



mWomen

Striving and Surviving: Exploring the Lives of Women at the Base of the Pyramid



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The GSMA mWomen Programme is an unprecedented global public-private partnership between the worldwide mobile industry and the international development community. The Programme aims to reduce the mobile phone gender gap by 50% by 2014, bringing mobile connectivity and services to more than 150 million women in emerging markets. This will be achieved through a combination of research, grants for mobile operators and NGOs, toolkits, and knowledge sharing through the mWomen online community, seminars, and the mWomen Working Group, which includes more than 30 members from the mobile industry.

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The primary field research was conducted by TNS.

Top Ten Findings of *Striving and Surviving:* *Exploring the Lives of Women at the Base of the Pyramid*

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The SMS “utility gap.”

77% of BoP women have made a mobile phone call, but only 37% have sent an SMS, regardless of literacy levels. BoP women reported that they did not find the SMS service useful, thus products targeted at BoP women that use SMS should be of demonstrable practical value to BoP women.



The mHealth gap.

84% of women wanted better healthcare information, but just 39% expressed a specific interest in receiving general healthcare information through their mobile phones. Mobile Health offerings will need to be closely geared towards women’s needs and communicated clearly if they are to live up to their potential.



The technical literacy barrier.

Of those who did not want to own a mobile phone, 22% said the main reason was that they “wouldn’t know how to use it”. The mobile industry and development organizations should address this through educational activities and user-centric designs.



Targeting the whole family.

74% of married women who did not want a mobile phone said it was because their husbands would not allow it. Efforts to communicate the benefits of mobile should focus on the benefits for the whole family.



Addressing suspicions.

82% of married BoP women who own mobile phones say ‘it makes my husband suspicious,’ a reported disadvantage of ownership, particularly for women in Uganda and Papua New Guinea. Such suspicions can lead to unintended consequences of mobile phone ownership, such as domestic violence, thus community and family educational efforts are recommended on the life-enhancing uses of mobile technology.



Eager entrepreneurs.

73% of participants expressed interest in entrepreneurship to help support their families. Mobile solutions that help entrepreneurs manage their business or set up mobile retail enterprises could have a powerful impact.



The mobile Internet gap.

Just 2% of BoP women have ever used the mobile internet, although 23% are interested in this capability. Creating relevant, affordable and accessible online services may convert many mobile users to owners in the future, but most such services are currently premature.



The role of TV.

Television is a crucial source of entertainment and information for BoP women: 53% of participants watched it, 36% daily. TV can play a major role in communicating the benefits of mobile, through direct advertising or positive images of mobile users in soap operas, for example.



The role of women’s groups.

28% of participants visit women’s groups regularly, and 39% said “female friends” were a trusted information source. Engaging with these groups will help mobile operators and non-governmental organizations reach BoP women at scale.



The power gap.

38% of BoP women live “off grid”, without easy access to an electricity source. Although access to electricity varies by market, low-cost, alternative mobile charging solutions will be key for many BoP women to fully realise the potential benefits of mobile phone ownership.



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Foreword

What is it that women in developing markets want from their lives? What are their needs? What do their daily lives look like, and what do they want from the future?

These may seem like obvious questions, but when the GSMA mWomen Programme began researching the lives of women in middle and lower income countries, looking for ways in which mobile technologies could deliver positive change in their lives, we soon found that there was limited public data available to answer these questions.

This report – *Striving and Surviving: Exploring the Lives of Women at the Base of the Pyramid* – is our attempt to remedy that and is a first of a series of reports from GSMA mWomen about women in developing countries. It builds upon our previous report, *Women & Mobile: A Global Opportunity*, which identified a gender gap in mobile phone ownership in the developing world – 300 million fewer women than men own mobile phones and the potentially life changing tools that they can provide, such as access to health services, employment opportunities and educational tools.

We believe any mobile product or service aiming to serve women in a commercially successful manner must meet the actual lived needs of women as reported by them.

Introduction



"I will ensure that my kids get proper education. They will be able to get jobs, have better money. They will not suffer."

Research Participant, rural North India

"Before I had a mobile phone it was very difficult to know what was happening with my relatives in the village... my husband could only give me permission twice a year to visit them... now I feel closer to them since I can talk to them..."

Research Participant, Uganda

Above are the voices of just two of the more than 2,500 women who took part in *Striving and Surviving*, GSMA mWomen's new research report exploring the lives of women at the Base of the Pyramid (BoP), those living on less than two US dollars a day.

The mobile industry – and indeed much of the world – knows little about the lives, struggles and aspirations of women at the BoP. Yet these women represent one of the largest opportunities for new users for the mobile industry, while also being the most likely to see real and substantial improvements in their lives through mobile services which could, for example, provide crucial healthcare information or give them the tools to set up businesses to move out of poverty.

Background to *Striving and Surviving*

In 2010, the GSMA, in partnership with the Cherie Blair Foundation for Women and Vital Wave Consulting, released the well-received *Women & Mobile: A Global Opportunity*, a broad examination of how mobile technology can benefit women in middle and lower income countries. It confirmed that women who used mobiles felt safer and more independent and could increase their financial stability. However, the report also identified a substantial “mobile phone gender gap”. Globally, for varying social, cultural and economic reasons, a woman is 21% less likely to own a mobile phone than a man. *Women & Mobile* found that closing this gender gap represented a \$13 billion missed market opportunity for the mobile industry.

The *Women & Mobile* report also found that this gender gap was most profound for women on the lowest incomes - the “BoP group”. In order to better understand how to best serve this group with relevant and scalable mobile products and services, unique multi-market research was commissioned by GSMA mWomen in partnership with AusAID and USAID.

Researching *Striving and Surviving*

More than 2,500 women took part in this research, from four countries chosen to represent a range of social, cultural and market contexts: Egypt, India, Papua New Guinea and Uganda. Because of the great contextual variations within India, the findings have been further broken down by region: North, East, South and West. The survey sample size was also doubled from 500 to 1,000 in India to reflect this. Participants ranged from ages 16 – 64 and lived in both urban and rural areas. For more detailed information on the study, its methodology and its participants, please see the Appendix A on page 68.

Striving and Surviving reveals that for most BoP women, the main priority in life is simple survival. Better housing, family healthcare and a more stable income were also among the greatest priorities. If the mobile industry provides practical and affordable solutions to address these priorities, they are likely to find a receptive audience who stand to gain much from mobile ownership.

This report also identifies unique social, cultural and economic factors within each country which shape women's needs and their attitude towards mobile ownership; the mobile industry will need to understand these factors if they are to develop services that will reach most BoP women. For example, in Uganda four out of five non-mobile users would be interested in owning a mobile, but in Southern India, this figure is less than 6%, due to factors such as cost or the disapproval of husbands. Only by understanding specific social attitudes and market factors will the mobile industry successfully realise the market potential of BoP women. Such information will be revealed in greater depth in a series of reports that GSMA mWomen will release throughout 2012, examining each country in further detail, as well as focusing on specific needs such as health and education.

For now, *Striving and Surviving* aims to provide an overview which shines a light on BoP women's lives, exploring the serious challenges they face, as well as their hopes and aspirations for the future. The report looks into the social and economic context in which they live, their priorities in life, their current mobile technology use, and how mobile operators and the international development community may help them to benefit from mobile in the future.

How to read *Striving and Surviving*

This research report has been structured into three main sections, designed to present the findings and insights from the research in a reader-friendly format. Below is a brief guide to each section.

Executive Summary (p. 11)

The Executive Summary gathers together key findings from the report in a single, easy to read section. It follows the same structure as the rest of the report, so readers are easily able to locate the fuller details.

Part 1: Striving and Surviving (p. 14)

This section explores how BoP women live, and the social, cultural and economic factors which shape their daily reality. It identifies factors that are common to all four of the countries studied, as well as some key differences. It examines in detail how women view subjects such as housing, health, children, marriage and safety. In particular, it identifies what they would like to see change and what challenges they face in their lives. The illuminating answers reveal a mix of serious short-term concerns, such as health or personal safety, alongside longer-term aspirations, such as better education for future children. Some key findings:



— **Need for localised knowledge.** The research makes clear that, despite many things in common, there were also enormous differences between BoP women living in different countries or regions. To give one example, in Egypt, only **16%** of the women surveyed said they worked. In Uganda, the number was far higher, at **70%**.



— **The power gap.** **38%** of BoP women live "off grid", without easy access to an electricity source. As access to electricity varies by market, low-cost, alternative mobile charging solutions will be key for many BoP women to fully realise the potential benefits of mobile phone ownership.



— **The mHealth gap.** **84%** of women wanted better healthcare information, but just **39%** expressed a specific interest in receiving general healthcare information through their mobile phones. mHealth offerings will need to be closely geared towards women's needs and communicated clearly if they are to live up to their potential.



— **Eager entrepreneurs.** **73%** of participants expressed interest in entrepreneurship to help support their families. Mobile solutions that help entrepreneurs manage their business or set up mobile retail enterprises could have a powerful impact.

Part 2: Mobile In Their Lives (p. 36)

In this section, the report focuses on the role that mobile technology currently plays in BoP women's lives. Users report on what they see as the key benefits of mobile technology – from increased security to improved well-being through contact with relatives - and what services they use. Non-users explain the barriers to ownership, which range from practical obstacles, such as cost, to social barriers, such as suspicions amongst male family members. Some key findings:



— Friends and Family. For BoP women, connecting with friends and family was seen as the overwhelming benefit of mobile, named by **80%** of respondents. Emergency contact was also important: **58%** said a mobile would be useful in emergencies.



— The technical literacy barrier. Of those who did not want to own a mobile phone, **22%** said the main reason was that they "wouldn't know how to use it". The mobile industry and development organisations should address this through educational activities and user-centric designs.



— The SMS “utility gap”. **77%** of BoP women have made a mobile phone call, but only **37%** have sent an SMS, regardless of literacy levels. BoP women reported that they did not find the SMS service useful, so products targeted at BoP women that use SMS should be of demonstrable practical value to BoP women.



— Addressing suspicions. **82%** of married BoP women who own mobile phones say one disadvantage is 'it makes my husband suspicious,' particularly women in Uganda and Papua New Guinea. Such suspicions can lead to unintended consequences of mobile phone ownership, such as domestic violence, so community and family educational efforts are recommended on the life-enhancing uses of mobile technology.



— The mobile Internet gap. Just **2%** of BoP women have ever used the mobile internet, although **23%** are interested in this capability. Creating relevant, affordable and accessible online services may convert many mobile users to owners in the future.

Part 3: Reaching BoP Women (p. 54)

Based on the insights into BoP women's needs and wants from the rest of the report, this section looks at how the mobile industry can deliver services that meet those needs and address those concerns. It will chiefly focus on mass communication channels which are likely to reach BoP women, and the messages that are most likely to resonate. Some key findings:



— The role of TV. Television is a crucial source of entertainment and information for BoP women: **53%** of participants watched it, **36%** daily. TV can play a major role in communicating the benefits of mobile, such as through direct advertising or positive images of mobile users in soap operas.



Engaging women's groups will help mobile operators and NGOs reach BoP women at scale.



– Targeting the whole family. **74%** of married women who did not want a mobile phone said it was because their husbands would not allow it. Efforts to communicate the benefits of mobile should focus on the benefits for the whole family.



– The role of women's groups. **28%** of participants visit women's groups regularly, and **39%** said "female friends" were a trusted information source. Engaging with these groups will help mobile operators and non-governmental organisations reach BoP women at scale.

Despite a wealth of hard statistical evidence, this report is not intended to be a dry demographic study. In an effort to bring the findings to life, the research team created eight "Portraits": composite portrayals of women living in very different circumstances within the BoP group. These Portraits appear throughout this report to offer readers a glimpse into the lives of BoP women. Although the Portraits are fictionalised, each one of them is based on thorough quantitative research, as well as detailed one-on-one interviews with and ethnographies of BoP women.

Finally, it is important to acknowledge the limits of *Striving and Surviving*, which seeks to summarise nine months of detailed fact-finding and conversation with over 2,500 women in four very different countries into one accessible and engaging format. Four countries cannot adequately represent or provide a definitive portrait of the hundreds of millions of BoP women in the world, although it is to be hoped the data they yielded will be a catalyst for further work in this area. To this end, all of the research tools used to create this report are publicly available at www.mwomen.org. The hope is that these tools will equip others to go into countries we were not able to reach and talk to women we were not able to speak to.

It is the GSMA mWomen team's ultimate hope that this research will lead to the private and public sector working in partnership with BoP women on the development of mobile services that truly meet their needs.

Executive Summary



Attending to basic needs and survival can take up a huge proportion of time for BoP women.

Introduction

More than 2,500 women living at the Base of the Pyramid (BoP) took part in this *Striving and Surviving* report, from four countries chosen to represent a range of social, cultural and market contexts: Egypt, India, Papua New Guinea and Uganda. Participants ranged from ages 16 - 64 and lived in both urban and rural areas.

Striving and Surviving reveals that many BoP women face similar challenges. Most of the participants wanted to improve their housing, the education of their children, family healthcare and their income. The report also identifies unique social, cultural and economic factors within each country which shape women's needs and their attitude towards mobile ownership; the mobile industry will need to understand these factors if it is to develop services that will actually reach most BoP women.

Part 1: Striving and Surviving

Basic Needs

Attending to basic needs and survival can take up a huge proportion of time for BoP women. Food can be expensive or scarce, clean water is often difficult to procure, electricity can be non-existent or intermittent and healthcare a daily challenge. 38% of BoP women surveyed lived in households which are 'off grid', and even those with an electricity supply often experienced regular and extensive power cuts.

Housing was the number one life priority for respondents, closely followed by improved health for family members, which was named as a top five life priority by 68% of the women who took part in the study. However, although 84% of the women surveyed wanted more information on general health, just 39% are currently interested in general health information through their mobile phones.

A third of the women surveyed named "a good meal for my family every day" as one of the things they would like to achieve in the future, highlighting the fact that this is not currently the case.

Family Life

In most cases, husbands were identified as the 'main income earner' in BoP families, and 43% of women reported that husbands were the 'sole decision maker' on household matters.

Children were a major focus for most women, named as one of the top five life priorities by no less than 74% of respondents. In particular, a good education for their children ranked in the top three life priorities in most of the countries surveyed.

Education and Employment

At least two thirds of respondents had not completed secondary school, while 31% had received no formal education at all, whether they lived in urban or rural areas.

Overall, 54% of BoP women surveyed worked, with the majority of income coming from the "informal" sector, for example in the petty trade of foodstuffs or washing clothes. 73% report an interest in entrepreneurship, however, and mobile services which can facilitate entrepreneurship and benefit small businesses may have a broad appeal in a variety of markets.

Social Context: Leisure and Religion

72% of women reported having at least half an hour of free time per day. Religion and religious institutions are of great importance to BoP women, also providing a break from domestic or working duties. The statement 'religious faith is very important' ranked third out of 40 on this study's attitudinal scale (see Appendix A on page 68).

Part 2: Mobile In Their Lives

In 2010, 26% of BoP women in low- to middle-income countries were identified as owning a mobile phone (*Women & Mobile*). While ownership was low, women in the segment as a whole were familiar with the use of mobile phones, often accessing handsets through family or friends. However, there is a significant proportion of women who have always been excluded from the benefits of ownership – the research found that of those who do not currently own a phone, 93% have never done so.

Benefits of Mobile

When asked what the key benefits of mobile would be, 80% reported being connected to friends and family, 58% said it would be useful in an emergency, 40% said it would cut down on travel time and 15% believed it would help them feel secure.

Access To Handsets

While many BoP households now have mobile handsets, women are not often the first to own a handset. In some markets, due to male family members being prioritised over females in mobile ownership, a household would need to have *three handsets* before a woman is able to benefit from ownership.

Mobile Usage

While many BoP women do not own mobiles, mobile usage of various kinds is much more common – two-thirds or more of BoP women use mobile phones to some extent.

Many mobile users had resourcefully taken it upon themselves to learn to use mobile phones. 30% of participants in the study reported having learnt how to use mobile phones themselves, through “trial and error.” This underlines the importance of user-centric design.

While 77% of BoP women have made a mobile phone call, only 37% have sent an SMS, regardless of literacy levels. BoP women reported that they did not find the SMS service useful, so products targeted at BoP women that use SMS should have demonstrable practical value to BoP women.

Ownership: Appetites and Barriers

Despite the fact that many women have some access to a mobile phone, a substantial proportion – 37% - of non-owners recognise the benefits of direct ownership.

Cost is the major barrier which prevents most BoP women from obtaining one. 81% of women who did not want a mobile phone cited cost as a principle reason and the mobile industry will need to keep this in mind.

In addition, 64% of married women who do not wish to own handsets cited the disapproval of their husbands as a reason for not wanting to own a phone. Demonstrating the benefits of female ownership (such as security, helping family coordination, access to information, income generation) to male family members and the family is an important step in driving mobile uptake amongst BoP women.

Addressing BoP women’s technical literacy challenges will also be crucial to bringing the benefits of mobile to this group in a meaningful way. Amongst those who said they did not want a phone, 22% list the main reason as being ‘they wouldn’t know how to use it.’

Part 3: Reaching BoP Women

This section examines the mobile phone gender gap and proposes several ways in which the mobile industry and the development community could help deliver the benefits of mobile technology to more women, with an emphasis on communications channels and preferred sources of advice among BoP women.

Driving Uptake Amongst Non-Owners

Amongst those women who do acquire mobile handsets themselves, it is unsurprising to note that *price* is the most important factor impacting on a purchase decision. Driving down cost will be a major step towards increasing ownership.

While most women have some access to a mobile phone, a substantial minority have none at all. For such a group, there is clearly a need to communicate the benefits of shared ownership and usage to the handset's owner, who is usually the husband or male "head" within the household.

Communicating the Benefits of Mobile

BoP women can be reached best through certain media channels as well as community groups. 53% of BoP women watch TV, a high proportion viewing on a daily basis. Soaps are one of the most popular form of content, with local soaps preferred in Egypt, South and East India, national soaps in North India and international soaps in Uganda. Public agencies or other interested parties could promote the inclusion of mobile usage and particular service usage in popular TV soaps to help educate BoP women and men on the benefits of mobile usage.

Women's groups offer an additional and potentially very influential channel for the communication - and, indeed, delivery - of mobile service offerings. 28% of participants visit women's groups regularly, and 39% said "female friends" were a trusted information source.

Conclusion

There is no doubt that mobile services do have the potential to greatly enrich many BoP women's lives. However, persistent barriers remain in place, including cultural attitudes, cost and lack of awareness of the range of services now offered by mobiles.

Successful mobile strategies of the future will draw all of the insights gleaned from this research together, will understand the unique circumstances in which BoP women live, recognise which needs take priority in their lives, address practical concerns such as cost and technical literacy, and design services that will have an emotional appeal.

Part 1:

Striving and Surviving

“Children – they bring joy, and my wishes and hopes are for my children. They are also my job.”

Research Participant, rural Papua New Guinea

“There is no spare time between work and housework, no time or money for outings. Our problems occupy our time and thinking, when do we have time for leisure?”

Research Participant, Egypt

Before we can understand how mobile technologies can most benefit BoP women, the mobile industry, governments and the international development community need to understand much more about the details of their lives. Naturally, lifestyles vary dramatically across different countries, but there remain a striking number of shared challenges and aspirations that cut across cultural and social contexts.

This section of *Striving and Surviving* will explore BoP women's lives in more detail. It has been organised into four "life categories" – basic needs; family life; education and employment; leisure and religion. In the section on basic needs, the focus is on survival, on the essentials that women need for their families to live, including housing and health.

Figure 1 below offers a snapshot of the differing priorities for women within this study. While there are overwhelming priorities in common for women in the BoP – improved housing and better education for children being the most obvious – there are also crucial differences, such as the differing emphasis put on better family healthcare.

It should be kept in mind while reading this section that, as with women all over the world, life priorities change through various life stages. Many of the youngest participants in the study had dreams of an education, a career, a happy marriage and mobility. Anticipating their future role as mother and wife, unmarried girls/women also had aspirations for their future children. After marriage, priorities tend to shift dramatically to making ends meet in the face of unpredictable income, inflation and providing for their children.

Figure 1: An overview of top ten life priorities in each country/region

Rank	Total	Uganda	Egypt	North India	East India	South India	West India	PNG
1	Housing	Housing	Housing	Health for family	Housing	Housing	Housing	Housing
2	Kids' education	Kids' education	Health for family	Kids' education	Kids' education	Business	Kids' education	Kids' education
3	Health for family	Health for family	Kids' education	Business	Health for family	Health for family	Happy marriage	Happy marriage
4	Stable income	Stable income	Stable income	Housing	Stable income	Stable income	Business	Health for family
5	Business	Happy marriage	Security in old age	Good meals for family	Security in old age	Security in old age	Stable income	Good meals for family
6	Happy marriage	Business	Happy marriage	Security in old age	Good meals for family	Kids' education	Good meals for family	Stable income
7	Security in old age	Security in old age	Business	Stable income	Business	Free time	Health for family	Business
8	Good meals for family	Good meals for family	Admired by family	Happy marriage	Happy marriage	Good meals for family	Security in old age	Bank account
9	Bank account	No unwanted pregnancies	Bank account	Admired by family	Own mobile	Happy marriage	Admired by family	Security in old age
10	Admired by family	Respect in community	Good meals for family	Own mobile	Admired by family	Admired by family	Own mobile	Free time



India rural dwelling.



Typical dwelling in a fishing village in Papua New Guinea.

The major priorities for BoP women include serious short-term concerns, such as health or personal safety, as well as longer-term aspirations, such as better education for their future children. While some life priorities are almost universally shared, notably the need for better housing, others vary greatly from region to region. Family health, for example, is considered the number one life priority in North India yet is only seventh in West India.

Basic Needs

"I wake up in the morning not knowing whether I will have money to feed my kids at night or not."

Research Participant, Egypt

Attending to basic needs – surviving, in other words – takes up a huge proportion of BoP women's time and energy. Food can be expensive or scarce, clean water is often difficult to procure, electricity can be non-existent or intermittent and healthcare a daily challenge.

- As Figure 1 shows, women's top priorities in life are often about survival issues. The single highest ranked priority is housing, with family health the third highest ranked priority, a stable income fourth and good meals the eighth. This section explores these basic needs in detail, with particular focus on essentials, health, finances and safety.

Essentials

"I want better housing, a house of my own that I do not have to share with my in-laws, so I can stop being their slave."

Research Participant, Papua New Guinea

In the countries surveyed, essential utilities such as water and firewood are basic needs that women are almost universally expected to meet. As indicated in Figure 1, one-third of the women surveyed report getting "good meals for my family" as one of their top five life priorities, reflecting the fact that this is not currently the case. In addition, when researchers spoke to BoP women in depth, many mentioned more convenient access to water and firewood for cooking as a priority, including women from urban and rural environments. Attending to such basic needs is a time consuming and strenuous activity, often forcing children to sacrifice their education for the good of the family.

Housing was similarly crucial. When asked to identify their top five life priorities, 'better housing' was picked by four out of five BoP women surveyed, and it was the number one life priority in all markets except North India. India displayed the biggest urban/rural disparity, with a significantly larger number of urban dwellers ranking better housing high on their list of priorities, possibly reflecting smaller rented accommodations and the common practice of sharing a kitchen/bath among several nuclear or extended family units in urban Indian homes at the BoP.



Electricity access varied greatly by market, with some respondents reporting a weekly average of 37 hours of cuts.

Electricity is another essential that many BoP women cannot rely on. 38% of BoP women surveyed lived in households which are 'off grid', and even those with an electricity supply often experienced regular and extensive power cuts. Access to electricity varied greatly by market: in Uganda, for example, respondents reported cuts for an average of 37 hours per week.

Such electricity loss not only restricts women's ability to benefit from mobile phone services, but also from owning and using TVs and radios which provide important life information and are often the major source of "leisure" for BoP women. Promoting mobile charging solutions that do not rely on grid-electricity may therefore have the dual benefit of both improving communication, and of providing entertainment and social services via the mobile phone.

"Though I have electricity in my house, I often have to charge it at those shops that offer the service as we experience constant blackouts."

Research Participant, Uganda

Meet Poonam...

Poonam Singh,
North India



My name is Poonam Singh. I am 23 years old and live in the village of Deori in Uttar Pradesh in a house with mud flooring with my husband Praveen and our three children. I heard there was supposed to be a government scheme to build concrete houses in my village but I have never seen them.

My husband is a labourer who works for some higher caste landowners in our area. The income we get from his work is not steady, as it depends on when work needs to be done. We are lucky therefore that the local Panchayat (government) assigned us a BPL ('below the poverty line') card last year which means we get some additional rice and wheat. Even with this though, it is hard to make ends meet and so I have to leave the house sometimes to sell some baked goods in order to make some extra money for the kids' school fees. My mother-in-law doesn't like it when she hears I have to leave the house for this; but for me, it is worth it when I hear my kids talking about what they learned in school that day.

For my part, I didn't go to school but I don't mind too much – despite not having any education, I am still an expert at running our household and bringing up our children properly! My mother taught me all the needed skills and I have not brought shame on her. Because I have all these different things to do, my days start early – I am usually up at around 5am to start preparing food and don't get a break until around 3pm after I have finished clearing up after lunch. I then have around an hour where I can just sit, mend clothes and do other relaxing tasks. We have an old TV and when there is power, I like to watch local soap operas. My favourite character is Gopi Bahu – everyone admires her as she is the perfect wife and also manages to keep her mother-in-law happy!



On the research's attitudinal scale, "being a good wife" was the highest ranked of 40 statements, reflecting how important this is to BoP women.



93% of women who don't have a mobile phone have never owned one.



38% of women surveyed lived "off grid", and many of those who had an electricity supply reported regular and extensive power cuts.



35% of women who did not want to own a mobile phone said it wasn't needed because they had access to a household handset.



Illness or injury that requires hospitalisation of a child is a major challenge for BoP families. Family members generally accompany the sick child to hospital and are responsible for daily care and feeding.

Health

"I am always afraid that one of the kids gets sick and I don't have money to cure him."

Research Participant, Egypt

Improved healthcare for family members was named as a top five life priority by 68% of the women who took part in the study, and was one of the most consistently mentioned concerns. This is understandable, as BoP women generally bear the burden of caring for sick relatives, doing so with limited savings and a low likelihood of access to quality health services.

When researchers spoke to women, they raised numerous, specific health-related challenges, such as illnesses like diarrhea, typhoid and amoebic infections associated with lack of sewage disposal facilities and clean drinking water.

When illness or accident does strike, BoP women's primary concern is access to and cost of treatment. Informal loans from local moneylenders, family or neighbours are frequently taken up by BoP women to cover costs of hospitalisation and treatment, but repayment is often difficult, thereby accelerating over-indebtedness.

For health care practitioners, prevention is often the first priority, but this requires a certain level of knowledge amongst BoP women about environmental factors contributing to poor health and disease. Many BoP women do not have this due to lack of education and limited access to needed resources – 84% of BoP women reported a need for better healthcare information.

As well as general health information, 64% of BoP women wanted more information on children's health. There was also a strong, if varying, interest across all markets in information on family planning. More than 52% of women admitted needed information on 'women's issues', 46% particularly interested in understanding more about menstruation.

Such health information requirements suggest opportunities for mobile health (mHealth) solutions. However, when asked directly, BoP women reported low interest in mHealth products across all regions. For example, although 84% of the women surveyed wanted more information on general health, when asked about whether they would like general health information

through their mobile phones the demand dropped to 39%. Despite major efforts by the international development community and the mobile industry to find ways to improve healthcare through mobile technology, scaled awareness of mHealth services or benefits does not yet exist amongst BoP women.

It seems likely that more will need to be done in the future to ensure that mobile health services plug the gaps in women's healthcare knowledge, particularly for the health issues that most concern them. The mHealth services of most interest were emergency health information, general health information and children's health information.

Safety and Security

"It's not safe anymore after the revolution, nowadays we always lock our doors, never did that before."

Research Participant, Egypt

To varying degrees and with specific challenges that differ across markets, security is a concern among BoP women – both their own security and that of their families. Overall, 8% consider safety and security as one of their most pressing life priorities, although in Egypt – still in a time of political turbulence – this rises to 16%.

Across all the markets studied, poverty and unemployment contribute to high crime rates, and women travelling to markets or to visit friends and relatives could be easy targets for financial gain as well as sexual harassment ranging from verbal abuse to rape. These factors differed from country to country; for example, respondents in Papua New Guinea cited domestic abuse as a particular problem.

"... One day as I was walking from school I witnessed a woman being gang raped... From that time I decided that I would rather remain home than walk to school when I don't have fare for transport..."

Research Participant, Uganda

Theft of personal property, including mobile handsets, was reported by some respondents. Women in Uganda who use public transportation feel unsafe and hide their phones and money in under-garments or leave them behind. In Egypt, respondents report that crime and vandalism is on the rise and local gang lords sometimes demand protection money.

The mobile phone can provide a sense of security for family members venturing outside the home or local community. For example, mothers in urban locations in Northern India willingly let their children borrow the family's second handset to stay in touch and get needed assistance if required. Similarly, girls attending boarding schools or commuting to schools are often provided with handsets as a safety measure, while allowing parents to monitor their activities.

However, as well as highlighting the benefits of mobile as a tool for enhancing female security, BoP women's fears over mobile ownership must also be recognised: 29% of respondents who were reluctant to own a mobile said that one of the main reasons was that it made them a target for thieves. Design features of mobiles which allow the phones to be easily concealed, combined with services which can be used to disable stolen handsets, may help address these issues and help an operator differentiate its service.

Finances

"Earlier prices were reasonable, in the past I could stock the house with at least a week supplies, now I never dream of that."

Research Participant, Egypt

55% of the women surveyed named achieving a stable income as one of their top five priorities in life, reflecting the fact that most BoP women live in households with irregular incomes. Money was needed for the "basics" of survival: with the exception of housing, material possessions such as cars, motorbikes or mobile phones were not highly ranked in BoP women's list of life priorities, being selected at levels of 7% or lower. Instead, this study found that BoP women in general are focused on the fundamentals of life – housing, health and children.

Many BoP women reported that the increasing price of food staples, fuel, utilities and clothing was an increasing concern. A third of the women surveyed named "a good meal for my family every day" as one of the things they would like to achieve in the future, highlighting the fact that this is not currently the norm. Women in Egypt reported that certain items such as meat are now 'out of reach' for most BoP families, while Ugandan women reported that they felt like the prices of commodities had doubled or tripled in their recent past.

"...Life was better 5 years ago. My husband used to leave me with 3000 shillings and I could comfortably manage with it. Right now he still leaves the same amount and I can hardly do anything with it..."

Research Participant, Uganda

Since women are responsible for managing household finances and making ends meet in many BoP cultures, the burden of covering such expenditures on household incomes that are not only low, but also unpredictable, rests on their shoulders, requiring unique financial instruments. Loans are often required in emergencies or when household income and savings do not cover basic living expenses.

In exploratory interviews, many BoP women told researchers about hiding money within the home or with friends/neighbours so that they are out of sight of other family members, particularly their husbands. When researchers spoke to some men during focus group discussions, they reported that their wives were the 'finance minister' or 'minister of the interior' within the family, highlighting that their wives had a restraining influence on their "frivolous expenditures" on material possessions and personal entertainment.



BoP women told researchers they pawn possessions, such as gold jewellery, to cover unexpected expenses.

In addition to the “hidden stash” at home and external “money guards”, BoP women also rely on a wide range of instruments for their long and short-range financial needs, such as; rotating savings and credit associations or RoSCAs; micro-finance institutions; savings in gold jewellery or coins; pawn shops; local money lenders and financial support from their own mothers in times of need.

Although there may be available sources of capital through formal and informal channels, women must be agile and adept at creatively managing repayment and juggling the various financial instruments at their disposal. The end result is often over-indebtedness. Egyptian respondents reported that the amount of disposable money on-hand is usually the key issue in their lives and all items requiring large investments are purchased on installment basis, even though this works out to be more expensive. In Papua New Guinea, respondents also reported that lack of local banking facilities was a major challenge in their lives. Travelling to the nearest bank was time consuming and involved some security risk. An advanced mobile service widely used in PNG was the ability to pay electricity bills via SMS; this was mentioned as a significant life improvement by the PNG women interviewed.

The mobile industry could help meet the needs of BoP women who struggle with finances throughout their lives by introducing mobile money solutions. These could include simple budgeting tools, mobile banking facilities and access to micro-credit. These services are already used to a limited extent: 13% of rural participants reported having used a mobile to receive funds. To be used more widely, however, services will need to take into account barriers around BoP women’s technical literacy: this will be explored in more detail in Part 2: *Mobile In Their Lives* on page 36.

Family Life

“... My children are about the only thing I can call my own...”

Research Participant, rural Uganda

Most BoP women’s aspirations or major life goals are family-orientated. The family, rather than the individual, is ultimately the reference point for success or failure, honour or shame, in collectivist cultures such as those that are the focus of this study. Putting the group – primarily the extended family, but also sometimes the community - before the individual is a defining characteristic, and it is essential to understand this in order to truly appreciate the lives of BoP women.



A good education for girls as well as boys was considered important by all respondents.

One thing that united most BoP women surveyed was the fact they strived for a better future for their children. This is reflected by the fact that children’s education was the second highest ranked priority named by survey respondents (see Figure 1) and that family health came third.

Within family life, men are still the principle wage earners and regarded as the key “decision makers,” although more detailed questioning revealed that the reality is often a little more complicated than initially suggested.

Marriage

In the countries surveyed, girls are brought up from a young age to be prepared for marriage – often to a man chosen by their family. Divorce or separation are uncommon and often considered socially unacceptable.ⁱ

“I was married when I was 15 years old, and my husband was 40 years old...I didn’t like him because he had a limp in his leg, but my father insisted...and we have been married for 14 years now.”

Research participant, Egypt

“I wish to be married to a businessman – kind, working, rich. Or my daughter married to a businessman – then I will not lose my daughter to her in-laws.”

Research Participant, rural PNG

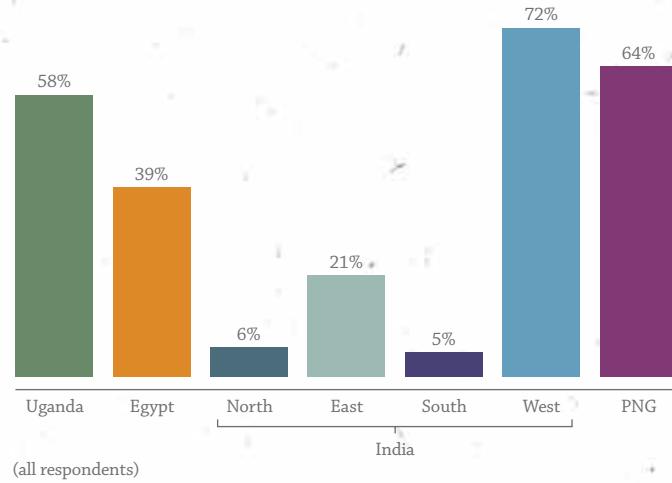
‘Being a good wife’ was a highly ranked goal amongst BoP women across all markets, but having a ‘happy marriage’ was listed as a top life priority for only 20% of the women surveyed across markets. The gap between these two findings demonstrates the social emphasis placed on the duties BoP women have as wives, while also highlighting important nuances in BoP women’s own views about this role.

Age was also an important factor in how women viewed marriage. 47% of those between 16 and 21 thought a happy marriage was a priority, a number which dropped to 33% by the time they had reached 41 to 60.

The upbringing of many young BoP women is primarily geared to preparing them for future roles as mother/wife/daughter-in-law. Learning specific domestic skills such as cooking, sewing and production of other household necessities, is considered especially important, as it prepares a girl or young woman for a potentially demanding mother-in-law and/or husband.

It is, however, important to note local nuances, as shown in **Figure 2**, below. Within India, for example, there are significant disparities between BoP women's attitudes towards a happy marriage, with 72% in West India believing this is very important, compared to only 5% in South India.

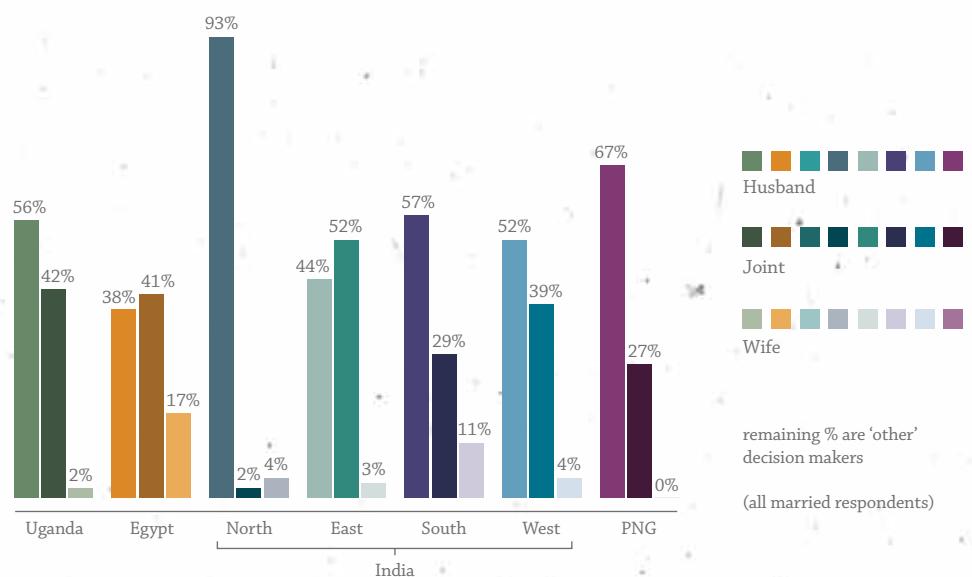
Figure 2: Percentage picking 'happy marriage' as one of their top 5 life priorities across countries/regions surveyed



Domestic Dynamics

In most cases, husbands were identified as the 'main income earner' in BoP families, and 43% of women reported that husbands were the 'sole decision maker' on household matters (see Figure 3, below). However, it is important not to generalise on this point. 24% of married respondents said that decisions were made jointly. In addition, while women often *reported* that it was their husbands who were the main decision makers (or that decision making was shared), this may have been due to the cultural expectation that wives defer to their husbands in all cases, while in reality women are the ones frequently making household decisions. Indeed, when this study's researchers spoke to men in focus group discussions, many of them were happy to confirm that their wives were responsible for household finances and other matters.

Figure 3: Percentages of married survey respondents reporting husband, wife and joint household decision-making across countries/regions surveyed



Many married BoP women do have restrictions placed on their mobility, and some reported that being able manage the household and access relevant services outside of the home was a major challenge. This does of course vary greatly, according to social class and region; it is particularly true in rural India and other culturally conservative locations.

"One should not keep quiet, if one feels the other person is doing wrong, one should ask. If I cannot buy whatever I want, then I will ask why, if he's right then I will accept, if not, it's my discretion."

Research Participant, South India

Household congestion, particularly in crowded urban environments, was reported by BoP women to have negative effects on family functioning and harmony. Overcrowding in the extended family home in these areas was attributed to the fact that brothers and their families were unable to find or afford accommodation outside of their parental home and therefore forced to share a tight space. As family size increases, tensions and conflicts between family units were commonly reported.

Meet Khadija...

**Khadija Ahmed,
Egypt**



My name is Khadija Ahmed. I am a 25-year-old mother of three children, two boys and one girl. We live in a place called Menya. My husband is a farmer and I breed chickens in my backyard for sale.



Worries about unexpected medical expenditure ranked highly as concerns for BoP women.



A majority of the BoP women surveyed watch TV once a week or more.

My daughter is eight years old. For now she goes to school with her brother, but I don't know if she will be able to continue for much longer. Our youngest son is almost reaching school-going age and my husband wants our daughter to drop out so that we can afford school fees for our son. Also, my husband's family feels that education corrupts girls and is a waste of money. If finances allow, I hope she will be able to continue.

I fear **accidents** especially for my children because I would not be able to pay for the necessary medical attention such as surgeries. Good medical care is too expensive, and that is why I would like to do anything I can to prevent it. Also, medicines are expensive – public hospitals are supposed to provide us with these, but the doctors tell us to buy our own. In addition, because we are poor I feel we are treated like second-class citizens by the staff in public hospitals.

I like watching **soap operas** when my husband is not at home; when he is here he mostly watches news. I also like visiting my friends and neighbours to chat. Sometimes things are a bit difficult with my husband and it is good to be able to share these problems with my friends.

I do not have a mobile phone but when I need to make a call, for example to relatives, I can ask my husband for his phone. If I did have a phone, I would be afraid that my husband would use it to **track** me.



Family sizes averaged two to three children. In many of the regions surveyed there was a noticeable "*boy bias*", with a higher mean number of male versus female children.



40% of women reported that a disadvantage of owning a mobile was that it allowed their family to "*keep track*" of them.

Children

It is unsurprising, and certainly not an exclusively BoP phenomenon, that children featured extremely highly in the life priorities of the women who took part in the research. On average, families had two to three children. In many of the regions surveyed there was a noticeable “boy bias”, with a higher mean number of male versus female children.

The importance of ‘being a good mother’ was rated very highly when the researchers explored values and attitudes in detail, while a good education for their children was one of the top five life priorities for 74% of respondents. The age of the respondents influenced their attitudes towards children. Just 45% of 16 to 21 year olds, many of whom did not have children yet, regarded the education of any future children as a priority. This rose steeply to 79% when women between 21 and 30 were asked the same question, reflecting the fact that the majority were now mothers, and even higher (84%) for those from 31 to 40.

“If my child becomes a doctor or engineer people will know how well we have brought them up. I will also feel good walking with them as a parent.”

Research Participant, Urban India

“I will ensure that my kids get proper education. They will be able to get jobs, have better money. They won’t have to suffer like us.”

Research Participant, rural North India

Women across all the countries surveyed strived for a better future for their children and took great pride in their achievements. Of course, in common with women across the world, BoP mothers face many challenges in raising children. Figure 4, below, reveals the full extent of these challenges, as well as how they vary in the different countries and regions surveyed.

Figure 4: Relative rankings of challenges for parents across countries/regions surveyed based on the percentage that picked the challenge

Rank	Total	Uganda	Egypt	North India	East India	South India	West India	PNG
1	Medical Problems	Medical Problems	School fees	Juggling kids and work	Medical Problems	Juggling kids and work	Juggling kids and work	Medical Problems
2	School fees	School fees	Medical Problems	Medical Problems	School fees	Lack of money for clothes	School fees	School fees
3	Juggling kids and work	Lack of money for food	Cost of school equipment	School fees	Lack of money for clothes	Lack of money for food	Cost of school equipment	Lack of money for food
4	Lack of money for food	Juggling kids and work	Unable to give what they want	Unable to give what they want	Lack of money for food	Lack of time with kids	Lack of time with kids	Juggling kids and work
5	Lack of money for clothes	Juggling kids and work	School fees	Medical Problems	Cost of school equipment			
6	Unable to give what they want	Cost of school equipment	Concern about law and order	Lack of money for food	Cost of school equipment	Cost of school equipment	Lack of money for clothes	Lack of money for clothes
7	Cost of school equipment	Lack of time with kids	Kids safety	Kids safety	Kids safety	Medical Problems	Lack of money for food	Lack of time with kids
8	Kids safety	Unable to give what they want	Juggling kids and work	Lack of time with kids	Lack of time with kids	Unable to give what they want	Unable to give what they want	Unable to give what they want
9	Lack of time with kids	Kids safety	Lack of money for food	Husband for female child	Unable to give what they want	Kids safety	Kids safety	Kids safety
10	Husband for female child	Concern about law and order	Lack of time with kids	Too many kids	Husband for female child	Husband for female child	Too many kids	Concern about law and order
11	Concern about law and order	Too many kids	Husband for female child	Cost of school equipment	Concern about law and order	Too many kids	Husband for female child	Too many kids
12	Too many kids	Husband for female child	Too many kids	Concern about law and order	Too many kids	Concern about law and order	Concern about law and order	Husband for female child



Education represents a significant financial burden on the household budgets of BoP families.



The importance of 'being a good mother' was rated very highly by respondents.

As noted earlier, better education for children is a key life priority for 74% of BoP women: this can mean that funding such education is an acute challenge. In areas where educational opportunities are limited, mothers were especially concerned about the additional expense associated with travel, in addition to books and school uniforms. In areas where private, non-governmental, schools were available, mothers were prepared to make sacrifices in order to secure admission to these schools.

“... My niece is very bright... Every time I see her struggling to read with a lamp at 4 am it makes me sad... I wish I had the resources to give her a conducive environment for her studies...”

Research Participant, Uganda

As an illustration of the sacrifices women are willing to make, researchers observed gender and caste-integrated classes at primary schools in very traditional rural locations in Northern India, and saw how the usual lines along which social separation occurs can be blurred in this location when deemed for the good of children's education. The general consensus from the BoP women surveyed is that private schools have more qualified and more stable teaching resources than government run schools.

In addition to education, 53% of women reported the health of their children as one of their biggest challenges in life. The tension between a traditional role as 'mother' and the necessity to earn income to support the family also comes through in the challenges reported, with strong regional variations. 19% of the women surveyed regret not being able to spend enough time with their children.

Given the huge importance of children to BoP women, the researchers investigated a little further into the aspirations which they had for their children.

Figure 5: Rankings of aspirations for children based on the percentage who picked the specific aspirations across countries/regions surveyed

Rank	Total	Uganda	Egypt	North India	East India	South India	West India	PNG
1	Education	Education	Education	Education	Education	Job	Education	Education
2	Job	Job	Health	Support me in old age	Support me in old age	Education	Support me in old age	Job
3	Support me in old age	Health	Job	Job	Job	Business	Job	Support me in old age
4	Health	Support me in old age	Business	Health	Health	Farmer	Health	Health
5	Marry well	Business	Marry well	Marry well	Marry well	Support me in old age	Business	Marry well
6	Business	Marry well	Support me in old age	Business	Business	Marry well	Marry well	Business
7	Farmer	Farmer	Farmer	Farmer	Farmer	Health	Farmer	Farmer

Here education was the top ranked priority across regions, while having a good job was also very highly ranked. Many of the women surveyed were happy to say that they also hoped to benefit from their children having better opportunities, with the hope that their children would support them in their old age being highly ranked, particularly in Papua New Guinea and parts of India.

Education and Employment

“My own limited education limits my ability to get out of my situation.”

Research Participant, Papua New Guinea

While a high level of formal education was rare across all the countries surveyed, many BoP women nonetheless regarded it as very important for their children, with this being the second most pressing of all reported “life priorities”. Indeed, it can be said that helping their children receive a better education than they themselves received is the most significant way in which BoP women strive for a better future. Many also reported being acutely aware of the restrictions their own limited education placed on them.

Education is linked to employment in a number of ways. Many women worked to supplement the family income in order to allow their children to receive an education. In some countries surveyed a majority of participants had income-generating work within or outside of the

home, although in others – notably Egypt - this was more rare. It is also true that the desire to give their children a good education is often motivated by the hope they will then go on to find better employment.

Education

The majority of BoP women questioned for this study had received little formal education. At least two thirds of respondents had not completed secondary school – see Figure 6 below. 31% had received no formal education at all, whether they lived in urban or rural areas. In some areas, very high proportions had received no formal education, such as the 71% of BoP women surveyed across South India.

“I consider myself blind because I can’t write or read.”

Research Participant, Egypt

45% of women surveyed admitted needing educational help for their children, with marked regional variations (see Figure 7). As expert interviewees confirmed, information relating to exams is of particular interest. An existing example is the SMS-based examination results service administered by the Kenya National Examinations Council where mothers are able to learn the results of their children’s exams by simply sending an SMS with the candidate’s number to a simple short code.

Figure 6: Percentage of BoP women who reported not having completed secondary education across countries/regions

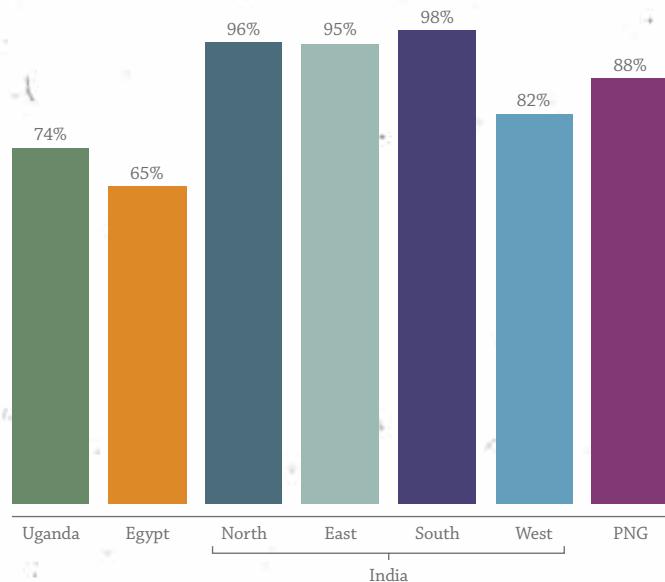
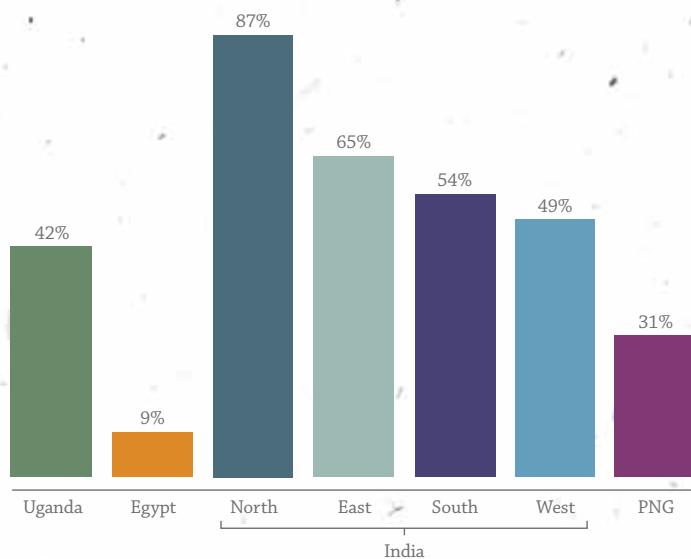


Figure 7: Percentage of respondents across countries/regions reporting that they needed information relating to their children's education



"I always have to go to school a week before we open to find out about the next term's requirements...other students whose parents have phones do not waste time and bus fare like I do."

Student Research Participant, Uganda

Many older women were conscious of their lack of education and the limitations it imposes on their lives. Despite this, few of the women surveyed were highly curious about the wider world – perhaps unsurprising given that the need for basic survival has such prominence in their lives.ⁱⁱ

Given the above findings, mobile services with a tangible educational benefit for the children of BoP women may be of great interest to many mothers. Services should take into account the phone functions BoP women are comfortable with and could consider bundling services with technical literacy initiatives for mothers.

Meet Puneet...

Puneet Kaur,
North India



My name is Puneet Kaur. I am a 32 year-old mother of two children. The firstborn is a ten year-old boy and the second born is a seven year-old girl.



55% of married women surveyed said that their husband was responsible for household decision making. However, when discussed in detail privately, it was revealed that many men deferred to their wives more readily than the women were prepared to publicly say.



80% of women who aspired to owning a mobile phone said that being "*connected to my friends and family*" was a major driving factor.

My husband owns a kiosk where he sells groceries. We were given some money by my family to start his business. He has been doing this business for five years now and I can say it has really helped us. We have been able to take our **children** to a private school so that they can have a brighter future with more opportunities than we had.

I know my husband likes to feel that he is 'in charge' because he provides the money, and so I wouldn't say anything to embarrass him, but between you and me, I am **responsible** for the running of the household. I am proud that I manage even on a small budget and strive to keep things bright and clean!

As well as my son, our daughter goes to school because my husband feels that she should also get a chance to study before getting married – I am very happy about this and will do whatever I can to provide her with a secondary education.

I have a mobile phone – my husband **bought** it for me last year. Before he bought it I was always afraid of something going wrong – for example once our son fell and broke his arm and I had to try and look for the neighbours to use their phone to call my husband. If they weren't home I don't know what I would have done!

My phone has also enabled me to call my **parents** and brothers when I need to contact them since I am not allowed to move around without my husband and go visit them.

123

74% of women chose "*a good education for my children*" as one of their top five life priorities.



42% of married mobile owners had received their handsets as gifts, 30% having received them from their husbands.



A woman selling betel nuts, a common activity among petty traders in Papua New Guinea.

Employment and Entrepreneurship

In 63% of the households surveyed, the husband is the ‘main income earner’.ⁱⁱⁱ However, income is often low and/or irregular, because employment comes in the form of casual work as farmers, labourers or general “hired help”. Because of this irregularity in income, many BoP women strive to support their families’ survival by working in some form, often to the discomfort of the males in the household. Overall, 54% of BoP women surveyed worked, with the majority of income coming from the “informal” sector, for example in the petty trade of foodstuffs or washing clothes.

“... I have to work extra hard. If I relax even on weekends my children will go hungry for that day...”

Research Participant, Uganda

As Figure 8 shows on the following page, the main exception is Egypt, where it is considered inappropriate for women to work and there are strong cultural expectations that – once married – a woman’s role is to be responsible for housework and the raising of children.

Many BoP women engage in income generating activities to help support their families and 73% report interest in entrepreneurship. This reflects Banerjee and Duflo’s (2011) report which found - on the basis of an eighteen-country data set that encompassed extremely poor urban men and women – that 50% operate a non-agricultural business. Banerjee and Duflo take this as an indication of the ‘entrepreneurial spirit’ among the poor and extremely poor. GSMA mWomen’s research supports this. However, having a more formal job with a personal income was also a major aspiration for women across markets.

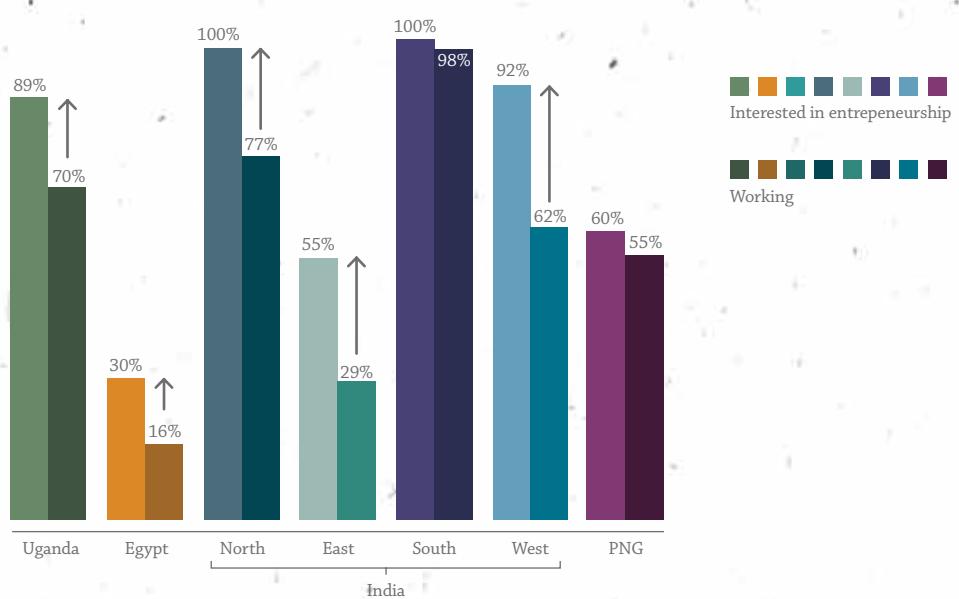
“We call them entrepreneurs when they’re really survivalists.”

Linda Raftree, Expert interview



Many BoP women engage in income generating activities to help support their families.

Figure 8: Percentage of respondents across countries/regions who are working and who are interested in entrepreneurship



Moreover, a greater proportion of women are interested in entrepreneurship than are currently involved in income generation, as can be seen in **Figure 8**, above. The main activity of interest is usually petty trade, but there are also some interesting variations by region. For example, in North India, 35% of BoP women state an interest in selling mobile products.

Mobile services which can facilitate entrepreneurship^{iv} and benefit small businesses may have appeal in a variety of markets. These could include micro-credit for entrepreneurs and employment placement and information services that help identify and build on opportunities for entrepreneurship.

Meet Edith...

**Edith Rosemary,
Uganda**



My name is Edith Rosemary, a 34-year-old mother of two boys ages 12 and 15. My husband is a prison warden. I got married immediately after completing my third year of secondary school.



BoP women, regardless of literacy level, reported not finding SMS as useful or enjoyable as calling, thus highlighting an “SMS utility gap”. 77% of women surveyed had made a call, compared to just 37% who had used SMS.



47% of mobile owners said they had been taught to use their handset by their husbands, while 34% had taught themselves.

I make local brew [alcoholic liquor] for a living. I love my work, as I am able to assist my husband in paying school fees for our sons and meeting other basic needs. We have taken our sons to a private school. We believe they stand a better chance to excel from such schools as opposed to government schools.

I used to have a mobile phone, but it was unfortunately **stolen** by one of my customers at the bar where I make and sell the brew. Due to other pressing financial priorities, I have not been able to buy another one. However I managed to replace the SIM card so every time I need to contact a supplier I borrow a phone either from one of my customers or husband. If I find that I cannot borrow a phone from a customer, I simply walk to the neighbouring shopkeeper and borrow their phone, put in my SIM and make my calls. I know you can also use a phone to send messages but to be honest I don't **like** to do this – it is much better to have a conversation directly.

I find life, in some ways, easier without a mobile phone. For instance before the phone was stolen, other women in the neighbourhood without mobile phones used to spread rumours that it was one of my male customers who purchased the phone for me to carry on an affair. These rumours, to some extent, used to strain my **relationship** with my husband (especially because it was him who **taught** me how to use the phone in the first place!) However, all in all, a mobile phone is very critical for my business – I have to contact suppliers every time one of my raw materials is exhausted.

I consider myself well informed. I get to hear about events that are taking place around the world from my customers who usually discuss what they have watched on TV or heard on the radio as they drink. I also frequent local cinema halls that are around my shop for news and at times to watch football or a movie.



29% of women surveyed worried that owning a mobile makes them a target for thieves; 17% of “*lapsed*” owners no longer owned because their previous handset had been stolen.



82% of married mobile owners were concerned that their mobiles “*make their husband suspicious*.”

Social Context: Leisure and Religion

“... I usually look forward to going to church... At least then I don’t have to think about the problems I am facing at home...”

Research Participant, Uganda

Given the many pressing priorities BoP women face, it is perhaps unsurprising that only a small proportion of respondents – 6% - considered ‘more free time’ a major life priority. The notions of personal time, space and self-fulfillment were foreign concepts to many of the BoP women interviewed, and their focus is more often the immediate wellbeing of their family. Time not spent meeting the family’s immediate needs is generally devoted to more ‘pleasurable’ but still useful activities such as mending clothes, basket weaving, candle making, etc.

Researchers found that time spent with non-family members is often limited to organised religious or community activities, going to the market or as part of income-generating activities outside of the home. Radio or television were sources of entertainment and information for women who had the money and electricity to receive them, but both were, more often than not, enjoyed while performing other tasks within or outside of the home.

Religion was of major significance to the majority of BoP women and their communities. The statement ‘religious faith is very important’ ranked third out of 40 on the attitudinal scale (see Appendix A), a testament to its power and meaning in their lives.

Free Time

Researchers found that although time was scarce for BoP women, the majority surveyed do have at least some leisure time, if leisure is defined as being a period free of time-consuming duties or responsibilities. In fact, 72% of women reported having at least half an hour of free time per day. This was even true on a typical working day.

However, it should be noted that what counts to an individual as ‘leisure’ is culturally specific, as shown in Figure 9 on the following page. It emerged that women in Egypt did not consider regular social interactions to be ‘leisure’ *per se*. In Uttar Pradesh women defined relaxation or ‘me time’ by being relatively *stationary* and not having to perform physically demanding tasks in the kitchen or running errands, but they would often still use this time to carry out household duties such as mending clothes.

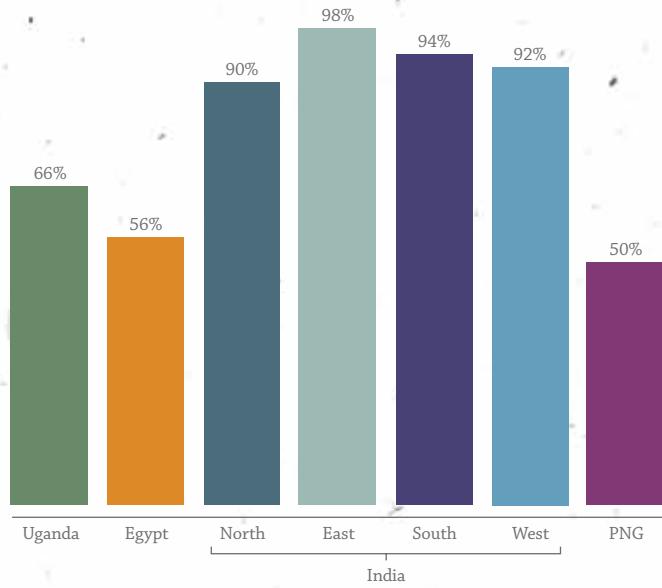
“What else after giving food to all and after finishing my lunch I am out of the kitchen. Then I am free.”

Research Participant, rural North India



Socialising among women in private homes or (where permitted) public spaces was reported to be the main leisure pursuit among women in the countries surveyed.

Figure 9: Percentage of women across countries/regions reporting that they have half an hour or more 'free time' on an average working day

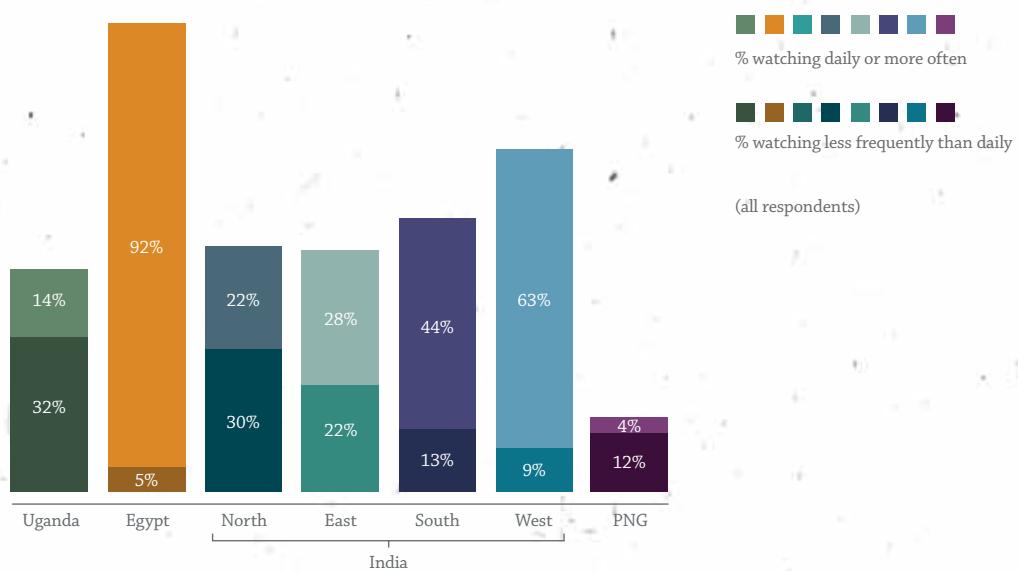


Researchers found that face-to-face socialising was considered of great importance. In close-knit communities, where electricity supply problems make TV viewing difficult, in-person social interactions are often the main leisure pursuits of BoP women, many of which are religious gatherings.

Where it was available, television was very popular: with the exception of women in Papua New Guinea, most participants reported watching television, particularly local soap operas, during leisure time. Television will be addressed in more detail in *Part 3: Reaching BoP Women*.

For a small but significant proportion of women, mobiles did offer a source of leisure and entertainment. 16% of 16 to 21 year old women reported playing games on their mobiles, with the number leaping to 37% in Uganda. 11% of all BoP women in Egypt reported that they played games on their mobiles.

Figure 10: Percentage of women surveyed who reported watching TV: less frequently than daily, as well as daily or more, across countries/regions



Religion

In all the cultures covered by this research, religion forms a major backdrop to daily life and builds a sense of community, a social support network and a structure to the calendar and clock. Religion and religious institutions are of great importance to BoP women, often providing a break from domestic or working duties. The statement 'religious faith is very important' ranked third out of 40 on the attitudinal scale.

"I like to listen to Holy Quran station the whole day and I like "Al Nas" channel."

Research Participant, Egypt

Closely associated with religious values in all markets studied is a sense of 'community' for BoP women. In Papua New Guinea and Uganda, local congregations regularly organise public service activities that benefit the entire community. Although participation in such activities in Papua New Guinea is considered mandatory in most communities, the events also provide an opportunity for women to meet, interact and share knowledge. During the qualitative research phase for this project, a number of women - particularly in Egypt and Uganda - mentioned the desire for educational or inspirational religious quotations to be available to them via their mobile phones.

It can indeed be argued that religion is the most commonly reported form of organised leisure activity for BoP women, whether in the form of regular visits to church, mosque or temple, or celebrations of particular festivals. In Egypt, some women said that it was only during festivals (*Eid*) that they had any break from the routine of life.

"...feasts are the only times when we can go out for a walk with our neighbours and friends, and we get new clothes."

Research Participant, Egypt

The research also revealed that religious beliefs were not always a source of reassurance. BoP women in Papua New Guinea and Uganda mentioned sorcery as a constant threat from local enemies, whether female rivals for their husbands' attention (PNG) or business competitors (Uganda). Ill fortune and illness are often attributed to sorcery in these countries, and women therefore invest time and resources in strategies intended to protect themselves and their families from the influence of local sorcerers.

Services with a religious element may resonate strongly with BoP women and could help drive mobile uptake more generally. In India, this market is already well developed: existing religious Value Added Services range from a prayer as an alarm clock to an automatic updates service notifying users of auspicious dates and times for particular activities.

Travel

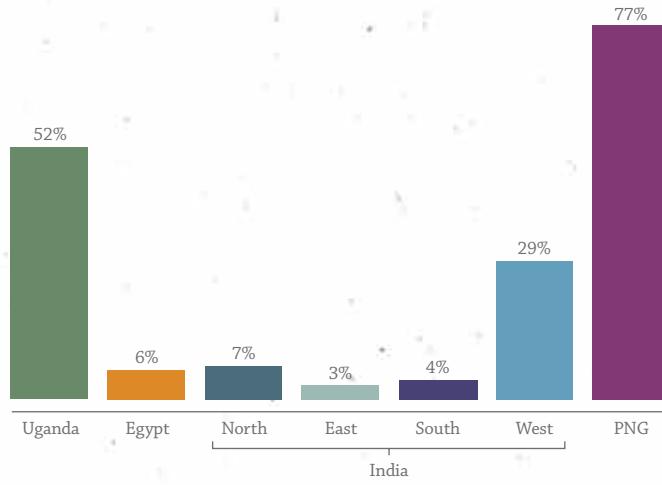
As noted earlier, face-to-face socialising is a principle leisure activity for women surviving on the poverty line. Often and when permitted, this involves substantial amounts of time spent travelling outside of their immediate area, to visit relatives or friends. In addition, many women spent substantial amounts of time travelling to collect water and firewood for their households or to earn income by finding lucrative

"high footfall" locations for their stalls. A relatively high proportion – 12% – reported spending more than five hours travelling in a single, recent journey. With time such a scarce resource for most BoP women, it is unsurprising that many women may be interested in ways to reduce travel times.

Although walking is the most common mode of transport, primarily for financial reasons, security concerns – such as the risk of sexual assault and theft – sometimes force women to spend money on public transport.

Mobile solutions that help reduce travel times, i.e. access to market information via mobile, would be of interest to many BoP women. In fact, 40% of BoP women said a mobile phone would help cut down on travel time.

Figure 11: Percentage of respondents across countries/regions who reported that they had traveled outside of their immediate location during the last week



Part 2: Mobile In Their Lives

"I feel the children go with the technology development, so they can come up. We are very backward. Let our kids understand and come forward and we will welcome it."

Movirtu Research Participant, India

"... Before I had a mobile phone it was very difficult to know what was happening with my relatives in the village... My husband could only give me permission twice a year to visit them... now I feel closer to them since I can talk to them every now and then without leaving my house..."

Research Participant, Uganda

Having explored the social, cultural and economic circumstances of BoP women in some detail, this report now examines the role mobile technologies currently play in their lives and the ways in which mobile could directly address their needs and wants.

In 2010, 26% of BoP women in low- to middle-income countries were identified as owning a mobile phone (*Women & Mobile*). However, a significant proportion of BoP women have always been excluded from the benefits of ownership: of those who do not currently own a phone, 93% have never done so. This is particularly true in India, where ownership is a relatively new phenomenon and where there is a high level of handset-sharing within households. The research found that the BoP women surveyed who have never benefited from mobile ownership are more likely to be located in rural areas, and tend to be less educated.

This section will explore not only the factors which explain why some BoP women are more likely to use mobile phones, but also the way in which they use them, what they see as the key benefits and what are some of the most persistent barriers to ownership.

Benefits of Mobile

Women & Mobile found that women in low-to middle-income countries experienced many benefits to mobile phone ownership.

93% reported that mobile phones made them feel safer, while the same proportion particularly valued being connected to friends and family. A greater feeling of independence was named by 85% of mobile owners while a smaller, but still substantial, proportion of 41% reported that owning a mobile had helped them increase their income or their professional prospects.

Looking at BoP women more specifically for this study, a lower number actually owned mobiles, so researchers had to "dig a little deeper" and find out what non-owners believed the benefits would be of owning a mobile phone. The findings show that there is a close correlation between what owners in *Women & Mobile* reported to be the benefits, and what non-owning BoP women hope will be the benefits of ownership. For example, contact with friends and family was seen as the overwhelming benefit, named by 80% of respondents. The second most important benefit was safety and security, with 58% saying a mobile would be useful in emergencies.

Key benefits of mobile as reported by non-owners:



80% of women say it will connect them to their friends and family



58% say it would be useful in an emergency



40% said it would cut down on travel time



18% said it would help them in their business or find new job opportunities



15% said it would help them with their security

However, there were also some interesting variations between BoP women and the broader group surveyed in *Women & Mobile*. 40% of the BoP women surveyed for *Striving and Surviving* said one of the major reasons for wanting a phone was to cut down on travelling time to meet with family or friends, with an additional 23% saying that cutting down on such travel time would help save money. When both time and money are scarce resources, tools which can preserve either are of huge practical benefit.

Time saving can be particularly crucial in locations where women must rely on their feet or – at best – various forms of unreliable public transportation with inherent safety risks when travelling alone. In Papua New Guinea, women who had access to mobiles described to researchers how they would call their husbands who worked outside of the village and ask them to buy essentials on his way home, reducing the need for repeated trips. Mobiles can save time and money in such circumstances as well.

Another key benefit for aspiring BoP mobile owners was that mobile phones would make them feel more secure, although this varied between markets: just 8% of women in Uganda reported this as a benefit, compared to 18% in India. The figure was 15% for the overall BoP group.

18% of non-owners also reported that they hoped that a mobile could help them in their business or to find new job opportunities. Clearly, if these benefits are fully realised, mobile phones will be a vital tool in BoP women's efforts to survive and strive for a better future.

"I wait for people who need women to work on their farms to call me, and feel extremely thankful that I am reachable."

Research Participant, Egypt

Meet Tabitha...

**Tabitha Pulu,
Papua New Guinea**



My name is Tabitha Pulu. I live near Port Moresby with my family. I am 29 years old and I have three children. We live with my in-laws.

My husband is a fisherman, but our fishing banks are gradually being destroyed by the liquid gas industry so he will need to get a bigger boat to go farther off-shore in the future. I have a small garden where I grow vegetables. I am so happy with it because it provides our food and we don't have to worry so much about food when money is scarce.

The garden also offers some much-needed freedom and free time for myself away from all the demands in the house. I often sell some of my produce to get some additional money, although I don't really think of gardening as work to be honest. It would be great to be able to spend more time on this and make it more of a **business**, but I don't really have time. I can get better prices for my vegetables in town, but transportation is expensive and I don't return home until after dark when travel is not safe.

I am happy because my children are able to go to school since my husband's business is doing well. I would like them to have better opportunities in life than we did.

My mobile phone is one of the most important things I own. I am not afraid of emergencies because with the phone I am able to get help quickly. I am also able to stay connected to my parents and siblings even though they are back in the village. I can even use it to pay my electricity bills and save a trip into town that usually takes all day.



73% of the women surveyed reported an interest in “entrepreneurship” as a means of supplementing household income.



28% of BoP women surveyed reported visiting women's groups at least weekly.

Some of the other women in our **women's group** are not able to get a mobile phone because they are afraid that the men will use it to control them. I've even heard a few women mention that their husbands have given them a phone, only to **smash** it when they are drunk and jealous. My husband is not like that, but my main challenge with the mobile phone is the cost of credit is too high.



53% of “*lapsed*” mobile owners said that their previous phone had been damaged, and 34% said their husband had broken it.



Amongst BoP women, handsets are often shared among family members and only taken out of the home for specific purposes and not on a regular basis.

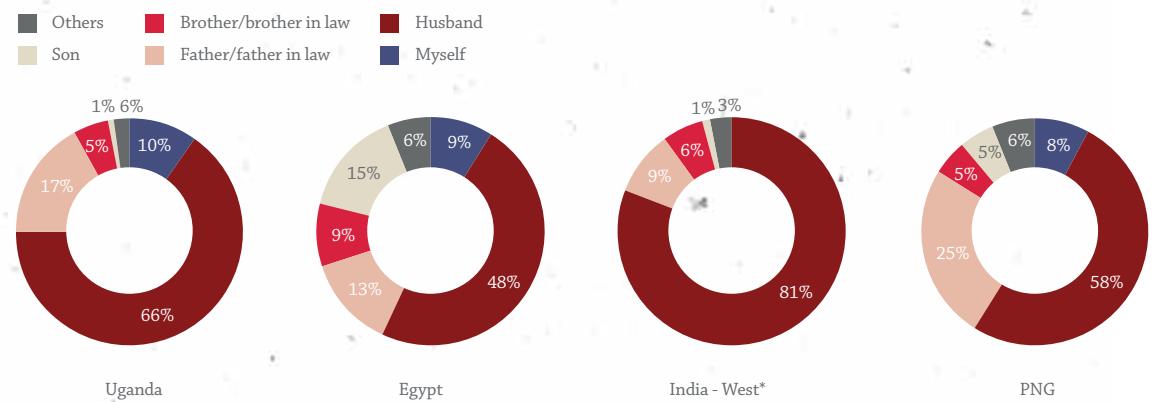
Access To Handsets

Before moving on to the benefits of direct ownership and the barriers that prevent it, it is worth emphasising that many BoP women do currently have at least access to a mobile phone, either in their own household or elsewhere. As we have seen, while mobile *ownership* is still not very common in the countries surveyed, mobile *usage* of various kinds is much more common – two-thirds or more BoP women use mobile phones to some extent.

The majority of households surveyed had at least one mobile phone at their disposal. In India, most households had a single handset, while in Uganda, Egypt and Papua New Guinea, a sizable proportion had two or more. In the majority of cases in married households, the husband is the main user or owner of the handset. It is therefore important to recognise the role of husbands as heads of household who can facilitate or restrict access for BoP women.

In two handset households, women rarely own the first handset which is acquired by the family – this is the preserve of males. In Uganda and Papua New Guinea, women do often acquire the second handset (i.e. it is personally owned) but in Egypt and India, sons, brothers or brothers-in-law tend to be ‘next in line.’ **Figures 12 and 13** below demonstrate the intricacies of household ownership, and the differences between countries.

Figure 12: Overview of who gets the first handset in households with two handsets across countries/regions as reported by women surveyed

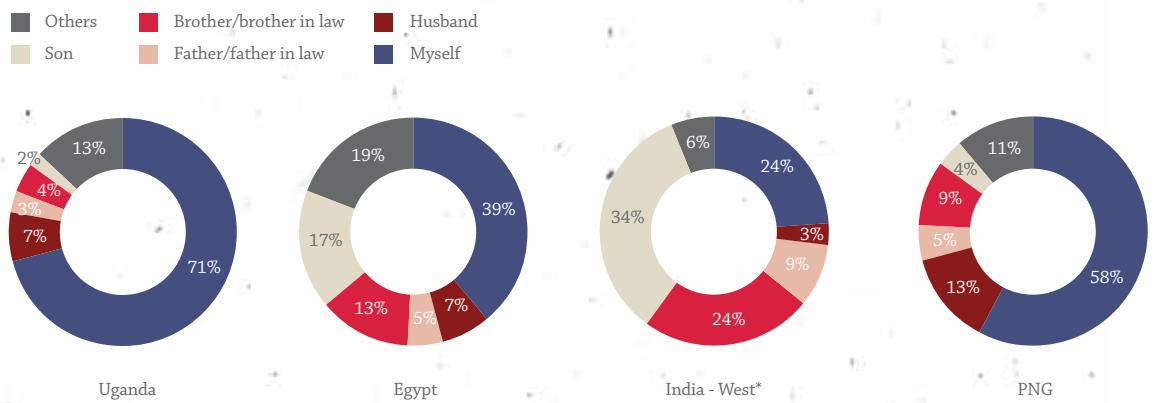


* India East, North and South bases too low to show data



Men are generally the first to own a handset in BoP households.

Figure 13: Overview of who receives the second handset in a “two handset household” across countries/regions as reported by survey respondents

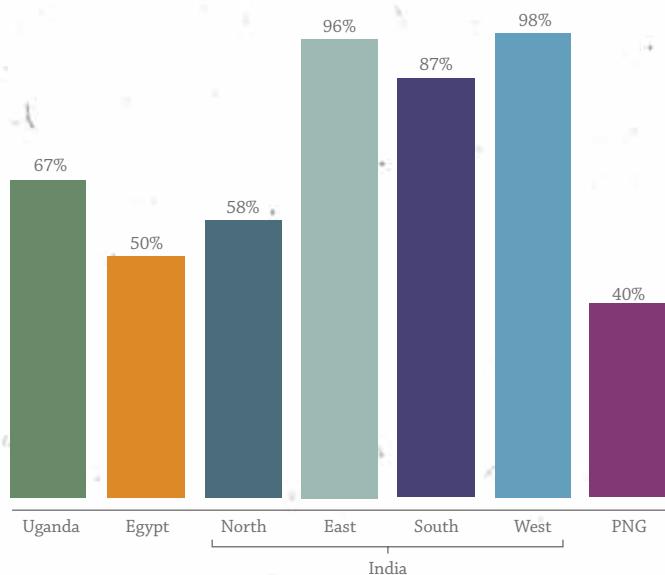


* India East, North and South bases too low to show data

The reason such details are important is because in some markets, due to male family members being prioritised over females in mobile ownership, a household would need to have *three handsets* before a woman is able to benefit from ownership. This suggests that initial efforts to expand use should focus on promoting the benefits of mobile phone ownership to families; for example, offering upgrades to husbands with a free/discounted handset or SIM for them to give to their wives.

Shared usage of a ‘family’ handset is quite common across some markets – particularly in South, East and West India – but there are sizeable proportions who are unable to access handsets at all, as Figure 14 below demonstrates.

Figure 14: Overview of ‘single handset households’ across countries/regions where respondents have access to the handset





Women who did not have access to a handset felt obliged to borrow mobile phones from neighbours or friends. In Uganda, 48% of non-owners are able to access a neighbours' handset, although there are a number of disadvantages surrounding this type of borrowing, including a feeling of obligation, the risk of blackmail or the payment of a 'borrower's premium', such as returning the phone fully charged and topped up.

“...they (neighbours) will offer you their phones for free but you will pay without knowing it...for instance they can later ask you to take care of their kids for a whole day without giving you money for their food...”

Research Participant, Uganda

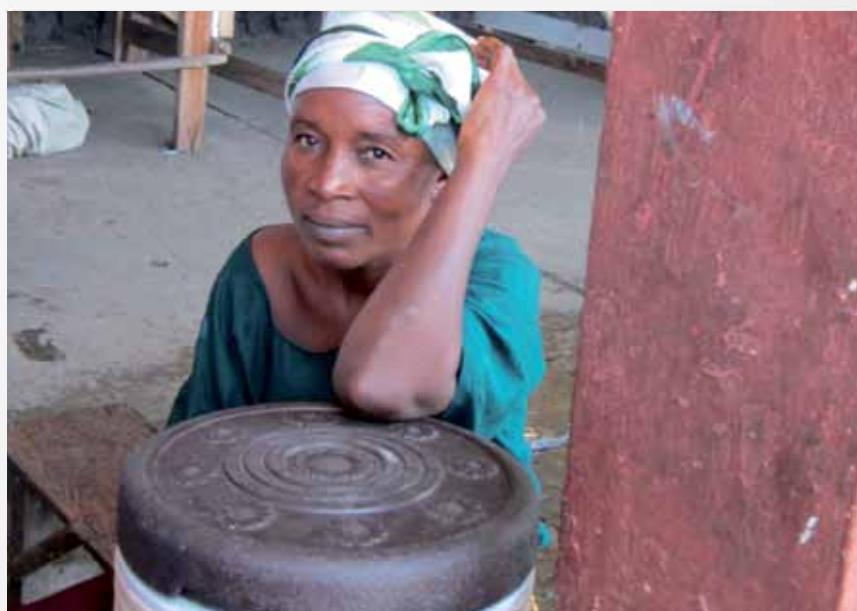
Such constraints have led some BoP women – particularly younger ones – to be more creative in their approach to borrowing. In Egypt, some younger women reported that they borrowed a neighbours' phone using a SIM provided by their boyfriend.

“My family refused to get me a mobile, so my boyfriend bought me a SIM card, that I may place in mobile of my neighbour and talk to him and then take the SIM card and give her back the mobile.”

Research Participant, Egypt

Meet Rose...

Rose Mukasa,
Uganda



My name is Rose Mukasa. I am 40 years old. I am married with 5 children. My first-born is 16 years and he performs very well in school. I have high hopes for him and for his future.



On the research's attitudinal scale, religion was valued extremely highly, being ranked as the 3rd out of 40 statements.

I am a stay-at-home mom and I feel blessed to have my children, they bring me a lot of joy. I go to church weekly and always make sure I include my children in my prayers.



"I wish I could save my own money" was a top desire for most BoP women surveyed, ranking #1 out of 40 attitudinal statements in Uganda and Papua New Guinea.



Of those women who did not want to own a mobile phone in the future, 22% said that this was because they wouldn't know how to use it.

I don't have a mobile phone, but my husband has one. It is very important for his business because sometimes his clients call him to go and pick them up. In case of an emergency, for example sickness of one of my children, I can get my neighbours to call my husband using their phone – I'm not keen to get one myself because I wouldn't know how to use it.



In households where there are two handsets, a man gets the first mobile phone in 85% of cases.



Amongst married women, husbands are the "preferred source of advice" for 85% of the women surveyed.

Getting information that helps improve my family's life is very important to me. I used to get it from listening to the radio but in the past few months we have not been able to pay our electricity bills due to more pressing needs, and cannot afford batteries. I used to like listening to health programs on the radio where they educate you about how to identify symptoms early in your children before they get seriously ill. Nowadays I sometimes get to listen to the radio when I am in the taxi.

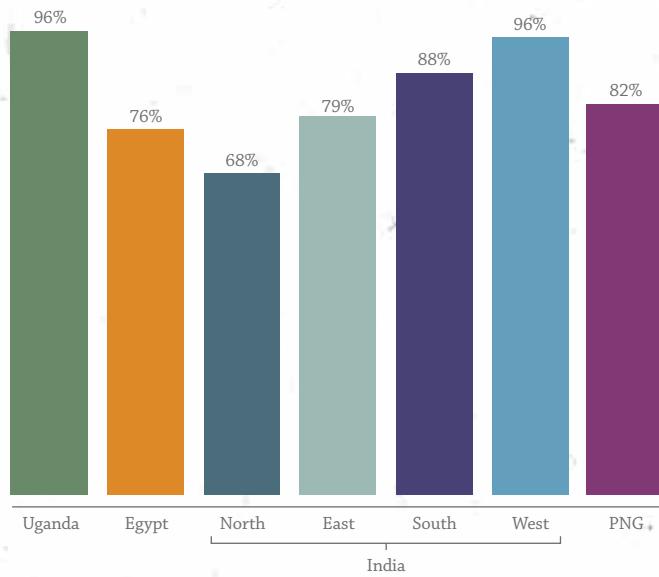
My husband is very knowledgeable because he finished secondary school, but I dropped out of school very early. He also gets a lot of information from reading newspapers while he is at work. When I have a problem or any question, I can ask him.

Mobile Usage

In order to better understand how mobile services could meet BoP women's needs, the study examined the specific ways in which BoP women used mobile phones, as well as how they learnt to use them. It is only through an understanding of usage that the mobile industry will create services that will be easily adopted.

The most significant finding was the ongoing importance of "voice": most BoP women had made a call through a mobile. More complex services, including SMS, were less popular. In many regions, attempts to bring life-enhancing mobile services such as health information to BoP women must therefore contend with extremely low experience levels.^{iv}

Figure 15: Percentage of respondents who report using a mobile phone across countries/regions surveyed



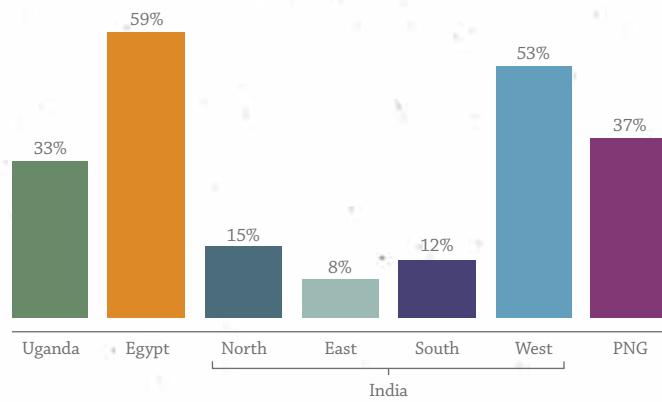
Understanding how women come to learn how to use their phones will be an important component of efforts to expand their use. This study's findings showed that husbands often play a key role in teaching their wives how to use mobile phones, particularly in India. Overall, 47% of married mobile phone users said they had been taught how to use it by their husbands.

Previous studies by Movirtu have shown that young people – particularly urban children – familiarise themselves with advanced mobile technology more rapidly than older generations. This study backed this up and found that in Egypt and North and South India children were teachers for some women. This was particularly true for older women in Egypt – 34% of 41-60 year olds report that their children taught them how to use their handsets.

“My kids showed me how to answer calls and how to call, that’s all what I need, I don’t do anything else.”

Research Participant, Egypt

Figure 16: Percentage of respondents across countries/regions who report having taught themselves to use a handset.
Percentage calculated excluding those who refused to answer



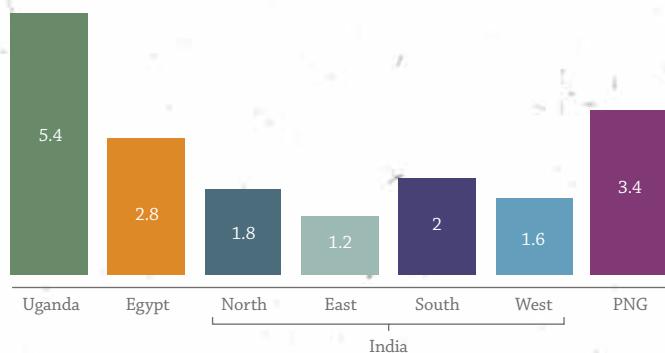
However, what was also clear was how many mobile users had resourcefully taken it upon themselves to learn to use mobile phones. 30% of participants in the study reported having learnt how to use mobile phones themselves, through “trial and error.” This underlines the importance of intuitive user-centric design. Interestingly, 35% of urban users taught themselves how to use their mobile phones, compared to just 25% of rural users.

In Uganda, specifically, 21% of women were taught how to use their mobile phones by retailers. Among those taught by husbands, Ugandan women report being ‘comfortable’ with an average of 5.3 services – this figure is 5.9 for those taught by retailers.

As retail networks are generally the most prevalent source of customer service in BoP markets, female retailers may be a particularly effective route to education, as BoP women may find it inappropriate to speak with unknown men. Where services are launched in partnership with NGOs they can assist by helping teach their beneficiaries how to use the handsets and services, although in some cases NGOs themselves will need to build their own capacity to be able to assist with this type of intervention.

As Figure 17 below shows, the sophistication of mobile use varies significantly between markets. Out of 17 listed services, ranging from basic (making a call, receiving a call) to advanced (mobile banking), women in India reported having used one or two services on average. In Uganda, however, women have used five. The only commonly used service is the most basic – making a phone call. While it is basic, this simple functionality is considered extremely useful with a high mean ‘utility’ rating across regions.

Figure 17: The mean number of services/functionality reported used (out of 17) by all mobile users across countries/regions



While calling is a widespread phenomenon perceived as useful, this is not true to the same extent for SMS. BoP women are not only less comfortable sending SMS but also have little interest in learning more about the service. In India, for example, use of SMS by BoP women is negligible and the *utility* of SMS is also rated significantly lower than calling. This is not a question of education: the ‘utility gap’ between calls and sending SMS is very similar whether looking at the “low” or “highly” educated.^v

Indeed, while 77% of BoP women have made a mobile phone call, only 37% have sent an SMS, regardless of literacy levels. BoP women reported that they did not find the SMS service useful. This means that any products targeted at BoP women using SMS should be of demonstrable practical value to BoP women.

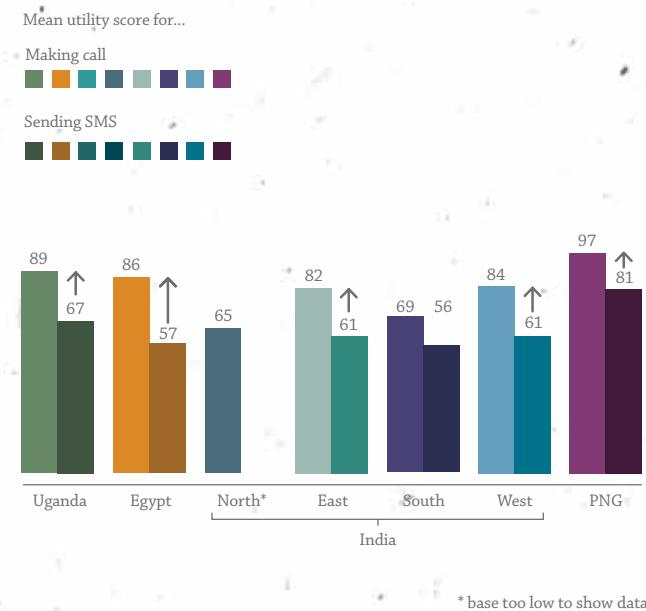
I can read and write...I receive SMS and read SMS but I am not into this texting thing... I simply reply with a call.

Research Participant, Uganda



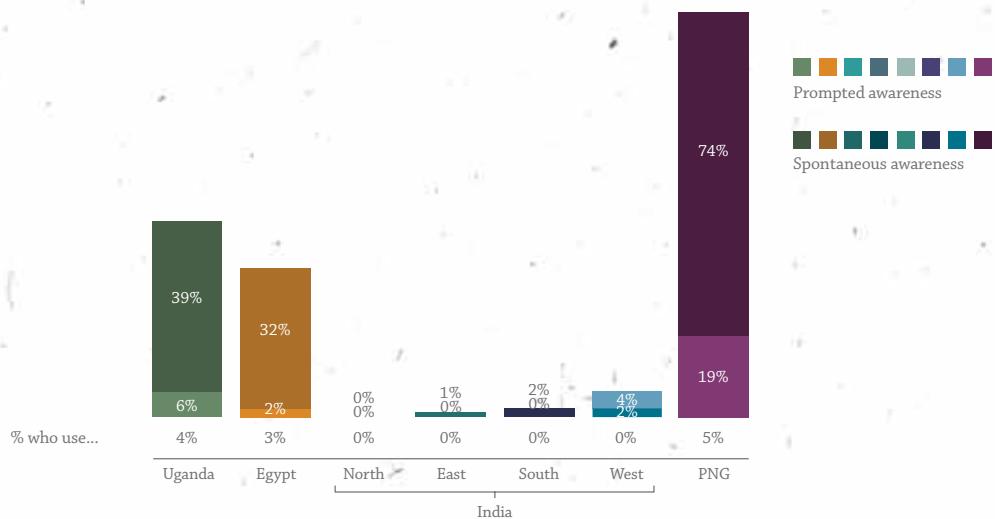
BoP women currently have extremely limited experience with or awareness of the mobile web.

Figure 18: Appraisal of 'utility' of calling and sending SMS across countries/regions among all users aware of both services



When it comes to web services, BoP women currently have extremely limited experience with or awareness of the mobile web. Only 6% of women researchers spoke to were already aware of 'accessing the internet' via a mobile phone and only 2% have actually done this. There is, however a significant level of *interest* in the mobile web – when a range of 18 potential future services, was described to study participants, it came out as the most desirable in all markets except India.

Figure 19: Percentage of respondents who are aware (spontaneous awareness and prompted awareness) that the web can be accessed via mobile phone



Based on low levels of spontaneous awareness and – with the possible exception of Papua New Guinea – low expressions of interest these findings suggest that mobile-based web based applications targeting BoP women directly may currently be premature. Such services could instead use a mediated service model whereby an agent accesses a mobile web based service and then interacts directly with end users.

One interesting finding is that although sending and receiving money was not a widely used mobile service, it was twice as important in rural locations where there are fewer alternatives. 13% of rural women reported having received funds through their mobile, compared to just 6% of urban women.

Meet Patience...

**Patience Murabuzi,
Uganda**



My name is Patience Murabuzi. I am a 41 year-old mother of five and my last-born is five months old. I also take care of two of my late sisters' children, so in total I can say I have seven children. We live in Jinja in a place called Kanyoni in Uganda.



40% of women who wanted to own a mobile in the future said that cutting down on travel to see friends and family (because they can contact them through the phone) was a major driver for desired ownership.



Despite lower levels of actual ownership, a full 82% of the women had at least used a mobile phone once.

Before giving birth to my first child I was a casual employee in a rice farm in the Warukuba area. But since the children came I have to stay at home and take care of my family.

My husband is a fisherman at Masese. He comes home once in every 3 to 4 months, hence we have very little interaction with him.

The money my husband sends is hardly enough to meet our basic needs so most of the time I find myself taking things from local kiosks on credit. I had a mobile phone but I had to sell it to offset some of my debts. My worst nightmare is my kids falling ill as I live from hand-to-mouth with hardly any amount to spare to meet medical expenses. I often have to walk to the local government hospital which is about five **kilometres** away in order to access free medical care, since I do not have the money to pay for the private clinics which are near my home.

I **use** mobile phones for **emergency** cases which are mainly for contacting my husband, and in this case I borrow my neighbour's phone. If I don't have money to pay for the call, I usually flash him [send a missed call] and he calls back because he recognises my neighbour's number. But borrowing mobile phones comes with conditions such as returning it fully charged or with some airtime, and therefore I limit my borrowing to only when I need to contact my husband for some money. Therefore I have very little contact with my relatives who live far away, which is bad since I would like to know what is happening to them, and I could if I had my own phone.



Although improved health was a life priority for over two-thirds of the women surveyed, just 39% expressed an interest in accessing general health information through their mobile phones – demonstrating an "**mHealth gap**" between the need and the perceived usefulness of such services.



33% of women who would like to own a mobile in the future said that being able to use it in "**an emergency**" was the main reason.

Ownership: Appetites and Barriers

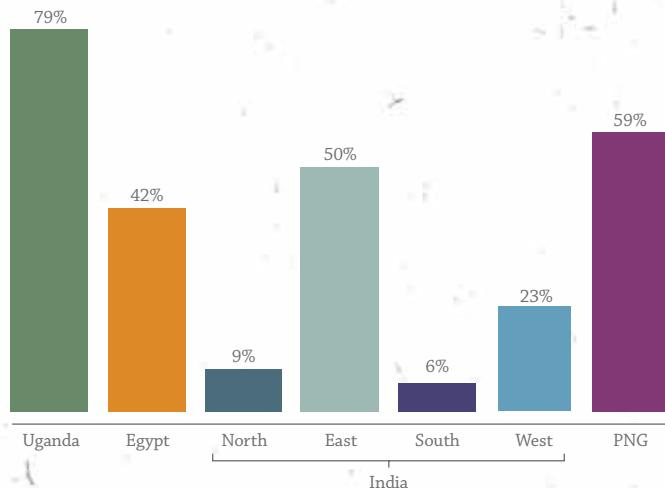
Despite the fact that many women have some access to a mobile phone, 37% of non-owners still recognise the value of *direct* ownership, with strong regional variations, as shown in Figure 20 below. This reflects the benefits already described, as well as the fact that direct owners have greater privacy and avoid the inconveniences and challenges of borrowing from relatives or neighbours.

"I am tired of this issue of blackmail... someone misused you just because they know you will need their phone tomorrow...If I had my own phone I would avoid such neighbours."

Research Participant, Uganda.

Nonetheless, if the mobile industry is to reach non-owners who currently do *not* want to own, it will need to map future offerings closely to women's life priorities in order to overcome resistance.

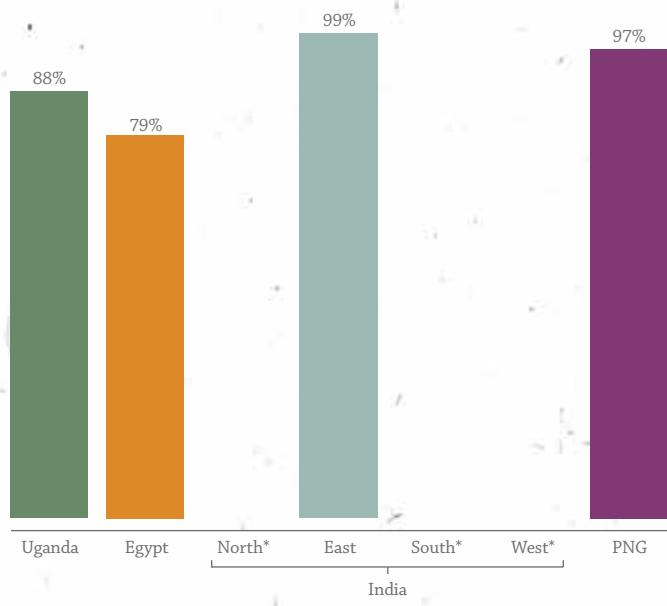
Figure 20: Percentage of non-owning respondents across countries/regions who reported that they were interested in owning a mobile phone



Despite the potential benefits of mobile, a significant proportion of respondents who did not already own a mobile phone had persistent concerns over ownership, due to a range of factors which varied from country to country. Financial cost and negative reactions from male family members were the most prominent, along with privacy concerns – some respondents were concerned that mobiles allow family members to 'keep track' of them. Once again, market variations were important: 67% of Ugandan respondents were concerned they would not be able to get electricity to charge their mobiles, while 41% of respondents in Papua New Guinea were dissuaded by the possibility of theft.

Amongst those who aspire to own a mobile, cost is the major barrier which prevents them from obtaining one. 81% of women who did not want a mobile phone cited cost as a principle reason, although this does vary somewhat within the countries surveyed (see Figure 21). Given that the proportion of personal income spent on mobile is around 20-30% in most regions, this is unsurprising – but also demonstrates the value which existing users derive from mobile ownership.

Figure 21: Percentage of non-owning respondents who want to own who report cost to be a barrier



*bases too low to show data

While affordability costs may be addressed partly by the declining cost of handsets and tariffs, this may not overcome attitudes towards the *relative cost* of ownership. When a major life priority is simply ensuring that children are fed and can go to school, spending on a mobile is often considered unnecessary.

“My husband will say it’s better if we buy something for the children instead.”

Research Participant, Egypt

In addition to doubts about the cost/benefit analysis of mobile ownership, 64% of married women who do not wish to own handsets cited the disapproval of their husbands as a principle reason for not wanting to own a phone – see Figure 22 on the following page. Cultural norms regarding the appropriateness of female ownership can lead to rejection by males. In more conservative regions, such as rural Uttar Pradesh in Northern India, many women do have access to mobile phones within their home under the supervision of husband or in-laws, but cannot be seen with a handset in public locations as it is considered immodest. The main reservation expressed by men and religious

authorities to BoP women’s mobile phone ownership was that their female relatives would either be tempted to interact with men outside of the family or that they needed to be protected from such dishonourable contact initiated by such men. In Uganda and PNG, this concern was particularly apparent and again led to prohibition of female mobile ownership – or meant that ownership would have to be concealed.

“...the phone encourages infidelity by women...they establish contact with old boyfriends who are doing well and they end up cheating on their husbands...”

Religious Opinion Leader, Uganda

“Girls can start talking to boys on the mobiles and start relationships that may bring disgrace and scandalise the family.”

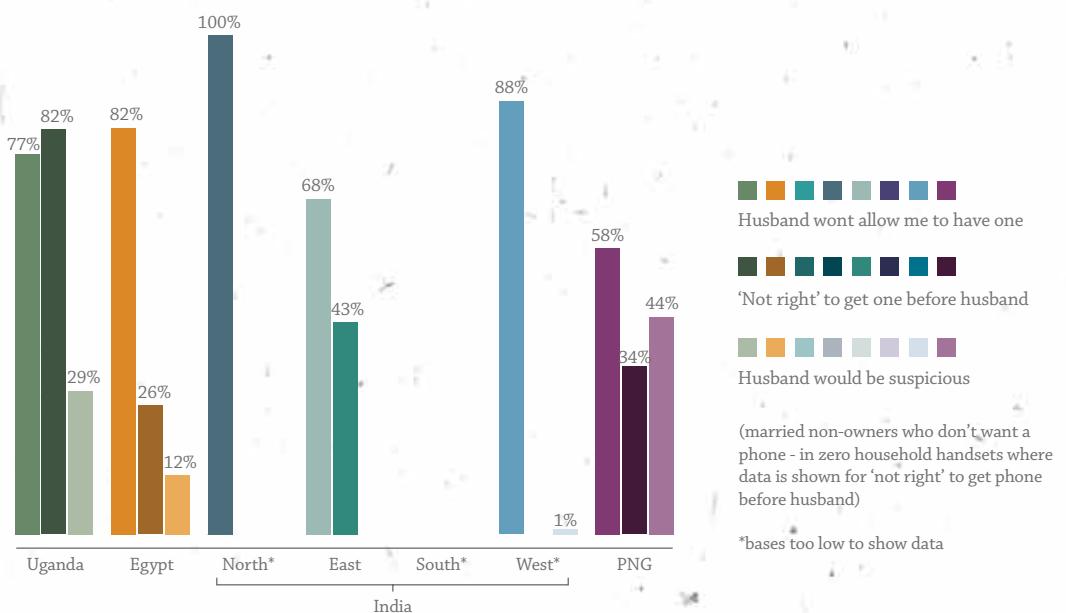
Research Participant, Egypt

Other men had less overtly “moral” reservations, but were concerned that their wives would waste time and money on frivolous mobile use.

“They (women) fluff around from house to house gossiping and telling others what is happening, just because they got a call on their mobiles!”

Research Participant, Papua New Guinea

Figure 22: Percentage of respondents (married, non-owners) from households citing various types of marital concerns relating to ownership as reasons for not wanting a handset. Married non-owners who don’t want a phone - in zero household handsets where data is shown for ‘not right’ to get a phone before husband



All of these factors can create marital tension, and some BoP women report wanting to avoid ownership to ‘keep the peace’ in their households. In Papua New Guinea, even when a woman owns a phone she sometimes prefers to use it under her husband’s supervision, to avoid arousing suspicions. Male concerns about female ownership are not only restricted to wives – younger women are often barred access to mobiles due to their fathers’ concerns.

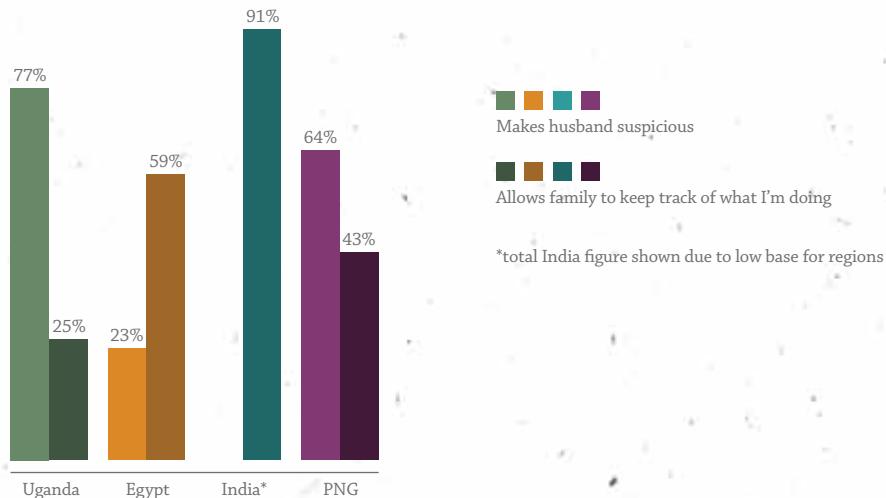
“Men want to know who has called or texted you... The phone has even led to divorce in some instances.”

Research Participant, Uganda

“They talk to those boys and make plans to meet up with them and that is trouble.”

Father, Papua New Guinea

Figure 23: Percentage of all mobile owners citing family tension (husband's suspicion and keeping track of user) as a disadvantage to ownership



Demonstrating the benefits of female ownership to male family members in traditional societies is a critical step in driving mobile uptake amongst BoP women. Such benefits must be expressed in culturally appropriate ways and can include security, improved family co-ordination and domestic management.

However it is also necessary to register the potential unintended consequence whereby female ownership actually increases the (in some cases already high) level of control which male family members exert over BoP women. How this can be addressed will be a particularly complex challenge in the years to come.

Addressing BoP women's technical literacy challenges will also be crucial to bringing the benefits of mobile to this group in a meaningful way. Amongst those who said they did not want a phone, 22% list the main reason as being 'they wouldn't know how to use it.'

This number varied greatly according to country, age and whether respondents were based in urban or rural environments. For example, almost a third of the 41 - 60 age group said they wouldn't know how to use a mobile phone. Therefore, understanding the challenges different women face in using mobile phones, as well as the methods which women learn how to use their mobile phones is very important, and will be addressed in the following section.

Higher education is linked to higher interest in ownership across all markets: for example, 61% of higher educated women in Egypt aspire to own mobile phones compared to 36% of lower educated women. This supports similar findings from previous analysis of low- to middle-income countries, such as the *Women & Mobile* report. Generally the interest in ownership amongst BoP women in this study is similar between rural and urban locations.

While the majority of non-owners have never benefited from a phone, a significant minority in Uganda, PNG and Egypt are 'lapsed owners'. Examining this finding in more detail, researchers found that accidental damage is the main reason why BoP women stop using their handsets, reported by 53% of lapsed owners. Theft is also a significant issue, particularly in Uganda and Papua New Guinea.

These findings suggest a need for robust handsets, modular/ easily-repaired handsets and local access to 'mobile mechanics.' Commercial success in India at the BoP has been underpinned by mobile design which takes account of these factors: for example, cheap but sturdy handsets with dust-proof covers and hooks from which to hang them. In addition, effective anti-theft strategies by mobile network operators could be a significant brand differentiator among women in areas with high crime rates.

Meet Zubayda...

Zubayda Hanafi,
Egypt



My name is Zubayda Hanafi and I was born and raised in Cairo. I am 17 years old and I live at home with my parents, brothers and sisters. I have one elder brother who left home to get married and two younger brothers aged 14 and 6.



83% of the women surveyed had not completed secondary education. 31% had no formal education at all.

I had to leave **school** when I was 14 and since then I have been mostly staying at home helping my mother with the housework and looking after my youngest brother. I loved being at school and I think I learned a lot. But because we could not afford to pay 'private tuition' to the teachers, my grades were not good. I wish I could have continued but it was not possible...

Since I am now grown up, my parents are keen to see me married. In fact, there is a local man my father wants me to marry. He is about 50 years old and his previous wife died because she had diabetes and they couldn't get her enough medicine. I know that it would be good for my family for me to marry this man, because his family has some money and they could pay a good dowry. But I don't want to because I met someone else called Ali. I met him at a big party last Eid and we swapped phone numbers. I am lucky my parents and brothers haven't found out yet!



16% of BoP women aged 16-21 reported playing games on their mobiles, with the number jumping to 37% in Uganda. 11% of all BoP women surveyed in Egypt reported playing games on their mobile phone.

In a way it is ironic because my dad gave me a secondhand phone, as he wanted my mother and him to easily be able to keep track of me when I was in school. So now, during the afternoon when my family naps, I often sneak up onto the roof and call Ali secretly. Because my mother doesn't understand phones I can get her to top it up with credit when I run low, and Ali also sometimes sends me credit.

As well as calling, I play **games** on my phone when I'm bored – my mobile is great for me because my brothers usually control what is watched on TV and so I still have something fun to do. I know on some phones you can even access the **internet** and I wish I could do this myself, but my phone is too cheap and doesn't have the capability.



Only 6% of the women in the study knew (without being prompted) you could access the Internet through a mobile phone, and less than 2% had done so. Amongst young BoP women ages 16-21, 39% had some awareness of the mobile web, though only 5% had used it.

Part 3: Reaching BoP Women



Women's groups (e.g. self-help groups and organised religious groups) are powerful agents of change at the BoP.

"Before I was in the dark, now I am in the light!"

Research Participant, Papua New Guinea, about her new mobile phone

Having examined the lives of BoP women in some detail and explored how they use mobile technologies at the current time, the following section examines the mobile phone gender gap. It suggests some ways in which the mobile industry and the development community could help deliver the benefits of mobile technology to more BoP women, whether by increasing overall ownership or encouraging access to a wider range of services.

In order to close the mobile phone gender gap, the mobile industry should consider communicating the benefits of mobile technology through trusted communication sources. BoP women routinely access a number of media and information channels, such as television, radio and posters, that can be leveraged within marketing strategies to communicate the life-enhancing effects of mobile ownership to BoP women and their families.

Additionally, the mobile industry should consider the importance of personal recommendations and trusted advisors to BoP women. For example, women's groups offer an influential channel for communicating with BoP women, including for the delivery of mobile service offerings.

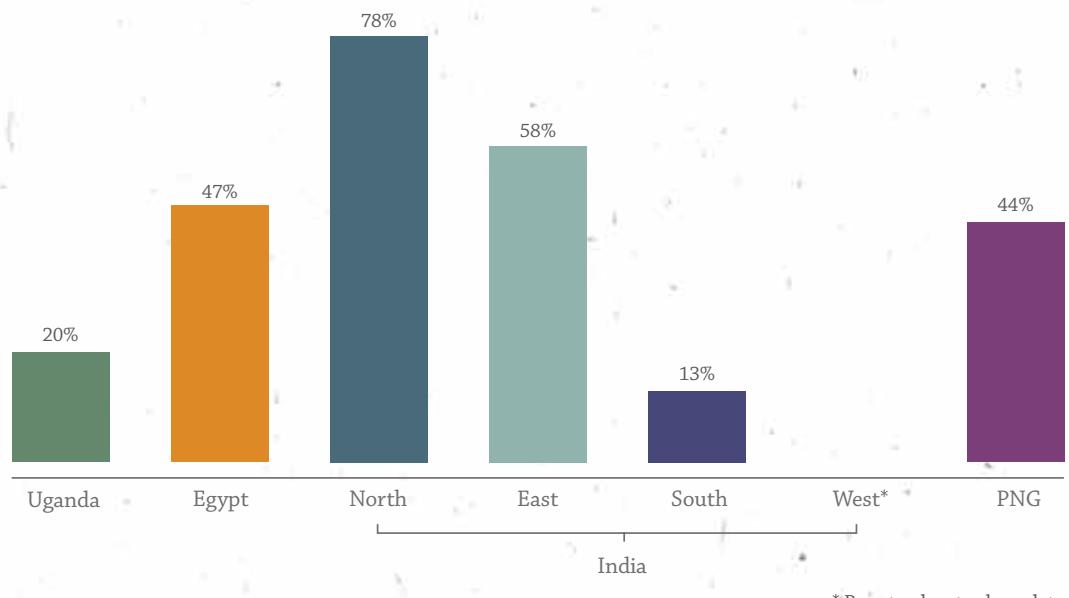
Any successful strategy will need to be sophisticated and sensitive to local conditions, taking into account views that most BoP women share about mobile – such as concerns over cost – along with detailed understanding of specific market conditions. An understanding of which mass communications channels will most effectively reach BoP women, as well as which sources of advice are most trusted will be crucial.



Driving Uptake Amongst Non-Owners

To understand how to promote individual ownership, an essential first step is to examine how current owners obtained their handsets. A sizable proportion of BoP women who own phones received them as gifts, with husbands forming the largest proportion of gift givers – see Figure 24 below.

Figure 24: Percentage of women who report having received their mobile phone as a gift across countries/regions



In Uganda and South India, however, most women who own purchased their own phones. In both markets, this is likely linked to the change in attitudes to mobile ownership over time. When mobiles first became available, it was only considered acceptable for “high social class” women to own them; BoP women were often suspected of prostitution or other immoral activities if they owned a mobile phone. However, these attitudes have eroded over time.

Age is a major factor behind which women are likely to use their mobile phones. Young mobile phone owners were far more likely to have bought their own mobile from a retail outlet than older women: 45% of 16 to 21 year olds had done so, compared to just 28% of the next group, 22 to 30 year olds. For 31 to 40 year olds, that number dropped to 22%.

Amongst those women who do acquire mobile handsets themselves, it is unsurprising to note that *price* is the most important factor impacting on a purchase decision – but for a significant minority in Uganda (12%), Egypt (32%) and India (22%), *brand* is the most important factor. For example in Uganda, fake handsets are seen as poor quality and therefore brand is a ‘badge’ of quality.

“... My son told me that any model of Nokia would do... Nokias do not easily get spoilt even if they fall down...”

Research Participant, Uganda

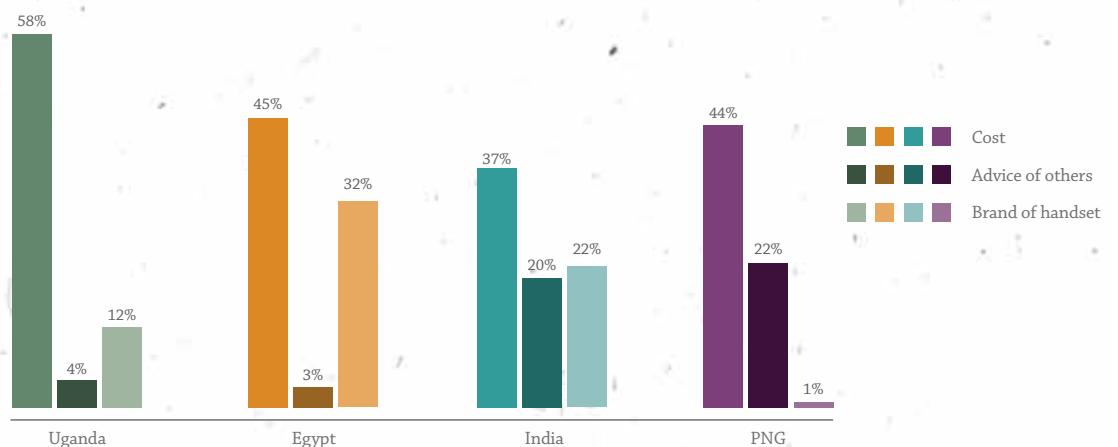
“I have seen friends with phones which keep being taken for repair for one problem or the other.”

Research Participant, Uganda, referring to fake handset



Husbands are influential sources of advice prior to self-purchase.

Figure 25: Factors cited by mobile owners as 'most important' for purchasing decisions across markets

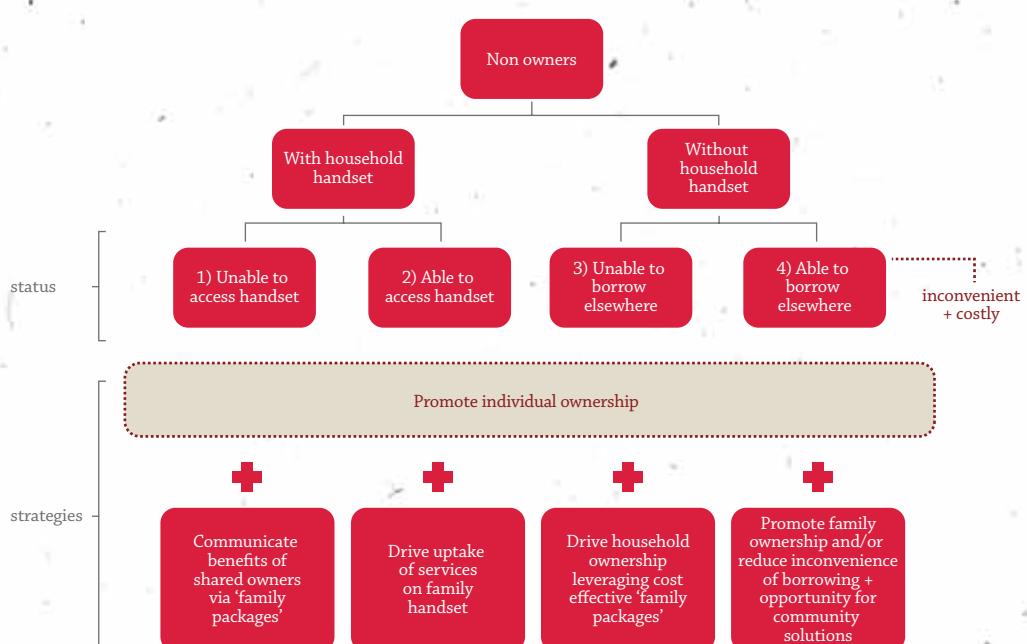


* total India figure shown due to low base for regions.

Where self-purchase is more acceptable or common, there are opportunities for retailers to be involved in communicating the benefits of services to BoP women or acting as 'intermediaries' between the mobile service operator and the consumer. Even in these markets, however, husbands are a key source of advice prior to self-purchase, and communications should still consider messaging to families.

A simple model of non-ownership and related strategies is summarised in **Figure 26** on the following page. Such strategies should ideally be seen as a preliminary stage on the route to ownership – helping familiarise BoP women with phones and the value they offer, and building self-confidence among women reluctant to try out new technologies.

Figure 26: Categories of non-owners and suggested strategies for reaching them

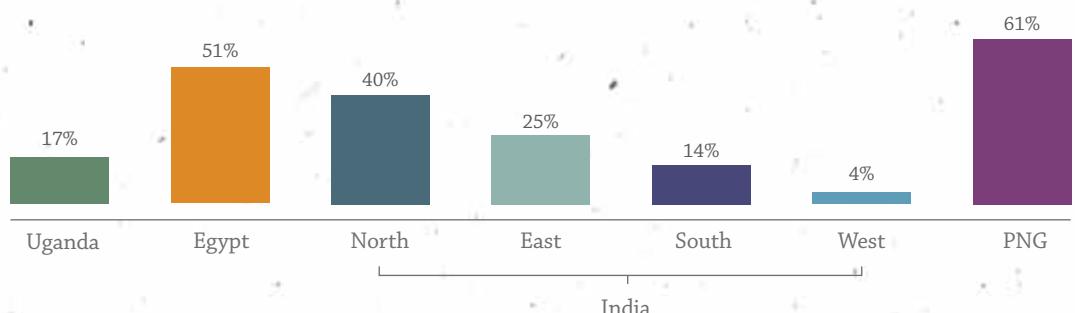


1) Household handset available but women unable to access

While the majority of households in North India, Papua New Guinea and Egypt have at least one handset, many women are unable to access it, as Figure 27 illustrates on the following page. For such a group, the mobile industry will need to communicate the benefits of shared ownership and usage to the handset's owner, who is usually the husband or male "head" within the household. Offering services or packages of services which target the 'family' rather than the individual may be helpful in driving usage in these and BoP women's circumstances.

In addition, mediated mobile services (health information services administered by a community health worker, for example) can serve as an important route by which BoP women can become familiar and comfortable with mobiles – and ultimately ‘graduate’ to ownership.

Figure 27: Percentage of non-owners across countries/regions unable to access *any* handset



2) Household handset available and women able to access

As shown in *Part 2: Mobile in Their Lives*, even where women were able to access a handset in their own homes, their mobile usage tends to be quite basic, despite the fact that mobile solutions have the potential to meet many of their needs. Therefore, driving incremental usage by BoP women who borrow handsets would be a possible strategy for this group.

Given that usage is already shared, these families would likely be more open to services targeting the ‘whole family’, such as services allowing emergency communication and those focused on children’s education. Finances permitting, this approach would also encourage investment in a second handset.

3) Women without access to household handset, and unable to borrow elsewhere

This group is the most marginalised group of non-owners – those with no household handset and unable to access the benefits of mobile via another route. Since these households are yet to own a handset, perceptions of utility based on personal experience and patterns of

usage will not yet be set. Mobile operators can work with NGOs or other ‘on the ground’ partners to address male concerns and assist with building women’s basic and technical literacy.

4) Women without access to household handset, and able to borrow from elsewhere

As described earlier in the report, the borrowing or hiring of handsets can be a costly and inconvenient activity. Highlighting how individual ownership can avoid these inconveniences, coupled with introductory service offers to new owners, may help in driving usage. Key advantages that can be highlighted include improved privacy and being accessible in case of family emergencies.

Communicating the Benefits of Mobile

“Get to the adolescent girl and you get to not only her, but you also get to someone who wants to teach others. One of a group (of girls) may have a phone and be willing to teach and share with her friends.”

Ramona Liberoff, Expert Interviewee.

If the mobile industry and international development community are to reach some of the “harder to reach” groups discussed in this report, they will need to understand how an appreciation of the benefits of mobile usage and ownership spreads amongst communities and other groups. Understanding the most effective communication channels to reach these consumers as well as the most resonant messages for both men and women will be crucial. These will be addressed in the remainder of the report.

Television

Watching TV is a popular leisure activity throughout all of the regions surveyed except Papua New Guinea: 53% of BoP women watched TV, a high proportion viewing on a daily basis. Soaps are one of the most popular form of content, with local soaps preferred in Egypt, South and East India, national soaps in North India and international soaps in Uganda.

In rural areas, TV ownership is less common and connection to the electricity grid not universal. Communal viewing often occurs instead – for example in Mineya, rural Egypt, women may gather at a house where there is a TV to watch a hit Turkish soap series. In most areas, BoP women show a strong interest in keeping up-to-date on news and current affairs, while in the more culturally conservative areas of Egypt and North India, this usually occurs as a ‘side effect’ of a husband’s consumption.

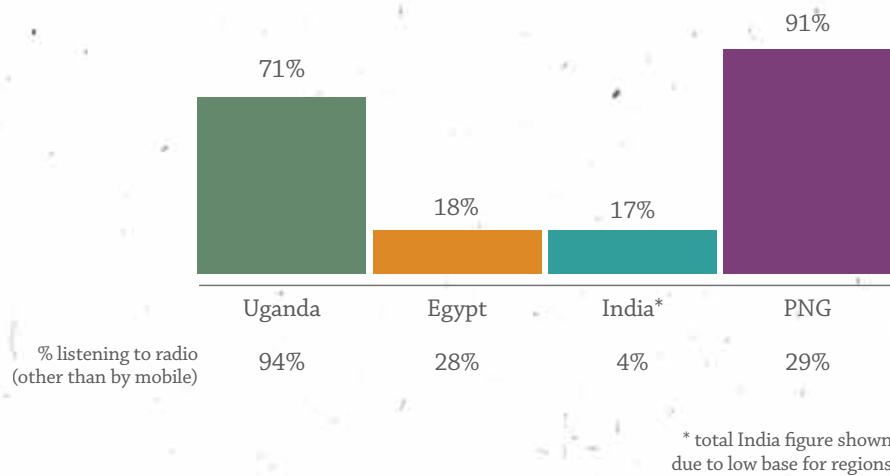
“My husband watches news all the time as he wants to know all the events that are happening.”

Research Participant, Egypt

Mobile operators can certainly capitalise on the direct advertising opportunities presented by television, but also be more subtle in their approach. Public agencies or other interested parties could potentially promote the inclusion of mobile usage and particular service usage in popular TV soaps to help educate BoP women and men on the benefits of mobile usage.

Music and Radio

Figure 28: Percentage of respondents who listen to radio on a device other than their mobile and reported listening to music



Radio remains a popular source of entertainment in all the countries surveyed, as shown in Figure 28, above. The mobile industry and development community can capitalise on this popularity by advertising in prime time slots such as music and talk shows, as well as offering more handsets with radio capability. Expert commentators were particularly keen to emphasise the importance of radio:

[We] should have a greater focus on synergies between various media types. Radio is often forgotten and undervalued.

Linda Raftree, Expert Interviewee

"Radio on mobiles – especially religious broadcasts - is a major need in Africa. It relieves boredom while working in fields."

Ramona Liberoff, Expert Interviewee

Outdoor Advertising

Another powerful way of reaching women is through outdoor advertising, such as posters, or shop ads. At present, poster and shop ads are usually intended to drive basic brand awareness. Given that most BoP women travel on foot and spend a high proportion of their leisure time in their local areas, there is potential for more sophisticated visual advertising communicating the benefits of particular products or services.

However, when considering such strategies it is important to also keep in mind the high levels of illiteracy amongst some BoP women. Marketing strategies should be designed to address such barriers.



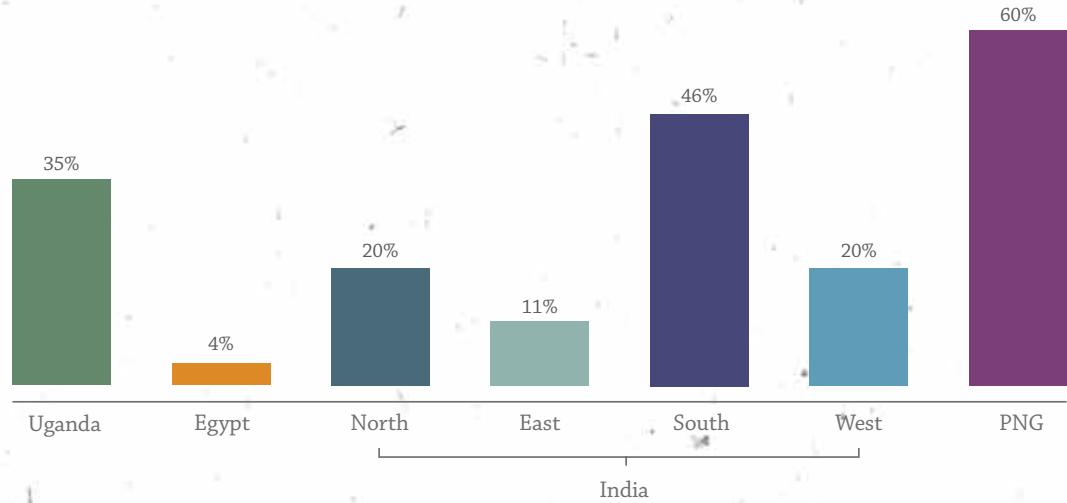
Other women are trusted sources of advice and information in BoP communities.

Personal Recommendations

In addition to marketing through television or advertising, stakeholders should bear in mind the importance of personal recommendations and advice. For example, women's groups offer an additional and potentially very influential channel for the communication – and, indeed, delivery – of mobile service offerings. 28% of participants visit women's groups regularly, and 39% said “female friends” were a trusted information source.

Particularly in South India and Papua New Guinea (see Figure 29 below), a high proportion of women are members of women's groups, which often exist as a way of saving and sharing knowledge and money. Partnering with women's groups can be an effective way to reach BoP women at scale, both for communicating the benefits of mobile solutions, and training women in their usage.

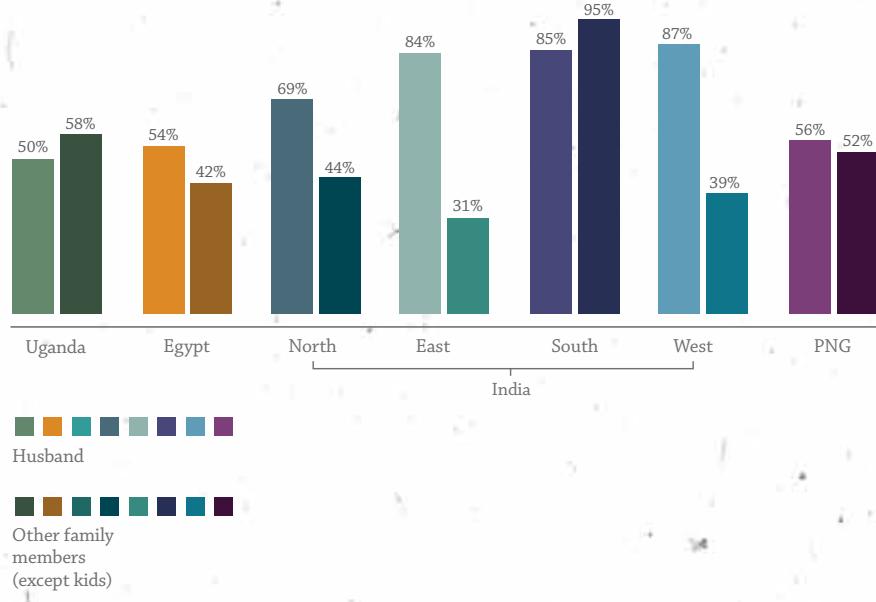
Figure 29: Percentage of respondents across markets/regions who reported attending a women's group weekly or more often



In addition to women's groups, family members - including husbands - are also key sources of advice for BoP women (see **Figure 30** below). Children may be another source of trusted advice, as young people tend to be the 'early adopters' of more advanced services, often learning from their friends. They often pass this knowledge on to their mothers, although the knowledge

transfer from children to mothers appears to be limited to basic services in most cases. A simple strategy of targeting the adult children of BoP women with service packages and helping link them to their mothers would be an example of an attempt to capitalise on such network effects.

Figure 30: Percentage of respondents citing husbands and other family members (exclusive of children) as preferred sources of advice



Key Messages for BoP Women

Whether the focus is on increasing mobile ownership or usage or in promoting uptake of a particular product or service, it is important to understand the key motivational messages which can help build enthusiasm amongst BoP women and their families. Some of these are cited below, though their effectiveness will vary greatly according to individual markets. They will be most effective when based on what non-owners believe will be the main benefits of mobile, as seen at the start of Part 2: *Mobile In Their Lives*.

Simple connectivity is an important and powerful message: contact with family members is a significant aspiration for BoP women who feel isolated, particularly those in the role of 'new wives' in cultures where travel outside the marital home is uncommon.

"I do not know how my brother is and where my sister is...the last time checked my brother had been admitted in hospital... If I had a phone I would know all this."

Research Participant, Uganda

"I just feel that I was separated from the real life with its responsibilities and I spend few happy moments on mobile with the person I love."

Research Participant, Egypt

Care will be needed to communicate this message in a way which is culturally appropriate and not perceived as 'threatening' by men. As an expert interviewee comments:

"'Autonomy' messaging for BoP women is not recommended – it's a Western message... tread cautiously in this area especially in rural areas."

Jonathan Donner, Expert Interviewee

Among young urban women messaging around autonomy may be more appropriate. Overall, focusing on the benefits of mobile to families as a whole rather than individuals *per se* are likely to be the most effective strategies. As one of our experts comments:

"In the popular construction of the phone, in advertisements and policy narratives and the movies, there is very little messaging around family needs and priorities..."

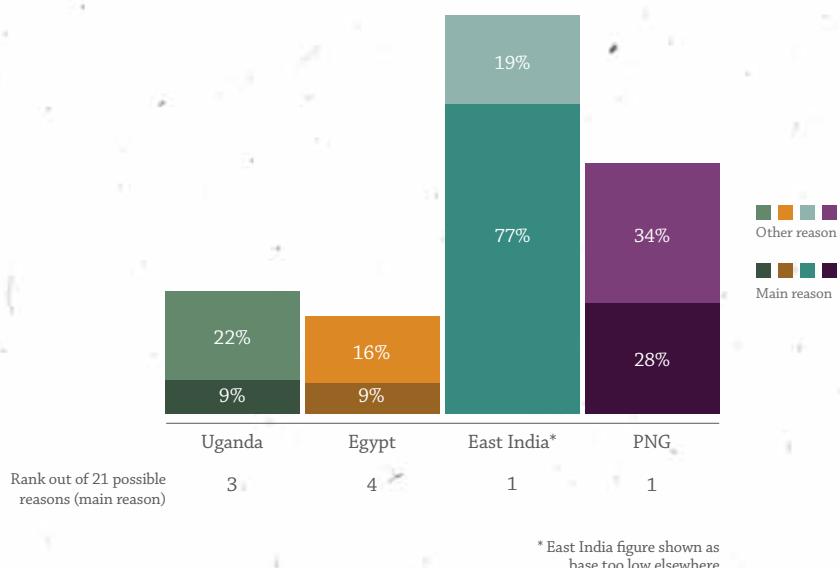
Jonathan Donner, Expert Interviewee

One notable benefit of mobile ownership which is widely recognised by women, and which also ranks highly among male priorities, is its ability to help with security and emergency situations. According to our expert interviewee:

"Security is important ... these messages carry the least cultural issues with them... everyone needs to communicate in emergency situations."

Jonathan Donner, Expert Interviewee

Figure 31: Appraisal by non-owners of 'emergency communication' as a reason for wanting a mobile handset (expressed in percentage citing this reason)



One final message which has not been emphasised in previous studies but which this study found to be important is the *emotive* impact which mobile ownership can have on BoP women. The simple 'excitement' of owning a mobile handset should not be underestimated, nor the pride or self respect which is engendered by ownership.

Conclusions and Caveats

Before drawing firm conclusions, it is important to acknowledge the limits of this report. *Striving and Surviving* seeks to summarise nine months of detailed fact-finding and conversations with over 2,500 women in four very different regions into one accessible and engaging format. It is therefore inevitable that some interesting topics have gone unexplored, and that those that have been explored have not been explored in the depth that they deserve.

In the interests of concision, this report has focused on top line findings from our research, gathering the data from across all four countries involved in the study. This strategy has been taken to highlight the biggest opportunities and issues that BoP women face overall - the ones which trend across regions.

However it is acknowledged that this approach loses some focus on how different the social, cultural and economic context is in each locality. For example, the levels of women who had income-generating work varied greatly in the different markets covered by our research: in Egypt, only 16% of the women surveyed said they worked. In Uganda, the number was far higher, at 70%. In 2012 we will be releasing further reports exploring each of these countries in depth, therefore providing the detailed localised knowledge that will be crucial for the mobile industry if it is to reach many women in these markets.

Nonetheless, the research findings do reveal that there are many things BoP women have in common, not only with each other, but also with women across the world. Those that are mothers all regard their children as one of the biggest priorities in their life, with three-quarters naming a good education for their children as one of their top five life priorities. As one respondent in rural Uganda said, '**My children are about the only thing I can call my own.**'

We can also see that all BoP women face substantial challenges in their daily life, whether that be the 38% who live without an electricity supply or the two-thirds who regard getting '**a good meal for my family**' as one of their most pressing life priorities. They are, as one expert commentator memorably suggested, "survivalists".

They tend to live in cultures where men are seen, at least outwardly, as "**heads of household**", and the women's decisions are often affected by the attitudes of their husbands. All of these factors need to be understood and dealt with sensitively when designing services for BoP women.

There is little doubt that mobile services do have the potential to greatly enrich many BoP women's lives, in addition to those services already being used by many. One obvious example is healthcare. 84% of BoP women admitted that they need better healthcare information. Yet, when asked about whether they would like general healthcare information through their mobile phones, this dropped to 39%.

There are likely to be many reasons for this gap in demand for what would seem to be a highly sought after service, and it is precisely these local details which need to be understood and tackled if life-enhancing mobile services are to reach these potential beneficiaries. One simple reason is affordability, which is still a hurdle for many of the women surveyed. Another reason may be that existing mobile services are not fully understood by the women they are meant to benefit, or not geared closely enough to their most pressing information needs. Any strategy which is to realise the full potential of mobile will need to address both cost and customer education.

However, strategies that concentrate only on the most obvious practical applications of mobile technologies may overlook the emotional value that mobile phones can have for BoP women. **One of the top five reasons mobile owners surveyed gave for their purchase was the sense of pride they felt in owning a phone.** Owners also found a great deal of emotional value in being able to contact their family more easily, a significant factor in markets where women are often uprooted when married and where mobility may be restricted for financial and cultural reasons. As one Ugandan woman told us, '**Before I had a mobile phone it was very difficult to know what was happening with my relatives... Now I feel closer...**'



Successful mobile strategies of the future will draw all of these insights together, will understand the unique circumstances in which BoP women live, recognise which needs take priority in their lives, address practical concerns such as cost and technical literacy, and design services that will have an emotional appeal.

As previously noted, this research alone cannot provide all of the answers to the questions which need raising. 2,500 women and 4 countries are not enough to provide a definitive portrait of the hundreds of millions of BoP women. However, the GSMA mWomen team hopes this is a good start and will be a catalyst for further work in this area. To this end, all of the research tools used to create this report are publicly available at www.mwomen.org. The hope is that these tools will equip others to go into countries we were not able to reach and talk to women we were not able to speak to.

It is the GSMA mWomen team's ultimate hope that this research will lead to the private and public sector working in partnership with BoP women on the development of mobile services that truly meet their needs. With the right tools, we believe BoP women can realise their dreams of a better future for themselves and their families.

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Appendix A: Methodology and Research Design

The findings presented in this report are the result of analysis of a diverse set of data sources – quantitative surveys of more than 2,500 BoP women, ethnographic and qualitative studies in each market, expert interviews, analysis of TNS' Mobile Life Study and secondary research amongst both the academic and commercial corpus of knowledge.

BoP women took part in the research, from four countries that represent a range of very different contexts: Egypt, India, Papua New Guinea and Uganda. The cultural, social and economic variations within India are so great that these results have been broken down by region: North, East, South and West India. Participants ranged from ages 16 – 64, and lived in both urban and rural areas. In the qualitative phase of research, men were included in the study as well.

Life Priorities

One particular area of BoP's women's lives that this research sought to establish was a sense of BoP women's priorities in life, with the hope of catalysing the creation of mobile services to address them. Having uncovered a series of aspirations and concerns amongst BoP women in the qualitative stage of research, researchers summarised these into a list of 17 key life priorities and in the quantitative stage asked BoP women to pick a maximum of five which they would like to improve in their lives. The illuminating answers reveal a mix of life priorities, including serious short-term concerns, such as health or personal safety, alongside longer-term aspirations, such as better education for their future children.

Our “attitudinal scale”

From the start of this project, GSMA mWomen and its partners decided that a simplistic “tick box” approach to researching women's behaviour would not provide the level of insight we desired. We wished to explore in more detail the attitudes and motivations of the women, find out what underlying factors may influence their decision making, and what would be the best way to connect with them. One method used was presenting respondents with a series of ‘attitudinal statements.’ For example: ‘For me, being a good wife is the most important thing’ or ‘My religious faith is very important to me’. We included 40 statements overall. When aggregating the data we were able to place the ranking of each statement on our “attitudinal scale” of 40, finding out how important that attitude, motivation or concern was in the larger scheme of BoP women's lives and analyse by country, region or overall.

Ethnographic and Qualitative Research

During this stage of the research, a local team of specialist researchers visited urban and rural locations in each market (summarised below) where a high proportion of the population live below the poverty line.

Country	Qualitative research locations	
	Urban	Rural
Egypt	Cairo	A Menia village, Damaris
India	Uttar Pradesh (North India)	Uttar Pradesh (North India), Tamil Nadu (South India)
Papua New Guinea	Port Moresby	Rigo district, near Port Moresby
Uganda	Kampala	Jinja



They spent 4-5 days in each location and carried out the following research programme:

Arrival and familiarisation: Initial arrival in research location, meeting local community leaders, explaining the purpose of the research to the community and ensuring they are comfortable with the team.

In depth interviews: Interviews with local leaders (either official or unofficial) – for example religious leaders, political representatives, women's group leaders, health workers) to understand in general the broad situation of BoP women, and to get a feel for local cultural practices or power structures which have an impact on their lives.

Focus group discussions: Amongst a variety of different BoP women at different lifestages – wives, daughters, older women – and also a group of men to understand their views on BoP women in their community.

Exploratory ethnographic: Researchers accompany different BoP women throughout a 'typical' day, and observe their lifestyles, challenges and interactions with others. This process helps uncover aspects which may not be expressed in group discussions or through direct questioning, either due to socialisation effects or because they are so 'routine' that participants do not think to mention them. In addition to observation, researchers follow up with a free-flowing question and answer process to probe into the reasons behind observed behaviours.

Immediate workshop: Researchers carried out an immediate 'on the ground' workshop in order to rapidly synthesise the findings of the research in the location – and used this to inform research at the next location.

Quantitative Surveys

More than 2,500 BoP women aged between 16 and 64 were surveyed across Egypt, India, PNG and Uganda in locations selected to provide compatibility with the qualitative research and to accurately represent the markets and regions as a whole. We interviewed in both urban and rural locations in order understand the differences between the two. The sample sizes (i.e. number of interviews) achieved in each market are summarised below and allow a statistically significant analysis of relevant sub groups:

Region	Quantitative research locations and sample sizes		
	Urban	Rural	Total
Egypt	250	250	500
India – North (Aligarh, Uttar Pradesh)	106	99	205
India – East (Siliguri, West Bengal and Purnia, Bihar)	207	201	408
India – South (Raichur, Karnataka)	100	100	200
India – West (Udaipur, Rajasthan)	106	96	202
Papua New Guinea	250	259	509
Uganda	250	250	500

We employed a random sampling methodology to ensure that we interviewed a representative selection of BoP women in terms of age and other demographics but we also set quotas to ensure that we interviewed a sufficiently large number of both mobile *users* and *non-users*. Data for each country were weighted to representative proportions of users vs. non users and rural vs. urban. We sourced representative proportions from the most recent national census data for each market where possible.

Our definition of 'BoP' in each market was as follows:

Egypt: BoP women defined as living in households where the average income per adult household member was 431 Egyptian pounds or less (equated to roughly USD 2.5 per adult per day).

India: NCAER, India's apex economic research institution defines poor households (or BoP) as those households earning total income of less than Rs 45000/- (USD 957) per year. We therefore define BoP women to be those living in households earning less than Rs 3700/- per month (i.e. less than USD 72 per month).

Papua New Guinea: BoP women defined as those living in households earning less than 5 Kina per day (equated to approximately USD 2.3 per day).

Uganda: BoP women defined as those living in households earning less than 216,000 Uganda Shillings per month (equated to approximately USD 75 per month).

Our questionnaire was informed by input from the GSMA mWomen Working Group, including representatives from a wide range of major mobile network operators, handset manufacturers and other interested parties within the mobile ecosystem. The questionnaire was administered by professional interviewers in a culturally and socially appropriate way – in particular, where any 'controversial' questions were included (for example relating to the behaviour of a husband towards a wife), these were not asked if there were other people present during the interview.

Mobile Life

TNS' Mobile Life Study is a large scale survey of consumer behaviours and attitudes in the mobile telephony sphere. In 2010 it covered 43 markets around the world. We picked 5 markets from the broader study where there were sufficient BoP women within the sample to analyse (India, Indonesia, Kenya, Senegal and Uganda) and examined this data. When looking at this data we defined BoP as women living on a personal income of approximately USD 2 per day or less on average. Accordingly we obtained the following sample sizes of BoP women in each market:

Market	Sample Size of BoP women in Mobile Life
India	583
Indonesia	160
Kenya	139
Senegal	85
Uganda	121

Appendix B: Abbreviations and Glossary

AusAID

Australian Agency for International Development

BoP

Base of the Pyramid (defined as women in emerging markets living on less than 2 US dollars a day)

BoP Women

Women living at the Base of the Pyramid (see above)

CDR

Call Data Record/Charging Data Record

MDS

Multi-domain segmentation

mEducation

Mobile education

MFI

Microfinance Institution

mHealth

Mobile health services

MNO

Mobile Network Operator

Missed Call ('flashing' or 'beeping')

A telephone call that is intentionally not answered by its intended recipient prior to the termination of ringing on the recipient's end. Commonly used as a way of communicating or conveying messages for free

PCO

Public Call Office

PNG

Papua New Guinea

RoSCA

Rotating savings and credit association. A form of lottery where members save a fixed amount every period (weekly or monthly, for example) and the total amount saved during a given period is given to one member of the association, either based on need or randomly

USAID

United States Agency for International Development

VAS

Value Added Services

Endnotes

- ⁱ Divorce or separation are uncommon, although it's been reported that it is on the rise in Egypt (Check <http://weekly.ahram.org.eg/2011/1031/eg12.htm>). In Uganda we see a higher proportion (14%) of divorcees/separated women and divorcees in particular are expected to 'fend for themselves', without significant support from other family members.
- ⁱⁱ In particular, Indian women did not appear to have a pressing need for more information about the world outside of their village/urban area, while for women in Papua New Guinea this was of more interest. This divergence in orientation may be attributed to increasing contact with the outside world and the significant impact of the light natural gas industry in Papua New Guinea in recent years, affecting the local labour market, emigration as an aspiration (dream) and attitudes towards government officials. The country also has close historical and social ties to Australia. Indian women, on the other hand, have a local outlook and aspirations reflected in their immediate environment.
- ⁱⁱⁱ In PNG, extended families tend to live together and the wealthiest member of the family supports everyone – but even in this system nearly 2/3 of married women report that their husband is the main income earner)
- ^{iv} Page 30 of *Women & Mobile: A Global Opportunity. A study on the mobile phone gender gap in low and middle income countries*. From GSMA, Cherie Blair Foundation for Women and Vital Wave Consulting.
- ^v This exception is Papua New Guinea which is in general a 'feature hungry' market with women mentioning a wide array of services which they used or were aware of during the qualitative phase of research. These ranged from calculators for business and mobile bill payment to ringtone 'lullabies' to put babies to sleep.

Top Ten Findings of *Striving and Surviving:* *Exploring the Lives of Women at the Base of the Pyramid*

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The SMS “utility gap.”

77% of BoP women have made a mobile phone call, but only 37% have sent an SMS, regardless of literacy levels. BoP women reported that they did not find the SMS service useful, thus products targeted at BoP women that use SMS should be of demonstrable practical value to BoP women.



The mHealth gap.

84% of women wanted better healthcare information, but just 39% expressed a specific interest in receiving general healthcare information through their mobile phones. Mobile Health offerings will need to be closely geared towards women’s needs and communicated clearly if they are to live up to their potential.



The technical literacy barrier.

Of those who did not want to own a mobile phone, 22% said the main reason was that they “wouldn’t know how to use it”. The mobile industry and development organizations should address this through educational activities and user-centric designs.



Targeting the whole family.

74% of married women who did not want a mobile phone said it was because their husbands would not allow it. Efforts to communicate the benefits of mobile should focus on the benefits for the whole family.



Addressing suspicions.

82% of married BoP women who own mobile phones say ‘it makes my husband suspicious,’ a reported disadvantage of ownership, particularly for women in Uganda and Papua New Guinea. Such suspicions can lead to unintended consequences of mobile phone ownership, such as domestic violence, thus community and family educational efforts are recommended on the life-enhancing uses of mobile technology.



Eager entrepreneurs.

73% of participants expressed interest in entrepreneurship to help support their families. Mobile solutions that help entrepreneurs manage their business or set up mobile retail enterprises could have a powerful impact.



The mobile Internet gap.

Just 2% of BoP women have ever used the mobile internet, although 23% are interested in this capability. Creating relevant, affordable and accessible online services may convert many mobile users to owners in the future, but most such services are currently premature.



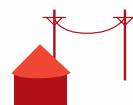
The role of TV.

Television is a crucial source of entertainment and information for BoP women: 53% of participants watched it, 36% daily. TV can play a major role in communicating the benefits of mobile, through direct advertising or positive images of mobile users in soap operas, for example.



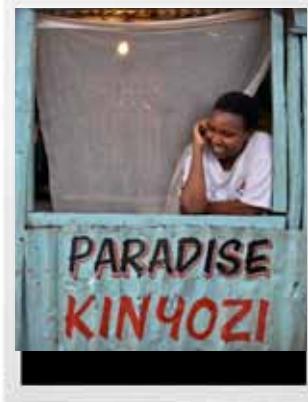
The role of women’s groups.

28% of participants visit women’s groups regularly, and 39% said “female friends” were a trusted information source. Engaging with these groups will help mobile operators and non-governmental organizations reach BoP women at scale.



The power gap.

38% of BoP women live “off grid”, without easy access to an electricity source. Although access to electricity varies by market, low-cost, alternative mobile charging solutions will be key for many BoP women to fully realise the potential benefits of mobile phone ownership.



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