ICT use – the consequential impact to women's empowerment



**Figure 5.1**  
**Areas of Research Focus**  
**Source: Author**

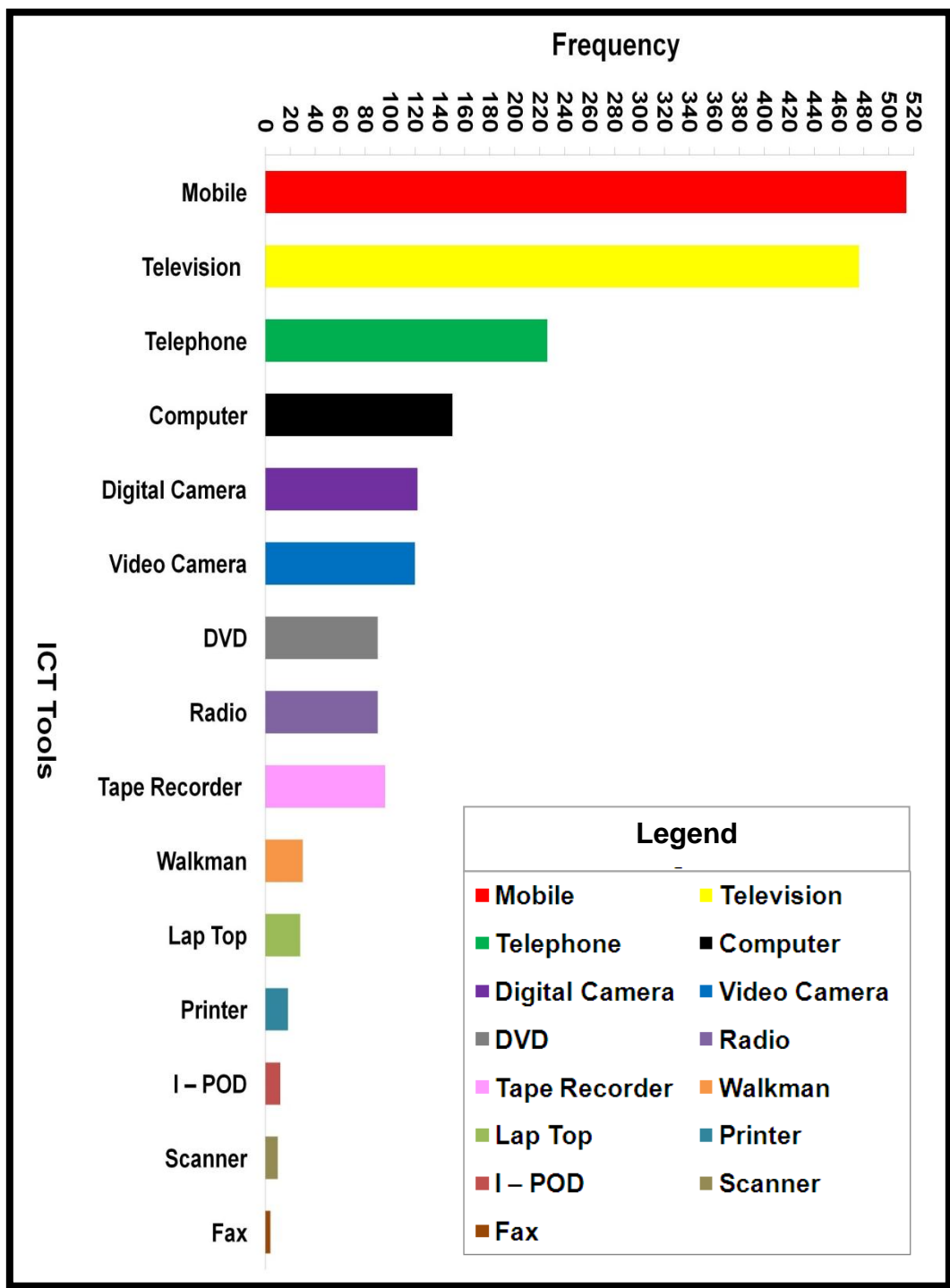
## 5.2 Exploring Women's Preferences for ICT Tools

Surprisingly, limited research has been conducted into the preferences that women have with regard to the use and selection of ICT tools (Stark, 2010; Laizu *et al.*, 2010). This may be due to a lack of interest on the part of ICT manufacturers in this field, as women are not seen as their primary target market (Huyer, 2005). Furthermore, there is evidence that due to their lack of income and lower literacy rates, women tend not to be the owners of ICTs or generally have time to access them, as discussed by Gurumurthy (2006) and Hafkin and Taggart (2001).

The general experience drawn from the field research in Pakistan uncovered a critical gap regarding rural women's complete lack of awareness and familiarity with the range of different types of ICTs that I was examining (see Section 3.6.4). However, a few formally educated women thought that 'ICTs meant computers'. Typically, I found that these had only been exposed to Television, radios, mobile phones and in some cases, landlines. This also supports the research findings by Siegmann (2009) on rural women's access to ICTs in Pakistan (Cleevely, 2005). On the other hand, urban women seemed to have been more familiar with a broader range of ICTs tools. This section presents the findings of women's preferences of ICT tools and, more importantly, why they hold these particular choices.

### 5.2.1 Ranking of ICT Tools by Preference

The results are summarised in Figure 5.2, and demonstrate women's preferences for certain specific ICT tools, particularly the mobile phone and television (TV). These are substantially ahead of the telephone (landline) and computers, which are the next two most popular ICT tools. Intuitively, this may be due to the higher cost of the latter and the need to have more advanced levels of infrastructure in place in order for them to function. It is interesting to note that despite other research that indicates women's primary preference of ICT tools to be the radio (see Siegmann, 2009; Macueve *et al.*, 2009), my research findings indicate the radio to be the eighth ICT tool of choice by women in Pakistan across both rural and urban areas, indicating that the mobile phone has overtaken the radio in terms of popularity and use. Section 5.2.2 discusses the probable drivers for these choices in more detail.

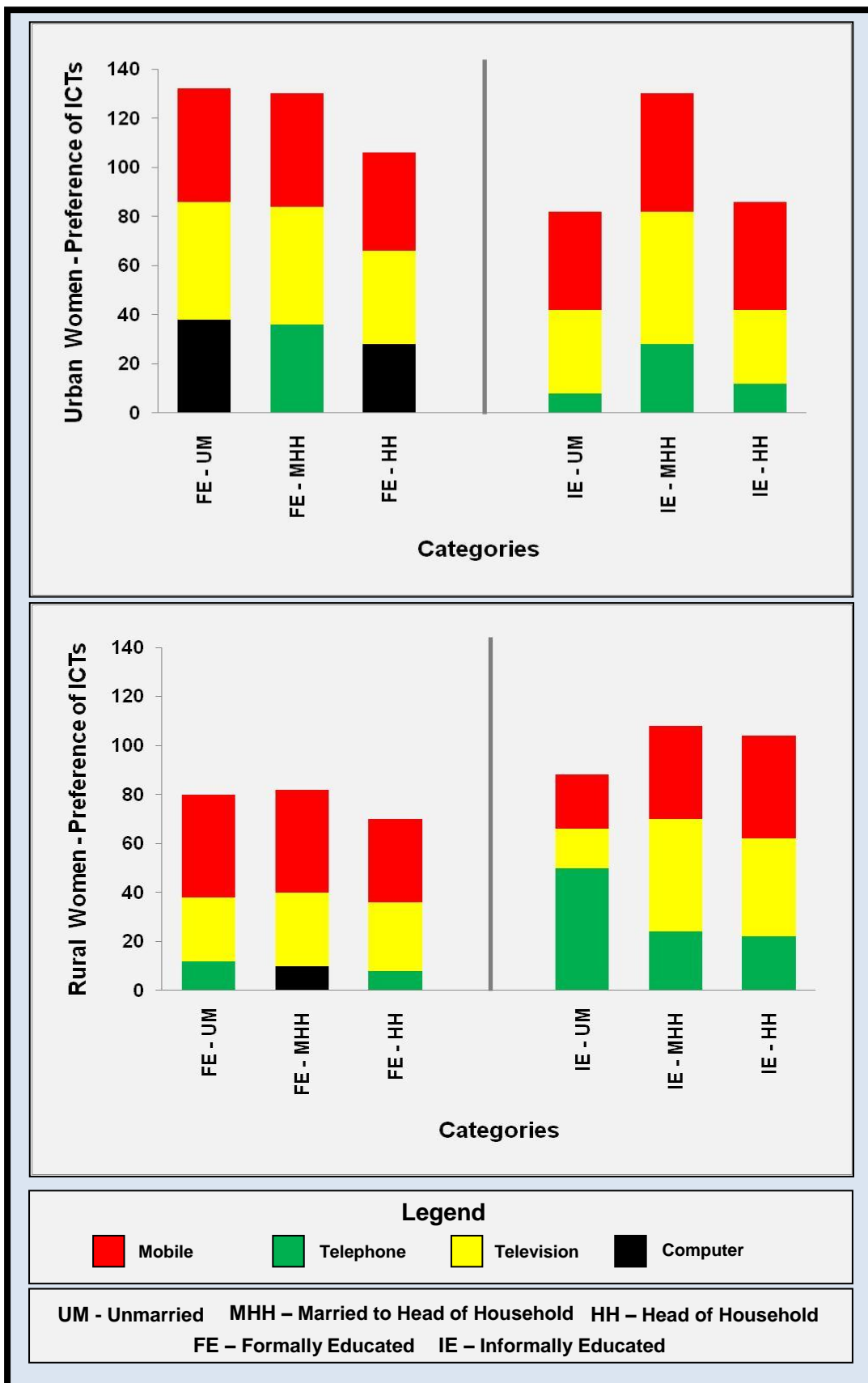


**Figure 5.2**  
**Result – Women’s Preferences for ICT Tools**  
 (Source: Author’s Survey, October, 2009)

The results were further synthesised to identify the top three ICT tools for each of the six categories (Informally Educated, Unmarried (IE-UM); Informally Educated, Married to Head of Household (IE-MHH); Informally Educated, Head of Household (IE-HH); Formally Educated, Unmarried (FE-UM); Formally Educated, Married to Head of Household (FE-MHH); Formally Educated, Head of Household (FE-HH)). A comparison was made between rural and urban environments (Figure 5.3) which show that there is a marked difference between the responses of people living in urban areas and those from rural areas. Nevertheless, the most preferred ICT tools were: the mobile phone, television, telephone (landline) and computer. This difference could be due to the relatively limited exposure that women have to ICT tools in rural areas, with possible reasons for it discussed in greater detail in the next section.

Some of the key findings from this analysis include the following:

- Mobile phones remain the most popular tool across all of the categories of the researched population (Figure 5.4) This finding also supports Macueve *et al.*'s (2009) research on women's use of ICTs in Mozambique and Muller's (2009) study of rural women in South Africa (see also Barendregt and Pertierra, 2008).
- In rural areas, the use of mobile phone is comparatively less for informally educated, unmarried women, as in most cases they do not own mobile phones (see Section 5.2.3). Furthermore, as this research identifies, rural woman also suffer from a greater degree of restrictions than their urban counterparts, which could explain this difference, as described by Chaudhry and Nosheen (2009), specifically that communities in urban areas are less rigid. This supports the arguments by Jafar (2005) and Mahmood (2005). Moreover, this finding is also reinforced by Comfort and Dada's (2009) research in Nigeria, which confirms that women in rural areas tend to have more restricted access to ICTs than their urban area counterparts (also see Cleavelly, 2005). Furthermore, Soupizet (2005:199) argues that "without technical and commercial modifications, this technology is unlikely to cover rural areas".

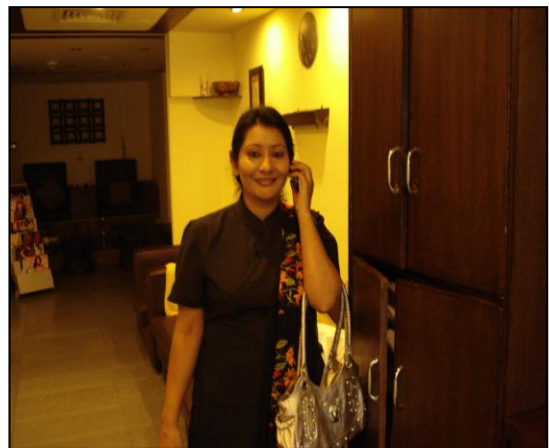


**Figure 5.3**  
**Top 3 ICT Tools Preferred in Urban and Rural Areas**  
 (Source: Author's Survey, October, 2009)

Television and telephone (landline) are the respective second and third most preferred tools by all categories, with the exception of formally educated, unmarried women, formally educated head of household women in urban areas and formally educated, married women in rural areas, who preferred computers over telephones (landline).

- A key reason for the preference for computers by head of household women in urban and rural areas is that they enable them to speak to their children and relatives who are overseas, using Skype and similar services that are much cheaper than landline calls. Furthermore, formally educated, unmarried women in urban areas prefer computers to telephones, as they either use text messages (SMSs) through their mobile phones or chat online with their friends using a computer. Formally educated, married women in rural areas preferred using computers, as they had access to the computer at home because of their children (see Section 5.3).
- There is a sharp divide in the availability of computers between the urban and rural environments. This data suggests that computers are only available to formally educated women in rural areas, but at a much lower level than in urban areas.
- Women in rural areas who do not have telephones (landline) in their homes use public call offices (PCO) to call their relatives.

The next section explores the reasons behind the preference for the top two ICT tools uncovered in this research, namely; the mobile phone and television.



**Figure 5.4**  
**Use of Mobile Phones by Diverse Women**  
**(Source: Author)**

## 5.2.2 Critical Drivers of ICT Tools Preferences

Synthesis of the field research data, revealed two major causes of the preference for mobile phones: simplicity (incorporating ease of access in the home, voice-based, basic functionality) and cost; and the choice of TV due to its accessibility from the home and relatively low cost of running (usually as a shared family ICT tool). The next section discusses these two factors in detail.

### 5.2.2.1 *Simplicity (Mobility, Ease of Access and Functionality)*

To provide an insight into the reasoning behind the preference for mobile phones and TV as the most popular ICT tools, several specific comments made by the research participants are indicated below, so that the local context is preserved of their particular reasoning, (also see Figure 5.5)

This section provide a series of quotes on the context of preference to mobile phones: A young woman living in a village of Punjab, Mera Bagwal, stated that:

*'I prefer to use a mobile phone as it is easy to use and I can tie it to my dupata' (P-MHH-IL-R-1).*

Likewise, another rural woman from a village in the interior, Sindh, stated that:

*'I use a mobile phone since it is cheap for me to use and since my brother buys me top up cards'. She added that 'I cannot read very well but I find the mobile simple to use' (S-HH-IL-R-1).*

After further discussions with many other participants, she also revealed that:

*'We have no other options in our village as we do not have a landline connection and very little electricity' (S-HH-IL-R-1).*

This point was also echoed by two participants:

*'As Pakistan is facing severe electricity shortages and ICTs are becoming really hard to use, I prefer using a mobile phone as it is not as dependent on electricity. You just have to charge it once a day while you have power and then its survival depends on your usage of it' (S-UM-FE-R-2).*

*'I find the mobile phone to be the easiest gadget for communication*



*as you don't have to go through the hassle of switching on a computer and email'* (P-MHH-FE-U-2).

However, two distinct differences were apparent in the remarks made by women in urban areas due to their lifestyle and exposure. For example, an engineer commented:

*'Although some women find mobile phones very hard to use, I find the interface of mobile phones very interactive and easy'* (P-UM-FE-U-2).

Similarly, a banker working in Islamabad compared the ease of carrying her mobile phone over a laptop as justification for why she preferred the mobile:

*'The mobile is really easy to carry and you can take it everywhere whereas a laptop is still hard to travel with plus it is expensive'* (FC-UM-FE-U-1).

The comments made by urban women indicate their selection of the mobile phone as their tool of choice due to its simplicity, mobility and ease of use. It should be noted that in addition to the 'ease and simplicity' of use, rural women added that their preference for mobile phones was also influenced by practical considerations for themselves: low literacy levels, a lack of familiarity with technology and limited access to funds, and also due to a lack of reliable infrastructure (electricity) and of internet connectivity in their villages (the specific use is discussed in Section 5.3). These points echo the comments made by rural women in Northern Nigeria (Comfort and Dada, 2009) and Mozambique (Macueve *et al.*, 2009).

The convenience of having a TV in the home was often pointed out as one of the main reasons for its popularity. This was clearly demonstrated by a comment of one informally educated women living in Rawalpindi:

*'I like listening to the TV when I am doing other things around the house and it feels like someone is here with me when the children have gone to school'*, adding that it did not make her feel alone (P-IE-HH-U-2).



**Figure 5.5**  
**Use of Mobile Phones by Location**  
**(Source: Author)**

Similar remarks were made by two participants living in rural areas, but to a lesser extent:

*'I like watching dramas and Indian movies on TV, but I have to watch the TV with my in-laws and neighbours, as we have no TV of our own and this is the only means of entertainment in our village'. She continued that 'TV is very easy to use – I just have to press a button to switch it on, but that is only when God gives us electricity' (S-IE-MHH-R-1).*

*I like to watch TV in my free time, but nowadays we miss a lot of our favourite programs because of load shedding (power cuts)' (P-IE-UM-R-1).*

It is important to note that a large number of women across the rural areas who had some access to mobile phones indicated that mobile phones and TV had transformed their lives (see Section 5.4).

### **5.2.2.2 Consequences of Cost**

Cost plays a major role in the choice of ICT tools. One of the primary reasons that women prefer mobile phones is their low initial cost and the low subsequent cost of operating them. The relatively low cost of mobile phones as a desirable feature motivating their use was reiterated by all of the focus groups. This is clearly seen in the comments of three urban participants:

*'I prefer to send SMSs because it's easy and cheap and it is the best way to reach my family and friends' (S-MHH-FE-U-1).*

*'I prefer the mobile phone over all other sorts of ICT tools because it's cheaper and has very low maintenance costs' (S-UM-FE-U-1).*

*I can speak to my friends for hours and can also utilise free SMS's (P-UM-FE-U-1).*

Similarly, an informally educated woman in a village in AJK stated:

*'I like to use a mobile phone because I can speak to my family in Lahore and it does not cost much' (A-MHH-IE-R-1).*

These are typical of the comments across all of the groups, regardless of education or location of dwelling. Similarly, cost was also identified as the primary reason for the popularity of television, coupled with the fact that the TV is generally in the home and so easily accessible. It is interesting to note that my participants appeared to ignore the initial high cost of purchasing a TV or the on-going electricity bill in their discussions, as many of them were living with their parents. This was evident in a comment made by one young respondent living with her parents in Islamabad and working for a call centre:

*'I love the TV because it's in the house and it's free' (FC-UM-FE-U-2).*

Comparable comments were observed across all of the categories studied, indicating the preference for TV because of the apparent low cost of its usage perceived by all of the respondents. To provide further insight into these comments, the testimony of three respondents from different geographical locations and educational backgrounds are relayed:

*'I prefer to watch TV as we have to meet no expenses; it's just 25 rupees per month included in the electricity bill, which is paid by my family' (P-UM-FE-R-1).*

*'I like to watch TV as we don't have to pay any charges and can watch dramas and news all the time' (S-MHH-IE-R-2).*

*'TV in Pakistan gives the best value for money, because we now have hundreds of new cable channels that have opened up and I can watch it all the time while I am doing stuff around the house' (P-HH-FE-U-1).*

During the informal discussions conducted before and after the focus group sessions, many of the women (in confidence) discussed their helplessness regarding their [lack of] control of finances and their inability to control the money that they earned. At this juncture, many of the participants shared, in an almost embarrassed manner, how they often used missed calls to their elder siblings and parents, who would then immediately call them back. This same technique is also employed by women in Nigeria who have limited resources, as identified by Comfort and Dada (2009). A more creative use of the missed call practice was described by a formally educated unmarried woman from Islamabad who noted that she gives her brother a missed call when she is ready to be collected from the office, saving her time and money.

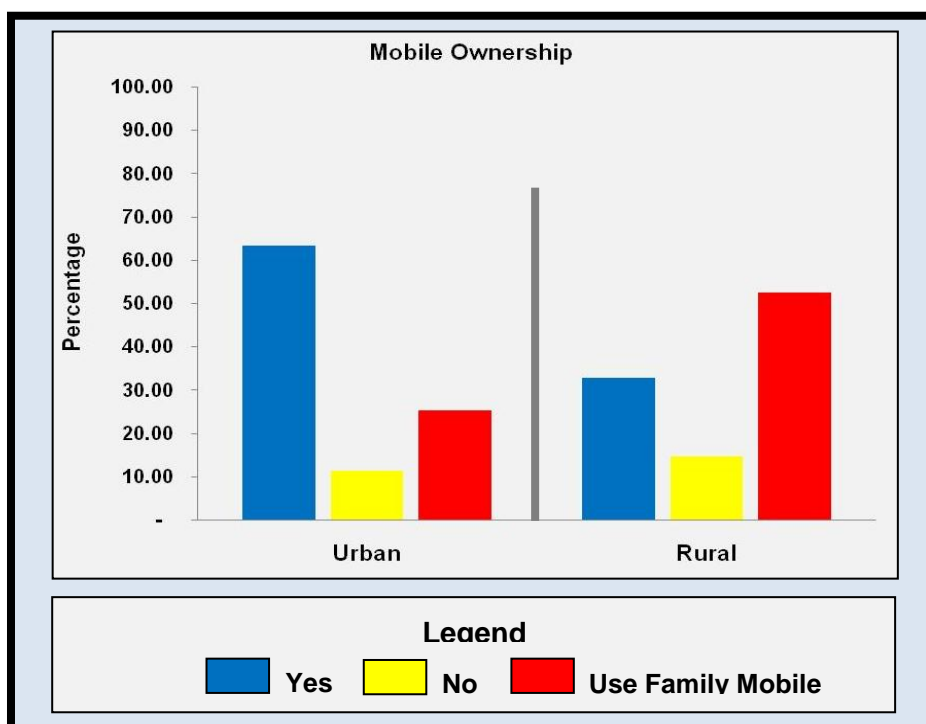
Thus, cost was a critical factor influencing their choice of ICTs. This point corroborates the argument made by Thas *et al.* (2007:5), who suggest that "women have fewer

resources than men, and more limited economic opportunities”. Furthermore, it also reinforces the findings of the ITU report by Wangmo *et al.* (2004:10), which notes that “women cannot buy or use ICT devices or services like men because of the feminization of poverty. Even when they can economically afford to buy or use ICT devices or services, social barriers mediate their access in certain countries” (see also Hafkin, 2000; Dwyer and Bruce, 1998). This is discussed in detail in the next chapter, where the barriers and challenges experienced by women are examined.

To summarise, the use of ICTs by women in Pakistan is conditioned by practical factors. A consensus was evident across all of the focus group participants that the mobile phone and television were the most common and preferred ICTs. The simplicity of use and relatively low costs of acquiring and using these devices was cited by women from all economic backgrounds and geographic locations as the primary factors influencing their use of them. Certain practical considerations, such as the inconsistency of Pakistan’s electricity supply, also figured in their preference for these tools.

### **5.2.3 Access to Mobile Phones**

A recent report published by GSMA (2010) identifies a huge gap in the ownership of mobile phones between men and women, especially in Afghanistan, Pakistan, Bangladesh and India. This has been attributed to the patriarchal social structure, lack of disposable income for women, the lack of cultural acceptability of women’s ownership and the lack of awareness of benefits from ICTs. Correspondingly, my field results from Pakistan also support these findings and demonstrate that while 63% of the women in urban areas own mobile phones, in rural areas, only 33% of women own mobiles. Nevertheless, 52% of the rural women indicated that they had access to mobile phones by sharing the family phone, which was typically owned by male family members. These results confirm the findings of Siegmann’s (2009) research in Pakistan on rural women. However, only 25% of the women in urban areas indicated that they had to share mobile phones. There are two main factors that contribute to this difference, the first and utmost being the extent of male dominancy and control over women in rural areas, while the second is the lack of available funds for women themselves. Nonetheless, 11% of the women in urban areas still indicated that they did not have access or own mobile phones. A higher percentage (15%) was noted in the rural areas. On further analysis, the causal effect of this gap was primarily due to a lack of available funds. The results are indicated in Figure 5.6.



**Figure 5.6**  
**Mobile Phone Ownership**  
 (Source: Author's Survey, October, 2009)

Further synthesis of the results indicates a visible trend between women's ownership and access to mobile phones based on their household position as shown in Table 5.1.

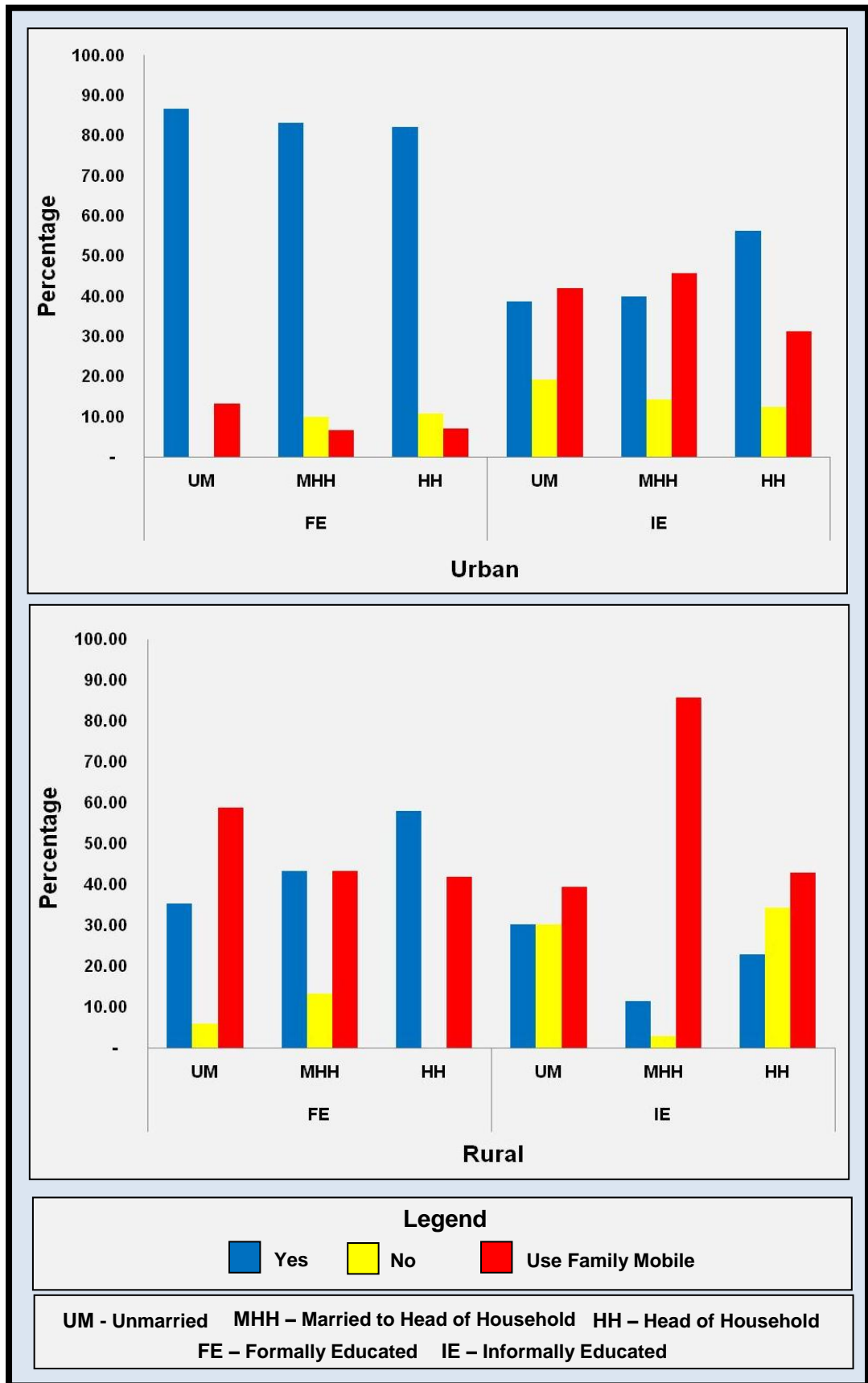
Household Position	Own Mobile (%)	Shared Mobile (%)	No Access (%)
Unmarried	47	39	14
Married	43	47	10
Head of Household	53	32	15

**Table 5.1**  
**Influence of Household Position**  
 (Source: Author's Survey, October, 2009)

These results once again demonstrate the degree of influence that male dominance and control have over women's access to ICTs. Furthermore, the results also indicate that formally educated women have greater access than informally educated women (Table 5.2, Figure 5.7).

Education	Own Mobile (%)	Shared Mobile (%)	No Access (%)
Formally Educated	64	30	7
Informally Educated	33	48	19

**Table 5.2**  
**Influence of Education**  
 (Source: Author's Survey, October, 2009)



**Figure 5.7**  
**Mobile Phone Access and Ownership**  
 (Source: Author's Survey, October, 2009)

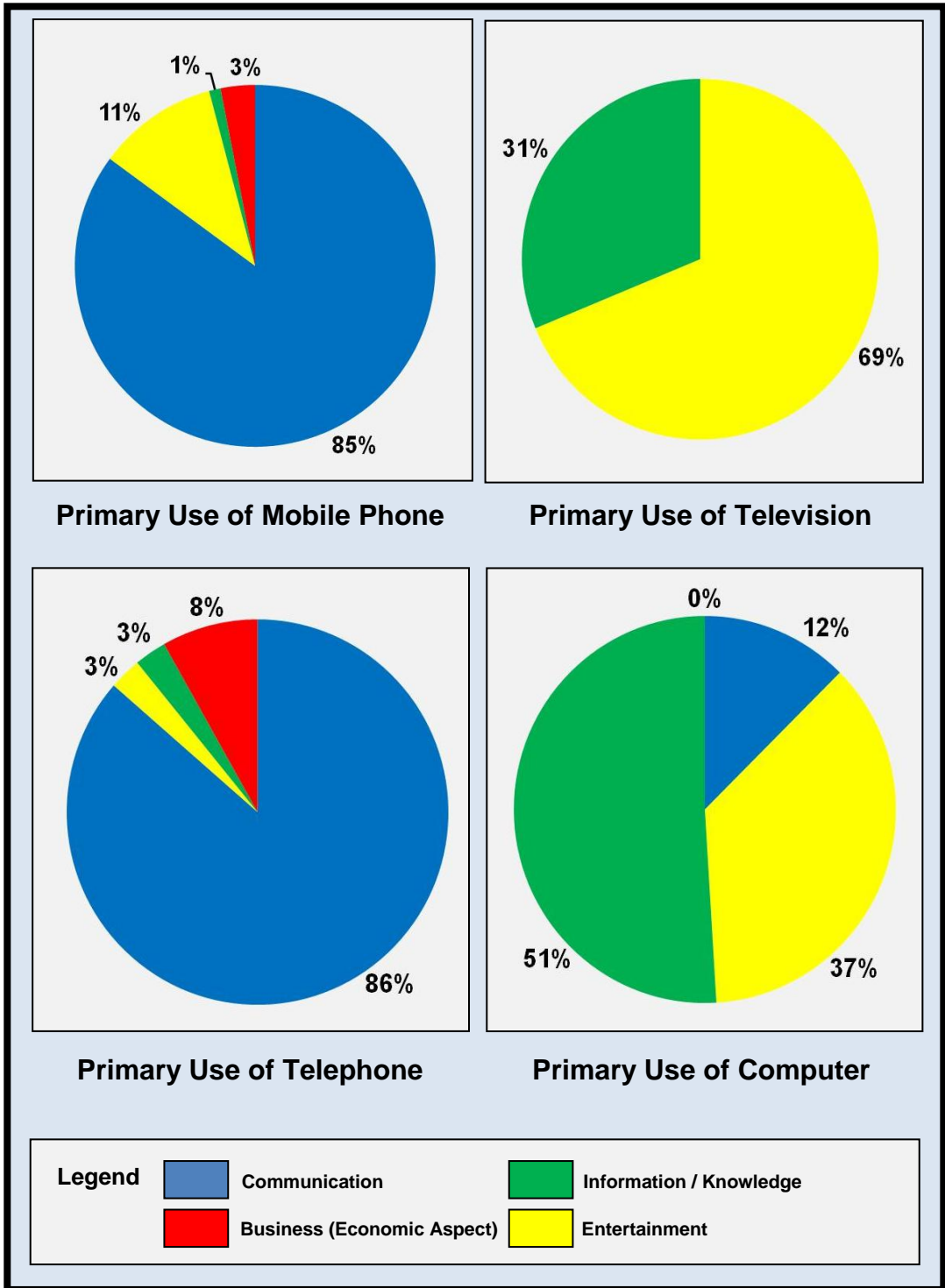
## 5.3 Women's Use of ICTs in Pakistan

In Chapter 2, many studies were referenced that have claimed that there is a substantial disparity between men and women with regard to access to ICTs. Current literature suggests a number of potential causes for this low level of access among women (Elnaggar, 2007; Thas *et al.*, 2007). These include a lack of education, illiteracy, as well as a lack of financial resources, skills, and prohibitive factors relating to location and culture (Selinger, 2009; Day and Greenwood, 2009; Hafkin and Taggart, 2001). However, Zainudeen *et al.* (2010) suggest that the way in which men and women use ICTs is different. They go on to postulate that women tend to make “longer-duration calls and to use them primarily for what can be broadly termed ‘relationship maintenance’ – or keeping in touch – while men make fewer calls, spend less time on the phone and use them primarily for ‘instrumental’ purposes – essentially, to attain an objective” (Zainudeen *et al.*, 2010:3). However, an alternative perspective is presented by Sane and Traore (2009) who, drawing on their research in Senegal, point out some of the innovative ways in which female fishmongers use mobile phones. Additionally, Yitamben and Tchinda (2009) also shed light on the creative ways that women entrepreneurs in Cameroon use the internet to help their textile businesses flourish.

### 5.3.1 Specific use of ICT Tools

This section presents the analysis and findings from the focus group data and questionnaire surveys on how women actually use ICTs across the researched areas of Pakistan. The synthesis of the questionnaire surveys identified four key categories of ICT use: communication; entertainment information and knowledge; and business (see Section 3.6.4). The most popular ICT tools were; mobile phones, TVs, telephones and computers (Figure 5.2). The following section presents the analysis of each of these ICT tools and their uses in the form of pie charts (Figure 5.8).





**Figure 5.8**  
**Primary Use of ICTs by Pakistani Women**  
 (Source: Author's Survey, October, 2009)

An overview of the general uses are given below;

**Mobile Phone:** The mobile phone is primarily used for communication by the majority of the women (85%). A smaller number (11%) use it for entertainment, including music/radio, games and as a camera. A very small percentage (3%) of the women used the mobile phone for business, and these were mainly those from urban areas.

**Television:** The results indicate that while the majority of the women (68%) used the television for entertainment purposes, a considerable number (31%) used it for gaining information/knowledge. This included news, quizzes, cooking shows and distance education programmes. There may therefore be opportunities to engage with women using this media to provide information and training to allow them to participate in the information society.

**Telephone:** The overwhelming use (86%) of the telephone (landline) is for communication purposes. A smaller number of women (8%) use the telephone for business purposes, including speaking with customers, suppliers and other vendors. This business use is primarily confined to those in urban areas. The entertainment and information/knowledge use (3% each) of the telephone focused on the recent service from Pakistan Telecommunication Ltd. and includes stories, songs, jokes, cooking recipes.

**Computer:** The results indicate that the internet and computer have the most varied use. 51% of the women use this medium for information/knowledge that includes searching for jobs, office work, research, fashion and sports updates, as well as for news and religious information. It is, though, important to note that the use of computers for information and knowledge was not mentioned by any woman from the rural areas. 37% of the women use computers for entertainment, including games, music and videos. Some 12% of the women used computers for communications. Surprisingly, none of the women use computers for business purposes.

An overall analysis across the research population indicates that not only are mobile phones, televisions and landline telephones the most popular ICT tools, but further confirms that their primary usage falls in the area of staying connected to family. This is through voice communication, either through the landline (73%) or mobile phone (46%). This finding also reinforces Siegmann's (2009) research in Pakistan indicating that women primarily communicate with their family members. The reasoning offered also corroborates the finding in this research that children miss their parents and feel happy when they talk to them. The overall results are indicated in Table 5.3, and are not unlike

ICT Tools	Themes	Specific Use	Total (%)
Mobile	Communication	Talking to family	46
		Talking to friends	10
		Chatting	1
		SMS/MMS	29
	Entertainment	Music/Radio	5
		Games	3
		Camera	3
Information and Knowledge	Location Locator	1	
Business Economic Aspect	Connecting to Customers	3	
Television	Entertainment	Game shows	1
		Dramas	52
		Movies	8
		Songs	8
	Information and Knowledge	News	9
		Quizzes	2
		Cooking Shows	17
		Virtual University	2
AIOU	1		
Telephone	Communication	Talking to family	73
		Talking to friends	13
	Entertainment	Music	2
		Stories Listening	1
	Information and Knowledge	Knowledge Sharing	1
		Cooking Recipes	1
	Business Economic Aspect	Connecting to Suppliers	3
Connecting to Vendors		1	
Connecting to Customers		5	
Computer	Communication	Connecting to Family	4
		Connecting to Friends	3
		Video Chatting	6
	Entertainment	Games	13
		Videos	12
		Music	13
	Information and Knowledge	News Update	4
		Weather Updates	2
		Job Searching	11
		Fashion Updates	13
		Office Work	3
		Making Assignment	4
		Research for Assignments	4
Listening Lectures		3	
Listening to Naats		6	
Listening to Recitals (Quran)	2		
Islamic Lectures	1		

**Table 5.3**  
**Overall Use of ICTs**  
**(Source: Author's Survey, October, 2009)**

the research conducted on women's use of ICTs in Africa, specifically in Mozambique by Macueve *et al.* (2009) and Comfort and Dada's (2009) work on Muslim women's use of ICTs in Nigeria.

In reviewing the use of ICTs, this research has shown that most women tend to be passive consumers of information technologies such as television, radio, DVDs and cameras, which are primarily used for entertainment or acquiring general information. The profile of use of mobile phones, computers and the internet, though, is very different for different women and is clearly influenced by factors of geographical location, status and education. Therefore, the following sections will discuss the variations in use of ICT tools across geographical location, educational level and position in household.

### **5.3.2 Urban and Rural Divide**

My research concurs with the views of Comfort and Dada (2009) and Torenli (2006) that there is a considerable divide between urban and rural areas with regard to access to different types of ICTs and their use. In particular, there is a great difference between the availability and use of the internet between urban and rural communities. While many urban women generally have access to computers and the internet either at home or as part of their work, their counterparts in rural areas have very little knowledge or experience of ICTs (see also Sattar, 2007). More importantly, rural women typically see computers as having very little relevance to their daily lives other than to connect to family overseas through Skype or other such VOIP services. This was primarily due to the fact that they have very little time to experiment with ICT tools and more importantly, suffer from a lack of exposure, awareness and literacy (digital and basic) from an early age. This drawback is also echoed by Comfort and Dada's (2009:44) research on women in Nigeria, in which they identify that managing household responsibilities leave rural women "with hardly any spare time to become familiar with new technologies". This can be seen in three comments made by participants:

*'What value is the computer when I don't understand technology? I don't know how to use it and everything on it is in English' (A-MHH-IE-R-1).*

*'We don't have a computer at home and it is inappropriate for any woman in our culture to go and use the computer in the centre' (P-UM-FE-R-1).*

*'Even if I had access to a computer, I wouldn't know how to use it and there is no facility in our village for girls to learn about ICTs' (A-UM-IE-R-2).*

These results from the rural areas reinforce Huyer and Mitter's (2003) premise that cultural attitudes and practices can preclude both opportunities for the use of ICTs as well as training in their use for women and that a "lack of education impede[s] women from engaging effectively with ICTs" (Huyer and Sikoska, 2003:12). This point was also underlined by the CEO of a large NGO in Punjab, who suggested that:

*'The scarcity of use of ICTs in the rural areas is mainly due to the lack of availability of ICT tools, poor quality of infrastructure and lack of awareness of the benefits of ICTs' (EIW-29).*

In urban areas the picture is somewhat different with urban women have considerably better access to computers than their counterparts in rural areas, and they are also better able to use them. This is demonstrated by comments made by two respondents:

*'The internet is an amazing source of information for finding jobs in Pakistan in different cities and also helped me to check out the backgrounds of companies. This information was never available before' (S-UM-FE-U-1).*

*'I got a job in Telenor by applying online on their website. This was a very liberating feeling for me' (P-UM-FE-U-1).*

Furthermore, two innovative uses of ICTs were described by two urban participants:

*I am not educated by I run a beauty parlour in Lahore and use the internet to obtain different designs and patterns for Mehndi which are greatly appreciated by my clients and make me very happy' (P-UM-IL-U-1).*

*I use the internet to get the latest trends and designs for my dresses' (S-MHH-FE-U-1).*

It is interesting to note that television is seen as being a greater source of information for urban women than the internet. Women in rural areas mainly watch television for entertainment purposes, such as dramas and movies. On further examination of this difference, it was observed that women in the rural areas often shared the TV across multiple households and often did not have enough time to watch it due to house work (see Thas *et al.*, 2007). When I shared these results with four elite women in Pakistan – a senior government official, a judge, the CEO of an NGO and a school head mistress (EIW-20, EIW-27, EIW-26, EIW-37) – they professed belief that this contrast existed because of differences in the responsibilities, resources, education and awareness that the women in these different groups had. Justice Majida Rizvi went on to point out:

*'Due to limited exposure and access to ICTs, the young rural women of Pakistan are deprived of its benefits'. She continued that 'the Local Government needs to take concrete measures to increase the awareness of and training in ICTs for girls and their family members so that they don't lose out on the opportunities from the digital economy' (EIW-27).*

An overview of the specific uses of the ICT tools between urban and rural women's summarised below (see also Table 5.4);

**Mobile Phones:** For urban women, there were two uses which notably stood out for high usage, 38% talking to family and 35 % SMS/MMS, whereas 58% of rural women reported that they use mobile phones to talk to family members.

**Television:** Television was identified as being used for watching dramas by 45% urban women and 64% rural women.

**Telephone:** The highest use was reported to be talking to family, at 65% for urban women and 89% for rural women.

**Computer:** It was difficult to identify the highest use of computers by women in urban areas because it was closely distributed across five different uses, with the highest being updates for fashion at 14%. In contrast, 42% of rural women stated that they used the computer for listening to Naats.

### **5.3.3 The Influence of Educational Differences**

The importance of education for women, as well as some of the restrictions that they face regarding it, were discussed in Chapter 2, for as Hafkin and Taggart (2001) suggest, education for women should equip them to play an effective role in the design and management of ICTs and also as users and consumers. The results of my empirical research clearly indicate that formally educated women tend to make more effective use of technology, either for further development (more education, online courses and training), or to find better opportunities to improve their economic wellbeing, than do informally educated women.

ICT Tools	Themes	Specific Use	Urban (%)	Rural (%)
Mobile	Communication	Talking to family	38	58
		Talking to friends	10	10
		Chatting	-	1
		SMS/MMS	35	17
	Entertainment	Music/Radio	5	5
		Games	2	4
		Camera	3	2
Information and Knowledge	Location Locator	1	-	
Business Economic Aspect	Connecting to Customers	4	2	
Television	Entertainment	Game shows	1	-
		Dramas	45	64
		Movies	9	6
		Songs	9	8
	Information and Knowledge	News	10	7
		Quizzes	3	-
		Cooking Shows	18	15
		Virtual University	3	-
AIOU	2	-		
Telephone	Communication	Talking to family	65	89
		Talking to friends	17	6
	Entertainment	Music	1	4
		Stories Listening	1	-
	Information and Knowledge	Knowledge Sharing	2	-
		Cooking Recipes	2	-
	Business Economic Aspect	Connecting to Suppliers	4	-
Connecting to Vendors		1	-	
Connecting to Customers		6	2	
Computer	Communication	Connecting to Family	4	-
		Connecting to Friends	3	-
		Video Chatting	5	8
	Entertainment	Games	13	8
		Videos	12	8
		Music	13	8
	Information and Knowledge	News Update	4	-
		Weather Updates	2	-
		Job Searching	12	-
		Fashion Updates	14	-
		Office Work	3	-
		Making Assignment	4	-
		Research for Assignments	4	-
Listening Lectures		3	-	
Listening to Naats		1	42	
Listening to Recitals (Quran)	-	17		
Islamic Lectures	-	8		

**Table 5.4**  
**Comparative Analysis of Use - Geographical Location**  
**(Source: Author's Survey, October, 2009)**

The results from the focus groups show that educated young women in urban areas actively use the internet to participate in online courses and certifications to improve their professional credentials. This was demonstrated by two comments made by formally educated participants from two different provinces:

*'Distance learning has made our lives much easier, as travelling has become much more difficult in Pakistan nowadays' (P-UM-FE- U2)*

*'It is much easier and we can be assured when we take international professional courses online and that they will be real, because today in Pakistan we never know about the quality of a degree we are getting and of the capabilities of the teachers because there are so many scams' (A-UM-FE-U-1).*

This point was further expanded upon by another participant from Sindh:

*'Distance education with famous institutions gives our parents confidence that the money is spent well and that we will actually get a good education' (S-UM-FE-R-1).*

Even in a rural environment, a formally educated woman from Jacobabad, a village in Sindh, stated that:

*'I am graduating from Allama Iqbal Open University, and I have lessons on television without having to go anywhere. This has made my family very happy because they didn't want me to leave home to go for study' (S-UM-FE-R-1).*

In contrast, the research demonstrated that women with little or no formal education were generally much less confident in using computers or the internet. These findings are identical to those conducted on women's use of ICTs in Mozambique by Macueve *et al.* (2009), which highlights that women's lack of familiarity with the ICT tools is the primary cause for using only the mobile phone or TV. This also appeared to be recognised by the participants since they all emphasised the need for more ICT training so that women can make better use of the technologies that are available. This is demonstrated by one comment:

*'There also needs to be training for the men in their community so that they understand the benefit of ICTs and this may help remove some of the misconceptions and misunderstandings that our elders have about the computer' (S-UM-IE-U-2).*



It is interesting to note that women from Morocco (Tafnout and Timjerdine, 2009) and Nigeria (Comfort and Dada, 2009) also feel that it is critical for women to have practical digital literacy so as to be able to engage with ICTs effectively and confidently (see also Torenli, 2006). Furthermore, it was interesting to observe that some of the participants in the rural focus groups in AJK came to the session with their mothers and grandmothers. These older ladies spoke to me after the session and some commented that a school for elderly women should be opened because all of their families are now in England and they want to learn how to send emails and talk to them using Skype.

An empirical view of the differences between the specific uses of ICT tools between formally and informally educated women is illustrated below (see also Table 5.5);

**Mobile Phone:** For formally educated (FE) women, there are two categories that stand out as the highest users, with 37% SMS/MMS and 30% talking to family. Among informally educated women, 69% identified that talking to family comprised their greatest usage of mobile phones. This number is more than double that of the (FE) women, which could be explained by a possible reluctance send SMSs.

**Television :** Both FE and IE women noted the watching of dramas as their most popular use for TV, at 45% and 59% respectively.

**Telephone:** Once again, both the FE and IE women identified that talking to their family was what they made primary use of their landlines for, at 59 % and 90%, respectively. However, the results demonstrate that there is a more varying amount of use of the telephone for formally educated women, possibly due to their awareness of the multiple services, which distributes and dilutes their numbers.

**Computer:** FE women identified three equal, main uses of the computer, with 13% listening to music, searching for jobs and for obtaining fashion updates, whereas for IE women, the highest use is for watching videos, at 30%.

ICT Tools	Themes	Specific Use	Formal (%)	Informal (%)
Mobile	Communication	Talking to family	30	69
		Talking to friends	14	4
		Chatting	1	-
		SMS/MMS	37	15
	Entertainment	Music/Radio	6	4
		Games	3	4
		Camera	4	1
Information and Knowledge	Location Locator	4	0	
Business Economic Aspect	Connecting to Customers	8	4	
Television	Entertainment	Game shows	1	1
		Dramas	45	59
		Movies	7	9
		Songs	9	7
	Information and Knowledge	News	13	6
		Quizzes	4	-
		Cooking Shows	15	19
		Virtual University	4	-
AIOU	3	-		
Telephone	Communication	Talking to family	59	90
		Talking to friends	19	6
	Entertainment	Music	3	1
		Stories Listening	1	-
	Information and Knowledge	Knowledge Sharing	3	-
		Cooking Recipes	3	-
	Business Economic Aspect	Connecting to Suppliers	5	-
Connecting to Vendors		1	-	
Connecting to Customers		6	3	
Computer	Communication	Connecting to Family	5	-
		Connecting to Friends	4	-
		Video Chatting	2	20
	Entertainment	Games	10	25
		Videos	7	30
		Music	13	10
	Information and Knowledge	News Update	5	-
		Weather Updates	2	-
		Job Searching	13	-
		Fashion Updates	13	10
		Office Work	4	-
		Making Assignment	5	-
		Research for Assignments	5	-
Listening Lectures		4	-	
Listening to Naats	6	5		
Listening to recitals (Quran)	2	-		
Islamic Lectures	1	-		

**Table 5.5**  
**Comparative Analysis of Use – Educational Differences**  
**(Source: Author’s Survey, October, 2009)**

### 5.3.4 Influence of Household Position

Social status and class have a major bearing on access to education and employment (see Chapter 2). Women belonging to the upper and middle classes have increasingly greater access to education and employment opportunities (see Chaudhry and Nosheen, 2009; Offenhauer, 2005), and the divide between them and those from poorer backgrounds is steadily widening. This was clear from the comments made by some elite women from Pakistan, who mentioned that they had been provided with complete support and encouragement from their families to pursue higher education and work (EIW-29, EIW-33, EIW-34) and more importantly, as one woman noted, they were *'not deprived of access to the latest ICT tools'* (EIW-29). Similarly, another elite woman from the UAE stated that *'My father used to bring my brother and I the latest mobile phones whenever he went on a business trip overseas'* (EIW-9). However, the focus group discussions suggest that this worldview is not shared by the majority of women.

Generally, the focus group results suggest that women *heads of households* have very little engagement with ICTs other than mobile phones or television. This is apparent from the comments made by one respondent:

*'How can I find time to learn about and use ICTs when I am busy 18 hours a day with household responsibilities?'* (P-HH-FE-U-1)

This supports Saghir *et al.*'s (2009) work in Pakistan arguing that time is an issue for engagement with ICTs. Similar constraints have been voiced by research participants in Nigeria (Comfort and Dada, 2009). These findings suggest that financial worries and household chores leave little time or appetite for these women to worry about the broader issues and ICTs. This is also highlighted by Wangmo *et al.* (2004:11) in their suggestion that women have only limited time because of their "triple roles".

Furthermore, my data also indicates that women who are married to heads of households (MHH) and unmarried (UM) in urban areas have greater access to ICT tools including computers and the internet. Moreover, the results suggest that unmarried girls use ICTs to identify and undertake online courses and training to further develop and hone their skills. Thus, ICT tools have afforded them opportunities for further development within the social and cultural constraints of Pakistan. On the other hand, women who were married to heads of households (MHH) tended to primarily use ICTs for keeping in touch with friends and family and to support relationship-building. As Chaudhry and Nosheen's (2009) research in Pakistan indicates, only married women in tribal areas appear to be empowered, which supports the findings of my research

regarding access to ICTs. An explanation for this was offered by a senior government official from AJK, who stated that in 'our culture once you are married your time belongs to your husband' (EIW-31).

An empirical analysis of the specific usage variation across household positions across the ICT tools is indicated below (see also Table 5.6);

**Mobile Phones:** Irrespective of the position in household – unmarried (UM), married to head of household (MHH), head of household (HH) – all identified that their primary use of mobile phones is to talk to family members, UM (31%), MH (50%), and HH (60%).

**Television:** Once again, all three categories unanimously reported the watching of dramas on TV is their most popular use of television, UM (45%), MHH (55%) and HH (56%).

**Telephone:** All three categories of women identified that talking to family comprises their highest use of the telephone, UM (60%), MHH (87%) and HH (71%).

**Computer:** Interestingly, all three categories identified different uses of the computer based on their position in the household, with UM (21%) playing computer games, MHH (26%) obtaining fashion updates and HH (24%), video chatting using an application such as Skype. This is one of the notable trends for these findings and has also been echoed by rural female heads of household in Africa (see Macueve *et al.*, 2009) and Turkey (Torenli, 2006). A possible explanation for this use of the computer could be the fact that women heads of household typically suffer from a lack of disposable income and limited time, and therefore out of necessity have had to make the most cost-effective use of ICTs to reach out to their family members and stay connected. Furthermore, as Abraham (2009) and Comfort and Dada (2009) have pointed out, women prefer to have voice contact and stay more closely connected to their families.

Overall, the feedback from the participants indicates the significance of educational, social and locational factors in determining women's usage of ICTs. Women who are informally educated and/or reside in rural settings are more limited in their understanding and use of ICTs, whereas their formally educated, urban counterparts use computers and the internet, alongside mobile phones, gathering information relevant to their careers and personal development, as well as other, professional contexts. Less advantageously positioned women, if they used ICTs at all, tended to do so purely for communicating with family and friends. Furthermore, household position also impacts patterns of use, and women who have substantial home responsibilities are understandably less able to

ICT Tools	Themes	Specific Use	UM (%)	MHH (%)	HH (%)
Mobile	Communication	Talking to family	31	50	60
		Talking to friends	19	6	4
		Chatting	1	-	-
		SMS/MMS	29	34	19
	Entertainment	Music/Radio	8	4	2
		Games	7	1	1
		Camera	4	3	1
Information and Knowledge	Location Locator	1	1	1	
Business Economic Aspect	Connecting to Customers	-	-	12	
Television	Entertainment	Game shows	1	-	1
		Dramas	45	55	56
		Movies	14	5	4
		Songs	14	2	9
	Information and Knowledge	News	1	8	19
		Quizzes	4	2	-
		Cooking Shows	11	27	11
		Virtual University	6	-	-
AIOU	4	-	-		
Telephone	Communication	Talking to family	60	87	71
		Talking to friends	33	4	6
	Entertainment	Music	2	4	-
		Stories Listening	2	-	-
	Information and Knowledge	Knowledge Sharing	2	2	-
		Cooking Recipes	-	4	-
	Business Economic Aspect	Connecting to Suppliers	-	-	8
Connecting to Vendors		-	-	2	
Connecting to Customers		-	-	14	
Computer	Communication	Connecting to Family	2	10	-
		Connecting to Friends	5	-	-
		Video Chatting	-	7	24
	Entertainment	Games	21	-	6
		Videos	11	19	-
		Music	9	16	18
	Information and Knowledge	News Update	-	7	12
		Weather Updates	-	7	-
		Job Searching	14	-	18
		Fashion Updates	9	26	-
		Office Work	-	-	18
		Making Assignment	7	-	-
		Research for Assignments	7	-	-
Listening Lectures		5	-	-	
Listening to Naats	4	10	6		
Listening to Recitals (Quran)	4	-	-		
Islamic Lectures	2	-	-		

**Table 5.6**  
**Comparative Analysis of use – Position in Household**  
**(Source: Author's Survey ,October, 2009)**

engage with ICTs. Furthermore, this research also reinforces the risk of further marginalisation of female Heads of Households (HH), for as Muller (2009:33) argues, female heads of household are less “likely to reap the gains of ICTs in Sub-Saharan Africa” due to their added responsibilities. This number is growing in the rural areas since men travel to cities seeking other forms of income/jobs. The risk of accelerating the exclusion is growing and needs to be recognised and addressed (see Section 5.5).

### **5.3.5 Localisation of the Mobile Phone**

As was highlighted in Section 5.2, the mobile phone was the most popular form of ICT tool used by all of the categories of women. However, there were some important differences in the ways that different women use mobile phones on the basis of their geographical location. An example of this can be seen when comparing the experiences of urban and rural women. For professional urban women, the mobile phone has become an indispensable tool for both business and personal use. This is reflected from the comments made by two elite women in Pakistan:

*‘I used to be afraid of the Blackberry until my husband encouraged me to use it and now he wishes he had never shown me because it’s become attached to my skin’ (EIW-29).*

*‘All of my business dealings are via my mobile phone; I receive my emails on my mobile and it stays with me 24/7’ (EIW-37).*

While such an extent of use was not universal for urban women, my research suggests that urban working women tend to use their mobile phones for ‘functional’ as well as personal ‘relationship-building’ purposes. By contrast, the rural women use their mobile phones almost exclusively to keep in touch with their relatives and friends, primarily for general day-to-day communications, but also for informing family members about emergencies (see also Comfort and Dada, 2009; Hahn and Kibora, 2008). To some degree, this supports the observations of Zainudeen *et al.* (2010), but only with regard to some of the rural women. Moreover, an interesting use of mobile phones was also noted by a woman in rural Sindh, who was informally educated but still used her mobile phone in an innovative way:

*‘I use different ringtones of my mobile phone for different people then I know when they call me and where and who to deliver milk to. This helps me save time, money and makes me less tired at the end of my long day’ (S-MHH-IL-R-1).*

In addition, my research has uncovered a new phenomenon that has emerged which bridges both the educational and urban-rural divide, transcending the poverty and class barriers through the innovative, practical and creative use of SMSs via mobile phones. This has formed a new derivative of the Urdu language, which is based on roman text but phonetically written, so localised SMSs allow people of low literacy to converse. All of the focus group participants from urban and rural areas, both formally and informally educated, actively engage in this form of communication across Pakistan. In fact, over the past five years there has been a noticeable change in how media companies run their new 'digital Urdu text' (Figure 5.9).



**Figure 5.9**  
**Urdu SMSs and Advertisements**  
**(Source: Author)**

Overall, these research findings underline the risks and dangers of generalisations and assumptions about women's use of mobile phones and fixed line telephones. Furthermore, they highlight the diversities within a particular group and type of women. Hence, this research challenges some of the generalisations about women and mobile phones present in the recent work of Zainudeen *et al.* (2010:2) on the gendered use of telephones in South East Asia and Huyer *et al.* (2005), in West African women's use of ICTs. Zainudeen *et al.* (2010:2) suggest that women tend to use telephones for "relationship maintenance" and also emphasise that women generally use phones for longer periods than men. They go on to note that men, by contrast, often use the phone for "instrumental purposes". This supports Huyer *et al.* (2005:155), whose work argues that "women tend to use the internet and cell phones more for personal and social use", evincing the continuing differentiation of the use of mobile phones between men and women. In contrast, my research suggests that the purpose for which a mobile phone is used depends on the context and situation of the woman, rather than on the gender factor alone. This view is also shared by several elite women in Pakistan who are closely connected to and understand the social structures that exist in the country, and notably identify them as the biggest challenge that needs to be overcome and addressed by development agencies if things are to change for women there (EIW-20, EIW-24, EIW-29 and EIW-32).

## 5.4 Impact of ICTs

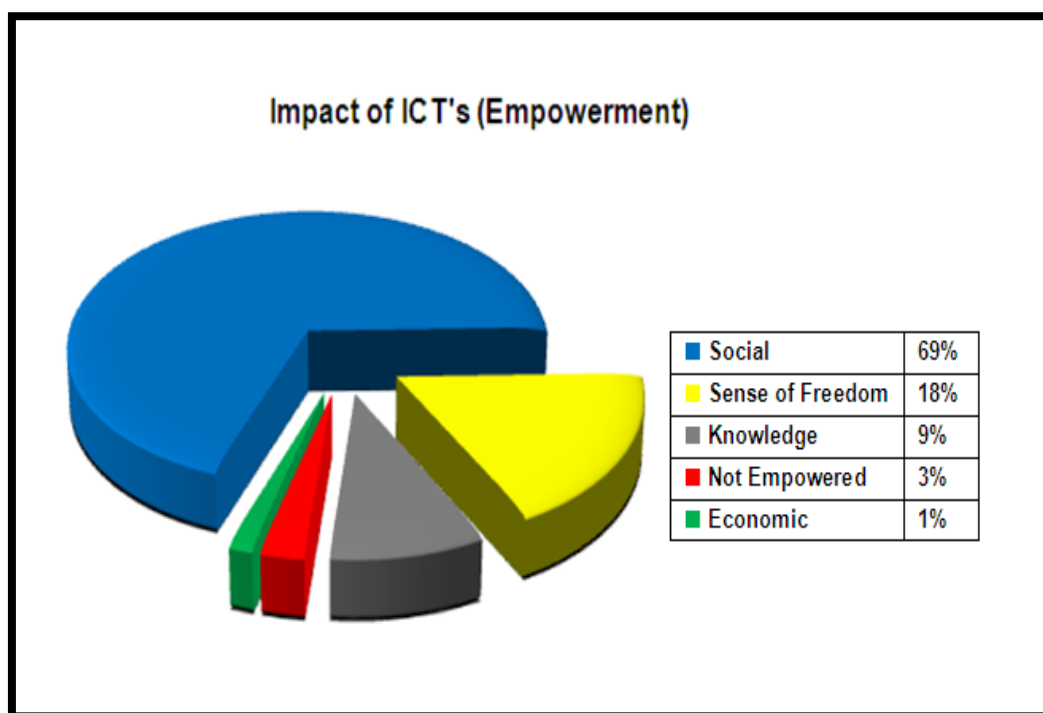
This section addresses key gaps in the ICT4D debates today that discuss the provision of ICTs for women and the subsequent impact that they have on their lives (Salazar, 2009; Hafkin, 2002). There is currently a great tension regarding the extent to which ICTs can serve as a 'liberator' for women (Pavarala *et al.*, 2006). On the one hand, ICTs are seen as drivers for women's empowerment (Yuen *et al.*, 2010; Hassanin, 2009; Friedman, 2006); on the other, some feminists and development practitioners suggest that they broaden the gender digital divide and "create new sociological pressures, new cultural paradigms" (Pichappan, 2003:7).

Kyomuhendo (2009:163) argues that "Understanding the impact of the use of modern ICTs such as mobile telephony on women's empowerment requires a deep insight into the construction of the sense of empowerment which appears to vary among individuals in similar context". I too subscribe to this position. There continues to be very little actual field data to prove or disprove the true impact of ICTs (Unwin, 2009; 2005).



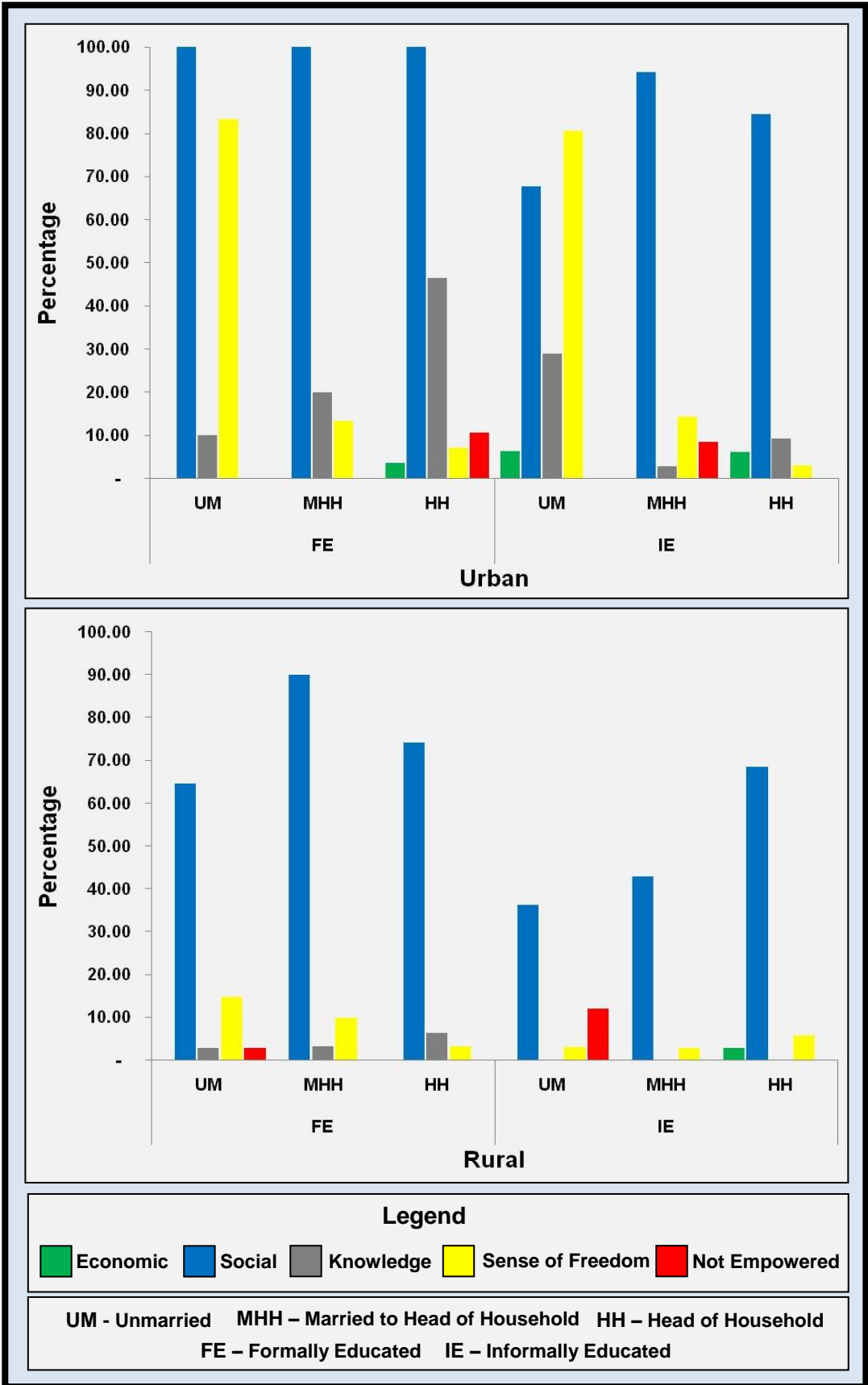
This section presents the research findings from the synthesis of the questionnaire surveys, providing empirical data on the impact of ICT use that the participants identified they experienced in the context of empowerment. The impact was analysed against five categories synthesised from the questionnaire surveys – social; sense of freedom; knowledge; economic; and not empowered (detailed in Section 3.6.4).

Figure 5.10 indicates the overall impact of ICTs as described by the participants in the questionnaire surveys. 69% of the women stated that they feel socially empowered by ICTs, 18% of them felt a sense of freedom due to their use of ICTs, 9% acknowledged that ICTs have supported them in the context of knowledge, but only 1% of the women stated that ICTs had impacted them economically, despite the fact that it has been argued by Stephen (2006) and Sharma (2003) that ICTs will bring economic empowerment to women. Moreover, 3% of the women expressed that they have not been empowered in any context. In fact they discussed the risks that they have now been exposed to, because of ICTs.



**Figure 5.10**  
**Impact of ICTs (Empowerment)**  
 (Source: Author's Survey October, 2009)

Furthermore, I have compared and contrasted the impact of ICTs on women against the following three variables – geographical location (urban versus rural); education level (formal versus informal); and position in household (unmarried versus married to head of household and head of household) to identify specific patterns and trends (Figure 5.11).



**Figure 5.11**  
**Impact From Mobile Phones**  
 (Source: Author's Survey October, 2009)

The results indicate that even though a great number of participants identified that they experience social empowerment from ICT tools, there is evidence of a lower overall number of rural women who recounted this experience than those from urban areas. This difference could be explained by Chaudhry and Nosheen's (2009:224) research in Pakistan which highlights that women in urban areas enjoy greater freedom because of the increased education of household members, thus creating "less rigid communities and most importantly good knowledge of Islamic teachings and its practice, while this situation is deteriorated in rural and tribal areas". Furthermore, the results also indicate that rural women experienced a far lower sense of freedom than their counterparts in urban areas. This is despite them having been formally or informally educated. A possible explanation for this difference is the greater degree of restriction on women's mobility and freedom of choice in rural than in urban areas, as indicated by Chaudhry and Nosheen's (2009) and Saghir *et al.*'s (2009) research in Pakistan.

My results also show that female heads of household, irrespective of their educational backgrounds, have generally experienced some sense of economic empowerment. This could be due to their necessity to identify creative ways of using ICTs. However, it is important to note that women from both urban and rural areas, and both formally educated (FE) and informally educated (IE) participants, reported that they did not feel empowered by ICTs in any way. A possible explanation for this was offered by a formally educated urban participant from Punjab, who stated that:

*'ICTs may have the key to empowering us by making our lives better, but who will show us how to use them properly and help us find the time' (P-HH-FE-U-I).*

This reflects the sentiments and frustration of women in Nigeria, as argued by Comfort and Dada (2009).

In the following sections, the results from the focus groups and questionnaire surveys have been synthesised in order to understand the type of impact that women have personally experienced. The sub-sections are ordered in accordance with the percentages of the following, in descending order: social aspects; knowledge and capability aspects; and economic aspects.

## 5.4.1 Social Aspects

Once again, it is important to set the stage and recognise that “in some cultures women are not permitted to have face-to-face contact with men other than those in their own families, or are expected to stay at home, or indeed to be isolated in restricted living facilities. For such cultures, communication technologies may empower women. Telephone, radio, television, and the internet allow women to interact with men without being in the same place, and indeed without any face-to-face contact at all. Especially important in this respect may be distance education and e-commerce” (Daly, 2003:5). Thus, it is evident that ICTs could possibly play a pivotal role in bringing the outside world into the home for women (Yusuf, 2005). It is in this context that my research has particularly explored the social implications around ‘*if*’ and ‘*how*’ ICTs have been used by women living in such environments, and more importantly, has tried to shed light on the possible impact of this on their social context.

As Elnaggar (2007:4) has argued, “today ICT is the most effective tool in the hands of women to enabling them to extend their participation in a variety of productive fields and providing them with an avenue to express the development of their personalities and capacities”. Similarly, Primo (2003:9) asserts that “information and communication technologies could give a major boost to the economic, political and social empowerment of women, and the promotion of gender equality”. However, it is difficult to fathom the depth and degree of constraints and restrictions that some women face in Muslim countries. Syed and Ali (2005) have described some of the factors that have shackled women in Muslim societies. They discuss the nature of women’s mobility: “Her mobility outside *Chardiwari* is restricted because of the known rationale of modesty (*Haya*), family honour (*Ghairat*), and tribal traditions (*Rivaaj*). Modesty is closely related to the concepts of shame (*Sharm*) and humility (*Ijz*). The concept has imposed specific physical and psychological boundaries on the life of a Muslim working woman” (Syed and Ali, 2005:4). This fear was also evident in some of the women who participated in each of my focus groups, from all areas and all classes. Furthermore, it was also raised by one of the elite women interviewed who was working for the government of Punjab and who noted that:

*‘There is deep fear in the communities that the internet and mobile phones are tools that will spoil their girls by exposing them to boys and Western dangers’ (EIW- 21).*

Similar concern were also raised by two elite women from Gulf region (EIW-13 and E1W-16), who had noticed that ICTs have begun to have a negative impact on their daughters' and sons' social behaviour. They argued that their children preferred to stay in their rooms and 'chat online', rather than joining the family for meals or engaging with relatives when they visited. They further raised concerns that this was destroying Arab traditions and their culture of hospitality. They blamed the increased access to ICTs and globalisation for negatively affecting family structures in various ways. Furthermore, recent research by Al Emadi and Ibrahim (2010:8-9) on Qatari Society suggests that "the divorce rate among Qatari families has increased by almost 30% during the last decade, according to statistics released by the Supreme Council for the Family, and family ties have been in constant deterioration lately". They further argue that "the introduction of the new means of communication has also been very harmful for family relationships, especially the internet which has literally confined people to their own rooms for different online activities" (Al Emadi and Ibrahim, 2010:9). The authors' findings appear to reinforce the concerns raised by some of the elite women interviewed in the Gulf. This is discussed in detail in the next Chapter. Thus, keeping this in mind, the next sub-sections suggest four distinctive ways in which ICTs have been used to provide some form of social empowerment to women from the perspectives of, respectively: access to information; liberty and freedom; connectivity to family and support groups; and access to knowledge of their rights in Islam.

#### **5.4.1.1 Multi-dimensional Access**

It was evident from the excitement of some women in the focus group discussions that ICTs are beginning to provide different types of access to a few of them, addressing and helping to overcome some of their social, cultural and traditional constraints. There was a recurring theme across all of the focus groups in the urban areas that expressed gratitude at how ICTs have liberated them somewhat and given them greater freedom to do what they want. An unmarried woman living with her conservative parents in Karachi expressed that:

*'I was always interested in poetry but never got the opportunity to show my talent to the world, but then I took part in a poetry competition online and now my poetry is published on their website'(S-UM-FE-U-1).*

Similarly, two other respondents stated:

*'For me it's everything – a means of gathering information, connecting with relatives. I feel disabled without it. It provides me with knowledge and helps me in handling tasks quickly' (P-UM-FE-U-2).*

*'I use internet to know about the market index' (S-MHH-FE-U-2).*

Lastly, a young woman praised social media sites, noting that:

*'I use Facebook and Orkut to communicate with my friends and make new friends and this makes me very happy' (P-UM-FE-U-1).*

These experiences and comments all support Jensen (2006:11), who argues that ICTs could “have the effect of minimizing and overcoming social divides and injustices, if they are designed, implemented and monitored to do so”. Furthermore, Comfort and Dada (2009) have highlighted the positive impact of mobile phones for women in Nigeria and state that “mobile phones have addressed pardah by providing an acceptable space for women”. Nonetheless, it is very important to point out that these experiences were not shared by the majority of the women participating in the focus groups, despite their class, geographical location or position in the household. In fact, in many cases the respondents giggled as they shared their experiences and others looked on in disbelief, particularly many of the women from rural areas.

The possible causes of these extreme differences could derive from the cultural sensitivity that exists in Pakistani society, which was described by several elite women (EIW-20, EIW-21, EIW-25, EIW-27) interviewed as being strongly male-dominated, consistent with its patriarchal social structure (Chaudhry and Nosheen, 2009; Kabeer, 1999b). An example of this was given by one senior government official from Sindh, who stated:

*'One of the causes of this limitation could be fear from their male family members that they would not be able to control or monitor what their women were going to be exposed to'. She went on to explain that 'both women and men lack the awareness of the benefits of ICTs, and that was also a limiting factor, along with the lack of availability of ICT tools in the poorer parts of both urban and rural areas and the lack of the reliable infrastructure required to make things work' (EIW-23).*

The impact of this is greatly holding back development in the rural areas.

### **5.4.1.2 Liberty and Freedom to Travel Outside the Home**

Syed and Ali (2005:4) note that “Chador and Chardiwari are often described as two appropriate domains for women in Pakistani society”. *Chador* should be understood as being physically covered up by a large scarf and *Chardiwari* as being restricted to the four walls of the home. Once again, this paints a grim picture for some of the women living in Pakistan. Nevertheless, ICTs appear to have helped create a pathway for women to access the world outside the home. There was considerable discussion, particularly within the focus groups in the urban areas, of how the mobile phone has allowed some of them ‘*the freedom to travel outside the home*’ (P-UM-FE-U-2). It should be noted that in some focus groups, many respondents stated that they felt safe whenever they travelled outside their homes when they had a mobile phone with them because they could call for help in case of emergency. An example of this was shown by two participants who stated:

*‘I take my mobile phone with me and communicate with my family and friends all the time’* (S-UM-IL-U-1).

*‘My family also feels comfortable when I have my mobile with me and go outside, as they can contact me at any time in less than a minute’* (P-MHH-FE-U-1).

The value of the mobile phone was also dramatically expressed by a formally educated housewife from Mirpur in AJK, who commented that:

*‘Well to my uses, yes – they are actually very useful. For example, once I went outside in my car and it stopped working in the middle of the road. If the cell phone hadn’t been invented I would probably have been left crying there’* (A-MHH-FE-U-2).

This phenomenon was also observed in focus groups conducted in rural areas, but to a lesser degree. In fact, a farmer’s daughter who was educated in a nearby town in Punjab noted that:

*‘Before, when I didn’t have a mobile, my parents did not allow me to go outside on my own’* (P-UM-FE-R-1).

However, many of the participants in the focus groups in the rural areas stated that their parents had great concerns regarding the use of mobile phones because of the possibility of boys calling and harassing their daughters. The issue of safety and security exists in both the urban and rural areas in Pakistan today. Nevertheless, an elite woman working for an NGO in Punjab commented:

*'The threats and dangers to girls and women being kidnapped in the rural areas are higher than in the cities'. She continued that 'due to the feudal cultures in rural areas, the poor men and their family are marginalised and law enforcement agencies are often bought off in the event of any misdeeds. Therefore, it is not so simple to assert that it is only the patriarchal society and male dominance that keep women isolated in their homes, but in some cases the fear of real dangers' (EIW-21).*

### **5.4.1.3 Connectivity with Family and Support Groups**

ICTs have transformed the way that people communicate around the world, and the use of the internet for communication was one of the most common uses indicated in the focus groups and surveys that were conducted in urban areas with formally educated women. This is clearly evident from the comments made by two respondents, a professional woman and a housewife respectively:

*'The internet is very cheap for communicating with family and friends' (P-UM-FE-U-1).*

*'Now we can use Skype and other messenger services for calls as they are free of cost and give good quality output' (A-HH-FE-U-1).*

Similar statements were mostly made by women in urban areas, who live in an environment in which broadband is readily available. The one term that was a recurring statement in all of the urban focus groups was 'Skype', with the associated joy that women felt in being connected to family and friends at very little cost, as discussed earlier. The benefits from the connectivity that the internet has brought appear to have two main themes, namely bridging the distance between married girls and their families within and outside Pakistan, and networking with international discussion groups within and outside Pakistan. This was aptly exemplified by formally educated, married women, from urban and rural areas:

*'I got married and moved to UAE, but ICTs have reduced the distance and now I can talk to my family and friends online through Skype, which is totally free of cost' (S-MHH-FE-U-1).*

*'I am living in Lahore and communicate with my family in the UK through the internet' (P-MHH-FE-R-2).*

Nonetheless, this phenomenon was not observed in the focus groups in rural areas, mainly due once again to the limited availability of the internet and lack of awareness



regarding the benefits and multiple uses of it. However, this exception was noted in the rural areas of Azad Jammu and Kashmir, primarily due to the fact that every participant had family members living in the United Kingdom who had bought them computers and mobile phones and showed them how to use Skype. This demonstrated some degree of positive influence and moderate views to the subordination and controls on women due to the family member's exposure in the United Kingdom. This level of support was not observed in other rural areas of Pakistan where the external influences are far less. Nevertheless, access to electricity remained common challenges. ICTs have also been used by some women for connecting with discussion groups, which have allowed transnational discussions and the sharing of experiences (see Ali, 2001).

This finding was supported by a women's rights activist living in Lahore, who also shared a possible cause for this difference, noting that:

*'The poor women in the rural areas have no idea about ICTs, nor do they know that the internet can be used to make free phone calls on Skype'. She continued that 'the government needs to do awareness campaigns at multiple levels to ensure that the different types of women and particularly the old generation could benefit from simple things like Skype and SMS, along with ensuring that access for poor women and the elderly is given for free, since they don't have enough money, even to eat; this sort of thinking would transform Pakistan' (EIW-29).*

Rogerson and Begg (1999) argue that this technology has liberated the silent, voiceless, suppressed community living within Muslim society, namely 'women', for whom ICTs have enabled global access and have linked the informed women of the West to the uninformed women of rural areas where ICTs can be accessed. Additionally, access to knowledge through the internet has also reached women who are housebound with little or no mobility. This was demonstrated during a focus group session in the city of Sukkur in Sindh, when a housewife related an experience of her cousin who had discovered a women's NGO in Karachi from an internet discussion forum and had run away to Karachi to a safe house to escape her husband and mother-in-law, who had been burning her and trying to kill her. Similar experiences were recounted during the interviews with women's activists in Lahore stating:

*'I have been able to network with international organizations to help protect the abused women in Pakistan and raise awareness of the brutality that the Jirgah system was enforcing on women in Pakistan',*

and continuing with the example of the media blitz that covered Mukhtara Mai's case:

*'This was the magical power of networking across the globe'* (EIW-21).

The benefits of ICTs can also be seen by the emergence of such organisation Women Watch, (<http://www.un.org/womenwatch/daw/public/w2000-09.05-ict-e.pdf>) which "provides an online database-driven mechanism which links to websites and web pages" UNDAW (2005:12). Additionally, the internet is being used as a tool for the monitoring and protection of women's rights through an interesting collaborative project – Women's Human Rights Net. ([www.onlinewomeninpolitics.org/beijing12/mono9-ICT.pdf](http://www.onlinewomeninpolitics.org/beijing12/mono9-ICT.pdf)). This is an electronic network linking over 50 international women's human rights organisations for information-sharing, campaigning and capacity-building (Marcelle, 2000b:17). Similarly, Pilch (2006:114) argues that "in spite of the entrenched patriarchal power structures in many Muslim states, women are slowly becoming more educated, are taking part in worldwide conversations about women's issues through the use of the Internet, are travelling beyond their state boundaries". This view has been effectively utilised by women's activists in Pakistan, but sadly the laws have not changed sufficiently to protect women's rights, as seen most recently in the release of Mukhtaran Mai's rapists from jail, despite it being known that the men were guilty of her cruel gang rape (BBC, 2011). The society appears to be willing to accept and tolerate such atrocities against women, despite their supposedly equal rights in Islam.

There is no doubt that ICTs have the potential to alleviate some of the social isolation that women face in Pakistan through connecting them to the larger international community and support networks. This can provide opportunities for both social networking and the provision of personal and professional opportunities, as discussed in the earlier section. In this context, Loh-Ludher *et al.* (2006) argue that "gender issues interwoven into radio and TV soap operas have a significant impact. However, most programmes still portray women as victims of inequality rather than empowered individuals". Therefore, a prerequisite for women to take advantage of the opportunities offered by ICTs are campaigns to increase awareness of the capabilities that they offer, and a major change in society is needed to give women the rights, equality and respect that they are due. In Chapter 6, I go on to identify some of the dangers that have been experienced by women as they become more open and mobile and thus potentially exposed.

#### **5.4.1.4 Women's Knowledge of their Rights in Islam**

This section discusses the results in an area that entails one of the most important uses of ICTs, as it has the potential to transform society by providing women with a knowledge and support network. One respondent noted that:

*'The internet provides a vehicle for uncovering and shaming people who are misinterpreting Islam's rights for women and allowing injustices to occur in Pakistani society'. She continued that 'heartbreakingly, Pakistani women continue to tolerate cruelty and injustices, thinking that it is what Islam says despite the fact that ICTs could provide them with the window to knowing their true rights from an alim (religious scholar), not their husband or mothers in law, but they need to know how to use them'* (EIW-21).

A positive example of the use of ICTs in the context of emails can be seen by the work that the email-based Muslim Women Network (MWN) (<http://homes.chass.utoronto.ca/~wellman/publications/muslimwomen/MWN1.PDF>) is doing: "MWN has been established to provide a forum for engaging in an intellectual discourse on significant contemporary issues that impact on Islam, especially those pertaining to or affecting women. It has also provided a medium for Muslim women to discuss any pertinent issues, as long as the discussion remains within the bounds of Shar'iah" (Bastani, 2001:5).

Despite the fact that "Islamic culture endorses equality of rights for both men and women, Muslim culture, like many traditional African cultures, has in the recent past denied women their basic rights to freedom of choice, education and employment" (Nkealah, 2006:15). Syed and Ali (2005:1) argue that "in order to improve individuals' overall capabilities, Islam declares the seeking of knowledge (i.e., education) to be a religious duty, which is equally binding on women and men". Nevertheless, my field research demonstrates that women experience multiple types of restrictions, barriers and constraints in their day-to-day lives in all of the above areas. Due to the development of the internet, "a vast wealth of Islamic information is now available through computer facilities [and] supplementary teaching has been revolutionized by using these facilities" (Rogerson and Begg, 1999:2). This is opening up debates across the world between Muslim communities from the North and South and creating a bridge that is bringing an enlightened and balanced perspective to Islam and the position of women within it (Rogerson and Begg, 1999).

The focus group discussions revealed that only a few women in some urban areas of Pakistan now use the internet to join discussion groups, *'to learn about Islam and what Islam really wants us to do in our homes'* (S-MHH-FE-U-2). However, a participant from Lahore stated:

*'My sister-in-law sits at home and surfs the internet and chats with other women on blog sites and discussion groups so that she can learn what her rights are, because things in Pakistan are not right'* (P-UM-FE-U-2).

This point catalysed a heated debate in one of the focus groups in Islamabad with formally educated women between the women who use the internet to understand their position in Islam against those who do not. The women who did not use it for any Islamic or spiritual investigation said, for example:

*'It is all controlled by men and is giving the male interpretation of Islam and therefore cannot be trusted'* (FC-UM-FE-U-1).

She particularly referenced a website called 'Forum Pakistan (2007)' (<http://www.forumpakistan.com/false-islamic-websites-t22457.html>) which highlights false Islamic information. The elite women interviewed were fully supportive of the use of discussion forums on any topic and in fact, one women's rights activist from Lahore said that:

*'These discussion groups need to be voice-activated so that women with poor written English would be able to express themselves'*. She continued that, *'It would be wonderful if you could push a button and the computer would automatically translate what has been said in any language'* (EIW-29).

This was also reported by a few of the other elite women interviewed, who said that they often participated in professional, social and religious discussion forums when they had the time, and one elite woman from the UAE mentioned that:

*'This is an excellent way to stay engaged and participate in multiple areas, despite having a busy lifestyle'* (EIW-12).

ICTs, and particularly access to the internet, are therefore beginning to provide information to women where they can challenge some of the cultural restrictions within the Muslim society of Pakistan. However, the focus group results suggest that some women are also beginning to question the relevance of content on the internet, as it is not always clear whether the information is from an authoritative source or not. The key

finding is that access to information enables a debate within the community and enhances the richness of the knowledge base.

#### **5.4.2 The Knowledge and Capability Aspect – “Taleem-e-Niswaan” (Education for Women)**

This section discusses two specific aspects of how knowledge and capacity-building were obtained by some women in Pakistan through the use of ICTs. However, it is first important to understand the context and current climate in Pakistan that prevents women and girls from accessing and obtaining basic education and knowledge. It was recently publicised that “preventing the girl-child from going to school is against the principles of the Sharia, which commands all Muslims, irrespective of their sex, to seek knowledge. It is a well-known fact in the history of Islam that the Prophet (S.A.W) used to hold special classes for women at their request” (Sada *et al.*, 2004:9). Despite this, women in Pakistan, specifically in the area of Khyber Pashtun Khawah, are not given access to education. In fact, the Taliban have burnt several girls’ schools all over Pakistan and 238 in Swat (The Independent, 2009, The Nation, 2009; BBC, 2008).

It is through these glasses that my results need to be viewed. In fact, one of the elite women working for an NGO in Peshawar aptly described the potential of ICTs:

*‘With the backdrop of this dangerous climate, ICTs could have played a major role in providing distance education to girls; however, very little work has been done in this area due to the lack of commitment from the Government to support education for girls’ (EIW-26).*

Similarly, another elite woman working for the Government of Sindh stated:

*‘The culture of ICTs in Pakistan is very slowly penetrating the lives of girls in Pakistan. There needs to be a concerted effort to raise the awareness of how ICTs can be applied to educate and improve the skills of women, since we are far behind the other developing countries’ (EIW-20).*

These views also support Elnaggar’s research (2007:1) on Omani women, where he comments that “ICT has become an essential core objective and integral element in the many extensive research and development initiatives at the global level in order to effectively improve women’s lives by increasing their capacities to share and access information and knowledge”. The results from the focus groups across Pakistan demonstrate that some urban women obtain knowledge through one or more of the

following ICTs: the internet, television, DVDs and CDs. This was particularly the case for women who live in urban areas and/or who were formally educated. An example of this can be seen by the comments of two students from Sindh:

*'Our curriculum is very old and has not been revised in a very long time, but now with using ICTs, I know what is happening around the world and can keep up with the latest education'* (S-UM-FE-U-2).

*'I use the internet to research scholarships offered by universities, as my parents cannot afford to pay the fees for my higher education'*(S-UM-FE-U-1).

These comments highlight some of the ways in which students in Pakistan use the internet to obtain knowledge. In addition, television was also used for distance learning. An example of this was given by a participant who stated that:

*'Travelling to a college in Lahore is a great problem for me, but now I have gained admission to a virtual university and can have lessons through the television'* (P-UM-IL-R-2).

Similar benefits are expressed by Kirkup (2002). On the other hand, some formally educated women from the urban areas praised the use of computers and the internet for taking online courses and tutorials, although the number of these women was very low. This trend was noted to be particularly high in girls from Islamabad, Lahore and Karachi, and from the formally educated, unmarried group of women who were already working. Furthermore, one elite woman running a technology company in Islamabad stated that:

*'My friends in Karachi told me about a course they sent their female staff on with CISCO systems online and recommended that I look into this for my female IT staff too. This way we are all slowly finding ways to compete with boys'. She continued, laughingly, that 'girls study harder than boys but working in Pakistan is a challenge for us'* (EIW-38).

Furthermore, the use of the internet as a source of information appeared as a recurring theme and it was seen as being of tremendous value by many of the participants, as demonstrated by the comments of four respondents:

*'The internet is one big living encyclopaedia; it's wonderful'* (S-UM-FE-U-2).

Two students commented:

*'The internet is very useful for my studies, because I can do my assignments more quickly and efficiently using a computer'* (P-UM-FE-U-1).

*'ICTs have greatly supported me in my research work, as I can access the latest publications and developments in my subject'* (P-UM-FE-U-2).

Furthermore, a teacher in Mirpur, AJK also pointed out that:

*'The internet has supported me greatly as I can prepare my lectures more easily and efficiently'* (A-MHH-FE-U-1).

This supports Ololube's (2005) argument that ICT's can play a vital role in improving education quality. Nonetheless, the use of the internet as a source of information was not observed in the focus groups conducted in rural areas, with both informally and formally educated women across the different provinces. These findings support Elnaggar's (2007) study in the context of women and ICTs in Oman, where he underlines the empowering capabilities of ICTs for women who engage effectively with them and benefit from access to the information and knowledge that they can provide. This was reinforced by an elite woman working for the Government of Sindh, who stated:

*'The culture of ICTs in Pakistan is very slowly penetrating the lives of girls in Pakistan, especially those living in rural areas. There needs to be a concerted effort to raise awareness of how ICTs can be applied to educate and improve the skills of women, since we are far behind other developing countries'* (EIW-21).

This has provided tremendous access for women seeking to gain knowledge and higher education, despite resistance from their fathers and male relatives. Of the elite women interviewed, two also underscored this issue (EIW-20, EIW-22). Therefore, it was evident from the focus groups and interviews with the elite women that there is a huge potential for distance education and ICTs to positively impact the knowledge and skills of women in Pakistan. However, more work needs to be done to improve the infrastructure and awareness in rural areas for this to be able to provide a larger population of women with the option of distance education.

### 5.4.3 Economic Aspect

USAID (2005:8) has noted that “low income women have successfully used ICTs for their own interests by forming peer networks through employment interest groups such as the Self-Employed Women’s Association (SEWA) in India”. Moreover Duncombe *et al.* (2005) point out examples of how ICTs have helped overcome cultural barriers to support livelihood methods for Muslim women, but this was not observed to be the case in Pakistan. The results from my focus groups highlight that while there are some isolated examples of positive economic benefits for women, in the vast majority of cases ICTs have provided little opportunity for enhancing their livelihoods and income generation capacities in Pakistan. This could be due to the low level of usage of ICTs, a lack of capability and capacity, or the general restrictions and barriers that are placed on women in Pakistani society. Synthesis of the comments and discussions during and after the focus groups uncovered four recurring sub-themes that helped in refining the findings in the context of economic conditions: access to employment; enabling SME development; working from home and employment in the ICT sector.

#### 5.4.3.1 Opportunity to Work from Home – Keeping the ‘Purdah’

Recognising that Pakistan is a very restrictive environment for women’s mobility (see Chapters 2 and 6), the enablement of women to work from home is a critical factor that could have a large, potentially positive impact on their economic empowerment, as argued by Thas *et al.* (2007). It was also a theme that arose in many of the focus group discussions. Nonetheless, my research findings suggest caution and point to the lack of benefits being obtained from ICTs in the context of work, mainly as a result of the patriarchal social structure and male dominance and chauvinism, which tends to view women as having a subservient role (see Kabeer, 2005b). This was emphasised during conversations with the focus groups from both the urban and rural areas. Notwithstanding this challenge, this section demonstrates how two formally educated urban women are indeed able to benefit from ICTs in their home settings:

*‘I did my MBA in marketing but my family did not allow me to go and get a job because they were concerned about my safety in the chauvinistic male environment, but now I am working from home as a virtual member of a private company through the computer and internet’ (S-UM-FE-U-1).*

*‘I always wanted to do a job to support my family but my parents didn’t allow me to work outside home, but now I am remotely working with a news agency; I write articles and send them to the editor using email from*



*my home'* (P-UM-FE-U-1).

These rare examples demonstrate that ICTs have the potential to benefit 'higher social status' women in urban areas in accessing employment from home. However, such use was not raised during any discussions in the focus groups conducted in rural areas. The possible causes for this difference in the use of ICTs for livelihood generation in rural areas were explained by the CEO of a large NGO in Punjab as being due mainly to the:

*'Lack of availability of ICT tools, poor quality of infrastructure and lack of awareness of the benefits of ICTs'. She further explained, 'women are sometimes harassed by local government officials who have control over the licenses and therefore they avoid working from home' (EIW-34). She explained that 'rural women were not aware of their personal rights neither did they have any support network and more importantly, they lacked self-confidence, unlike many of the urban women'.*

This view supports the arguments of Loh-Ludher *et al.* (2006:24), who point out that some "women work from home; they are sometimes harassed by local authority officials who assert that residential premises cannot be used for production or that they are operating without a license or registration". It would seem that a combination of such factors further marginalises the poorest women and needs to be addressed at both the policy and community levels if things are really going to change for women.

#### **5.4.3.2 Access to Job Opportunities**

The discussions, particularly from inhabitants of urban areas, identified that women in Pakistan across all of the categories felt that ICTs presented them with unique opportunities that helped them address some of the existing cultural barriers of access and mobility. This was evident in two specific quotations from the focus group discussions, indicated below:

*'The internet is great. I can learn about different jobs anywhere in the world. This new way of finding information on work makes me feel empowered to find my own destiny'* (P-UM-FE-U-2).

*'When I was researching to apply for a job at a new telecom company, I showed my father online pictures and details of the company to assure him it was a professional setup. The website of the company helped me to convince my father that I should take the job and now I have my own money and friends and have a new kind of freedom that I never had before'* (P-UM-FE-U-2).

The respondent was able to obtain a job by convincing her father and family members that the company was a professional organisation and that she would be going to a safe place. This would not have been possible without ICTs, demonstrating practically how they can help overcome barriers of access and mobility.

The results indicate that ICTs have provided access to employment for certain women, mainly those more educated and of higher social status. The impact of this was well articulated by a young girl from Islamabad, who stated that:

*'Now I am able to make my own money and feel very happy about this'*  
(FC-UM-FE-U-2).

Similar comments were particularly noted from women who lived in urban centres and the suburbs of big cities. However, such points were not raised in the focus groups with women in the rural areas. This was reconfirmed by an elite women working for an NGO in Pakistan, who stated that a *'lack of awareness and infrastructure was a major barrier for women in rural areas to benefit from ICTs in multiple dimensions'* (EIW-29). My results provide strong evidence that women in urban areas are benefitting from ICTs and becoming empowered by increased access to job opportunities and achieving financial independence in some cases. Unfortunately, the results do not demonstrate the same opportunities for women who live in rural areas. In fact, they appear to be unable to benefit from the opportunities that ICTs provide to women living in the urban areas, thus resulting in their further isolation and marginalisation.

#### **5.4.3.3 New Opportunities in the ICT Sector**

Agarwal (2006:1) argues that "the IT sector has not only created a large number of jobs, but has also resulted in new types of challenging careers". However, an interesting observation was made during the focus groups in urban areas, when one respondent identified that: *'only the educated women in urban areas are benefitting from this opportunity'* (P-UM-FE-U-1).

This point was also articulated by another young girl working in a telecoms company in Islamabad, who stated that:

*'I think ICTs have greatly increased job opportunities for women as the telecoms industry is growing very fast but we are not always able to take full advantage of this because some of our managers don't think we are serious about the job'* (FC-UM-FE-U-1).

Furthermore, it was noted that a participants, living and working in Islamabad felt that working empowered her because she now her own money:

*'IT market has suddenly opened so many doors for us and our friends because we can now work in technical and non-technical positions depending on what we like, which is giving us a lot of freedom and our own money'* (FC-UM-FE-U-1).

In contrast, two respondents from Sindh and Punjab shared their negative experiences:

*'Working has now become a very big problem for my marriage plans because my potential in-laws are now not only asking for a higher dowry but have also set a condition that I work after marriage, which my mother doesn't want'* (S-UM-FE-U-1).

*'I don't have any time for myself or my children between cooking food for the joint family, cleaning the house, feeding the animals, washing the clothes, and going to work in the NADRA centre processing National ID cards; I have no time to see my own children grow. This is causing lots of tension in the house because no one is happy'* (P-MHH-FE-R-2).

In summary, employment in the ICT sector appears to have only benefitted educated urban women, enabling their employment in the ICT sector, but also presented a new added burden on them in other ways. It should be noted that such opportunities did not present themselves to rural women. This is well-captured in a comment by an elite woman who stated that:

*'No doubt ICTs have enabled increased job opportunities but these are only for educated and English-speaking women and not for rural women and they cannot benefit from this opportunity because of low literacy rates and a lack of IT training and awareness, along with limited availability of infrastructure'* (EIW-26).

This point is also emphasised in the report by the UN (2005:16) which states that the "high illiteracy rates of women and girls and their lack of ICT training are two of the most serious barriers that prevent them from entering the information economy". These barriers are discussed in detail in Chapter 6.

#### **5.4.3.4 Enabling SME Development**

The focus group discussions yielded very little data regarding the use of ICTs to enable SME development in Pakistan in either urban or rural areas. This is in contrast to the research conducted by Bakesha *et al.* (2009) in Uganda and Munyua's (2009:128) work in Kenya where she identifies how ICT have supported "women's entrepreneurship". Nonetheless, a very small number of participants in focus groups in the urban areas described how ICTs had positively impacted on them in starting their own or enhancing their existing businesses. Only one such comment was made during the discussions in rural areas. This finding confirms the results of the Gender Equality and Empowerment of Women through ICTs report by UNDAW (2005:16), which argues that "ICTs have not yet had a significant impact on creating employment and generating income for very poor and marginalized women".

Nevertheless, despite the very low overall benefit that women in Pakistan appear to have obtained from ICTs, there are a few rare exceptions, as two relevant examples from the focus groups reflect. One formally educated woman from Mirpur, who was pleased to share her experiences with ICTs, stated that:

*'I am running my own training centre, which I opened with a loan from a bank by searching on the internet' (A-MHH-FE-U-1).*

Thus, ICTs helped this respondent obtain the funding to start her own small business. Her family supported the decision, because she was doing this without putting any risk on them. Subsequently, this resulted in her becoming financially independent. She describes herself as 'very empowered' and wanting to share her experience to encourage more women to become independent and use the internet. Similarly, another unmarried, formally educated woman from Lahore stated that:

*'Now I am able to export my pashmina shawls to the US and UK using the internet. It also helps me find new partners to expand my business' (P-UM-FE-U-2).*

These comments caused a tremendous amount of chatter and excitement in their respective focus groups, but sadly such success stories were not common. These examples nevertheless emphasise once again that it is the better educated, urban women who are able to take advantage of the opportunities that ICTs offer, rather than the poor women living in rural areas.

These results indicate that ICTs have helped some urban women to overcome the barriers of access, mobility and lack of resources by enabling them to gain further education, start their own businesses or expand their existing businesses, along with providing new services. However, it was clearly evident that the women in rural areas do not appear to benefit from the opportunities provided by ICTs, with a handful of exceptions. This position further re-enforces the existing 'digital divide' between urban and rural women, leading to further marginalisation of the latter.

It was apparent that some of the women from urban areas have benefited from ICTs in the context of economic empowerment. This is largely due to their easier access and broader use of ICTs, whereas in the course of the research in the rural areas, only one woman from Sindh stated that she had benefited from ICTs as a means of selling home-made pots on the market in Karachi. This is in contrast to the expectations from the literature on ICT policies, which argues that ICTs support women by enabling SME development, the capacity to work from home and employment in the ICT sector, whereas these factors are not in fact being realised (see Friedman, 2006; Agarwal, 2006). ICTs could potentially play a significant role in economically empowering women in Pakistan, but unfortunately to date they have not done so. Furthermore, ICTs appear to be a vehicle that can potentially enable women to overcome some of the major cultural and social constraints that currently prevent them from participating in the economic environment.

Nevertheless, despite there being hope that ICTs could have a positive impact on women's economic empowerment in both urban and rural areas, there is strong evidence of disempowerment, which needs to be carefully understood and addressed. The potential negative consequences of ICTs include the possibility of their reinforcing existing power structures that subsequently further marginalise women by placing additional pressures and demands on them in many respects, including in terms of work, money, time and compromises in their personal lives. Furthermore, the results clearly demonstrate that access to ICTs is greatly impacted by class (see Kabeer, 1999b). In relation to this, Chapter 6 goes on to identify some of the key barriers that need to be addressed.

## 5.5 Conclusion

In this chapter, results from the literature are combined with the findings derived from the empirical data collected in order to identify the main ICT tools that are used by women. It has additionally explored how women use ICTs and the resultant impact of ICTs on their lives in Pakistan. While this research has verified some of the suppositions in the literature, that cultural attitudes and practices can preclude opportunities for the use of ICTs, particularly in rural areas. It has also suggested that there is considerable diversity in ICT access and use, and in consequence, impact across classes, education, household position and the rural/urban divide. This is largely due to uneven socioeconomic development, digital literacy and the effect of the patriarchal and feudal structures in rural areas and the more open social formations in the largely urban centres.

This research has identified a considerable divide between urban and rural areas and household positions, but a much smaller difference across formally and informally educated participants with regard to access to different types of ICTs, as well as their patterns of use. While the lower overall penetration levels of ICT tools in rural areas, particularly computers and the internet, appear to be a factor, relatively stronger patriarchal structures and local customs reinforce the restrictions on women's mobility and access to non-segregated public centres and their focus and efforts in time-consuming household chores and care-taking. Similarly, the empirical data demonstrated that the top four ICT tools available to women are mobile phones, television, telephones (landline) and computers, irrespective of type of education. However, informally educated women's use of ICTs appears to be less diverse.

Based on my research, women's position in household has a direct correlation with their ownership and access to mobile phones, as women headed household have the highest degree of ownership (53%) and married women have the highest degree of shared access to mobile phones (47%). Moreover, women in general tend to be *shared users* rather than the owners of these technologies themselves, and in this regard this research supports Primo's (2003) contention that women's access to ICTs depends on how many of the same ICTs are available in the household. This is also reflected in the recent report (GSMA, 2010) on women and mobile phones in the developing world.

Moreover, due to their simpler functionality, lower cost and lower infrastructural needs, mobile phones and television are the tools of choice for women. Computers and the internet are used much less frequently at present because they require higher levels of

literacy and are perceived to be more complex and also to have greater infrastructural needs. Thus, the diffusion of the internet and therefore broader access for women, particularly in rural areas, is likely to take longer. A key finding from this research is that ICT related employment, tends to be monopolised by men and therefore provide little or no benefit to women, as the patriarchal structures and cultural norms preclude them from participating.

My research also corroborates the assertion that all women in developing countries use ICTs, particularly mobile phones, for building relationships and keeping in touch with friends and family, but also suggests that urban working women often use their mobile phones for 'functional' purposes as well as personal, 'relationship building' ones. In contrast, rural women use the mobile phone almost exclusively for keeping in touch with kith and kin, although there was one instance in which a woman managed her milk delivery business using different ringtones for each of her customers. This also supports similar research in India by Donner *et al.* (2008). Furthermore, in examining the impact and benefits of ICTs for women, this research paints a complex picture. In rural areas, where patriarchal structures are much stronger and cultural norms carry greater influence, there are greater challenges for women when engaging with ICTs. This research has also identified some negative aspects of using ICTs: women fear harassment and damage to their reputation when using even the simplest ICTs (mobile phones) in public places, and possess concerns over the damage to family structures, traditions, values and culture (see Chapter 6).

However, this research has revealed many cases where ICTs have made a positive contribution to women in the areas of employment, education, information and knowledge, as well as removing some of the constraints on their mobility and ability to engage in society. This research also corroborates the influence of the patriarchal society of Pakistan, indicating that men hold considerably more social, economic and political power than women. This is further evinced when even professional, educated women in urban environments have to obtain their husbands' and in-laws' permission to take a job or computer classes. Nonetheless, this research shows that ICTs are beginning to have some positive impact on addressing the social exclusion and isolation that women face in Pakistani society. ICTs provide a means for women to keep in touch with friends and family, as well as access to both 'knowledge and information', and 'national and international support networks' that address the issues associated with marginalised and deprived communities. Thus, there are increasing opportunities for both social networking and the provision of personal and professional opportunities that

would otherwise not be available. On the other hand, there are negative structures that are being strengthened by this new-found access for women.

Synthesising the overall research findings and observations in the context of how women use ICTs in Pakistan, there are six constructive and practical recommendations that will further encourage and enable women positively to experience ICTs in their local settings:

- i. Women and girls, particularly in rural areas, need to be exposed to ICTs in formal and informal settings so that they can gain self-confidence and skills in a safe environment. An example of this can be seen in Egypt (Hassanin, 2009) in two ways, where local women are being taught ICTs by women in private residencies and secondly, a mobile ICT literacy centre (The Tableya) has been set up that circulates around the towns allowing local women to obtain training, in harmony with personal time constraints and cultural restrictions on mobility.

Furthermore, additional training needs to occur through informal settings, using women with the same background and capabilities to share the potential of the use of the ICT tools. This eliminates sub-cultural differences so that the messages are conveyed in complete balance, in the local context for the recipient (women). This will help the internalisation process and increase the confidence of new users (see also Macueve *et al.*, 2009).

- ii. A nationwide initiative needs to be launched that uses the most popular ICT tools that woman can easily access, such as the mobile phone, television and radio to broadcast multiple programmes that graphically displays the practical use of ICTs in the daily lives of women, paying particular attention to the multiple chores, duties and roles that they play (see also BBC (2006) in the context of the use of radio – Piyarka Passport). This type of broadcasting transcends any literacy barriers and cultural constraints, since it would directly penetrate homes, offering awareness to women indirectly, into their Chardiwari.
- iii. Based on the gentle and fragile social structure that many women find themselves in in Pakistan, marginalised and denigrated, there is a great need for practical and local ‘female ICT user’ role models. Building on Siegmann (2009), it is recommended that these role models need to be identified, profiled and broadcast amongst the female community at schools, universities and in local communities. This will allow women from across diverse social structures, classes, educational and geographical backgrounds to be able to



internalise and visualise themselves in similar settings and how they can similarly interact with ICTs. This will begin to create a new generation of inspired young and old ICT users in Pakistan who will have greater potential to bridge the increasing gender digital divide. Furthermore, awareness of these role models also needs to be shared with male members and older female members of communities, keeping in mind the cultural sensitivities and nuances that surround their norms. This will allow for possible support and encouragement when benefits can be realised and visually seen by members of the entire social system.

- iv.** As Best and Kenny (2009) have argued, there is a larger digital divide between the low and middle income population's access and use of ICT's. These research findings also indicate that cost plays a major role in women's preferences for and use of ICT tools, and therefore if the government is to encourage the broader and deeper engagement of women in the digital society, there needs to be heavy subsidisation and incentives given to the private sector to motivate them to design and target female ICT users in Pakistan. However, this also needs to deliver relevant services and information that can be easily applied in the local context and local language. A good example is demonstrated by the recent work of the USF that has been building telecentres in rural areas and providing broadband connectivity for three years, completely free of charge, along with establishing solar panel stations to power the telecentres (EIM-25, September, 2011).
- v.** There are a vast number of unique uses of ICT applications that appear to be positively impacting the lives of women in Africa and South Asia, which could be leveraged to also benefit Pakistani women. An example of this is well documented by Keogh and Wood (2005), in Bangladesh and Uganda. Nevertheless, they need to be localised and shared using multiple media (print, audio and visual). Such culturally adopted ICT initiative could also begin to positively impact the lives of Pakistani women dealing with similar issues.

An example of 14 such current initiatives is indicated below;

- a. Support network (virtual) for abused women in Zambia (Abraham, 2009).
- b. Harassmap – a tool for reporting and mapping sexual harassment on the streets of Egypt via SMS (ECWR, 2009).
- c. Business women in Nigeria who follow the religious requirements of Purdah have successfully integrated the mobile phone into their business to directly communicate with “their business partners without compromising their Purdah status” (Comfort and Dada, 2009:49).
- d. Mobile Payphone Business has empowered rural women in Uganda (Kyomhendo, 2009)
- e. Counselling and legal aid is now being provided through the internet and mobiles to help fight against gender-based violence in Morocco (Tafnout and Timjerdine, 2009).
- f. Fishmongers and fish processors in Senegal (Sane and Traore, 2009).
- g. Female entrepreneurs’ use of the internet in the textile industry of Cameroon (Yitamben and Tachinda, 2009).
- h. Nabanna information network for women in India (Pringle and Subramanian, 2004).
- i. NammaDhwani community multimedia network in Karnatka, India (Pringle and Subramanian, 2004).
- j. Akshaya – ICT Training Centres for Marginalised Communities, Particularly women in Kerala, India (Sundarajan, 2006).
- k. MazdoorKisan Shakti Sargathan - Empowering poor women for their rights to daily wages in India (Dey, 2006).
- l. Grameen Telecom’s village phone (VP) programme for women in rural Bangladesh (Richardson *et al.*, 2000).
- m. Guatemalan Mayan women use participatory video and visual media production for educating indigenous women and ‘Self-Empowerment Via Video’ (Guidi, 2003) (See also White, 2003).
- n. Rural women in Fiji use participatory video to create programme content, using their relationships and social networks and highlight their community needs ( Harris, 2009) ( See also Kintanar, 2008)

- vi. Recognising the strong patriarchal social system of Pakistan, it is critical that initiatives look to engage women with ICTs ensure that men are brought together in parallel with women. The pre-conceived negative and Western values that are culturally associated with ICTs need to be acknowledged. This therefore requires awareness programmes targeting male community members and local community gate-keepers to be informed and aware of the potential social economic outcomes that these initiatives hope to achieve so that they can become active enablers that encourage women to participate and benefit from ICTs.

At the final stages of this thesis write-up (September, 2011), it was noted that the International Labour Organisation (ILO) has recently launched a capacity-building programme regarding gender sensitisation reporting and covering issues that women are facing in workplaces, using ICTs in a creative manner to begin driving social and structural change in Pakistan (Dawn, 2011b). This reinforces Siegmann's (2009) argument that there is the need for a shift in social norms which my research findings also fully support.

## 6 Challenges and Barriers: What Restricts Women from Engaging with ICTs?

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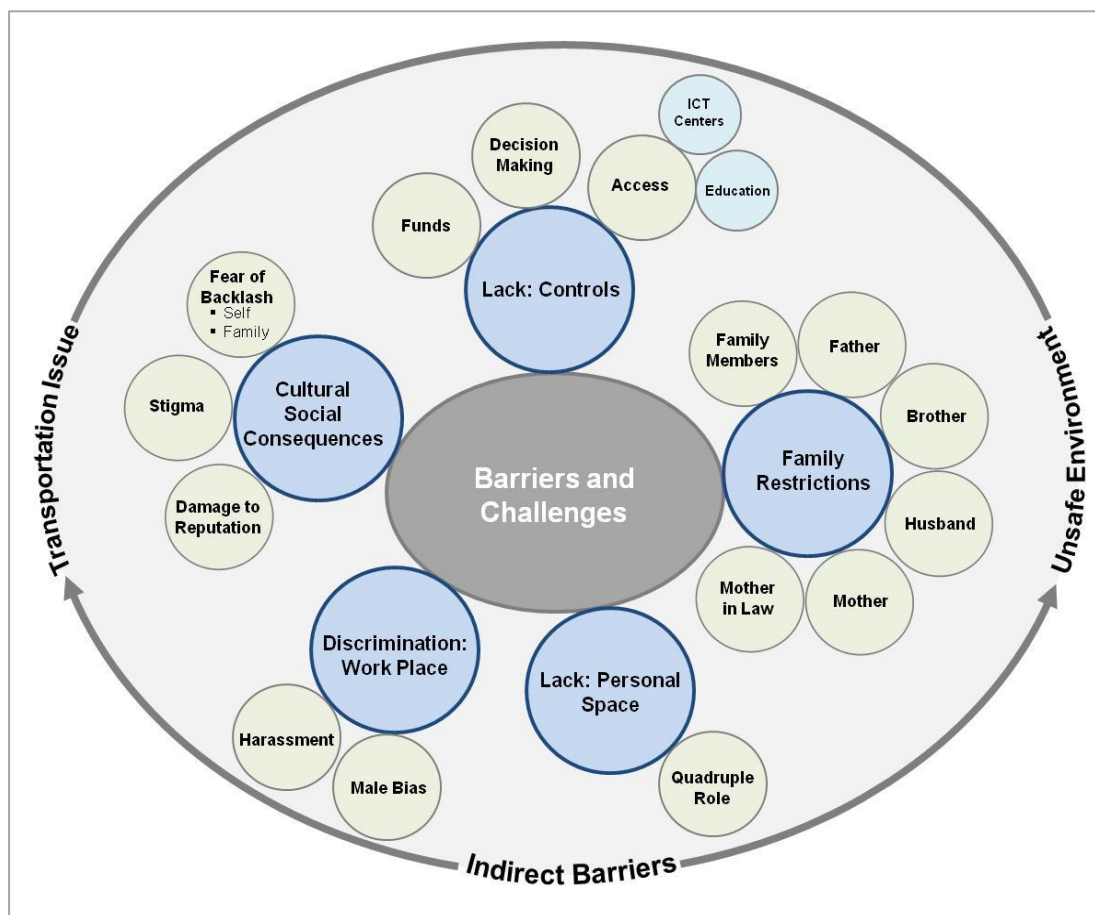
### 6.1 Introduction

Chapter 2 highlighted evidence from Muslim countries concerning the multi-dimensional barriers that prevent many women from engaging with ICTs (Daly, 2003). Antrobus (2005:97) has argued that “women’s subordination and exploitation represent major barriers to the achievement of most” of the MDG goals and targets. Moreover the particular barriers they face is reflected in the theoretical framework captured in Figure 2.10. Furthermore, the context of this analysis, examining the particular experiences of women in Pakistan when engaging with ICTs, is discussed in Section 3.6 and the analytical framework is illustrated in Figure 3.7.

As discussed in Section 2.3.1 (see also Stark, 2010; Tafnout and Timjerdine, 2009) and as Primo (2003) goes on to note, there is only limited literature on the extent to which women have internalised social restrictions to create their own boundaries and barriers with respect to ICTs. A recent study in Morocco illustrates the “social and cultural challenges that prevent women’s access to and use of ICTs” (Tafnout and Timjerdine, 2009:89). Torenli (2006:435) has also argued that “ICTs are having a growing adverse effect on the socioeconomic lives of women” by reinforcing existing inequalities in society. These studies support Offenhauer’s (2005:5) argument that it is critical to understand women’s status in Muslim cultures and societies, since it is “profoundly neglected” to the degree that there is hardly any published work available to shed light on this critical factor in the context of access to ICTs. My field research supports the findings of Daly (2003) as well as those of Colle and Roman (2002) – that cultural and social barriers are the key factors that impede women’s ability to engage effectively with ICTs.

This chapter thus analyses the multifaceted elements of cultural and social barriers that women face when engaging with ICTs in Pakistan and seeks to explore the influence of location, position in household and education on these social and cultural dimensions. Additionally, findings from the semi-structured interviews with 39 elite women, which were conducted to provide a different perspective on these issues, are interwoven into the synthesis.

An overview highlighting the complexities of the diversity and interdependency is shown in Figure 6.1.



**Figure 6.1**  
**Overview – Diversities and Interdependencies**  
 (Source: Author)

The chapter analyses the socio-cultural barriers faced by women in terms of six key themes, which were drawn out from synthesis of the field research. First, the complexities and challenges faced by women in the context of using a mobile phone are considered, since mobiles were identified as the most widely preferred and used ICT tool in Pakistan (see Chapter 5). Second, the perceived and real restrictions on women that are preventing their effective engagement with ICTs are examined, including self-imposed restrictions and those imposed by the family. Furthermore, this study also examined the influence of the subordination of women in the context of their access to ICTs. Moreover, as there has been much debate regarding the potential opportunities that the IT sector brings to women (Pavarala *et al.*,2006), the challenges that women

face in the workplace were duly considered. Fifth, a very important factor that appears to plague both urban and rural women is the lack of 'personal space' and time; an issue that has been much debated by Huyer and Sikoska (2003) and Hafkin and Taggart (2001). Lastly, the issues of mobility and safety in the work place, which are two critical but indirect barriers that are placed on women due to their specifically male-dominated environment, were also investigated.

## 6.2 The Mobile Phone as a Constraint

This research has identified the invisible shackles that many women wear as a consequence of their fears and perceptions of what would be considered acceptable and unacceptable behaviours with respect to ICTs in their culture. There was an underlying fear among many participants with regard to the overt use of ICTs by women, as evinced by the comments made during focus groups. One participant thus exemplified this in stating:

*'Girls who talk publicly on their mobiles always have a bad image and no one wants to marry them'* (S-UM-IE-U-1).

There was a great deal of empathy and agreement across the focus groups on this matter. Another participant shared:

*'I cannot use my mobile when I am in the market, as people think I am talking to my boyfriend even if I am talking to my family and this could get back to my parents'* (P-UM-FE-U-2).

A young professional woman working in Islamabad for an IT company would not even consider using her mobile phone on the street:

*'I will never use my cell phone on the street, as the people will think that I am talking to a boy and making plans to meet him somewhere'* (FC-UM-FE-U-1).

Nonetheless, in stark contrast, one high-spirited, dynamic young unmarried woman from the urban area of Azad Jammu and Kashmir (AJK) pointed out that:

*'I honestly think that women have created their own barriers, and they could fight if they wanted to but for some reason they think it is wrong to ask for what they want'* (A-UM-FE-U-2).

This type of discourse, set in the cultural context of Muslim society in Pakistan, has been rarely explored in the existing literature. However, the overall focus group results across

both urban and rural areas indicate that women feared being judged and receiving crank calls from unidentified individuals, which could raise doubts about their character and lead to objections from their families or even fears of dishonouring the family, irrespective of their education background. The fear of mobile phone harassment for women has been well documented by Short and McMurray (2009).

This poses a considerable barrier since women appear to have internalised the social pressures and moderated their behaviour accordingly, as reflected in the focus group discussions. It would seem that women have subconsciously adjusted their conduct without being aware that they are actually restricting themselves and without any further overt pressure being applied. This could be attributed to the male-dominated social system in which they live. Examples of this are demonstrated by comments made by three participants across the different categories:

*'If a woman ran out of credit for her mobile phone, she wouldn't even consider asking her brother or father to buy her a recharging card'* (P-UM-FE-R-1).

*'Women are reluctant to ask their fathers or brothers for a mobile phone top-up card for fear that this could bring and the doubt that could grow their parents' minds about what they were doing with the mobile phone all the time'* (S-UM-IE-R-1).

*'They may think that I am talking to a boy privately'* (P-UM-IE-U-1).

However, it was difficult for the women to pinpoint any particular reason for this action. Another, married participant from an urban area underlined the point, stating that:

*'I just can't do it'* (P-MHH-IE-U-2).

While the focus groups revealed that there is a fear of openly using mobile phones among women from both urban and rural areas, a higher number of urban women stated that they are afraid of using the technology in front of male members of the family. This may be because mobile phone ownership among women in rural areas is comparatively limited. As a senior government official from Kashmir said:

*'In rural areas women generally do not own mobile phones, instead they usually share family mobile, which is typically owned by the male family member. It acts as a censorship vehicle too'* (EIW-31).

This thinking is also reflected in Stark's (2010) research in Bangladesh, where men felt that they should be the only conduit to the outside world, and thus that women have no need to own mobile phones. Moreover, this also reinforces the findings from the GSMA

(2010:16) stating that women in South Asia are “21% less likely to own a mobile phone than a man”.

However, another possible reason for the geographical differences experienced was offered by a female executive from GEO TV, who laughingly recalled:

*‘In my experience women in the cities tend to get more crank calls from boys because they have more spare time on their hands, more disposable income and a more reliable network’ (EIW-25).*

An exception to this was evident among women heads of household, regardless of whether they were from rural or urban areas. It appears that these women were less afraid of the consequences of using a mobile phone. A possible cause for this was offered by two elite Pakistan women; one a social activist and the second a media expert, educated in the US:

*‘This could be because of their confidence, strong personalities and will for the survival and protection for their families. When it comes to survival and protection of families, both the best and the worst comes out of women’ (EIW-21)*

*‘A female head of household in Pakistan is a woman who has lost everything in our society and has two choices: one is to be afraid of everything and the second is to take the bull by the horns and take no prisoners. The latter is what I see the most because that is what it takes to survive in Pakistan’ (EIW-25).*

These views of the Pakistani elite women interviewed were also reflected by a comment made by one businesswoman, who noted how the mobile phone had improved her life by enabling her to:

*‘It helps me stay in touch with everything. The mobile can be used anywhere, anytime, with no fear’ (EWI-37).*

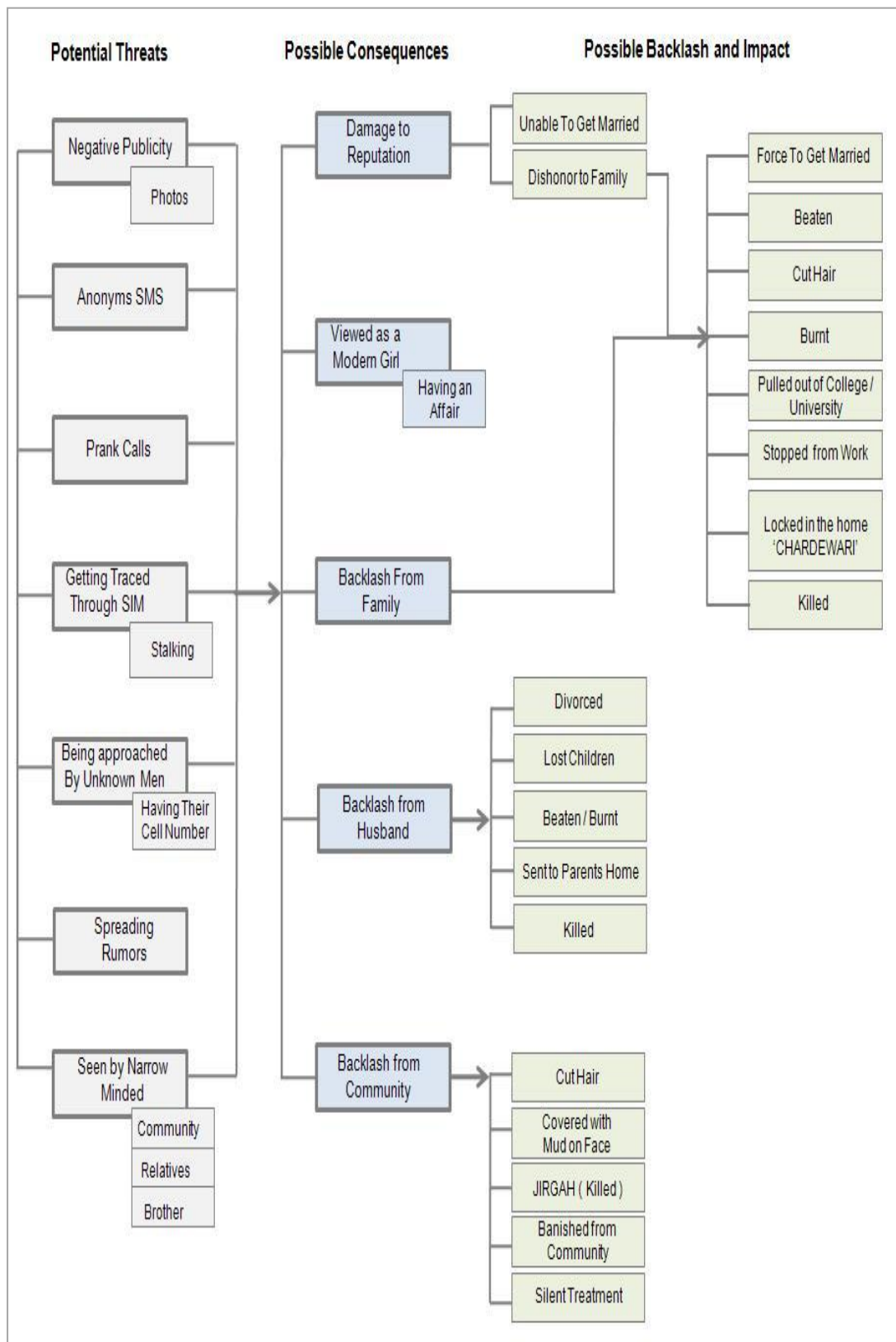
This demonstrates a ‘disconnect’ between the experiences with mobile phones across the ‘classes’ in Pakistan and supports the results identified by Torenli (2006) from her study in Turkey. The implication of this finding is very important and needs to be understood and addressed, as it demonstrates that when developing policies, plans, strategies and programmes for women in the context of ICTs, there must be full representation of women who have exposure to and a true understanding of the grassroots culture, social power structures and the wider social environment. Furthermore, they need to be allowed ‘access and active participation’ with ‘equal voice



and space', so that basic barriers and challenges, and more importantly fears, are not missed or ignored. This will move ICT development thinking in the context of women in Pakistan and other Muslim societies closer to becoming harmonious with the ground realities and local context.

One of the key barriers facing women derives from their perceptions and fears of mobile phones and the effect that their use might have on their image. The focus group discussions revealed that mobile phones in particular carry perceived risks to a woman's reputation, with the fear expressed that publicly using a mobile phone could imply to others that the woman is talking to a boyfriend or other non-familial man, which would have image-related consequences. Women have therefore adapted their behaviours to use the mobile phone in private whenever this is possible. Linked to these fears are concerns that such actions could also bring recrimination from family members or dishonour upon the family. Some respondents incisively understood though that such barriers are self-made. While women from both urban and rural locales expressed similar concerns, the higher levels of mobile phone ownership among the urban women meant that this problem was more apparent in the urban areas (see Figure 6.2).

The following sub-sections analyse and discuss the specific challenges faced by women when using mobile phones. The synthesis of the focus group results identified four specific threats that the participants were concerned about, namely: fear of negative publicity, anonymous SMSs and prank calls, personal safety concerns in the context of getting traced through SIM cards, along with fears and repercussions from their families.



**Figure 6.2**  
**Possible Consequences from Engaging with the Mobile Phone**  
 (Source: Author)

## 6.2.1 Fear of Negative Publicity from Mobile Phones

A disturbing issue was raised by many women, particularly from urban areas regarding criminal acts of indecency and blackmailing that are sometimes carried out through ICTs, particularly mobile phones and the internet. An example of this was shared during a focus group in an urban area of Punjab by two unmarried, formally educated women who shared their experiences about being photographed by a man on the street with his mobile phone and the image's subsequent misuse on the internet in Rawalpindi. This incident had an alarmingly high resonance with many other women, who then began to share their own similar experiences. They all claimed to have experienced some degree of humiliation and subsequent repercussions from their families and friends due to their photographs being misused. This is reflected in a comment made by one of the participants:

*'Photograph's!..... I had no control or knowledge of what happened to me, but one 'snap' (photography) of me suddenly appeared on some strange man's mobile, which was later seen by my brother and cousin. This caused many problems for me in the family for a long time, but eventually things got sorted out' (P-UM-FE-U-1).*

Many of the women in the focus groups conducted in Rawalpindi and Islamabad discussed, an event that has left them all very concerned and afraid, as one explained:

*'In a cyber cafe in Commercial Market, Rawalpindi, young couples were photographed doing indecent acts, kissing etc., and later blackmailed and when they couldn't pay the demanded sum, their images were posted on the internet. This led to public humiliation and dishonour to their families and the women involved were pulled out of universities by their parents and either sent out of town or quickly married off, and some of the married women got divorced and a few of the unmarried women committed suicide' (P-UM-FE-U-1).*

This incident is not well documented in the literature in Pakistan, but some background details can be found in an article in Jang (2004). This event appeared to have had a deep effect on the young women in the urban areas and the comments made in the focus groups confirmed that they were indeed afraid of similar misfortunes befalling them, even if they were innocent. This was expressed by a young married woman from Lahore, who argued that:

*'This is due to the cheating that men are doing with mobile phones with no shame or appreciation of the impact it has on our lives and the government is doing nothing because they are making money'(P-MHH-FE-U-1).*

Some of the women in the focus groups had actually found themselves in these kinds of situations, but all of the women were afraid of similar potential catastrophes happening to them. These feelings are also reflected in the research of Short and McMurray (2009) conducted on women in the UK. My research supports their finding that women felt fearful, powerless and unprotected by the government and laws of the country. The consequences were, shared by three participants:

*'If urban women are victimised or publicised, they become unaccepted and rejected by the society and doubts are cast on their character', and that the 'sisters of the victimised woman also come under attack by the society and their characters are also questioned' (S-UM-IE-U-1).*

*'Parents face terrible difficulties in finding life partners for their daughters' (S-MHH-IE-R-1)*

*'If a rural women, especially from the tribal areas of Pakistan, becomes a victim of this problem, not only does her family force her to leave the house, but also the 'Punchayat' or 'Jirgah' decides to either kill the woman brutally in public – "Karo Kari"– or orders her to leave the village after dishonouring her by raping her in public' (S-MHH-IE-R-2).*

This left me with a numb feeling about the plight in which women were being placed by unknown 'prank' acts by men. To a lesser degree, similar fears of women were highlighted by Tafnout and Timjerdine's (2009) research in Morocco and Torelli's (2006) work in Turkey.

In summary, many women, particularly in urban areas, have significant concerns that ICTs such as mobile phones create the possibility of them being clandestinely photographed by non-familial men, which could bring dishonour upon them and their families or enable them to be blackmailed. Many of the focus group women were justifiably fearful of such calamities befalling them, and some even had direct experience to draw on. Furthermore, such events can have repercussions for the reputations of the victims' sisters, along with the family itself, and in some rural areas this can ultimately result in the victim's honour killing, or *Karo Kari*. This reinforces Siegmann's (2009) research on the gender digital divide in rural Pakistan, in which she emphasises the

fears from her participants regarding the possibility of being killed by their families if they were caught talking to boys on their mobiles.

Thus, women's fear of publicity is one of the primary themes that frequently emerged while conducting the focus groups in both the rural and urban areas in Pakistan. Women who experienced the fear of publicity reported that its consequences are devastating, as it not only impacts the woman herself, but the whole family can also be traumatised as a result. This was particularly so for the formally educated, unmarried and married women in urban areas, who indicated that they are afraid to be photographed or recorded by video on the streets and in the trial rooms (changing rooms in shops). Nevertheless, fear of publicity was not observed in any of the focus groups with female heads of household, who due to their will for survival and protection of their families have been forced to challenge stereotypical behaviour assigned to women in Pakistani society.

## 6.2.2 Anonymous SMSs and Prank Calls

The mobile phone also seems to be a great source of problems for women with regard to unsolicited advances in the form of receiving bad jokes from unknown individuals, who in most cases randomly dial numbers as expressed by one participant:

*'Is giving me a really bad headache in case my brother or other family members saw it by mistake' (A-UM-FE-U-1).*

This was a strong recurring theme, particularly observed in the urban areas as shared by two participants:

*'Boys keep on passing random messages from their cell phones, which is a big problem for us because this causes us bigger problems that could be misunderstood by our parents or brothers who would automatically assume that we are involved with a man' (A-UM-IE-U-2).*

*'As a consequence, my parents cannot only take my phone away but also could prevent me leaving the house or withdraw me from university' (A-UM-FE-U-1).*

This finding also corroborates the recent research by APC (2009) on women's mobile phone harassment in Pakistan, which indicates that 95% of the women respondents received harassing calls and messages from unknown men, but this research concludes that women continue to be unprotected by the current regulations of Pakistan. To add to this, it must also be pointed out that during my research in Pakistan I was also the victim of 'flirtatious' crank calls from young men and unsolicited jokes sent by SMS, which often baffled me as to why me and how?

Married and unmarried women in urban areas experienced the problem of receiving bad jokes and inappropriate calls and expressed the fear that their husbands or other family members (in-laws, fathers and brothers) would see these messages and moral issues would be raised. A possible explanation was offered by a professional working participant from Punjab:

*'Male members of our family are also themselves afraid of community backlash. With such an incident as a woman receiving a call or SMS from a stranger, the male family members would not think about whether the woman is involved or not, but would take immediate actions because of the fear of the community'* (P-U-FE-U-2)

This level of distrust, control and subordination is described by Kabeer (2005a), who investigated the patriarchal power structures and indicated an excessive degree of male control (see also Momsen, 2001).

This continues today, even more so due to Bluetooth technology, for as one woman explained, when she simply walked into McDonalds with her family, suddenly:

*'Someone sent a bad, ugly joke but luckily my brother noticed the beep on the phone and knew it was nothing to do with me'* (P-UM-FE-U-1).

Many of the women in my focus groups shared this concern and had also experienced this issue:

*'It is getting on my nerves because I am continuously afraid of what could suddenly end up on my phone and more importantly, how I could explain it to my family'*(S-MHH-FE-U-1).

Another point was raised by a woman who described her experience in terms of harassment, and complained that:

*'My friends have experienced this also and fear for their safety because they do not know how close the person is who is sending the message or how dangerous they could be, or whether is it simply a group of young men having fun'* (P-MHH-FE-U-2).

This problem was further emphasised by a professional woman working in a large corporation, who related that:

*'Men try to harass women by sending messages which have rude content, leaving us in a very unsafe situation. Receiving messages from unknown numbers having sexual content is a big problem for me. I*

*recently got married and am scared that my husband will see the messages and be suspicious’ (S-MHH-FE-U-2).*

These women all emphasised how, despite complaining to their managers, nothing was done about this issue. This is a very serious problem which is uncontrolled and not regulated or policed at the moment. Unfortunately, there is currently no mechanism available to women to report these fears without further jeopardising their own situation. Highlighting these issues would lead to better equality, HR and harassment in the work place policies that would begin to address these fears. The results indicate that some men indiscriminately send out Bluetooth messages in public areas, such comments having been shared by women across all age groups. Furthermore, in a McDonald’s in Abu Dhabi I myself received a Bluetooth image-message which had very explicit sexual content with Arabic writing, which shocked me because I had no idea who could have sent me such a message. It is very difficult for outsiders to grasp the impact of such actions, as the factors of reputation and dignity are not clearly understood across cultural boundaries. Thus, the consequences of these actions have caused significant tensions and difficulties for women. This was demonstrated by a participant:

*‘Character of women is questioned and she is blamed for having a relationship with a boy, even if it is a single crank call or mistake. The husband could either divorce or beat her and in some extreme cases, kill her’ (P-MHH-IE-U-1).*

These consequences are not only limited to the victim herself – her family and sisters are also doubted and cursed by the whole community. This theme appeared across all of the focus group, but with varying degrees of intensity. A senior government official (EIW-20) who leads the crusade to change the ‘Hudood’ Ordinance (where a raped woman was unjustly accused of ‘zina’ (sex out of marriage)) in Pakistan confessed that:

*‘We are decades behind the world in providing equality for our women in society and preventing them from being victims of false accusations, and sadly technology has made it worse in some ways for women’ (EIW-27).*

More importantly, the apparent lack of priority and commitment that appears to exist in government was clear from my personal experience of participating in an open ‘consultation’ session with the IT Ministry on Policy reform; nothing seems to have changed in the new IT policy (Pakistan, 2010), as discussed in detail in Chapter 4.

### 6.2.3 Personal Safety: Getting Traced Through SIM Cards

Many women in urban areas who participated in this research voiced their fear of getting traced through their SIM cards, this is captured in the voice of four participants:

*'Boys can easily trace names and addresses from the SIM card and this is becoming dangerous for us. Therefore, we now have to buy SIM cards in the name of our husband, brother or father' (S-MHH-IE-U-2).*

*'Now boys can easily get the name and address of the SIM holder and actually blackmail them by calling at their home' (P-UM-FE-U-1).*

*This is the basic tool that enables boys and men to have an anonymous SIM and they start teasing a girl or that can be used for blackmailing purposes. A boy is now not afraid to call a girl hundreds of times because he can neither be traced by the family nor by the mobile companies and there are no consequences for these terrible acts that boys are doing to us' (S-UM-FE-U-2).*

*'Mobile phone SIMs in Pakistan are being sold like biscuits in the general store and other small telephone booths without noting the identity of the buyers and without any controls' (FC-MHH-FE-U-1).*

Therefore, they are now beginning to take a defensive position to protect their identity, as illustrated by the following statement:

*'I always prefer to buy the SIM in my father's name so that random people cannot trace my name' (P-MHH-IE-U-2).*

This approach has allowed a degree of separation from the registration of the SIM and security for women. However, it should also be noted that none of the head of household women stated that they buy cell phone connections in another name. This difference could be explicable by the fact that women heads of household did not have this option, as shared by two participants:

*'We have to do everything ourselves' (P-HH-FE-U-2).*

*'No one has the time for us. We can't wait for one of our relatives to have some time to go with us' (S-HH-IE-U-1).*

This was typically expressed with high energy and passion by the unmarried women living in urban areas. This could also be a dilemma that has inadvertently developed due



to the highly competitive mobile phone market in Pakistan, with very aggressive promotional offers existing in the market today that offer unlimited phone calls and SMSs and as a result making the capacity to make crank calls accessible to all types of people from different backgrounds. Moreover, many women felt this to be a barrier preventing them from using mobile phones, as was explained by two formally educated women:

*'This behaviour and disregard for policies and laws allowed a basic ICT device, the mobile phone, to promote acts of terrorism through the anonymous use of mobile phones and to destroy the lives of thousands of girls'* (FC-MHH-FE-U-1).

*'They were actually using the information themselves to harass the girls'* (A-UM-FE-R-1).

Frustration was again directed towards the government and mobile phone operators who did not protect the personal data of women, raising issues of ethics and professionalism. There have been some consultation sessions with the PTA and mobile operators on this issue after several years of public uproar. However, it is only due to the pressure of penetration by terrorists that any consideration is being given to this problem. In 2008, the Pakistan Telecommunication Authority (PTA) issued a publication and policy change designed to diminish the illegal use of mobile phone SIMs. Furthermore, new policies have now also been implemented by the mobile networking companies in Pakistan such as ZONG, Mobilink, Ufone, Warid and Telenor. All now emphasise that it is illegal to have a SIM in another person's name and only issue SIMs to a person having a photocopy of an ID card (original not required).

Even so, these results indicate that women across the urban areas of Pakistan who participated in the group discussions expressed their dissatisfaction with mobile phone companies. Examples of this were expressed by three participants:

*'The approach is not working'* (FC-UM-FE-U-2).

*'I am using a SIM having no name; I just went to the shop and bought a SIM without giving an ID card photocopy'* (FC-MHH-IE-U-2);

*'I have been using SIMs in an anonymous name for the last 6 months; it was never blocked by the mobile company'* (FC-UM-FE-R-2).

Moreover, it should also be noted that other Government departments also recognise this to be a problem in another context as explained by Dr. Tanveer Qureshi, former Additional Home Secretary of Sindh:

*“The Ministry of the Interior believes that mobile phone companies are playing a dangerous role in supporting radical activities and encouraging serious crimes in the country by selling mobile phone SIMs without proper documentation. This continues to make our task very difficult. Multi-Ministerial cooperation is needed” (EIM-36).*

The risk of this situation is perfectly captured by, the former advisor to the IT Minister, Salman Ansari (EIM-24) who stated that:

*“These changes will be ineffective because they will not be implemented and there will be no follow up, since the government does not give these kind of measures any real priority.....with so-called toothless policies”(EIM-24).*

This view seems highly plausible. Moreover, this begs the question regarding the effectiveness of ICT policies and reinforces women’s lack of confidence in being protected by the government. Thus, women continue to suffer the consequences of having access to ICTs while the government and society looks on, as presented in the APC Report (2009). This issue of lack of controls still remains unaddressed.

## **6.2.4 Fears and Repercussions**

The perceived stigma and backlash of using mobile phones and other ICTs was a recurring theme in the majority of the focus groups. Many participants feared the consequences and potential stigma upon their family from their use of ICTs. This subsection explores the various consequences experienced by the respondents. An analysis of the focus group data indicates that all of the participants felt some concern or fear of potential dishonour and backlash when using their mobile phones. This was expressed well by a participant who stated that:

*“Girls cannot talk on phone when they are outside their homes as boys try to approach girls who have mobile phones in their hands and try to pass on their numbers. This causes us to keep our phones in our bags and avoid using them unless it is an emergency” (FC-MHH-FE-U-1).*

A frightening dimension to this was shared by another young woman who came from the rural area of Sindh, where the feudal culture, coupled with strict patriarchal structures, remains prevalent:

*“You have no idea what we have to live with” and that “women are viewed as property and used as something to ‘barter’ with by the male members*

*of our family, even today'. The Jirgah [villager elders acting as judges] decide on the punishment for crimes, and either have the girl killed, kicked out of the village or publically humiliate the father and brother for having a daughter/sister who was found talking to a boy. We have a long history of "karo kari" and the police do nothing about it'. This is a real problem and causes us "big tension", because we get "wrong number calls" from boys constantly. They disturb us and there is no one we can tell. They don't understand the trouble we will be in' (S-UM-IE-R-1).*

As she explained this in the focus group, some of the other women nodded and their fear was palpable. Similar comments were also expressed in the focus groups conducted with the formally educated women from the rural areas in Sindh and Punjab. Kabeer (2005:14) argued that some women readily accept men's power over them and consider any other possible way of living to be "outside the realm of possibility", with Stivachtis and Georgakis (2008) suggesting that this subservient role for women is so embedded that it requires fundamental social change to address inequalities (also see Sonbol 2005).

Synthesis of the focus group data indicated that women are afraid to use mobile phones publicly because people in their surroundings, especially their relatives, talk behind their backs and their family's respect becomes an issue, which in turns becomes a major hurdle not only in their own marriages but also in the marriages of their sisters. Furthermore, women from the urban areas of Punjab stated that they were afraid of using mobile phones in front of their relatives and people in the community. This fear was prevalent across by both formally and informally educated participants, as demonstrated below:

*'I cannot use the mobile phone or computer in front of my relatives, as they would raise questions about my character to my parents and ask them what I was doing, and why I need to do this. If my parents got angry with me they could stop me from leaving the house' (P-UM-FE-U-1).*

*'If my parents have the slightest doubt about my character due to me mixing with boys, they would force me to get married right away and leave my studies unfinished' (FC-UM-IE-U-2)..*

*'I am reluctant to use ICTs publicly because of the fear of being notorious in Pakistani society' (P-UM-IE-U-2).*

It was interesting to note that none of the participants opposed this view, which was very surprising due to the level of confidence observed in some of them. However, on further

synthesis of the data in the context of position in the household, it was noted that married and unmarried women appeared to raise the issue of backlash more than the female heads of household across the various provinces. An example of this was inherent in comments shared by formally educated participants from urban areas:

*'I can't leave my mobile phone switched on in my house in case I get a wrong number and my mother-in-law answers the call. She will immediately tell my husband and he will beat me without listening to me', continuing that 'in Rawalpindi, a women was killed by her husband because he thought she was having an affair and carrying on with some man on the mobile phone but she wasn't. This was in the papers and on the news too' (P-MHH-FE-U-1).*

*'We have to be so careful to keep the freedom and trust we have been given by our parents because if we do one thing wrong to dishonour our family name, our lives will be hell. I will be married off to my uneducated cousin and sent to the village forever' (S-UM-FE-U-2).*

These issues are commonly covered in the Pakistani newspapers and seen on TV, but it is a daily practice that is probably very difficult for someone not living in Pakistan to imagine as the 'reality' of life for many women (see also Tafnout and Timjerdine, 2009). Sadly, this was a recurring theme across the data from the focus groups, particularly in the rural areas. Attempting to draw some parallels with other studies that had some resemblance to this finding revealed that there were none. Nonetheless, a recent study conducted in the UK by Short and McMurray (2009:165) demonstrated how women were being harassed by 'unwanted advances' via the mobile phone. They highlighted similar feelings of fear, depression, stress and a sense of helplessness in the women surveyed.

Thus, in summary, it is again interesting to note that none of these issues came up during the interviews with elite women or in the course of the other background research conducted. Not surprisingly, none of the ICT policies touched upon the issue of invisible cultural and social barriers that women experience, since they appear to have been created without much consideration of women's sensitivity, as discussed in Chapter 4. Cultural and social issues were unanimously raised by both formally and informally educated women from both rural and urban areas and also significantly so among the women heads of household. This begs the question of how effective ICT policies can actually be in helping to ensure the inclusion of women in the information society. This section has identified the genuine fears that women have and problems that they face when using mobile phones in the restrictive and conservative society of Pakistan, and also reinforces the recommendation (see Section 4.5) that the development of effective

ICT policies requires a wider engagement and consultation with women from a broader segment of society. Nonetheless, this research highlights the extreme views that led women also to be bound and gagged by the family honour.

The following section discusses the perceived and real restrictions uncovered during the research within the context of ICTs being viewed as masculine, fear of judgement from the community, restrictions from parents, and the controls imposed by husbands and brothers over access to ICTs.

## 6.3 Perceived and Real Restrictions

As Marcelle (2002:8) comments in a report on ICTs as an instrument for the advancement and empowerment of women, the complexity of “patriarchal social systems made it difficult both for women to decide to participate in public life and for participating women to succeed. With this hostile environment as the backdrop, it is not surprising that women’s participation in public life has not reached its full potential”. Such arguments were supported by the participants in the focus group discussions. In fact, the results indicate that women often self-impose ‘invisible barriers’ on themselves based on their fears and perceptions of cultural consequences: an oft-repeated sentiment during the focus groups was that:

*‘I never take out my mobile when everyone is around as they would think I am talking to a guy’ (P-UM-IE-U-1).*

When questioned about why they acted in this way, participants in the focus groups did not know, nor could they *explain why they felt a certain way; one simply said:*

*‘It’s in my DNA’ (P-UM-FE-U-1).*

The following section explores the perception of ICTs as a ‘male thing’, fear of judgement by the community, restrictions due to parents’ fear of modernisation and brothers’ controls over sisters.

### 6.3.1 Perception: ICT is a “Male Thing”

The perception of ICTs as being a ‘*male thing*’ was raised by women in all of the urban focus groups. It was interesting to note that even the outwardly confident and professional looking women appeared to want to disassociate themselves from being

ICT competent. This section discusses the perception that many women have about ICTs being a male domain and their dependence on male family members for ICT use.

Formally educated women working in professional jobs where they engage with computers on a daily basis still lacked confidence to some degree when facing a computer. As Loh-Ludher *et al.* (2006) have argued many women are afraid of damaging ICTs due to incorrect use. Many other participants acknowledged the same concern and further stated that they seek support from male family members and colleagues, one stating that:

*'I regularly ask my male colleagues for assistance when faced with virus issues, sudden system crashes or hanging systems because I am afraid that I might make it worse if I do it myself' (P-UM-FE-U-1).*

The analysis from the focus groups indicated that young women frequently relied on their brothers' IT support at home. This is demonstrated by two comments, one woman stating that:

*'My brother has always helped me with my IT homework and assignments and even now he does the virus scan and new installations on my laptop' (P-UM-FE-U-1);*

Another from a village in Azad Jammu Kashmir:

*'I always ask my husband to set up a Skype video call on the computer so that I can speak to my parents in the UK' (A-MHH-IE-R-2).*

Further analysis of the focus group discussions identified that some women felt discomfort when using computers and found it cumbersome to search Google to find what they needed. This was reflected in a comment made by one participant:

*'The internet was designed for boys; right away you can find information regarding news and sports which appears to be typically designed for men's interests' (S-MHH-FE-U-1).*

This supports the view asserted by Huyer and Sikoska (2003) that the internet is designed with a male focus in mind, with Hafkin (2003) also arguing that ICTs are inherently masculine because few women are engaged in the design process and many companies deliberately target men (Upadhyya, 2006). Nonetheless, another woman stated:

*'The internet has opened the whole world and brought the world inside my bedroom and helped me overcome many barriers'* (P-UM-FE-U-2)

Many women acknowledged their lack of interest in using ICTs, one participant stating that she *'did not like to play with gadgets because I think that they were too complicated and are tools for men'* (A-MHH-IE-R-1), which also supports the research in the US by Gurer and Camp (2002) (see Section 2.3.4). Nevertheless, both formally and informally educated women confessed that they sometimes ask their brothers for assistance. Two participants elaborated on this point, noting that:

*'I ask my younger brother for help when using the internet and downloading music on my mobile phone because it is too complicated'* (S-UM-IE-U-2),

Another from Islamabad:

*'They love to help because it makes them feel good and more clever than us'* (FC-UM-FE-U-1), at which point the other participants started to laugh together.

When I inquired as to why they were laughing, another participant commented that:

*'We get them to do what we want'* (FC-UM-FE-U-1).

This type of comment, regarding such an open relationship between brother and sister, was only noted in the focus groups in Islamabad. A possible explanation is that Islamabad is a relatively new city that was created in the 1960s as the seat of government with educated and professional people from all over Pakistan. It does not have the entrenched structures of the more mature cities in Pakistan and its outlook is constantly moderated by the substantial international influences that exist in the capital city (see also Chaudhry and Nosheen, 2009).

However, the seeking of assistance from brothers to download music onto the mobile was a recurring theme observed among both formally and informally educated women. Furthermore, this was particularly more frequent in the rural areas, where it was noted that women rely heavily on either their brothers or husbands to help them in using the computer and mobile phones. This difference could be due to the fact that women living in urban areas were exposed to ICTs at an earlier age in their homes and schools and consequently are less afraid of ICTs. However, some focus group participants in Karachi and Lahore contradicted the above sentiments, expressing complete confidence when using computers and shared that:

*'We have computers at home and are very comfortable in resolving technical glitches'* (P-UM-FE-U-2).

However, they did not volunteer their knowledge in the workplace because they did not want to be viewed as:

*'Geeks and un-ladylike'* (P-UM-FE-U-2)

This research has verified some of the suppositions outlined by Thas *et al.* (2007) and Marshall and Taylor (2006) that technology has intrinsically male connotations to it. This is represented by participants who felt that:

*'Women who were technologically competent would not be fun to go out with'* (P-UM-FE-U-2) or

*'Were too studious and typically wore glasses and would be ugly'* (S-UM-FE-U-1).

Nonetheless, two elite women interviewed (EIW-25 and EIW-29) also acknowledged that there were a few women who were afraid of technology due to their limited exposure to it, especially those from poorer backgrounds and in rural areas. One suggested that:

*'Specific campaigns should be launched by the government and schools targeting girls at a young age to overcome the fear and break the stereotype of ICTs being a male tool'* (EIW-29).

This finding further supports the work by Ramilo (2002) and Green and Trevor (2002) about the lack of confidence and self-doubt that exists in some women. It is also articulated by Loh-Ludher *et al.* (2006:81), who cite a woman called Jamilah who said that she "has access to a computer but believes that it is beyond her capabilities". As a technologist, it saddens me to see that these results demonstrate women's continued dependence on their male family members for ICT use and support. Moreover, this behaviour could further reinforce and widen the gender digital divide. Thus many women were reluctant to use ICTs because of their being perceived as too complex or difficult to use and/or primarily suited to men. Women who were competent with ICTs in reality also frequently concealed this fact at work in order to appear less 'geeky'. Nonetheless, the artificial barriers imposed by women's fear of ICTs as well as their perceived status as the domain of men is widespread and a highly problematic obstacle to the wider use of ICTs by women.



### 6.3.2 Judgement by Parent and the Community

It is crucial to understand the significance that respect and honour play in the Muslim society of Pakistan as discussed in Section 6.2. The focus group discussions across the country were very heated when it came to discussion of this subject. Several young women, from both urban and rural areas, complained how Islam has been misused and misinterpreted by men and society to suit them, as expressed by participants:

*‘Islam means submission to the will of Allah, but people in my society have forgotten this and they consider women their property and are following some non-believers, which is against the teachings of Islam’*(P-UM-FE-U-1).

*‘Women have no subordinate position in Islam; it’s wrongly interpreted and some prejudiced males still want to follow the same tradition built by men from the old times’* (S-MHH-IE-U-2).

This supports the argument by Khalafallah (2005) who notes that there has been a movement that openly marginalises and debases women’s position in Islam. This perception of how women are mistreated and their lower social position than men in Pakistan is also documented by Jafar (2005) and Syed and Ali (2005:3), who state that “the status of women in Pakistan is based on two fundamental perceptions, that women are subordinate to men, and that a man's honour resides in the actions of the women of his family”.

Therefore, it is not surprising that many parents felt pressure from their relatives and the wider community to restrict the access that their daughters have to ICTs. This is evident from the comments made by two participants:

*‘My parents trusted me with my mobile phone but were concerned about what our relatives will say behind their backs’*(S-UM-IE-U-2).

*‘I can’t use a mobile phone in front of the people in my community because they might raise a finger about my character which will dishonour my parents’* (A-MHH-FE-R-2).

Similar concerns regarding the negative views of the community were also raised by Stark (2010) and GSMA (2010). The tradition of covering and restricting a girl’s movements in the traditional context of Pakistan has been described by Syed and Ali (2005:4) as follows: “Her mobility outside Chardiwari is restricted because of the known rationale of modesty (Haya), family honour (Ghairat), and tribal traditions (Rivaj)”. Another issue raised by a participant focused on the fact that her relatives were

discrediting her parents and destroying her character because not only was she working but she was also allowed by her parents to possess a mobile phone(P-UM-FE-U-2). Unfortunately, this particular story ended in her parents being chastised for giving her permission to talk to boys at work and on a mobile phone, resulting in many friends and community members distancing themselves from the family. This type of extreme behaviour was echoed by many participants, but was not experienced by any of the elite women interviewed. This sort of thinking was explained by the head of an NGO in Punjab:

*'The relatives and community members of the society attributed this behaviour to that of advanced, modern, promiscuous women going against Islamic principles and jumping to conclusions because they have dirty minds' (EIW-29).*

This demonstrates the level of complexity, nuances and sub-cultures that exist in Pakistani society, which appear to be ignored by the government, mobile operators and some development agencies. More importantly, none of the ICT policies in Pakistan even begin to address or show awareness of such restrictions and the barriers that women are facing.

Lastly, in this sub-section, an interesting behaviour was noted in that ICTs create negative competition among certain groups of people. For example, a participant mentioned that in her circle of friends they say: *'who has got the latest mobile phone set and the latest laptop computer?'* (FC-UM-FE-U-2). Furthermore, the development of micro-cultures and mini-gangs among the youth in the cities of Islamabad and Karachi have resulted in a second tier of barriers being created that have further restricted women's access to ICTs. Therefore, the parents who initially allowed their daughters to use mobile phones, despite pressures from the community, were now left with no choice other than to apply restrictions to their daughters' access to ICTs due to the development of a dangerous competitive culture and corresponding set of behaviours that have developed. Moreover, the cultural confines of Muslim society present a major barrier. Several women, from both rural and urban areas, felt that Islam had been perversely interpreted to serve the interests of men and uphold patriarchy in Pakistan. A further problem is that of how the community perceives the use of ICTs by women, with the potential that a woman seen using a mobile phone could bring dishonour upon her parents and family.

There was a lot of excitement in the focus group discussions that was sometimes difficult to control and would drift off the subject of ICTs, but these digressions were usually very

informative and yielded a view into their lives, resulting in a few unexpected discoveries of how creative these young ladies were in finding ways of overcoming the restrictions. Two main areas of concern were raised by the participants: inappropriate locations of ICT outlets (male-dominated environments), and fear of modernisation from ICTs. These points are discussed in the next sub-sections.

### **6.3.2.1 *Inappropriate Locations of ICT Outlets (Male-Dominated Environments)***

One of the most common issues, which recurred in all of the discussions in both the urban and rural areas, was parents' restrictions against their daughters visiting cyber cafes or public call offices (PCOs), primarily due to the fact that they are often located in locations that are thought to be inappropriate and the perception that they are: *'managed by men who play video games all day long and watch porn in secret'* (P-UM-FE-U-2). Furthermore, the environment was described as being *'not suitable for respectable women to visit because there are too many men hanging around everywhere'* (FC-UM-FE-U-1).

Acknowledgement of this issue was also made by Ammar Jaffri (EIM-37), head of Pakistan's Cyber Security Division, who stated that:

*'Unfortunately, Pakistan has the highest Google porn search rate in the world'* (EIM-37).

This has also been supported by Mahmood's (2005) research in Pakistan. Similar observations were noted by Tafnout and Timjerdine (2009:90) in their research in Morocco, where the concern was raised that "in internet cafes men are not supervised" and men watch pornographic websites and "nobody cares about that". Moreover, the women expressed how they felt embarrassed because not only the male customers in the internet cafes but also the internet cafe owners kept watching them. This same fear and tension was echoed in this research. Moreover, I wanted to investigate this point for myself and so visited cyber cafes and PCOs across the research locations and also made the same observations. Figures 6.3, 6.4, 6.5, 6.6, and 6.7 all demonstrate the male-dominated environment.



**Figure 6.3**  
**Yahoo Net Cafe – Islamabad**  
**(Source: Author)**



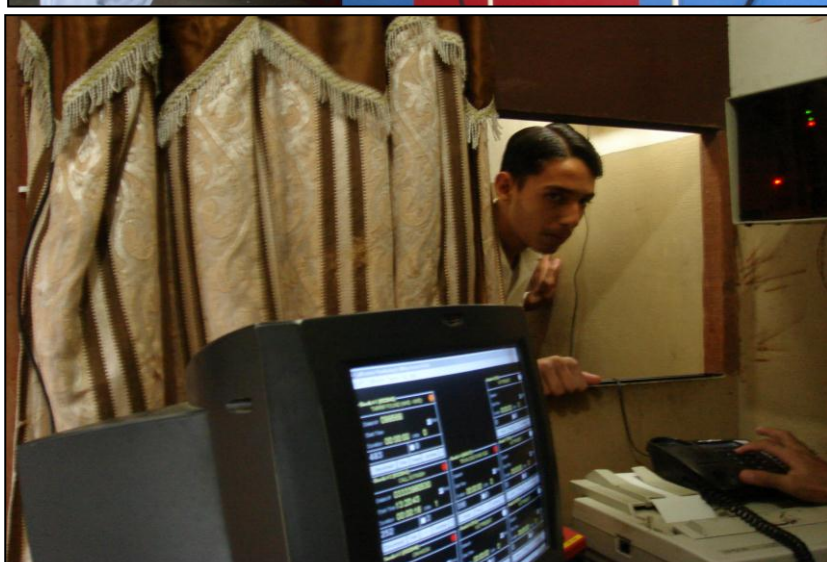
**Figure 6.4**  
**Naz Net Cafe – Karachi**  
**(Source: Author)**



**Figure 6.5**  
**Eze Links Net Cafe – Lahore**  
**(Source: Author)**



**Figure 6.6**  
**Jadran Net Cafe – Rawalpindi**  
**(Source: Author)**



**Figure 6.7**  
**PCO – Karachi**  
**(Source: Author)**



Nonetheless, there are three unique initiatives that demonstrate how the cultural restrictions are beginning to be overcome to provide access to women;

1. A recent example of this is reflected in the current initiatives launched by the USF in Pakistan as a direct result of my intervention with its CEO (EIM-25) (also see Shams, 2009). This has transpired in the creation of two telecentres, dedicated to women in Baluchistan and Punjab, so that they can begin to address some of the constraints that they have been facing. Figure 6.8 illustrates how a female trainer from USF is providing basic ICT literacy skills to the women of Baluchistan in the telecentre. It should be noted that this is one of Pakistan's strictest tribal communities, where in 2008 five women were beaten and buried alive in the name of honour killing for refusing to have an arranged marriage (The Independent, 2008). Therefore, it is critical that ICT practitioners and development agencies from the North bear in mind the actions that family members can take in the name of 'honour', even in the Twenty First Century, and therefore care must be taken at all stages of designing, implementing and monitoring ICT initiatives for women in Pakistan.



**Figure 6.8**  
**USF – Telecentre for Women**  
**(Source: Author)**

2. In India, an ICT training centre was creatively set up in a local mosque in Seelampur, Uttar Pradesh (Chetan Sharma, (EIM-38) to provide access to education for girls, whose parents did not allow them to go to school or cyber cafes. This proved to be a very successful model that touches on the account of local cultural and religious constraints that have prevented women's earlier access to ICTs and education (also see Sharma and Maindiratta, 2005).
3. In Egypt mobile vans (the Tableya) have been travelling into communities to provide training that is easily accessible to local women, who are normally restricted (see Hassanin, 2009). Similar creative actions, which are uniquely designed to understand and address the local communities' restrictions on women, need to be undertaken across Pakistan.

### **6.3.2.2 Fear of Modernisation from ICTs**

Many participants mentioned that there were constraints on their use of ICTs at home because of their parents' fear of promiscuity as a result of their daughters using them, particularly with the television, as demonstrated by participants:

*'My parents think TV is bad because of Indian stuff' (S-UM-IE-U-2),*

*'My parents believe that cable has a negative affect and that is why we don't have it at home, because of bad movies that show immoral and un-Islamic things and don't want the influence of India' (P-UM-FE-U-1).*

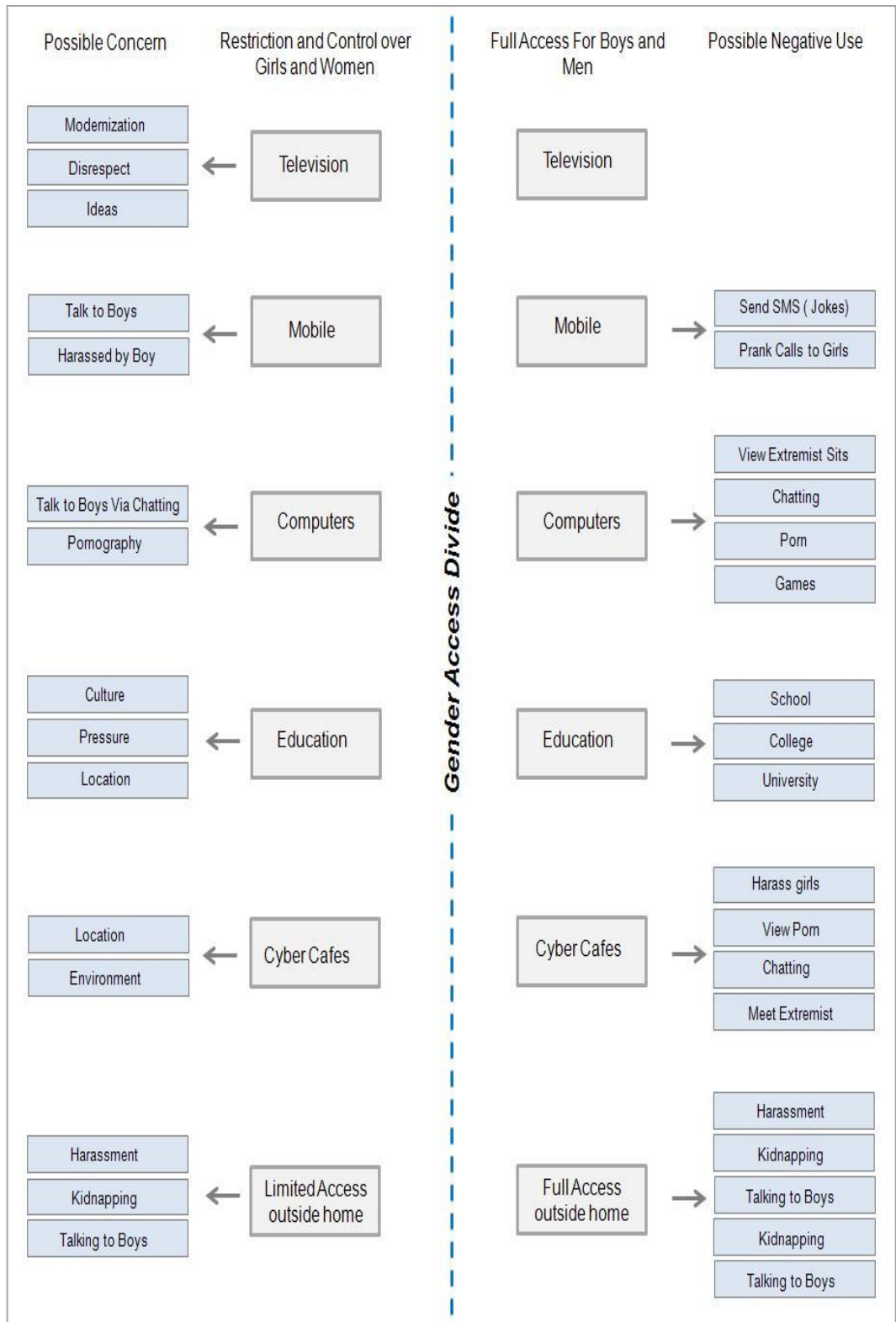
This reiterates Mahmood's (2005) work in Pakistan regarding the issue of women's access to ICTs for fear of promiscuity and exposure to men and the local perception that the "internet is just an entertainment medium and, therefore, it is not wise for women and children to learn and use it" (Mahmood, 2005:212). My research also confirmed this view and identified that some parents felt that not only did the TV have a negative impact, but also that it wasted time when the girls should be studying. Furthermore, they noted how Pakistan fashion was now changing and adopting fashions from Indian movies that are against Pakistani culture. Moreover, they highlighted how fears of the negative influence of Indian movies and their potential influence on promiscuity, eroticised fashion and vulgarity, appeared to be a major reason why their parents were concerned about their use of ICTs, particularly the TV. It is interesting to note that exactly the same sentiments and concerns regarding the negative influence of Indian dramas and movies were raised by Seddiqullah Barmak, (an Afghani film director) at a conference at SOAS on 'Afghanistan, Good Governance and the Media', on 8<sup>th</sup> July, 2011. Similar concerns

were also raised during the interviews with elite women from the UAE, one in particular shared:

*'My children are becoming anti-social, which is causing us to have to lock computers away from the children to force them to socialise within the family'*(EIW-13).

There is limited literature regarding this aspect of the negative impact of ICTs and anti-social behaviour in Islamic societies (see Goulding and Spacey, 2002). However, Mahmood (2005:214) noted in his study in Pakistan that the "internet is perceived in rural areas as an entertainment medium and youngsters mostly use it to see pornographic sites". This concern, allied with the conservative nature of Pakistani society where the concepts of purity and honour are disproportionately vested in women, heightens the fears of the parents who then restrict their daughters from using ICTs. The difference between the genders' access to ICT due to such fears and concerns is captured in Figure 6.9.

Reflecting on the comments made during the focus groups and by the elite women, there appears to be greater fear of how ICTs will change the culture and traditions that are held close to the heart by the parents and elders. This is captured in Vodanovich *et al.*'s (2010:11) research in the UAE, in which they attempt to untangle and define the space around westernisation and its interplay with IT as a modernisation tool that will create "cultural issues such as their heritage and cultural background".



**Figure 6.9**  
**Gender Access Divide**  
 (Source: Author)

Moreover, an interesting point on limiting the restrictions on ICT usage was raised in one of the urban focus groups, when a participant stated that her mother says that:

*'Only after maturity was reached would a girl be allowed to use ICTs' (S-UM-FE-U-2).*

*'When you [her daughter] are an adult you will have my permission to use a mobile phone' (P-MHH-IE-R-1).*

This point was also evident in the interviews with elite women in Pakistan:

*'Mothers needed to play a more active role to support and encourage their daughters to use ICTs but at the same time guide them regarding the dangers that also exist from ICTs' (EIW-20).*

*'My father was extremely supportive of my using ICTs from an early age and in fact gave me more encouragement than my brother' (EIW-29).*

These results point to the need for the government to do more towards educating parents on how to ensure a balance with children's engagement with ICTs, especially social media sites, along with creating safe and secure local access points.

### **6.3.3 Brothers' and Husbands' Control: Double Standards**

Restrictions imposed by brothers were a very significant barrier to the use of ICTs by women. This is demonstrated by one participant's comment:

*'My brother does not allow me to use the net from home', 'my brother does not allow me to do chatting', 'my brother does not allow me to buy credit for my mobile phone and lastly my brother creates problems when I watch TV shows, but he has full liberty to watch whatever he wishes' (P-UM-IE-U-2).*

This was a pattern that recurred throughout the focus groups in rural areas at a much higher level than in urban areas. It can be argued that brothers in particular are more aware of the kinds of illicit actions that can occur online and with mobile phones due to their potential own involvement in these, which may give them first-hand experience of what could happen to their sisters. This factor, however, does not appear to be discussed in the current literature, indicating that this particular obstacle to women's access remains unaddressed.

The discussion groups highlighted diametrically opposed views concerning the role of husbands in influencing ICT use. On the one hand, there are cases where husbands were extremely supportive of women's passions to pursue education, employment, use of ICTs or simply self-improvement. On the other hand, there were husbands who were described by one participant:

*'My husband refused to pay for mobile phones, let alone phone cards to be used, even after being given the handset by parents who desired to keep in touch with their daughter after marriage'*(S-MHH-FE-U-2).

This difference in attitude was explained during the discussions to be caused by the husbands' lack of education and self-confidence. Contrary to popular perceptions, the focus groups demonstrated that men in rural areas appear to be much more supportive of their wives in many ways, possibly due to their appreciation of the multiple workloads that the women are burdened with carrying out daily and possibly also due to their geographical location. However, this difference in behaviour was only noted in families in which the household members were highly educated and more moderate in their views of Islamic practice. This also confirms the views argued by Chaudhry and Nosheen (2009), who distinguish the difference between tribal/rural and urban (educated) men's treatment towards women's freedom and access in Pakistan. However, this point was not raised as a barrier or issue in the interviews with the elite women.

In summary, the results indicate that in many cases, social and familial pressures have forced women to internalise many of the barriers and temper their behaviour, and use of ICTs accordingly. The stigma and fear of being viewed as 'advanced or modern' forms a considerable barrier that discourages women from fully engaging with ICTs, along with fear of personal repercussions and social backlash to family (See also Momsen, 2001). If the existing power structures and controls remain unaddressed, there is great potential danger that ICTs will further reinforce existing power structures, which could systematically drive the further subordination and marginalisation of women in Pakistani society.

## 6.4 Subordination: Access and Choices

In patriarchal societies such as those in some Muslim countries (Offenhauer, 2001), where “men hold considerably more social, economic and political power than women in the existing cultural order”, they “exercise that power to assure that they have greater access to and benefit from ICT than women” (Daly, 2003:9) (also see Kottegoda, 2007; Johnson, 2005). My research has shown that these behaviours are prevalent in Pakistan (see also Mumtaz, 2007). The section below discusses the issue of restrictions imposed on women’s access and their lack of control in the context of education, employment choices and access to ICTs. Furthermore, it examines the issue of discrimination towards girls by family.

### 6.4.1 Lack of Decision Making Authority

A young, professional, educated woman living in an urban area stated that not only did she have to obtain her husband’s and in-laws’ permission to take a job but also has to ask their permission to take computer classes(S-MHH-FE-U-2).This is supported by both Loh-Ludher *et al.* (2006) and Narayan *et al.* (2005), who argue that male relatives are indeed the main decision makers for families concerning ICTs and that the women themselves “defer to their husbands in decision making” (Loh-Ludher, *et al.*, 2006:27). Narayan *et al.* (2005:38) further point out that “women in the households often lack independence, decision making power and the financial resources”, which is confirmed by the issues raised in the focus group discussions as key barriers across all the focus groups, irrespective of the category. These factors, coupled with the stigma and backlash that can result, serve as the main barrier resulting from social and cultural behaviours that compel women to conform. Barton (2005) describes how women are controlled, policed and often brutally attacked in their homes and communities, all in the name of tradition and culture.

Analysis of the focus group data suggests that not only do men hold decision making power but also that they have control over ICTs and other resources and restrict the use of ICT tools such as mobile phones and computers by women at home. Women from both rural and urban areas lamented their lack of control and decision making authority as expressed by one participant:

*‘Men are the main decision makers in our family system and they have control over ICTs and other resources. Women can’t even watch the TV channels of their own choice, use mobiles freely to talk to their female*



*friends or mothers when their husbands are at home*'(P-MHH-IE-R-2).

This lack of control and authority was more prevalent among women from rural areas and informally educated women. A possible explanation is that it may be easier for patriarchal structures and local customs to entrench male authority over these women, as argued by Kandiyoti, (2007) and Gayathri, (2007). However, in some focus groups across rural Sindh and Punjab, some formally educated women raised similar concerns. This experience of domination is experienced by women irrespective of their geographical location and education and in some cases even where they are heads of household, the male members of the family trying to exert power and influence not only over who the women should marry but also whether or not they should work and own mobile phones. My research suggests that this structural domination permeates all sectors of society in Pakistan and, as Thas *et al.* (2007:14) argue, if one is to empower women it is important "to understand and address the various dynamics of power and relationships".

#### **6.4.2 Preferential Treatment for 'Boys'**

As argued by Sada *et al.* (2004) preferential treatment is given to boys regarding access to education and ICTs and my research also again reinforces such a conclusion. An example of this is evident in the comments made by one of the participants in a focus group in Islamabad, who said:

*'When my brother comes home from work, he has the priority to use the computer, despite the fact that I could have deadlines for my university work'* (FC-UM-FE-U-2).

This preferential treatment and giving priority to the boys was a recurring theme in many focus group discussions. It was noted by some that their brothers were given the first choice of the latest technology, such as mobile phones and other gadgets. An example of this was given by one participant who stated that:

*'my brother just has to say that he needs to buy the latest iPod and he gets it, whereas I am given his old one'*(P-UM-FE-U-1).

Women from both rural and urban areas also stated that preference is always given to a male child in accessing ICTs, regardless of their education level. Women expressed the concern that boys have been given priority in the use of mobiles, laptop or desktop computers and iPods. However, only a few women who were heads of household stated that the same problem exists for them.

Preference being given to males for ICT access did not appear as an issue during the interviews with the elite women, who instead identified that they were being provided with complete support and encouragement from their families to pursue higher education and work. One stated that:

*'My mother said that you must pursue your education to become independent and teach your children and not repeat my mistakes' (EIW-20).*

*'My father insisted that I obtain the best possible education so that I could be successful in the competitive man's world and emphasised that he felt that education was the key to success in life' (EIW-37).*

This difference could be attributed to the class difference between the participants of the focus groups and from that of the privileged background of the elite women whose parents were in all cases well-educated and from a wealthy background, which also supports the research by Torenli (2006) in the context of Turkey. This does, however, contradict a statement by Sada *et al.* (2004) which suggests that mothers across all levels of society prefer to have girls work with them at home rather than pursuing education. Comments from the elite women contradicted this statement, with a unanimous emphasis that they were not deprived of access to the latest ICTs and the best education by their parents. This contradicts much of the literature, which argues that preferences are given to the male child for education, regardless of social background (Thas *et al.*, 2007; Francis and Skelton, 2005).

In summary, this section has confirmed the general view that in a patriarchal society such as Pakistan, there is an overall sense that women do not have the same opportunities of access and use of ICTs as their male counterparts. However, this is not universally the case, as demonstrated by the comments from the elite women.

## **6.5 Discrimination in the Workplace**

The following section explores in more detail two distinct types of discrimination that limit women's participation in the IT sector, as raised during the focus groups: male bias in the work place; and the harassment and stereotyping of women in the workplace.

## 6.5.1 The Male Bias

As discussed in Section 6.4, decision making responsibility and authority generally lies with men in the patriarchal society of Pakistan. This domination has also permeated the ICT sector (Wingfield, 2009; Beltran and Ursa, 2006; Upadhaya, 2006). Marcelle (2000b:1) describes how the ICT sector is “dominated by values traditionally associated with a power imbalance between men and women”. The masculine culture of ICT continues to be a barrier for women in the sector (James *et al.*, 2006). This feeling was reflected by many women in the focus groups who worked in the IT area in Pakistan and is reflected by one participant:

*‘IT companies are dominated by males not only as engineers but also as managers’(S-UM-FE-U-2).*

This was seen to be an obstacle for promotion and presents a considerable barrier. This study’s fieldwork supports the arguments of Thas *et al.* (2007) and Marcelle (2000a) in their assertion that women are rarely represented in the decision making or recruitment processes at IT firms (see also Gomez and Ospina, 2001). Many of the women in the focus groups also felt uncomfortable while working in the male-dominated environment as indicated by two remarks from the participants:

*‘I felt like all the men were staring at us as if we were aliens or sexual objects’ (P-UM-FE-U-2).*

*‘We deliberately dress up in a more conservative way to protect ourselves from the glances of men others are dressed in a particular way to attract the attention of their male colleagues’(S-MHH-FE-U-1).*

These points were also raised in Elnaggar’s (2007) research in Oman and by Upadhaya (2006) in the context of India. However, due to the limited number of women working in the IT sector in Pakistan, many women felt a particular degree of discomfort while working in a male-dominated environment. This point was raised by all of the women from the focus groups in the urban areas. Some suggested that there should be a separate seating arrangement and working areas for women. They felt that they were taking a risk against their characters by working in a male-dominated place because it consequently reflected badly upon them and in some cases also on their parents and families (see also Baruah, 2010).

## 6.5.2 Harassment and Stereotyping

The dilemma of discrimination and harassment against working women across the world is an issue that has been extensively discussed (Elnaggar, 2007; Upadhya, 2006; Primo 2003). It is not only in the IT sector that women are harassed at the workplace, as Figure 6.10 indicates. A recent article from *Pakistan Today* (August, 2011) highlights that the problem of sexual harassment is prevalent in the society in Pakistan and is frequently debated in the press and media. Nevertheless, due to the IT sector being predominantly controlled by men, the level and intensity of harassment is often extreme. The issues of sexual harassment, 'glass ceilings' and stereotyping by employers were also raised during the fieldwork in Pakistan.



**Figure 6.10**  
**Problems Facing Working Women in Pakistan**  
(Source: *Pakistan Today*, August, 2011)

### **6.5.2.1 Women: 'Non-Serious Workers'**

The comments from the focus groups in urban areas all emphasised that women are stereotyped. One participant stated that:

*'My colleagues think that we are just here to pass the time until we get married' and that 'we are just here to find husbands' (S-UM-FE-U-1).*

This was passionately discussed in the focus groups in the urban areas, resulting in the sense that this was a serious point of contention for young women who were struggling to make a serious profession and career for themselves, despite the scepticism directed towards them. Women from all categories pointed out that they are not taken seriously in the workplace and experience scepticism from others with regard to their career from their employers. This theme consistently came up in the focus groups conducted in urban areas, where women indicated difficulty in continuing their careers. This could be because of the nature of the work and environment, which is different between the rural and urban areas, where, with a few exceptions, women generally work in homes or on farms as argued by Jafar (2005).

This research indicates that unmarried women face the problem of not being taken seriously more often than married women. This could be explained by a comment made by a formally educated woman from Islamabad, who stated that:

*'Unmarried girls are not taken seriously, as our employers' think we will get married and leave our jobs' (FC-UM-FE-U-2).*

The data reveals that very few women heads of household agreed with this. The difference could be due to the fact that these women are working out of necessity and employers may be aware of this. However, two elite women from Punjab and Sindh, working with NGOs (EIW-29 and EIW-30), supported this observation and added that women heads of household were most likely to be taken advantage of by their employers because they are often aware of how dependent they are on this income.

Research by both Upadhyaya (2006) and Wanasundera (2006) discusses the issue of women being stereotyped in the workplace. However, none of the elite women interviewees raised the issue and respondents felt instead that there was plenty of opportunity for women in the workplace in Muslim countries in both the public and private sectors. This is not surprising, given their privileged backgrounds, which are based on class, access to funds and position in society (see Torenli, 2006; Offenhauer, 2005). Moreover, the field data confirms the view in the literature that many women are not

offered interesting and challenging jobs. This is reflected by comments made by three participants:

*'We are given mundane and non-critical assignments with no prospect of advancement because we are viewed as unreliable resources with no commitment'* (P-UM-FE-U-1).

*'I am given the boring job of data entry, whereas my less qualified male colleague was given the interesting job of analysis and co-ordinating with the customer'* (P-UM-FE-U-2).

*'I am stuck and hidden away in the call centre and can never move towards a management role because my boss thinks that I cannot come to the office during the night in case of some emergency'* (S-MHH-FE-U-2).

A large proportion of participants from urban areas raised this issue and confirmed experiencing it in one way or another, expressing a high degree of frustration. All of these women were qualified and professional. It could be that this phenomenon was not explained or raised by the women in rural areas due to the fact that they largely work in different types of jobs and are ensconced in different types of work environments and the village culture (Jafar, 2005). These types of discrimination are also raised in Elnaggar's (2007) research on Omani women and Upadhy's (2006) research in India. Furthermore, in my experience as a technologist working in the IT industry in the US and UK, this type of discrimination is sadly not just restricted to Muslim countries. Moreover, women who become managers seem to apply similar discrimination against women themselves, indicating that this issue is a potential black hole that limits women's engagement and influence inside the ICT industry, which consequently has a huge impact and prevents women from truly engendering the ICTs themselves and making them less masculinised.

### **6.5.2.2 Harassment and Sexual Exploitation**

The clarity and passion of one woman in particular stood out. She complained that she had to deal daily with multiple types of harassment in her work in Islamabad in a multinational IT company due to the fact that she is a woman trying to attain a place in a men's world. She described her abuse and harassment as being:

*'Verbal, sexual, mental and physical'* (FC-UM-FE-U-2).

Articulating her pain with great clarity and giving specific examples of how her male colleagues tortured her verbally and mentally, testing the limits of her tolerance, she

explained that this would not break her though. The other ladies in the focus group were aghast at her experiences and then subsequently, slowly, began to reveal their own personal stories. This was a very sad but enlightening experience. Similarly three participants shared:

*'When I go to the office I have to make sure that my "dupatta" is always in front of me, because otherwise I catch my colleagues glancing at me and whispering jokes to each other, which makes me very self-conscious'* (FC-UM-FE-U-2).

*'Some of the young men in my office think that we are running a fashion show for them, and therefore I have to spend extra time deciding what to wear when I go work. This is really unfair because we don't look at them that way'* (P-UM-FE-U-I).

*'It is too bad that we live in such a judgemental and conservative society that if I turned around and told the boy to shut up, I stand a chance of being seen by someone, who will assume that I am talking to boys and then tell my parents and then I will get in trouble for no reason. This is a tough situation and we have to tolerate so much crap'* (P-UM-FE-U-I).

Coming from a corporate US background, where lawsuits against sexual harassment can so easily be filed as a result of even commenting on a person's clothes or sharing a joke, I was shocked, saddened and disappointed that Pakistan, despite having an ICT policy that is supposed to encourage and enable women to come into the IT sector does not in any way begin to protect them from the issues that can arise in the workplace. This seems to be equally true in the private sector, with there apparently being few policies inside companies to protect equality and simple HR regulations for professional behaviour.

To recap, the workplace presents some important barriers to women's engagement with ICTs, among the most important of which is a male-dominated culture that reflects the patriarchal social and cultural values of Pakistan. Focus group participants concurred that IT firms in Pakistan are male-dominated and that women are profoundly under-represented at the managerial level. Nonetheless, empirical data to prove this point is unavailable from the Minister of IT, as pointed out by Salman Ansari (EIM-28). Furthermore, women face significant levels of discrimination, harassment and other forms of disregard in the male-dominated working environment. Another prevalent theme was that women in the IT sector frequently encountered scepticism towards their careers from others, particularly managers, making advancement problematic. This issue was

found to be especially acute among unmarried women, whose employers may doubt their longevity in their jobs due to the prospect of them getting married. In general, women are perceived to be unreliable and this often results in them being given uninteresting, unfulfilling jobs, in contrast to their male counterparts. In addition, harassment – sexual, mental and physical – is prevalent and there is often little that women subjected to it can do in response.

## **6.6 Women’s limited Personal Space**

It was difficult to decide where in this chapter to place the analysis of ‘*women’s limited personal space*’, because from examining the causes of this dilemma, one could argue that it is due to self-imposed responsibilities taken by a woman or the result of discrimination faced by her. Consequently, this separate section has been created to discuss the multiple roles that women have highlighted in the themes that surfaced in the field data. This is well-documented and often described as the ‘triple roles’ (Wangmo *et al.*, 2004:11) that women have to play (see also Primo, 2003; Huyer *et al.*, 2002). The following sections discuss the findings in the context of the multiple roles that women have to play in Pakistan and the impact it has on their engagement with ICTs, permitting no time for women to surf the internet.

### **6.6.1 The ‘Quadruple’ Roles of Women**

Alim (2009) and Elnaggar (2007) have clearly catalogued the burdens and responsibilities that women bear in society and the home. This was a major recurring theme that was raised in the interviews with elite women. This research has identified four specific types of roles that women fulfil: (1) housekeeper, (2) caregiver, (3) income generation (earning a livelihood) and (4) wifely duties (see Figure 6.11). However, Wangmo *et al.* (2004:11) has termed the multiple responsibilities of women “triple roles” (see also Thas *et al.*, 2007; Beneria, 1997), whereas Tafnout and Timjerdine (2009:96) also reference the “triple gender role of women”, but in the context of constraints that need to be removed if women are to be equally participating in ICTs with men”. However, the findings of my study have identified that there are indeed quadruple roles that burden women, preventing their engagement with ICTs.

An example of this was expressed by a professional woman from Lahore:

*‘I daily have to manage and juggle triple roles that require me to address household responsibilities, professional responsibilities and more*



*importantly, I have to act as a caretaker for everyone in my family...my elderly parents and my husband's parents too and sometimes my husband' (EIW-29)*

Such duties leave little time for women themselves and can prove a sizeable barrier, even if there is an abundance of resources. Another, elite woman working with the government of Azad Jammu and Kashmir said that she was managing

*'Quadruple roles, because I not only have the typical triple roles to manage but also the added burden of a fourth, which is the regular duties that my family places on me and their timings are completely out of my control', she smiled and said 'this is life in Pakistan'(EIW-31).*

Upon hearing this I found myself recalling Kandiyoti's (1998) wonderfully insightful paper on bargaining with patriarchy.

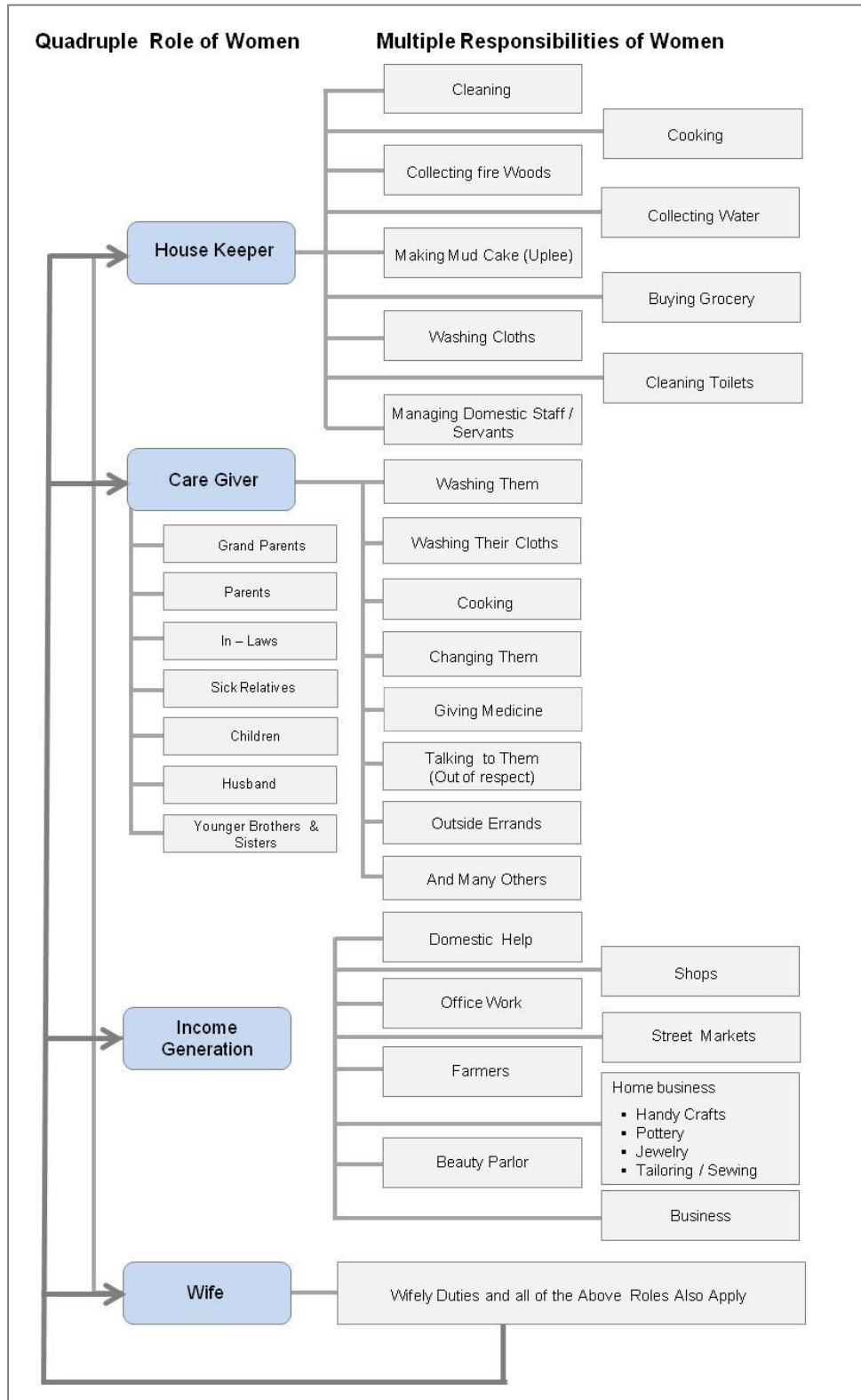
The focus group data revealed that there is a difference between the amount of personal time a woman has when she is the head of the household and also the sole breadwinner for the family against that of unmarried and married women. The shortage of time was one factor that impacted women in both the rural and urban areas, reflected in the comments by three participants:

*'I am so busy that I can't even see the news on television or sit down when I come home from work '(P-MHH-FE-U-2).*

*'How and where will I find time to learn and use ICTs? 'I am occupied 18 hours a day with household responsibilities' (S-MHH-IE-U-1).*

*'I do not know how to send SMSs, nor can I read English and I don't have the time to go to school and learn' (A-MHH-IE-R-2).*

This reinforces the concerns of Comfort and Dada (2009) as well as Thas *et al.* (2007), that there is little opportunity for these women to engage with ICTs and benefit from the advantages. The frustration and sense of injustice was raised by some of the participants in noting that they had the responsibility of taking care of their extended families: elders, in-laws, brothers, sisters and children, whereas men can get away with doing very little. This also supports the findings reported by Syed and Ali (2005), Jafar (2005) and Mumtaz (2007) in the context of Pakistan. Figure 6.11 was developed by synthesising the discussions from the focus groups, semi-structured interviews and clearly outlines the 'quadruple' and extensive roles that women have to undertake in Pakistani society. Nevertheless, it also reflects the burden that is faced by many women in the world.



**Figure 6.11**  
**Quadruple Roles and the Responsibilities of Women**  
 (Source: Author)

To illustrate the extreme cases and hardship of these quadruple roles and how in some cases they are passed on to the next generation, an effort has been made to capture them in the six photographs shown in Figures 6.12, 6.13 and 6.14. An overall summary of the findings indicates that because of their lack of awareness and familiarity with the benefits of ICTs, many women mainly viewed ICTs as an added burden that they would have to endure, which echoes the findings of Tafnout and Timjerdine (2009) in Morocco. My results indicate that the deciding factor for having adequate personal space is 'wealth' – the capacity to be able to hire servants to take on the additional roles of the domestic chores that lay on the women. This also supports the finding of a similar study examining the ICT gender divide in Turkey by Torenli (2006) which identified that wealth played a key role in women's access to ICTs.



**Figure 6.12**  
**A Rural Women Cutting Grass and Milking a Cow**  
**(Source: Author)**



**Figure 6.13**  
**Rural Women Tending Animals and Preparing the Family Meal**  
(Source: Author)



**Figure 6.14**  
**A Rural Woman Washing the Dishes and Bathing her Child**  
**(Source: Author)**

## 6.6.2 No Time to ‘Surf’ through Irrelevant Content

It is not surprising that woman from all walks of life, be they elite, urban, rural, professional, formally or informally educated or housewives, all suffer limited time due to their multiple roles, (Section 6.6.1). My results indicate that the ‘lack of useable content’ and ‘lack of local language’ are also practical barriers that prevent women from engaging with ICTs (Dagron 2001a, 2001b). This is captured from the focus group discussions which highlight the lack of relevant content and local language as being barriers to women’s use of ICTs (see also SDPI, 2009). The common issues that arose were that a lack of time meant that women often did not have the opportunity to engage with the web and the lack of relevant content which is presented by a participant who stated:

*‘I am too busy to search through the complex pages on the internet to find what I need and when I eventually find something, it is not really useful for me’(P-HH-FE-U-2).*

The findings of this research support Gurusurthy and Singh’s (2006) assertion about the need for more local language and relevant content and reinforces Primo’s (2003) argument that the internet does not adequately address women’s needs or issues (see also Thas *et al.*, 2007; Huyer *et al.*, 2005; Deane, 2005; Slater and Tacchi, 2004; Agrawal, 1995). The need for creating ‘relevant and local’ content was emphasised throughout this research by both the elite women and focus group participants. Moreover, recommendations from four elite women are captured below:

*‘There is a great need to better organise women’s specific information on the internet in the local context as this is currently a great challenge. I waste lots of time searching for data. I can’t imagine how other women must feel (EIW-32).*

*‘There needs to be a local network for women so that they can support each other by sharing relevant and useful materials in their local context’ (EIW-35).*

*‘It would be great to have a special, gender-specific search engine created, dedicated to addressing women’s needs’ (EIW-36).*

*There needs to be some mechanism to bridge the language gap for our women because English is not the first language for many and thus prevents many women from accessing ICTs. Data needs to be much more dynamic and current in addressing the real-time issues that women face’(EIW-34).*

It is important to add that despite this issue, work has begun in Pakistan to create local content and more importantly, voice-automated user interfaces in Urdu (Hussain, 2008b). Interestingly enough, this work is led by Dr. Sarmad Hussain and a team of female programmers, as he believes:

*'Women make the best programmers because of their attention to detail, ability to focus and dedication'* (EIM-10)

Nevertheless, Kwankam *et al.* (2009) argue that if women were to have time to use the internet, they would search for information on health for their families and loved ones but not for themselves. This practice of personal sacrifice was also reflected in the attitudes of my participants towards their families. The inability to find support for questions and queries faced by women in both rural and urban areas was a recurring theme that emerged throughout the focus groups to differing levels, depending on their comfort and levels of experience with using ICTs. However, there was a consensus that more needed to be done to provide dedicated support in both technical and non-technical areas. This sentiment was felt by both formally and informally educated women. It is also of interest to note that one elite woman in an interview suggested that a global support network be created to support women in different areas.

## **6.7 The Environment – Indirect Barriers**

It is widely argued that mobility forms a major barrier for women (Elnaggar, 2007; Syed and Ali, 2005; Huyer, 2003; Tohidi, 2000). This point was reinforced by the field research data, and it became apparent that the impractical and gender-insensitive aspect of logistics made it difficult or impossible for women to have access to ICTs as the result of multiple barriers that superficially appeared not to be directly related to ICTs. As in recent research on women and development, consideration of women's position and the existing social structures in their environment has become a critical factor to understand and address (see Momsen, 2004). It is therefore imperative to understand holistically the causal effects of the environment as it impacts women's engagement with ICTs. This section discusses some of the insensitivities that exist from impractical logistics, including transportation issues and unsafe environments for women.

### **6.7.1 Impractical Logistics for Women**

In Pakistan, social position and wealth have differential impacts on transportation (Hussain, 2008a). For example, there was little issue for women coming from wealthy backgrounds who had their own means of transportation, which could include private



cars and protection by personal bodyguards. These, though, were the exception, and most women do not have such privileges. The bulk of the population of Pakistan is poor and is struggling to break the barrier in the 'crippled', unforgiving and shambolic logistical nightmare that exists throughout the country. This issue is also reinforced by the recent article in Dawn (2011a) which supports the findings of Hussain's (2008a) study on the problems that working women face in Karachi. The participants shared horror stories about having to share a taxi due to affordability issues, which often left them stranded at work if they were ever stuck in a meeting. Captured below are four statements from the participants that reflect the desperate conditions which seriously impact their access to ICTs:

*'Sitting in cramped mini vans with men breathing on and glancing at us [the women], despite the fact that in some vans there were two seats reserved for women by law but which were normally taken (P-UM-IE-U-2).*

*'We have to sit tightly packed next to men and when the women pay the fare the conductors try to touch their hand' (P-UM-IE-U-2).*

*'The public transport system is inefficient, unreliable and old and full of dirty men that keep touching you', continuing that 'all public spaces are once again heavily dominated by men and not covering all areas where women need to go' (S-UM-FE-U-1).*

*'Public transporters play vulgar, loud Pashto and Punjabi music which is a discomfort and annoying to us sitting beside them!' (FC-UM-FE-U-2).*

Women in all of the discussion groups drew attention to the difficulties they experienced with logistical issues. Women from urban areas identified this to be a critical barrier for them that made it difficult to travel to work and restricted their opportunities to improve their situation through engaging with ICTs. The impact and barriers that transportation issues caused the participants validate Qureshi and Lu's (2006) research in Karachi on the transportation issues faced by women in developing countries.

It should be noted though that the women in rural areas did not emphasise logistics as such an important issue, as they were typically accompanied by their male family members and were, therefore, shielded from these problems. Transport cost was unanimously reported to be an issue from all of the groups, whether due to the unavailability of cash or the lack of control from the collective pool of shared household funds, and which therefore needed to be negotiated by them to spend. Transportation costs have thus become another barrier that restricts women's access to ICT education and employment. Moreover, despite the magnitude of this obvious problem, policies

appear to fail to address the factor of safe and secure logistics and transportation for women to access ICTs in both urban and rural areas. This gap is reinforcing the gender digital divide and further isolating women. If women had access to ICTs at home, they would be able to avoid this barrier and engage with the information society. However, poor infrastructure, lack of training facilities allied with the lack of remote working culture in Pakistan further prevents women from effectively engaging in ICTs.

## **6.7.2 Unsafe Environments**

Many women mentioned that their parents felt that education is so important that despite the fact that there were no schools, parents placed their daughters with relatives and family members in other cities so that their daughters could have the ability to build a better life for themselves. This was revealed by a large group of women from the rural areas and also by the formally educated group. Similar issues were raised regarding the location of offices. Working women from both the urban and rural areas stated that the location and environment of where they worked had to be approved by a male family member to ensure that it was 'suitable'. It became evident that the word 'suitable' in fact meant many things, such as: working in an office that has a proper building and not at a personal residence, working in an office located in a busy area in front of an open road and not in hinterlands where transportation was inconvenient and working in an office where other female employees were currently working. A number of women stated that their parents preferred them to work in government offices because they felt it was safer, more reliable and suitable, despite the fact that government offices are tarnished with a reputation for being inefficient and a wash with corruption.

Across the urban focus groups, women commented about the impracticality of where the government has located universities, often far from the centre of cities, making it significantly difficult for women to access their locations. Moreover, parents who are already concerned about letting their daughters travel are further cautious about the dangers of sending young women to isolated universities. This point was raised by a number of women in urban areas but not raised by those from rural areas because there were no nearby universities and, in some cases, no secondary schools.

In summary, women's access to ICTs is adversely affected by certain logistical issues, heightened by the dangerous conditions that prevail in much of Pakistan. For the majority of women, safe and reliable transportation often proves difficult to come by and is generally inconsistent. The location of universities as well as offices, often outside the city centres, was also widely reported to be a problematic issue and thus a barrier. This

restricts the opportunities for women to gain access to ICT training facilities, jobs or the internet. Women must often rely on taxis, which for reasons of cost and the presence of leering or otherwise inappropriately behaving men, are a less than suitable, but nevertheless unavoidable, option.

## **6.8 Conclusion**

Reflections on the analysis and synthesis of my field data confirm that cultural and social influences play a critical role as barriers limiting women's participation and engagement with ICTs in multiple dimensions. Direct quotations from participants were deliberately used to provide a vivid picture reflecting the depth of their experiences and the extensiveness of the degree to which they have internalised the socio-cultural barriers with which they live day in and day out. These reveal the nature of the constraints and invisible restrictions that are exerted so that women come to internalise and conform to set practices, reinforced by pressures and controls from multiple sources. This also reinforces the argument made by Tafnout and Timjerdine (2009) in the context of the complexities that are embedded in socio-cultural constraints that prevent women's engagement with ICTs in Morocco. Furthermore, building on Siegmann (2009) and Baloch (2008), this research uncovers a critical unaddressed aspect in the current ICT for development literature that only touches upon examining the cultural and social restrictions and the subordination of women in patriarchal Muslim society, and neglects to address the internal socialisation and turmoil of the potential cultural and social consequences that women fear they may encounter from engaging with ICTs. This therefore presents a very complex and difficult task when creating enabling strategies, policies, plans and initiatives to support and drive women's inclusion in the information society and knowledge economy.

One of the key findings of this research is the genuine fear among focus group participants of using ICTs, particularly in public places. Furthermore it also uncovered considerable self-imposed barriers, due to the fear of being 'misunderstood and judged', irrespective of their education level or geographical location. Moreover, a correlation could be drawn between this fear and household position: unmarried and married women inclined to be more fearful than female headed households. Nevertheless, it should be noted that this fear of stigma or backlash was not raised during the interviews with elite women, further reinforcing the argument that class plays a major role in women's experience of and engagement with ICTs (see Torenli, 2006; and Jafar, 2005). The research has shown that in the patriarchal society of Pakistan, there are multiple

levels of unfair restrictions that women face when trying to use ICTs from their homes, including those deriving from their brothers, parents and husbands.

Nonetheless, it appears that when governments are developing policies and planning ICT4D initiatives, they have generally overlooked the fact that women are a non-homogeneous group with different levels of access in society (as argued by Hafkin, 2003; Jorge, 2002; and Marcelle, 2000b). Furthermore, this is impacted by social structures and power relations that present a plethora of barriers in the cultural and social context, which as this research demonstrates are not considered (see Jafar, 2005; Syed and Ali, 2005; and Kandiyoti, 1998). There is also tension between Islam itself and the cultural context in Pakistan, where many of the restrictions imposed are seen not as part of Islam but rather as the result of misguided and prejudiced males following un-Islamic practices. As Syed and Ali (2005:3) comment: “women are seen as subordinate to men, and that a man's honour resides in the actions of the women”. This creates fear of personal repercussions and social backlash, and has forced women to internalise many of the barriers and temper their behaviours that prevent them from accessing, let alone using ICTs. This research confirms the premise that in patriarchal societies, men hold considerably more social, economic and political power than women and tend to exercise that power to assure that they have greater access to and benefit from ICTs than women. This is demonstrated by the observation that even many professional, educated women have to obtain their husband's and in-laws' permission to take a job but also have to ask their permission to take 'computer classes'.

In contrast to the published literature and common perception, this research has uncovered something unusual, where men in rural areas often seem to be much more supportive of their wives and daughters in multiple ways, encouraging their use of ICTs and education. There is also recognition that this will bring about the social uplifting of the entire family and support a better life for the daughters. Having spent so much time in Pakistan over the past few years, I believe that if these existing power structures and controls remain unaddressed, ICTs are likely merely to reinforce existing power structures, which could systematically drive the further subordination and marginalisation of women in Pakistani society.

Women continue to have limited personal space in which they can engage with ICTs and take advantage of the opportunities available. This is further exacerbated by the multiple roles and responsibilities that they must fulfil, as well as by the limited content that is relevant to their particular environments. Additionally, a lack of safe and secure transportation facilities for women in both urban and rural areas limits their access to

both learning institutions and employment, restricting women's access to ICT with the result of reinforcing the gender digital divide by further isolating them. Additionally, many of the women felt uncomfortable while working in the male-dominated ICT environment. The elite women, however, did not experience the issues, barriers and challenges that other women in the focus groups had highlighted. This may be due to their position in society and their access to both national and international facilities. Since elite are more likely to be engaged in the policy formulation process, their input often does not reflect the practical problems faced by most women (see Chapter 4).

A summary of the recurring barriers preventing women’s access to ICTs is captured in Table 6.1:

S/N	Key Barriers Preventing Women’s Access to ICTs
1	<p><b>Invisible and subconscious self-imposed restrictions:</b></p> <ul style="list-style-type: none"> <li>i. Girls are reluctant to use ICTs in public out of a fear of personal repercussions and social backlash.</li> <li>ii. Girls are afraid of the stigma directed towards themselves and their families in case they receive indecent and unsolicited messages, jokes and images.</li> <li>iii. Women consider technology to be a ‘male thing’ and are not comfortable using it.</li> <li>iv. Women are not interested in using technology so as to avoid being viewed as ‘geeks’.</li> </ul>
2	<p><b>Restrictions enforced by family and the community:</b></p> <ul style="list-style-type: none"> <li>i. Women’s mobility is restricted.</li> <li>ii. Women are not decision-makers at any level and thus have no control over the use of ICTs, choice of education, choice of employment and money.</li> <li>iii. Women are prevented from using ICTs because of restrictions and pressures within the family.</li> </ul>
3	<p><b>Discrimination towards women in the ICT sector:</b></p> <ul style="list-style-type: none"> <li>i. Preference for males in terms of facilities, opportunities and education.</li> <li>ii. Women are perceived to be non-serious as employees and are given dead-end jobs.</li> <li>iii. Women are harassed in multiple dimensions: verbally, mentally, sexually and physically.</li> </ul>
4	<p><b>Women’s limited personal space:</b></p> <ul style="list-style-type: none"> <li>i. Women are playing multiple roles, have many responsibilities and therefore have ‘no time for ICTs’.</li> <li>ii. The power imbalance prevents women from accessing ICTs</li> <li>iii. A lack of resources and control over money prevent women from accessing ICTs.</li> </ul>
5	<p><b>Women-insensitive environments:</b></p> <ul style="list-style-type: none"> <li>i. Impractical logistics and transportation problems, concerns over safety and security thus prevent women’s mobility and access to ICTs.</li> <li>ii. Unsafe and remote locations and risky surroundings prevent women’s access to ICTs.</li> <li>iii. Women-insensitive ICT policies and lack of ‘practical’ government support prevents women’s engagement with and access to ICTs.</li> <li>iv. Lack of women-specific training and services through ICTs.</li> </ul>

**Table 6.1**  
**Recurring Themes - Key Barriers**  
**(Source: Author)**

Based on the magnitude and type of cultural barriers uncovered from this research negatively impacting women's engagement with ICTs, careful consideration needs to be taken to understand the household position of women along with the subtleties and nuances of regional attitudes. Furthermore, the degree to which the local environment creates imbalances in gender power relations, social structures that subsequently result in the subordination and exclusion of women need to be addressed in a holistic manner when designing and implementing ICT projects. This will work towards preventing ICTs from further marginalising women by breaking down the existing power relations and social structures that are widening the gender digital divide in Pakistan today. Moreover, this will help ensure that they are sensitive to, and in harmony with, the local environment and cultural context, which reinforces Momsen's (2004) work on gender and development more widely (see also Chaudhry and Nosheen, 2009; Kabeer, 2005a).

As the research demonstrates, the level of harassment that mobile phones in particular are causing women is just beginning to be understood. Its impact on their personal and emotional well-being is well-documented by Short and McMurray (2006) in the context of the UK. The ITU, governments and regulators around the world are also undertaking programmes to address the issues of sexual abuse, human trafficking and pornography and other negative elements that are impacting vulnerable users. Nonetheless, the level of implementation and enforcement remains an issue that is heavily dependent on individual governments' commitment and more importantly the seriousness with which they view the issue and the violation of women's self-respect and dignity. Unfortunately, history demonstrates that women as a group remain marginalised and continue to fall amongst the lowest priorities of governments (see Section 2.2). This was most recently demonstrated at the WSIS conference in May, 2011 where it was shocking to note that at a global debate with UN agencies and senior government officials from around the world debating the benefits of ICTs for MDGs, there was no platform or forum for MDG '3' (to Promote Gender Equality and the Empowerment of Women) nor for ICTs and women. This again reflects the level of seriousness and lack of importance and priority afforded to women as a 'group' (see Gurumurthy and Singh, 2006; Jensen, 2006). Moreover, it is indeed these same men that carry the responsibility for ensuring that women's needs are taken into account at the policy level, so their competence can be called into question, as argued by Mbambo-Thata (2009).

Moreover this seems to be an almost self-fulfilling prophecy that since women are unaware of the benefits from ICTs, they will continue to choose not to engage with them, due to their having other priorities (see Section 6.6). The consequences of this result in the broadening of the gender digital divide (Huyer and Sikoska, 2003).

ICTs have great potential to provide female-friendly domestic and public spaces in harmony with Pakistani society that could greatly assist women in overcoming the cultural and social barriers and constraints that inhibit their engagement with ICTs. Nonetheless, many of these actions need to be undertaken at the government level and be incorporated into policies, strategies and female-friendly initiatives if they are to be successful. As an outcome of this research the following four practical recommendations are outlined below to address some of basic issues that if remain unaddressed will continue to prevent women's engagement with ICTs;

1. In the context of Pakistan, one of the fundamental causes of the level of women's harassment is the lack of awareness in policies of their situation and the consequences of their negative experiences. Without appropriate regulations, without effective enforcement and without any real consequences for the men perpetrating the crimes of harassment, women in Pakistan will continue to be afraid to engage with ICTs. Therefore, one of the most important recommendations that this research can make to ICT practitioners and development agencies is that in addition to deconstructing development projects into their local cultural settings (see Hettne, 2002) and designing ICT4D initiatives focused at women, in appreciation of their local environment, it should also be verified that there is indeed a holistic policy framework that demonstrates a sensitivity to the ground realities that women face. It is only at this point, when women are assured that there is no risk to their personal safety, that they will willingly and safely be able to engage with ICTs
2. It is not surprising that women around the world normally suffer from the misconception that ICTs are masculine and only suitable for men (Loh-Ludher *et al.*, 2006; Gurer and Camp, 2002). In addition, due to the fact that there are few female role models in the ICT sector, it is difficult for young women to seek inspiration and confidence in the IT sector. Moreover, the global media continues to exploit and sexualise women in three distinct stereotypical roles, namely as entertainers in girl bands, 'sexy singers', and as movie stars and models (also see Joseph, 2006). It is therefore not surprising that it is difficult for young women to see themselves as anything else. Pakistani women are no different and therefore, as discussed in Chapter 5, positive and technologically 'savvy' female role models need to be promoted.



3. This field research has uncovered the cumulative effect of how socio-cultural barriers prevent women's access to education and ICTs, along with their lack of awareness of the potential benefits of ICTs, which is causing their further marginalisation and exclusion from the information society and participation in the knowledge economy. Moreover, a great number of women remain unaware of the benefits of ICTs, because they are saddled with the burdens of society and their homes, and if this is not addressed they will continue to be the most marginalised group in society. Appreciating that it is difficult, if not impossible, to change cultural perceptions and barriers, ICT practitioners and agencies that wish to increase women's engagement with ICTs should develop programmes that target this specific barrier. This should first understand and incorporate women's access to ICT literacy training, since only with familiarity will they develop the confidence and comfort to use the technologies, which reinforces the SPDI (2009) recommendations.
4. Moreover, recognising that Pakistan is facing serious challenges including extreme poverty (Finlay, 2007), most women do not have access to private transportation and therefore rely on public transport systems, if they can even obtain permission to leave their homes. With this in mind, the government should provide sufficiently safe public transportation dedicated to women's use that targets the key locations where women can have access to ICTs, digital literacy and general capacity-building. Furthermore, the government also needs to ensure that ICT access points are located in safe and secure public spaces, free from potential harassment if they truly wish for women to engage with ICTs.

Two Pakistani elite women interviewed also made some concrete suggestions as to what the government needs to do in order to tackle the barriers that women face when trying to engage with ICTs: *'the government should adopt policies that enforce training and awareness for women and their families'* (EIW-20), the second suggesting that *'special awareness campaigns be conducted to break the stereotyping'* (EIW-29). They both also stressed the need for women-specific training centres that could be created to address the cultural and social barriers that exist for some women.

## 7 Conclusions and Recommendations

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### 7.1 Introduction

As an engineer, my research journey began within a positivist framework with the intent of seeing how multi-purpose telecentres can be developed to offer better services and support to women and marginalised communities through multi-stakeholder, multi-sector partnerships. Given the analysis of the ICT documents from across the Muslim countries, interviews with elite women and the focused field research in Pakistan, I have argued that the assessment of the use of ICTs needs to be undertaken within the social and cultural context and therefore considerations pertaining to them are of a fundamentally socially constructed nature. This chapter is the culmination of all of the research that was undertaken in pursuit of this understanding and provides the main conclusions and recommendations as well as suggestions for further research.

Chapter 1 outlined the broad aim of this research, which was to explore the cultural and social environments that exert invisible restrictions, pressures and controls on women's access to ICTs and prevent them from playing a full role in the information society. There were three specific objectives within this broad research aim. First, the research sought to understand how national ICT policies across the Muslim world address women-specific issues and challenges. Second, it sets out to understand how the cultural and social norms impact women's access to and the use of ICTs, using Pakistan as a case study. Third, it sought to explore the barriers and challenges that women face when engaging with ICTs in Pakistan. This chapter therefore summarises the contribution to the body of knowledge on this area that this research has made in respect of these objectives. In developing this, this thesis reviewed existing theories and literature on cultural and socio-economic behaviours in some societies that actively prevent ICTs from acting as a catalyst enabling the gender divide to be bridged (Heeks, 2005; Alampay, 2006; Thas *et al.* 2007).

### 7.2 Contribution to the Conceptual Framework

This research was undertaken as a response to the limited existing knowledge about the relationship between ICTs and development for women in the context of Muslim society and their cultural norms. This section outlines the key contributions to the conceptual framework. The thesis combines a wider debate about cultural and societal influences on gender and ICTs, the complexity of ICT policy formulation from the perspective of

women, dilemmas such as practical literacy facing women, issues of content, format and relevancy, as well as ICT developments and gender bias in the ICT industry.

This thesis challenges the epistemological viewpoint that traditionally places this type of research within a positivist framework on the premise that ICTs can be observed and described from an objective and independent perspective. This approach has often focused on ICT competency as an end in itself, with the presumption that there will be an automatic positive impact of ICTs as a driver empowering individuals that will in turn lead to structural changes in society (Friedman, 2006). Moreover, many ICT initiatives are *top-down*, attempting to replicate initiatives that have been successful elsewhere without adequate regard to the local context and social norms. There is a general lack of understating of the role that ICTs can play in development and this has led to “simplistic and technically driven forms of implementation” (Pettit *et al.*, 2009:443) that do not necessarily serve the needs of people (Unwin, 2009). This thesis has demonstrated that the use of ICTs and their impact is a social construct that needs to be situated and developed within local cultural contexts and power structures. In essence, the interplay between ICT use and development for women is socially constructed and is a complex web of inter-related factors that include regional and tribal attitudes, local environment and power relations and the subsequent subordination and exclusion of women. This makes the use of ICTs much more complicated than simply the competency of ICT usage and design, as a positivist perspective would assume. By focusing on how women interact with ICTs, it has been demonstrated how the actual use of ICTs modifies women’s behaviour and how they adapt their meaning and use to meet their specific needs within their environment. Furthermore, as demonstrated in Chapter 5, women have modified their use and evolved new meanings for existing ICTs to fit their own social and cultural environments. Therefore, as well as contributing to the development and interpretative literature, this research also informs ICT and service providers about how their designs are perceived by women in Pakistan in the hope that these services may be better tailored to meet the needs of the users.

Instead an alternative qualitative approach was adopted, incorporating a methodological triangulation that provided a richer and more well-balanced picture of the issues under investigation. The suitability of this approach is underpinned by the fact that the inclusion of women in the knowledge society in Pakistan fundamentally concerns new thinking and new behaviours. It is, therefore, logical that the research design should allow for a detailed exploration of various stakeholders and their perception of the issues in a natural setting. Additionally, the impact of ICTs and the subsequent changes in behaviour and working practices is ultimately a subjective process. Subjectivity is an

inherent quality of all qualitative research methods. Another key driver for adopting this approach is that the impact of ICTs on women and the factors leading to their successful inclusion in the knowledge society in Pakistan have not been formally evaluated and qualitative research is well suited for uncovering the unexpected and exploring new avenues and situations.

### **7.3 Contributions to ICT Policy Development**

Wangmo *et al.* (2004:77) argue that ICT policies have the potential to advance gender equality by “overcoming women’s isolation, giving women a voice and improving governance” if they address “all [of] the factors which contribute to the current gender digital divide”. However, there is little assessment of the extent to which current ICT policies in Muslim countries address any of the factors that contribute to the gender divide. This research has therefore made a distinctive contribution to developing empirical data about the content of current ICT policies with regard to women, the extent to which they address women’s issues, the impact of women’s engagement on the policy formulation process and the effects of policy guidelines and toolkits.

In contrast to Chowdhury and Khanam (2005) and Elnaggar’s (2007) contention about the importance of using women-specific terms, this research has shown that over half of the countries whose policies were analysed did not use any of the keywords in their documents. Of the countries that have used the keywords in their ICT documents, only the word ‘women’ has been used consistently. Of the 24 countries examined, 54% (13/24) did not even reference women at all. Furthermore, the majority of the recognised barriers, 65% (33/51), were not addressed by any of the countries and 41% (10/24) of the countries did not address any of the barriers at all. This is despite Wanasundera’s (2006) argument that policies need to be carefully crafted to ensure that they acknowledge the diversity of women and address their different needs and place in social structures. This research thus challenges the trend towards creating gender-neutral policies in some Muslim countries and reinforces Vodanovich *et al.* (2010) and Elnaggar’s (2007) argument that gender-neutral policies tend to reinforce existing power structures and gender inequalities. The findings of this research provide empirical data that may allow policy makers to address the shortcomings that have been identified and create ICT documents that explicitly address women’s needs within their social and cultural environments and facilitate their engagement with the information/knowledge society.

In addition, the guidebooks and toolkits do not appear adequately to cover the diverse needs of women. Building on a report by the World Bank (2009), I would recommend that more effective guidebooks need to be developed with careful consideration given to women's diverse needs and the cultural and social barriers that they face. Given the importance attributed to women's engagement in the policy formulation process (Thas *et al.*, 2007; Labella, 2005), this research has shown that their participation did not have a demonstrable impact on the final policy documents. While policy documents are the result of a complex process with multifarious factors, discussion in one of the focus groups suggested that this dichotomy may be due to the role of elite women who, due to their privileged position, have a disproportionate influence on policy development, but they are not always aware of the challenges and barriers faced by the majority of women in their countries. This research has therefore challenged the predominant focus in the literature on the engagement of women in the policy formulation process and has emphasised that it is not sufficient to have women represented in the ICT policy formulation process, but that it should be carried out by women who understand the barriers and issues and so can contribute accordingly. This research also indicates that policy makers need to be fully aware and sensitised to the realities of diverse social constructs and power relations between women and their environments, and that they furthermore need to be cognisant of the subtleties of the sub-cultures in the local context that may exert invisible pressures on women. Moreover, this research has identified that the combination of multiple formulation processes, in particular the consultative process and use of guidebooks and toolkits, creates more effective and inclusive ICT policies for women by comparison to formulation processes that only rely on women's inclusion, policy, benchmarking and toolkits alone.

The need for a comprehensive set of sex-disaggregated data and indicators is well articulated in the literature, and as Primo (2003:67) argues should be "integral to policy frameworks that aim to track women's participation in the planning, production and use of ICTs". This is reinforced by my own experience and the principle that 'what gets measured gets done'. This research has demonstrated that none of the policy documents for the 24 countries had any form of targets and goals or any indicators to measure the impact of ICT initiatives on women's inclusion in the information society, thus making it difficult to pinpoint problematic areas preventing inclusion. This research reinforces Hafkin's (2003) view that this lack of a measurement framework is a significant gap in ICT policies today and may demonstrate the lack of commitment to reinforcing and implementing ICTs for women.

## 7.4 Contributions to ICT Use and Impact

My research also reinforces Laizu *et al.* (2010) and Stark's (2010) view that there is very limited empirical data on the preferences that women have with regard to the use and selection of ICT tools. This research has therefore sought to address this lack of empirical evidence through an in-depth study of which ICT tools women in Pakistan use, what drives this preference and what impact using ICTs has on women. The findings from this research challenge the current focus of ICT4D initiatives on computers and the internet and presents evidence that the ICT tool of choice for women in Pakistan is the mobile phone. Television and the telephone (landlines) are the second and third most preferred tools, followed by the computer in fourth place. Therefore, as well as providing empirical data on ICT tools, this research also informs the ICT4D community that the mobile phone and television are the most important ICT tools for women, within the communities I worked with in Pakistan, in the hope that services may be better tailored so that these may better reach their audience and meet the needs of the women.

Based on the field research findings, this thesis argues that women in rural areas have less access to and are less acquainted with ICTs compared to those in urban areas. While a lack of basic literacy and ICTs skills (Huyer and Sikoska, 2003) are critical factors, there are multiple complex factors that need to be considered. For example, the lesser use of computers in rural areas is more related to cost and the lack of power supply and network services to run the ICTs than to low levels of literacy in these areas. This research reinforces arguments that infrastructure capacity, availability and affordability continue to be a serious constraint on the use of ICTs in Pakistan. As a consequence, women have developed different strategies for using ICTs in a way that limits the cost of these services, such as mainly using mobile phones, limiting the duration of use and sending text messages. Furthermore, these findings demonstrate how reliable sources of electricity and communication infrastructure, influences the choice and use of ICTs. It also stresses the importance of the mobile phone as a key ICT tool, particularly in rural areas where power and communications infrastructure may be lacking or where it has limited capacity to deal with demand. This research demonstrates that simplicity of use and the low cost of acquiring and using these devices is seen by women as a primary influence on their use of ICTs.

This research highlights a considerable divide between urban and rural areas with regard to access to the different types of ICTs, as well as their use. In particular, there is a great difference between the availability and use of the internet between urban and rural communities. While many urban women generally have access to computers and the

internet either at home or as part of their work, their counterparts in rural areas have very little knowledge or experience of ICTs and more importantly, see the computers as having very little relevance to their daily lives. This is further accentuated by a digital language divide where English is seen to be the language of technology and therefore ICTs are perceived as only appropriate to English-speaking professionals or elites.

This research challenges some of the generalisations that women tend to use ICTs for personal reasons and “relationship maintenance” (Zainudeen *et al.*, 2010:2) and argues that the purpose for which ICTs are used depends on the context and situation of the woman, rather than on the gender factor. This research has emphasised substantial educational, social and locational factors in determining women’s usage of ICTs. Women who are informally educated and/or living in rural settings are more limited in their understanding and use of ICTs, whereas their formally educated, urban counterparts use computers and the internet, alongside mobile phones, to their full potential, gathering information relevant to their career and personal development and also in professional contexts. Less advantageously positioned women, if they use ICTs at all, tend to do so purely for communicating with family and friends. Furthermore, household position also impacts patterns of use, and women who have substantial home responsibilities are understandably less able to engage with ICTs. The research findings demonstrate many cases where ICTs have made a positive contribution to women in the areas of employment, education, information and knowledge, as well as removing some of the constraints on their mobility and their ability to engage in society. However, in rural areas, where patriarchal structures are much stronger and cultural norms carry greater influence, there are greater challenges for women when engaging with ICTs. These findings also identify some negative aspects of using ICTs. For example, women may fear harassment and damage to their reputation when using even the simplest ICTs (mobile phones) in public places and pose concerns over the damage to family structures, traditions, values and culture. This research, therefore, informs policy makers as well as service providers of the fears and concerns of women in using ICTs in the hope that a more holistic and integrated approach is developed that will begin to address some of these concerns.

## 7.5 Contributions to Understanding the Barriers and Challenges

This research provides empirical evidence from focus groups and interviews that identifies the multifaceted elements of the cultural and social challenges and barriers that women face in their use of ICTs. The research supports the argument by Elnaggar (2007:11) that unless “cultural transformation” is addressed, policy reorientation will be difficult. It also supports Wanasundera’s (2006:51) supposition that unless policies adopt “proactive strategies” which sensitise programmes to women’s needs and ensures women’s access to ICTs, “existing inequalities” will not only continue but will in fact be exacerbated. This research confirms Hafkin’s (2003) supposition that women are a non-homogeneous group with different levels of access in society. While this research reinforces Primo (2003) and Daly’s (2003) argument that cultural and social influences play an important role in preventing women’s participation in and engagement with ICTs, it has also identified a substantial level of fear of personal repercussions and social backlash from using ICTs. This research provides evidence that this fear of personal and family consequences has forced women to internalise many of the barriers and temper their behaviours in a way that restricts their access to ICTs. These exert invisible restrictions, pressures and controls on multiple facets of access for women and therefore present a very complex and difficult task when creating enabling strategies and initiatives to support and drive women’s inclusion in the information society.

This research confirms the premise that in patriarchal societies men hold considerably more social, economic and political power than women and tend to exercise that power to assure that they have greater access to and benefits from ICTs than women. However, these findings identify that in the context of the religious and cultural environment in Pakistan, where the notion of honour is disproportionately vested in women, and where the slightest transgression by a woman — being seen talking to a man on the street, perhaps, or having an unknown phone number in a mobile phone — can bring harsh punishment upon, and social exclusion of, the family, there are additional facets, particularly around the issues of harassment and damage to reputation, and fear of social repercussions when using even the simplest ICTs (mobile phones) in public places. This research, therefore, may inform the policy makers and the ICT4D community about the specific challenges that women face in conservative Pakistani societies in the hope that when ICT and development initiatives are developed, they take cognisance of these specific cultural imperatives and develop solutions that address them.



This research has also confirmed the premise that the masculine culture in the work place acts as a barrier for women in the ICT sector (James *et al.*, 2006). However, the situation is made worse by the male-dominated culture that reflects the patriarchal social and cultural values of Pakistan. The findings also reinforce Marcelle's (2000) argument that women are rarely represented in the decision-making or recruitment processes at IT firms. I was shocked at the reports from the participants about the level of sexual and physical harassment that women face in the work place, and there is little that they can do in response. This research, therefore, seeks to inform public and private sector organisations in the hope that they will develop policies relating to equality, HR and harassment in the workplace that begin to address these issues.

This research has also identified a number of environmental or indirect barriers that are accentuated by the unsafe conditions prevalent in much of Pakistan today. The findings support Elnaggar's (2007) supposition that mobility forms a major barrier for women. A lack of adequate and appropriate transportation continues to be a major challenge, particularly for urban women in Pakistan. The location of universities as well as offices, often outside city centres, amplifies the problem further. While ICTs can be used to provide a solution to these types of issues, poor infrastructure, a lack of training facilities, in parallel to a lack remote working culture prevents women from effectively engaging with ICTs. These findings are intended to inform policy makers in government departments about the logistical challenges that women face, in the hope that a more joined-up approach will be adopted in the future.

A number of factors considered in this research have not been identified in any of the literature or addressed in any of the guidelines that have been published. I believe that addressing these barriers is critically important to ensuring the successful engagement of women with ICTs in Pakistan. This research has also identified fear among the focus group participants of using ICTs particularly in public places. Furthermore, it is evident that there are considerable self-imposed barriers due to the fear of being misunderstood and judged in the use of technology. These factors are outlined in the Table 7.1

S/N	Themes	Unaddressed Barriers
1	Economic Aspect	1. No Segregation at work place for women
2	Knowledge and Capability Aspect	2. Poor Quality of ICT education for women 3. Limited relevant content appropriate to geographical locations (rural and urban). 4. Format incompatibility for diverse levels of literacy.
3	Cultural and Social Aspects	5. Lack of protection from harassment from mobile phones and its consequences 6. Lack of Awareness Campaigns on Benefit from ICTs for women 7. Lack of awareness campaigns to protect women from the dangers of ICTs 8. Lack of policies, regulation and laws to provide a secure environment for women ICT users 9. No safe transportation to ICT access points and technology parks for women 10. Lack of awareness campaigns for the benefits of ICTs to prevent backlash from the community and family 11. Fear of using mobile phones in public space – self imposed 12. Fear of damage to reputation from using ICTs 13. Fear of negative publicity and backlash 14. Fear of getting traced and harassed through SIM Cards
4	Implementation and Monitoring	15. No women-specific ICT impact indicators

**Table 7.1**  
**Barriers Unaddressed in the ICT Documents**  
**(Source: Author)**

## 7.6 Recommendations for Future Research

The conclusions drawn from this thesis in relation to the research questions and findings in respect to creating an environment where women can engage more freely in the knowledge society indicate that there is the potential for further research in a number of areas. This is built on some of key limitations experienced during this research: i) the sampling for the ICT policies across the 24 Muslim countries were far too many for a single research thesis. This resulted in tremendous difficulty in identifying the appropriate people and more importantly following up with them for their responses to my research questions, ii) For the scope of this research, I was only able to conduct my case study in a single country namely, Pakistan and therefore, I have only shed light on the 'experiences' in the context of women in Pakistan and lastly iii) I have not been able to adequately explore the interplay and accumulative impact of the barriers.

Based on the experience of conducting this research, the main recommendation that can be made is for key stakeholders to develop multi-sector partnerships that holistically

address the issues and concerns that have been raised in this thesis so as to deliver practical solutions for women.

Reflecting on my journey through the research process, and having spent so much time in Pakistan over the past few years, I am fearful that unless factors of social context, environment and existing power structures are addressed, ICTs are likely merely to reinforce existing power structures, which could systematically drive further subordination and marginalisation of women in Pakistani society. Therefore, there is a need to focus on a framework of development initiatives that take into account the social and cultural environment for women, have clarity about the factors and barriers that have been identified as part of this research and develop policies and initiatives that address these barriers and are underpinned by a comprehensive monitoring and assessment structure to understand the impact of interventions. At the heart of such a framework would be the realisation that ICT initiatives and interventions need to be culturally and socially sensitive to the environment in which they are implemented. The barriers that have been identified as part of this research, when aligned with the monitoring and assessment process will, in my opinion, provide an environment in which women can engage safely with ICTs and play a greater role in the knowledge society. Future research could explore the development of such a framework.

Based on the conclusions and recommendations of this study, there is scope for further research regarding the factors and barriers that impact women's inclusion in the knowledge society. Such investigations could build on this research and look more closely at the barriers and challenges identified in this study. Alternatively, there may be other factors that influence women's engagement with ICTs that are not included in this study. The inter-relationship between the various factors is also a potential area for further research.

My field research was conducted in Pakistan and the conclusions drawn reflect the social and cultural environment in that country. There is scope for further research in other Muslim countries to assess whether women face the same issues when engaging with ICTs and how the barriers and challenges identified in my research may differ in a different cultural context.

Many ICT4D initiatives tend to focus on the positive, desirable aspects of ICTs, while the negative and unintended consequences of ICT use are usually overlooked or even ignored. While this thesis has highlighted what participants identified as negative meanings and uses e.g. potential damage to reputation, security, and prank calls etc.,

future research could explore such negative consequences further in order to find ways of preventing or overcoming them.

Finally, it should be emphasised that there are some very practical ways that ICTs can be used to inform and engage women. The use of ICTs can be enhanced by having more audio-visual services with local content and in local languages that can be locally produced. More services could be provided through television that is locally focused. Furthermore, as the mobile phone is the ICT tool of choice for women, more ICT initiatives should be focused on this so as to engage with women.

The experience of exploring barriers and issues that impact women's engagement in ICTs has been a valuable one for me. The research process provided an opportunity to explore developments in this area and understand the battles and struggles that women are facing today when they think of using simple tools that I use freely in my daily life. In many ways, it has helped to crystallize the learning that has occurred over the past few years that I have been involved in with ICT4D programmes. The whole notion of providing a progressive approach for greater women's participation in the knowledge society and the comprehensive monitoring and assessment process captured my interest and the research in this area has been very useful in developing my understanding of both social and organisational considerations. As a robust and rich study, this journey has served to highlight the complexities of the social and cultural environment within which ICT interventions and initiatives for women are undertaken. It has also shown that future progress is not as simple as implementing differing guidelines or initiatives. Instead, the future begins as a vision and is a place that is created, first in the mind and then through actions as a social construct. Making this vision a reality entails a journey and the events and activities of that journey will forever change the characteristics and context of change, especially for the people involved.

# Appendix

## Appendix 1: Frequency Analysis of Keywords

S/N	Countries	Frequency of Keywords					
		W	G	GR	I	MG	M
1	Afghanistan						
2	Azerbaijan						
3	Bahrain						
4	Bangladesh						
5	Djibouti						
6	Egypt						
7	Gambia						
8	Indonesia						
9	Jordan						
10	Kazakhstan						
11	Lebanon						
12	Malaysia						
13	Maldives						
14	Morocco						
15	Nigeria						
16	Oman						
17	Pakistan						
18	Qatar						
19	Saudi Arabia						
20	Syria						
21	Tunisia						
22	Turkey						
23	UAE						
24	Yemen						

(Source: Author, January 2006)

## Appendix 2: Template for Textual Analysis

<b>Date:</b>	
<b>Country:</b>	
<b>Name of Document:</b>	
<b>Source:</b>	
<b>Language:</b>	
<b>Date of Document Created:</b>	

<b>Areas of Reference to Women</b>			
<b>Q.#</b>		<b>Y</b>	<b>N</b>
<b>1</b>	Does the ICT policy refer to women specifically? If Yes how [ Insert ref: date, policy statement and pg # ]		
<b>2</b>	Access to Basic Education and Literacy If Yes how [ Insert ref: date, policy statement and pg # ]		
	<b>a.</b> Are there any programs / Initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]		
	<b>b.</b> Are there any targets for these initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]		

Areas of Reference to Women			
Q.#		Y	N
3	Access to ICT Education If Yes how [ Insert ref: date, policy statement and pg # ]		
	a. Are there any programs / Initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]		
	b. Are there any targets for these initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]		
4	Access to Employment If Yes how [ Insert ref: date, policy statement and pg # ]		
	a. Are there any programs / Initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]		
	b. Are there any targets for these initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]		



Areas of Reference to Women			
Q.#		Y	N
5	<b>Access for Fund</b> <b>a. Loans</b> If Yes how [ Insert ref: date, policy statement and pg # ]		
	<b>b. SMEs Grants</b> If Yes how [ Insert ref: date, policy statement and pg # ]		
	<b>c. Scholarships</b> If Yes how [ Insert ref: date, policy statement and pg # ]		
	<b>Others</b> If Yes how [ Insert ref: date, policy statement and pg # ]		
6	<b>Access to Information</b> If Yes how [ Insert ref: date, policy statement and pg # ]		
7	<b>Mobility</b> If Yes how [Insert ref: date, policy statement and pg #]		

Areas of Reference to Women			
Q.#		Y	N
	<p><b>a.</b> Are there any programs / Initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]</p>		
	<p><b>b.</b> Are there any targets for these initiatives? If Yes how [ Insert ref: date, policy statement and pg # ]</p>		
<b>8</b>	<p>Reference to different areas or different Groups If Yes how [Insert ref: date, policy statement and pg #]</p>		
<b>9</b>	<p>Reference to different Geographical Locations</p>		
<b>10</b>	<p>Access to ICTs If Yes how [Insert ref: date, policy statement and pg #]</p>		
	<p><b>a.</b> Are there any programs / Initiatives? If Yes how [Insert ref: date, policy statement and pg #]</p>		

<b>Areas of Reference to Women</b>			
<b>Q.#</b>		<b>Y</b>	<b>N</b>
	<b>b.</b> Are there any targets for these initiatives? If Yes how [Insert ref: date, policy statement and pg #]		
<b>11</b>	<b>Data and Statistics</b> If Yes how [Insert ref: date, policy statement and pg #]		
<b>12</b>	<b>Programmes and Initiatives</b> If Yes how [Insert ref: date, policy statement and pg #]		
<b>13</b>	<b>Goals and Targets</b> If Yes how [Insert ref: date, policy statement and pg #]		

(Source: Author, January 2006)

### Appendix 3: Coding: Barrier Themes and Elements

SN	Knowledge and Capability Elements	Code
1	Limited ICT facilities in rural areas	KCA-LSB -12
2	Limited access to ICT education at primary level	KCA-LSB -13
3	Discouragement for higher technology education	KCA-LSB -14
4	Lack of IT training and skill development	KCA-LSB -15
5	Lack of awareness campaigns on the use of ICTs and it values	KCA-LSB -16
6	Cost of ICT education is high	KCA-LSB -17
7	Poor quality of ICT education for women	KCA-LSB -18
8	Limited relevant content appropriate to geographical locations (rural and urban).	KCA-LSB -19
9	Limited content in local language	KCA-LSB -20
10	Inappropriate and complex format	KCA-LSB -21
11	Format incompatibility for diverse levels of literacy.	KCA-LSB -22
12	Lack of distant education and distant learning facilities	KCA-LSB -23
13	Limited access to basic education and discrimination towards education for Girls	KCA-LSB -24
14	Irrelevant and sexist content	KCA-LSB -25

(Source: Author, January 2006)

SN	Cultural and Social Elements	Code
1	Restrictions from family towards using ICTs (brothers and husbands)	CSA-LSB -26
2	Lack of protection from harassment from mobile phones and its consequences	CSA-LSB -27
3	Restrictions for travelling to schools, work and ICT Access Points	CSA-LSB -28
4	Lack of personal time to access ICTs	CSA-LSB -29
5	Lack of awareness campaigns on benefit from ICTs for women	CSA-LSB -30
6	Lack of awareness campaigns to protect women from the dangers of ICTs	CSA-LSB -31
7	Lack of policies, regulation and laws to provide a secure environment for women ICT users	CSA-LSB -32
8	Insensitive environment and location of ICT access points	CSA-LSB -33
9	Unsafe environment for accessing ICTs i.e., Cyber Cafes	CSA-LSB -34
10	No safe transportation to ICT access points and technology parks for women	CSA-LSB -35
11	No protection of women's rights in community and work	CSA-LSB -36
12	Lack of awareness campaigns for benefits of ICTs to prevent backlash from community and family	CSA-LSB -37
13	No geographical considerations for constraints faced by women	CSA-LSB -38
14	Fear of using mobile phone in public space- self imposed	CSA-LSB -39
15	Fear of damage to reputation from using ICTs	CSA-LSB - 40
16	Fear of stigma and backlash	CSA-LSB - 41
17	Fear of negative publicity and backlash	CSA-LSB – 42
18	Fear of getting traced and harassed through SIM Cards	CSA-LSB – 43
19	Lack of positive role models in Muslim countries for women in ICTs	CSA-LSB – 44
20	Technophobia - women are afraid of using ICTs	CSA-LSB – 45

(Source: Author, January 2006)

SN	Implementation and Monitoring Elements	Code
1	No specific data and statistics on women in the context of ICTs	IAM-LSB – 46
2	No women specific programs and initiatives	IAM-LSB – 47
3	No women specific ICT impact indicators	IAM-LSB – 48
4	No monitoring of women's program	IAM-LSB – 49
5	No implementation of policy or commitment for women	IAM-LSB – 50
6	Lack of multiple women categories and definitions	IAM-LSB – 51

**(Source: Author, January 2006)**

## Appendix 4: Electronic Questionnaire Survey: ICT Policy Formulation Process

<b>Name of Document:</b>	
<b>Country:</b>	
<b>Organization:</b>	
<b>Name:</b>	
<b>Title:</b>	
<b>Date:</b>	

<b>Themes</b>			
<b>Q.#</b>		<b>Y</b>	<b>N</b>
<b>1</b>	<p>Were women involved in the ICT policy formulation process? As Policy makers If Yes, Who? (Name, Title &amp; Organization )</p> <ul style="list-style-type: none"> <li>i. Did they make a difference?</li> <li>ii. If Yes, How did they influence the process?</li> <li>iii. How did these impact women?</li> </ul>		
	<p>From women ministries If Yes, Who? (Name, Title &amp; Organization )</p> <ul style="list-style-type: none"> <li>i. Did they make a difference?</li> <li>ii. If Yes, How did they influence the process?</li> <li>iii. How did these impact women?</li> </ul>		

Themes			
Q.#		Y	N
	<p>From Civil Society If Yes, Who? (Name, Title &amp; Organization )</p> <ul style="list-style-type: none"> <li>i. Did they make a difference?</li> <li>ii. If Yes, How did they influence the process?</li> <li>iii. How did these impact women?</li> </ul>		
	<p>From NGOs If Yes, Who? (Name, Title &amp; Organization )</p> <ul style="list-style-type: none"> <li>i. Did they make a difference?</li> <li>ii. If Yes, How did they influence the process?</li> <li>iii. How did these impact women?</li> </ul>		
	<p>From any other organization If Yes, Who? (Name, Title &amp; Organization )</p> <ul style="list-style-type: none"> <li>i. Did they make a difference?</li> <li>ii. If Yes, How did they influence the process?</li> <li>iii. How did these impact women?</li> </ul>		
2	<p>Was gender analysis and/or perspectives considered in ICT Policy Formulation Process? If Yes, How? If No, Why?</p> <ul style="list-style-type: none"> <li>i. How did it impact women?</li> </ul>		



<b>Themes</b>			
<b>Q.#</b>		<b>Y</b>	<b>N</b>
<b>3</b>	Is there a Gender Analysis Report? If No, Why? (If Yes, Please send a copy)		
<b>4</b>	Is there an ICT Policy Formulation Process Report? If No, Why? (If Yes, Please send a copy)		
<b>5</b>	Is there an ICT Policy Implementation Plan (Gender Perspective)? If No, Why? (If Yes, Please send a copy)		
<b>6</b>	Is there any ICT Gender Specific Initiatives? If No, Why? (If Yes, Please send a copy)		

**(Source: Author, February 2006)**

## Appendix 5: Electronic Questionnaire Survey: ICT Policy Evaluation Process

<b>Name of Document:</b>	
<b>Country:</b>	
<b>Organization:</b>	
<b>Name:</b>	
<b>Title:</b>	
<b>Date:</b>	

Themes			
Q.#		Y	N
<b>1</b>	Were there any formal methods for evaluating the effectiveness of the policies?		
	<b>a.</b> If Yes, What were they?		
	<b>b.</b> If Yes, How did they work?		
	<b>c.</b> If Yes, What were the influences?		
<b>2</b>	Is there any evaluation method for women specific ICT Plans and Initiatives? <b>a.</b> If Yes, What were they?		

<b>Themes</b>			
<b>Q.#</b>		<b>Y</b>	<b>N</b>
	<b>b.</b> If Yes, How did they work?		
	<b>c.</b> If Yes, What were the influences?		
<b>3</b>	Were there any sex disaggregated data and statistics to measure the impact of ICT policies?		
	<b>a.</b> If Yes, What were the influences?		
	<b>b.</b> If Yes, How did they make any differences?		
<b>4</b>	Did the ICT policy impact on Gender equality? If Yes, How?		
<b>5</b>	Did the ICT policy impact women? If Yes, How?		
<b>6</b>	Is there an ICT Policy evaluation Report? If No, Why? (If Yes, Please send a copy)		

(Source: Author, February 2006)

## Appendix 6: Focus Group Sessions Details

Focus Groups Sessions in FC: Total 24					
S.#	Categories of Women Sampled	Area	Location	No. of Sessions	Date
1	<b>Head of Households</b> (Formal education - Graduate)	Rural	Community Centre, Mehra Bhagwal	2	1 <sup>st</sup> Mar, 2009
		Urban	Local hotel, Islamabad	2	4 <sup>th</sup> Mar, 2009
2	<b>Head of Households</b> (Illiterate)	Rural	Woman's Home, Mozah Chirah	2	8 <sup>th</sup> Mar, 2009
		Urban	Community Centre, Islamabad	2	6 <sup>th</sup> Mar, 2009
3	<b>Married to Head of Households</b> (Formal education - Graduate)	Rural	Woman's Home Mehra Bhagwal	2	2 <sup>nd</sup> Mar, 2009
		Urban	Computer Training Centre, Islamabad	2	15 <sup>th</sup> Mar, 2009
4	<b>Married to Head of Households</b> (Illiterate)	Rural	Woman's Home, Mozah Chirah	2	10 <sup>th</sup> Mar, 2009
		Urban	Local Hotel, Islamabad	2	18 <sup>th</sup> Mar, 2009
5	<b>Unmarried</b> (Formal education - Graduate)	Rural	At Vocational Training Centre, Mehra Bhagwal	2	12 <sup>th</sup> Mar, 2009
		Urban	Local College, Islamabad	2	20 <sup>th</sup> Mar, 2009
6	<b>Unmarried</b> (Illiterate)	Rural	Local Community Centre, Mozah Chirah	2	25 <sup>th</sup> Mar, 2009
		Urban	Training Centre, Islamabad	2	22 <sup>nd</sup> Mar, 2009

(Source: Author, October 2009)

Focus Groups Sessions in AJK: Total 24					
S.#	Categories of Women Sampled	Area	Location	No. of Sessions	Date
1	Head of Households (Formal education - Graduate)	Rural	Woman's Home, Sahang	2	10 <sup>th</sup> Feb, 2006
		Urban	Community Centre, Muzaffarabad	2	14 <sup>th</sup> May, 2006
2	Head of Households (Illiterate)	Rural	Woman's Home Sahang	2	20 <sup>th</sup> Jan, 2006
		Urban	Woman's Home, Mirpur	2	15 <sup>th</sup> Mar, 2006
3	Married to Head of Households (Formal education - Graduate)	Rural	Community Centre, Jatlan	2	16 <sup>th</sup> Mar, 2006
		Urban	Community Centre, Muzaffarabad	2	18 <sup>th</sup> July, 2006
4	Married to Head of Households (Illiterate)	Rural	Woman's Home, Sahang	2	21 <sup>st</sup> Sep, 2006
		Urban	Local Training Institute, Mirpur	2	28 <sup>th</sup> Sep, 2007
5	Unmarried (Formal education - Graduate)	Rural	Local School Sahang	2	31 <sup>st</sup> Oct, 2007
		Urban	Local College, Muzaffarabad	2	15 <sup>th</sup> Oct, 2007
6	Unmarried (Illiterate)	Rural	Community Centre Sahang	2	1 <sup>st</sup> Oct, 2007
		Urban	Vocational Training Centre, Mirpur	2	10 <sup>th</sup> Feb, 2007

(Source: Author, October 2009)

Focus Groups Sessions in KPK (3)					
S.#	Categories of Women Sampled	Area	Location	No. of Sessions	Date
1	Head of Households (Formal education - Graduate)	Rural	Community Centre, Charsadda	1	25 <sup>th</sup> Aug, 2009
		Urban	Local hotel, Peshawar	1	27 <sup>th</sup> Aug, 2009
2	Head of Households (Illiterate)	Rural	Woman's Home, Nowshera	1	30 <sup>th</sup> Aug, 2009

(Source: Author, October 2009)

### Focus Groups Sessions in SINDH: Total 24

S.#	Categories of Women Sampled	Area	Location	No. of Sessions	Date
1	<b>Head of Households</b> (Formal education - Graduate)	Rural	Community Centre, Razzoqabad	2	10 <sup>th</sup> Mar, 2006
		Urban	Local Hotel, Karachi	2	13 <sup>th</sup> Jun, 2006
2	<b>Head of Households</b> (Illiterate)	Rural	Women's Crisis Centre, Jacobabad	2	24 <sup>th</sup> Jul, 2006
		Urban	Women's Home, Sukkur	2	10 <sup>th</sup> Jul, 2006
3	<b>Married to Head of Households</b> (Formal education - Graduate)	Rural	Community Centre, Shikarpur	2	15 <sup>th</sup> Jul, 2006
		Urban	Local hotel, Nawabshah	2	19 <sup>th</sup> Aug, 2006
4	<b>Married to Head of Households</b> (Illiterate)	Rural	Woman's Home Shahdadpur	2	25 <sup>th</sup> Aug, 2006
		Urban	Training Centre, Larkana	2	18 <sup>th</sup> Sep, 2006
5	<b>Unmarried</b> (Formal education - Graduate)	Rural	Local School, Jacobabad	2	1 <sup>st</sup> Nov, 2007
		Urban	Local Hotel, Karachi	2	15 <sup>th</sup> Nov, 2007
6	<b>Unmarried</b> (Illiterate)	Rural	Local School, Razzoqabad	2	1 <sup>st</sup> Dec, 2007
		Urban	Community Centre, Mirpukhas	2	10 <sup>th</sup> Dec, 2007

(Source: Author, October 2009)

## Appendix 7: Interviews (Elite Women and Men)

Personal Interviews with Elite Women				
S.#	Interviewee	Date	Location	Ref Code
1	<b>Bahija Aldaylami</b> <i>Assistant Secretary General Supreme Council of women, Bahrain</i>	21 <sup>st</sup> Jan 2008	Lunch, Local Hotel Bahrain	EIW-1
2	<b>Baroness Uddin</b> <i>House of Lords London, UK</i>	21 <sup>st</sup> Sept 2007	Her Office, UK	EIW-2
3	<b>Behjat Al Yousuf</b> <i>Associate Director, Dubai Women's College, UAE</i>	21 <sup>st</sup> Oct 2007	Tea, local Hotel, UAE	EIW-3
4	<b>Dr. Hafsa Lootah</b> <i>Asst. Prof Mass Communication, UAE</i>	6 <sup>th</sup> July 2006	Tea, Local Hotel UAE	EIW-4
5	<b>Dr. Halah El Sokari</b> <i>Director Khalifa Fund, UAE</i>	22 <sup>nd</sup> Sept 2008	Lunch, Local Hotel, UAE	EIW-5
6	<b>Dr. Hessa Sultan Al-Jaber</b> <i>Secretary General, ictQATAR</i>	30 <sup>th</sup> June 2008	Her Office, Qatar	EIW-6
		25 <sup>th</sup> May 2011	QITCOM, Lunch, Local Hotel, Doha	
7	<b>Dr. Huda Al Baraka</b> <i>Deputy Minister ICT, Egypt</i>	23 <sup>rd</sup> Sept 2007	Her Office, Egypt	EIW-7
8	<b>Dr. Nadia Hegazy</b> <i>Ministry of Telecommunications and Information Technology</i>	22 <sup>nd</sup> Sept 2007	Her office, Egypt	EIW-8
9	<b>H.H. Lubna Al Qasmi</b> <i>Princess UAE Minister International Affairs</i>	4 <sup>th</sup> July 2006	Her Office, UAE	EIW-9
10	<b>H. H. Megawatti Sukarnoputri</b> <i>Princess of Brunei</i>	10 <sup>th</sup> Sept 2006	Lunch, Hotel, UAE	EIW-10
11	<b>H. H. Munera Al Khalifah</b> <i>Princess of Bahrain Director, Ministry of Education</i>	19 <sup>th</sup> Jan 2008	Dinner, Hotel, Bahrain	EIW-11
12	<b>H.H. Reem Al Hashmi</b> <i>Princess of UAE Chairperson, Dubai Cares</i>	21 <sup>st</sup> Jan 2008	Her Office, UAE	EIW-12
13	<b>Khaula Lootah</b> <i>CEO World Space ME, UAE</i>	6 <sup>th</sup> July 2006	Lunch, Local Hotel, UAE	EIW-13
14	<b>Latifa Albalasa</b> <i>Secretary, Ministry of Education, Bahrain</i>	22 <sup>nd</sup> Jan 2008	Her Office, Bahrain	EIW-14
15	<b>Maliha Lodhi</b> <i>Pakistan's Ambassador in UK</i>	20 <sup>th</sup> Sept 2007	Her Office, UK	EIW-15
16	<b>Ms. Ibtehaj al Ahmadani</b> <i>Member of QCCI, Qatar</i>	4 <sup>th</sup> Sept 2010	Lunch, Local Hotel, UK	EIW-16
17	<b>Najla AlNahdi</b> <i>Manager Career Development - Emiratisation HR, Etihad</i>	27 <sup>th</sup> Sept 2008	Lunch, Local Hotel, UAE	EIW-17

## Personal Interviews with Elite Women

S.#	Interviewee	Date	Location	Ref Code
18	<b>Najma Akhtar</b> <i>Singer, Song Writer, Composer, Actor, UK</i>	17 <sup>th</sup> Sept. 2007	Lunch, Local Hotel, UK	EIW-18
19	<b>Shahien Taj, MBE</b> <i>CEO, Henna Foundation, UK</i>	21 <sup>st</sup> June 2007	Lunch, Local Hotel, UK	EIW-19
20	<b>Anita Ghulam Ali</b> <i>Secretary Education, Sindh</i>	8 <sup>th</sup> Mar 2006	Local Hotel, Karachi	EIW-20
21	<b>Asma Jahangir</b> <i>Lawyer and Human Rights Activist, PAK</i>	27 <sup>th</sup> Sept 2006	Lunch, local Hotel, Lahore	EIW -21
22	<b>Dr. Najma Najam</b> <i>Vice Chancellor, Fatima Jinnah Women University, PAK</i>	14 <sup>th</sup> May 2007	At Her Office, Rawalpindi	EIW -22
23	<b>Dr. Shamshad Akhtar</b> <i>Governor, State Bank of Pakistan</i>	20 <sup>th</sup> Jan 2007	At Her Office, Karachi	EIW -23
24	<b>Dr. Shireen M. Mazari</b> <i>Director General, Institute of Strategic Studies, PAK</i>	31 <sup>st</sup> Oct 2007	At Her Office, Islamabad	EIW -24
25	<b>Fariha Razzaq Haroon</b> <i>Group Director, GEO, PAK</i>	10 <sup>th</sup> Oct 2007	At Her Office, Karachi	EIW -25
26	<b>Farukh Khan,</b> <i>Human Rights Activist, PAK</i>	1 <sup>st</sup> Oct 2007	Local Hotel, Islamabad	EIW -26
27	<b>Justice Majida Rizvi</b> <i>First woman judge of a High Court, PAK</i>	15 <sup>th</sup> Oct 2007	At Her Office, Islamabad	EIW -27
28	<b>Ms. Amna Imran</b> <i>Federal Interior Ministry, PAK</i>	12 <sup>th</sup> Feb 2006	Ministry, Islamabad	EIW -28
29	<b>Ms. Humaira Sheikh</b> <i>CEO, Hum Pakistani</i>	6 <sup>th</sup> May 2007	Local Hotel, Lahore	EIW -29
30	<b>Ms. Khatija Soomro</b> <i>Wife, Governor Sindh</i>	8 <sup>th</sup> Mar 2006	Local Hotel, Karachi	EIW -30
31	<b>Ms. Midhat Shahzad</b> <i>Additional Secretary to President AJK, PAK</i>	18 <sup>th</sup> Feb 2006	Ministry, Islamabad	EIW -31
32	<b>Ms. Sumaira Malik</b> <i>Minister for Women Development and Youth Affairs, PAK</i>	10 <sup>th</sup> Feb 2006	Ministry Islamabad	EIW -32
33	<b>Ms. Zarine Aziz</b> <i>President, First Women's Bank, PAK</i>	9 <sup>th</sup> Mar 2008	Lunch Local Hotel, Karachi	EIW -33
34	<b>Naz Masha</b> <i>Chairperson of the Board, Chief Executive Officer Nishat Mills Limited, PAK</i>	21 <sup>st</sup> Sept 2007	Lunch Home, Lahore	EIW -34
35	<b>Neelofar Arshad,</b> <i>General Manager R &amp; D Fund, PAK</i>	22 <sup>nd</sup> Feb 2006	Ministry, Islamabad	EIW -35
36	<b>Samina Rizwan</b> <i>Regional Director, Oracle PAK</i>	15 <sup>th</sup> Mar 2007	Dinner, Islamabad	EIW -36



Personal Interviews with Elite Women				
S.#	Interviewee	Date	Location	Ref Code
37	<b>Seema Aziz</b> <i>CEO, Bareeze and CARE Foundation PAK</i>	18 <sup>th</sup> July 2007	At Her Office, Lahore	EIW -37
38	<b>Shabana Khan</b> <i>President, LMKR, PAK</i>	16 <sup>th</sup> Mar 2007	Lunch Local Hotel, Islamabad	EIW -38
39	<b>Dr. Sheikha Bint Abdullah Al – Misnad</b> <i>President, Qatar University</i>	30 <sup>th</sup> June 2008	Dinner Meeting, Doha Qatar	EIW- 39

(Source: Author, October 2011)

Personal Interviews with Elite Men				
S.#	Interviewee	Date	Location	Ref Code
1	<b>Abdrourahim Said Bakar,</b> <i>Minister of Transport, Post &amp; Telecom and Tourism, Comoros</i>	21 <sup>st</sup> Nov 2007	Conference ICT 4 All, Tunisia	EIM - 1
2	<b>Aftab Manzoor,</b> <i>President MCB Bank, Pakistan</i>	13 <sup>th</sup> Jun 2006	His Office, Karachi	EIM -2
3	<b>Ali Arshad Hakim,</b> <i>Chairman NADRA, Pakistan</i>	24 <sup>th</sup> Jan 2009	His Office, Islamabad	EIM-3
4	<b>Brig Moeen,</b> <i>Former Chairman NADRA, Pakistan</i>	23 <sup>rd</sup> Jun 2006	His Office, Islamabad	EIM-4
5	<b>Dr. Atta-Ur-Rehman,</b> <i>Chairman, HEC, Pakistan</i>	21 <sup>st</sup> Sept 2006	His Office, Lahore	EIM-5
6	<b>Dr. Bassel Khechi,</b> <i>Deputy Minister of Communications and Technology for Syria</i>	27 <sup>th</sup> July 2009	ITU Conference Damascus	EIM-6
7	<b>Dr. Khalid Mehmood,</b> <i>Chairman Statistic Department Lahore, Punjab , Pakistan</i>	19 <sup>th</sup> Sept 2006	His Office, Lahore	EIM-7
8	<b>Dr. Naveed A Malik,</b> <i>Virtual University, Lahore</i>	20 <sup>th</sup> Sept 2006	His Office, Lahore	EIM-8
9	<b>Dr. Qusai al Shatti</b> <i>Deputy Director General of Information Technology, Ministry of IT Kuwait</i>	21 <sup>st</sup> Nov, 2007	Conference ICT4ALL, Tunisia	EIM-9
10	<b>Dr. Sarmad Hussain,</b> <i>NUCES, Lahore, Pakistan</i>	19 <sup>th</sup> Nov 2006	His Office, Lahore	EIM-10
11	<b>Dr. TahseenUllah Khan,</b> <i>MD, NRDF</i>	23 <sup>rd</sup> Jun 2006	Local, Hotel, Islamabad	EIM-11
12	<b>General Nadeem,</b> <i>NDMA, Pakistan</i>	20 <sup>th</sup> Aug 2010	His office, Islamabad	EIM-12

## Personal Interviews with Elite Men

S.#	Interviewee	Date	Location	Ref Code
13	<b>General Qayum,</b> <i>Chairman Pakistan Steel Mills, Pakistan</i>	24 <sup>th</sup> Jun 2006	His Office, Islamabad	EIM-13
14	<b>Dr Hamadou Toure,</b> <i>Secrtaire general, Union, International des Telecommunication, Geneva</i>	18 <sup>th</sup> May 2007	His Office Geneva	EIM-14
15	<b>H. E. Amirzai Sangin,</b> <i>Minister of Communications and IT of Afghanistan</i>	18 <sup>th</sup> May 2009	WSIS Forum Geneva	EIM-15
16	<b>Hussain Dawood</b> <i>Chairman, The Dawood Group, Pakistan</i>	13 <sup>th</sup> June 2006	His Office, Karachi	EIM-16
17	<b>Khalid Sherdil</b> <i>DG, PDMA, Pakistan</i>	29 <sup>th</sup> Jan 2011	His Office, Lahore	EIM-17
18	<b>Lt. Gen Farooq Ahmad Khan(Retd)</b> <i>Chairman, EPIMC &amp; NDMA, Pakistan</i>	Oct 2005	His Office, Islamabad	EIM-18
19	<b>Major General Shahzada Alam Malik,</b> <i>Chairman PTA</i>	Oct 2005	His Office, Islamabad	EIM-19
20	<b>Mansur Farah,</b> <i>ESCWA, Damascus, Syria</i>	17 <sup>th</sup> June 2009	ITU Conference, Damascus	EIM-20
21	<b>Mohamed Abida,</b> <i>IDB, KSA</i>	26 <sup>th</sup> Oct 2006	ICT4 ALL Conference, Tunis	EIM-21
22	<b>Mohammed Asraf Dulull,</b> <i>Minister of Information and Communication Technology, Mauritius</i>	21 <sup>st</sup> Nov, 2007	ICT4 ALL Conference, Tunis	EIM-22
23	<b>Mohamed Mian Sommoro</b> <i>Chairman, Senate, Pakistan</i>	13 <sup>th</sup> Jun 2006	His House, Karachi, PAK	EIM-23
24	<b>Mustafa Khan,</b> <i>Advisor to ICT Minister, KSA</i>	18 <sup>th</sup> May 2009	WSIS Forum Geneva	EIM-24
25	<b>Parvez Iftikhar</b> <i>CEO, USF, Pakistan</i>	24 <sup>th</sup> Jan 2009	His Office, Islamabad, PAK	EIM-25
		1 <sup>st</sup> Aug 2011	Local, Hotel, Islamabad, PAK	
		12 <sup>th</sup> Sept 2011	Local, Hotel, Islamabad, PAK	
26	<b>Raja Muhammad Zulqarnain Khan</b> <i>President AJK</i>	19 <sup>th</sup> Nov 2007	His Office, Pak	EIM-26
27	<b>Salaam Taki,</b> <i>Ministry of ICT Uganda</i>	27 <sup>th</sup> Nov 2008	ICT4 ALL Conference, Tunis	EIM-27
28	<b>Salman Ansari</b> <i>ICT Consultant, Pakistan</i>	24 <sup>th</sup> Jun 2006	His Office, Islamabad, PAK	EIM-28
29	<b>Sami Al Bashir</b> <i>Director Telecommunication Bureau, Geneva</i>	17 <sup>th</sup> June 2009	ITU Conference, Damascus	EIM-29
30	<b>Shahbaz Shreef</b> <i>Chief Minister, Punjab</i>	29 <sup>th</sup> Jan 2011	His Office, Lahore	EIM-30

Personal Interviews with Elite Men				
S.#	Interviewee	Date	Location	Ref Code
31	<b>Shoaib Hamid Khawaja</b> <i>CEO, VMS</i>	19 <sup>th</sup> Nov 2007	Local, Hotel, Islamabad, PAK	EIM-31
32	<b>Taieb Debbagh,</b> <i>General Secretary – Ministry in charge of Telecoms and ITC – Morocco</i>	21 <sup>st</sup> Nov 2007	ICT4 ALL Conference, Tunis	EIM-32
33	<b>Tariq Badshah</b> <i>Member IT- Ministry of IT, Pakistan</i>	23 <sup>rd</sup> Jun 2006	His Office, Islamabad	EIM-33
34	<b>Yusuf Hassan</b> <i>Former, MD PSEB, Pakistan</i>	24 <sup>th</sup> Jun 2006	His Office, Islamabad	EIM-34
35	<b>Zahid Ali Khan</b> <i>Human Rights Activist, Pakistan</i>	1 <sup>st</sup> Oct 2006	Local Hotel, Islamabad, PAK	EIM-35
36	<b>Dr. Tanveer Qureshi</b> <i>Additional Home Secretary Sindh</i>	14 <sup>th</sup> June 2008	His Office, Karachi	EIM-36
37	<b>Ammar Jaffri</b>	24 <sup>th</sup> June 2006	His Office, Islamabad	EIM-37
38	<b>Chetan Sharma</b> <i>Datamation India</i>	10 <sup>th</sup> May 2006	WSIS Forum Geneva	EIM-38
39	<b>Fakhar Uddin</b> <i>UNESCO</i>	13 <sup>th</sup> Oct 2011	UNESCO, Office Islamabad	EIM-39
40	<b>Amir Malik</b> <i>PTA</i>	14 <sup>th</sup> Oct 2011	PTA, Office Islamabad	EIM-40

(Source: Author, October 2011)

## Appendix 8: Focus Group Guideline

<b>Date:</b>	
<b>Location:</b>	
<b>Town / Village:</b>	
<b>Province:</b>	
<b>Category:</b>	
<b>Interviewee Language:</b>	
<b>Place of Interview:</b>	

**REMINDER: Introduce Research Aim, Objectives, and Broader Meaning of ICTs,  
Explain Exercise, SPEAK SLOWLY, LISTEN CAREFULLY, OBSERVE BODY  
LANGUAGE**

Q.#	Discussion Themes
1	How familiar are you with ICTs? Do you feel ICT's are for men? If so Why?
2	Which ones do you like to use and why?

3	What do you use the ICTs for and how has that impacted you? What kind of experiences have you had with ICTs? ( exploring the content and language aspect)
4	To what degree have ICTs impacted or changed your life? (exploring how in multiple ways ( positive or negative) and if no why )
5	What are your families' views on ICTs? (are there any concerns or restrictions )
6	Do you feel the boys and men have more advantage with ICTs than women? ( inquiring into the multiple aspects of cultural and social behaviours )

7	<p>To what degree are you concerned or worried about using ICTs?  (exploring in public verses private aspects and potential consequences that could open up the barriers discussions.... why)</p>
8	<p>How easy has it been to use ICTs or have you faced any challenges when using ICTs?  (exploring what, and why )</p>
9	<p>Have you worked in the ICT Sector?  If so, what kind of experience have you had? Do you feel women treated equally,  If not, Why?</p>
10	<p>Do you feel that the government is doing enough to encourage girls to use ICTs?  (why and how) Should they be doing something differently?  (what and how)</p>

(Source: Author, September 2008)

## Appendix 9: Semi Structured Interview Guideline

<b>Date:</b>	
<b>Location:</b>	
<b>Town / Village:</b>	
<b>Province:</b>	
<b>Category:</b>	
<b>Interviewee Language:</b>	
<b>Place of Interview:</b>	

**REMINDER: Introduce Research Aim, Objectives, and Broader Meaning of ICTs,  
Explain Exercise, SPEAK SLOWLY, LISTEN CAREFULLY, OBSERVE BODY  
LANGUAGE**

Q.#	Themes
<b>Familiarity with ICTs</b>	
<b>1</b>	How familiar are you with ICTs?
<b>2</b>	Which are your 3 favourite ICTs and why?
<b>3</b>	Which are your least favourite ICTs and why?

Q.#	Themes
<b>Use and Impact of ICTs</b>	
4	<p>What do you use ICTs for?</p> <p style="padding-left: 40px;">In Personal Life:</p> <p style="padding-left: 40px;">In Professional Life:</p>
5	<p>What additional information would you like to see with ICTs? Why and how?</p>
6	<p>How have these ICTs impacted your life? Positively, negatively or no difference</p>
7	<p>Do you feel that ICTs have an impact on women? If so, is it positive or negative?</p>



Q.#	Themes
8	Have ICTs brought a social change? If so, how and what?
<b>Influence on Empowerment</b>	
9	Do you feel that ICTs have now given a voice to women? If so, how has that impacted society?
10	Do you feel that ICTs help women more than men?
11	Has your family influenced your use of ICTs? If yes, how?

Q.#	Themes
12	Do you feel that ICTs impact different age groups differently? Why and how?
13	Are ICTs useful for people in rural and urban areas? How and why?
14	Do ICTs have a culture? Eastern or Western?
15	How do you feel that ICT culture impacts 'gender empowerment' in Muslim societies?

Q.#	Themes
16	Do you feel ICTs provide new livelihood and business skills for women? If yes, how?
17	To what degree do you feel that women in Muslim countries are interested in obtaining ICT education? Why do you feel that?
18	To what degree do you feel that women in Muslim countries are interested in ICT related jobs? Why do you feel that?
19	To what degree have ICTs provided new job opportunities for women?

Q.#	Themes
20	<p>Are there any women leaders in the ICT sector in your country, region and in the world who are role models? Or do you feel it's predominantly a male field? If so, why?</p>
<b>Social Barriers</b>	
21	<p>To what degree have you experienced any barriers or restrictions from using ICTs? If so what were they? Were you able to overcome the barriers or restrictions? If yes, how?</p>
22	<p>Do you feel other women experience barriers with ICTs? If so, what do you think they are and how do you recommend they overcome them?</p>
23	<p>Do you feel society judges you because you are using ICTs? If so, how? and what do you do about it?</p>

Q.#	Themes
24	<p>To what degree do you feel that society judges women who use of ICTs? And what is the male attitude towards women's use of ICTs?            ( exploring the social stigmas, and male dominancy and control aspects etc)</p>
25	<p>To what degree do you feel women are comfortable using ICTs? or are they afraid of using ICTs?            Why and how?</p>
<b>Government / Policy</b>	
26	<p>To what degree do you feel that government is aware of the social cultural barriers that women face?            And are they actively trying to address those?</p>
27	<p>How are governments taking steps to help women engage with ICTs?            (exploring the multiple elements: grants, education, access and policies where appropriate) do you feel that they are sufficient and effective?</p>

Q.#	Themes
28	Would you like to see governments taking additional steps to ensure that women can engage and benefit from ICTs?
<b>Additional thoughts and Recommendations</b>	

**(Source: Author, September 2008)**

## Appendix 10: Questionnaire Survey

[Focus Group Participants]

<b>Date:</b>	
<b>Location:</b>	
<b>Town / Village:</b>	
<b>Province:</b>	
<b>Category:</b>	

1 Which ICTs do you use?



Telephone

Where?

What Purpose?



Television

Where?

What Purpose?



Tape Recorder

Where?

What Purpose?





Radio

Where?

What Purpose?



Printer

Where?

What Purpose?



**Scanner**

Where?

What Purpose?



**Video camera**

Where?

What Purpose?



**I-pod**

Where?

What Purpose?



**Walkman**

Where?

What Purpose?



**Computer**

Where?

What Purpose?



**Laptop**

Where?

What Purpose?



**DVD Player**

Where?

What Purpose?



**Digital camera**

Where?

What Purpose?



**Mobile phone**

Where?

What Purpose?



**Fax**

Where?

What Purpose?

**2** Which ICT tools do you like and prefer?



Telephone

Where?

What Purpose?



Television

Where?

What Purpose?



Tape Recorder

Where?

What Purpose?



Radio

Where?

What Purpose?





Printer

Where?

What Purpose?



Scanner

Where?

What Purpose?



Video camera

Where?

What Purpose?



I-pod

Where?

What Purpose?



Walkman

Where?

What Purpose?



Computer

Where?

What Purpose?



Laptop

Where?

What Purpose?



DVD Player

Where?

What Purpose?



Digital camera

Where?

What Purpose?



Mobile phone

Where?

What Purpose?



**Fax**

Where?

What Purpose?

**3** Do you own a mobile phone?

YES      NO      Share a family Phone  
           

**4** Do you think ICTs have empowered you?

YES      NO  
     

If yes,

- Economic
- Social
- Knowledge
- Sense of Freedom

If no, Why

**(Source: Author, September 2008)**

## Appendix 11: Countries Comparison across Indices

S/N	Country	% of Muslim Population	ITU's ICT Development Index (IDI)		Gender Gap Rankings (World Economic Forum)		Gender Inequality Index (UNDP Human Development Report)	
			Ranking 2008 (1-159)	IDI 2008 (0.79-7.85)	Overall Rank (1-58)	Overall Score (1 - 7)	Rank 2008 (1-138)	Value 2008 (0.17 -0.85)
<b>Countries with highest frequency of elements</b>								
1.	Djibouti	94	125	1.57	-	-	-	-
2.	Lebanon	70	82	3.17	-	-	-	-
3.	Egypt	94	96	2.70	58	2.38	108	0.714
4.	Syria	90	93	2.76	-	-	103	0.687
5.	Nigeria	75	122	1.65	-	-	-	-
6.	Saudi Arabia	100	52	4.24	-	-	128	0.760
7.	Afghanistan	100	-	-	-	-	134	0.797
8.	Gambia	90	124	1.62	-	-	120	0.742
9.	Pakistan	97	128	1.54	56	2.90	112	0.721
10.	Azerbaijan	93.4	81	3.18	-	-	62	0.553
11.	Jordan	95	74	3.33	55	2.96	76	0.616
<b>Countries with no element</b>								
12.	Bahrain	100	33	5.67	-	-	55	0.512
13.	Bangladesh	85	137	1.41	39	3.74	116	0.734
14.	Indonesia	95	107	2.46	46	3.50	100	0.680
15.	Kazakhstan	51.2	69	3.47	-	-	67	0.575
16.	Malaysia	52	56	3.96	40	3.70	50	0.493
17.	Maldives	100	68	3.54	-	-	59	0.533
18.	Morocco	98.7	97	2.68	-	-	104	0.693
19.	Oman	100	71	3.45	-	-	-	-
20.	Qatar	100	45	4.68	-	-	94	0.671
21.	Tunisia	98	85	3.06	-	-	56	0.515
22.	Turkey	99.8	57	3.90	57	2.67	77	0.621
23.	UAE	96	29	6.11	-	-	45	0.464
24.	Yemen	99	129	1.52	-	-	138	0.853

**Source:**

<http://www.islamicweb.com/begin/population.htm>

<http://www.itu.int/ITU-D/ict/publications/idi/2010/index.html>

[https://members.weforum.org/pdf/Global\\_Competitiveness\\_Reports/Reports/gender\\_gap.pdf](https://members.weforum.org/pdf/Global_Competitiveness_Reports/Reports/gender_gap.pdf)

[http://hdr.undp.org/en/media/HDR\\_2010\\_EN\\_Complete\\_reprint.pdf](http://hdr.undp.org/en/media/HDR_2010_EN_Complete_reprint.pdf)

## Appendix 12: Barriers Unaddressed in ICT Documents

33 barriers unaddressed in ICT documents of 24 countries are highlighted in Yellow

S/N	Themes	Elements of Women Specific Barriers Discussed
1	Economic Aspect	1. Lack of opportunity in employment
		2. Discrimination at work place
		3. Harassment at the workplace
		4. Unsafe work environment
		5. Inflexible timings
		6. Lack of access to funds for SMEs& Entrepreneur
		7. Limited protection of personal funds
		8. Impractical cost of the use of ICTs
		9. No segregation at work place for women
		10. Inequity in Salary
		11. Lack of Teleworking and remote employment opportunities
2	Knowledge and Capability Aspect	12. Limited ICT facilities in rural areas
		13. Limited access to ICT education at primary level
		14. Discouragement for higher technology education
		15. Lack of IT training and skill development
		16. Lack of awareness campaigns on the use of ICTs and it values
		17. Cost of ICT education is high
		18. Poor quality of ICT education for women
		19. Limited relevant content appropriate to geographical locations (rural and urban).
		20. Limited content in local language
		21. Inappropriate and complex format
		22. Format incompatibility for diverse levels of literacy.
		23. Lack of distant education and distant learning facilities
		24. Limited access to basic education and discrimination towards education for Girls
		25. Irrelevant and sexist content
3	Cultural and Social Aspects	26. Restrictions from family towards using ICTs (brothers and husbands)
		27. Lack of protection from harassment from mobile phones and its consequences
		28. Restrictions for travelling to schools, work and ICT Access Points
		29. Lack of personal time to access ICTs
		30. Lack of awareness campaigns on benefit from ICTs for women
		31. Lack of awareness campaigns to protect women from the dangers of ICTs
		32. Lack of policies, regulation and laws to provide a secure environment for women ICT users



S/N	Themes	Elements of Women Specific Barriers Discussed
		<p>33. Insensitive environment and location of ICT access points</p> <p>34. Unsafe environment for accessing ICTs i.e., Cyber Cafes</p> <p>35. No safe transportation to ICT access points and technology parks for women</p> <p>36. No protection of women's rights in community and work</p> <p>37. Lack of awareness campaigns for benefits of ICTs to prevent backlash from community and family</p> <p>38. No geographical considerations for constraints faced by women</p> <p>39. Fear of using mobile phone in public space- self imposed</p> <p>40. Fear of damage to reputation from using ICTs</p> <p>41. Fear of stigma and backlash</p> <p>42. Fear of negative publicity and backlash</p> <p>43. Fear of getting traced and harassed through SIM Cards</p> <p>44. Lack of positive role models in Muslim countries for women in ICTs</p> <p>45. Technophobia - women are afraid of using ICTs</p>
4	Implementation and Monitoring	<p>46. No specific data and statistics on women in the context of ICTs</p> <p>47. No women specific programs and initiatives</p> <p>48. No women specific ICT impact indicators</p> <p>49. No monitoring of women's program</p> <p>50. No implementation of policy or commitment for women</p> <p>51. Lack of multiple women categories and definitions</p>

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