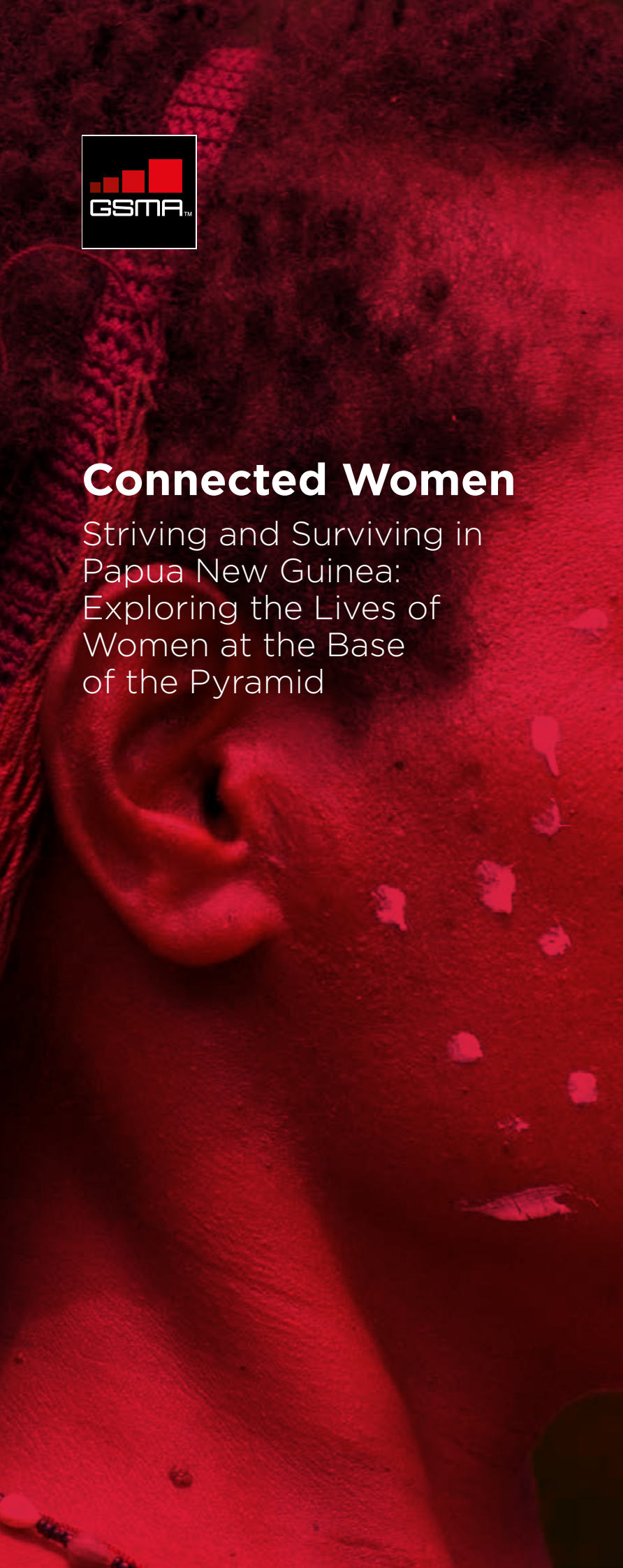




Connected Women

Striving and Surviving in
Papua New Guinea:
Exploring the Lives of
Women at the Base
of the Pyramid



Connected Women

GSMA Connected Women accelerates growth of the female digital economy, by working with partners to bring significant socio-economic benefits to women consumers and employees. The programme is focused on increasing women's access to and use of mobile phones and life-enhancing mobile services in developing markets, as well as closing the digital skills gender gap, attracting and retaining female talent, and encouraging female leadership in technology on a global basis. GSMA Connected Women is a programme in partnership with USAID and DFAT.



The GSMA represents the interests of mobile operators worldwide. Spanning more than 220 countries, the GSMA unites nearly 800 of the world's mobile operators with 250 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and Internet companies, as well as organisations in industry sectors such as financial services, healthcare, media, transport and utilities. The GSMA also produces industry-leading events such as Mobile World Congress and Mobile Asia Expo.

For more information, please visit the GSMA corporate website at www.gsma.com

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Mobile for Development

About Mobile for Development - Serving the underserved through mobile

Mobile for Development brings together our mobile operator members, the wider mobile industry and the development community to drive commercial mobile services for underserved people in emerging markets. We identify opportunities for social and economic impact and stimulate the development of scalable, life-enhancing mobile services.

For more information, please visit the GSMA M4D website at: www.gsma.com/mobilefordevelopment

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The programme would also like to thank the GSMA Connected Women Working Group of mobile industry partners for guiding the research design. Our personal thanks are also extended to expert interviewees and colleagues who provided valuable feedback on early drafts of the report. These individuals include Ronda Zelezny-Green - GSMA, Melissa Mitchell - DFAT, Alethia Jimenez - UN Women, Christine Groeger - DFAT and Keirsten Nicole Pedersen - IFC

Above all, we would like to thank the women of Papua New Guinea who were willing to share their aspirations and challenges of their daily lives with inquisitive outsiders.

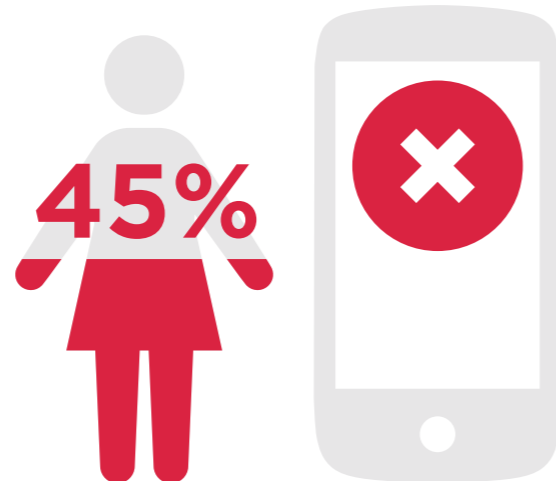


TOP 10 FINDINGS



ONLY
16%

of BoP women own a SIM or handset



Almost half of women surveyed (45%) have no access to a mobile phone

But, more than
50%
of BoP non-subscribers



are interested in purchasing a handset



96% of women at the BoP without a mobile say they could
NOT AFFORD IT



Approximately one-third (31%) of surveyed subscribers spend 10-20% of their weekly income on **MOBILE SERVICES.**



35% of BoP women surveyed were not comfortable with making a call, and over half (51%) **could not send an SMS.**



Women surveyed have limited say in their households with only 12% self-identifying as the main decision maker and only 17% are joint decision-makers.



22% of BoP women who own a mobile phone reported that it makes their husbands suspicious.



Almost one third of BoP women (29%) said that female friends were their first port of call for money management advice, **59% of women attend a women's group at least once a week**



Having a better house, providing good education for their children, and having a healthy family are the top life priorities for BoP women in PNG

Executive Summary

Evidence has been mounting for decades that empowering women leads to positive economic and social change.¹ When women have access to education, health care, financial services and other information, they are able to make decisions that improve the lives of their families and lead to better community outcomes as well. Mobile phones play an important role in women's development by giving them the ability to connect with others, access vital information and gain greater independence.

The mobile industry – and indeed much of the world – knows little about the lives, struggles and aspirations of women in Papua New Guinea (PNG), particularly those living at the bottom of the pyramid (BoP). What are their greatest needs and aspirations? What challenges do they face in meeting the basic needs of their families? How are their decisions influenced by family, friends and community groups? And how might mobile services help to improve their daily lives and advance their hopes and plans for the future?

This report aims to answer these questions by drawing on the findings of a qualitative and quantitative survey conducted in PNG as part of GSMA mWomen's "Striving and Surviving" report published in February 2012.² The report identified unique social, cultural and economic factors shaping women's needs and attitudes towards mobile ownership in four countries, including Papua New Guinea.

Striving and Surviving: the lives of women in PNG

This study reveals the top priorities of women in PNG and explores how they access information and make decisions about healthcare, education, business and other important aspects of daily life. By illuminating the context in which women live, this report aims to advance the mobile industry's understanding and ability to reach this important part of the market.

Mobile has the potential to be a life-changing tool for women. We believe any mobile product or service aiming to serve women must meet the actual daily needs of women as reported by them. Along with understanding women's aspirations, mobile network operators should analyse how women subscribers are using their mobile phones and what economic, social, and cultural barriers prevent them from accessing or making full use of them. It

is hoped that this report will assist mobile network operators in these efforts.

Survey respondents identified better housing, education for their children, healthcare and food for their family, and a happy marriage as their top life priorities. A strong entrepreneurial impulse drove the women who were surveyed. Women expressed interest in starting businesses, primarily preparing and selling food, petty trade, and needlework or other handicrafts.

Mobile services can play an important role in meeting these needs: a mobile phone can link family members together and improve communication, or provide innovative, life-enhancing services such as access to healthcare information and education facilities, as well as increase earnings potential.

Mobile in women's lives

There are several unique aspects of how women in PNG obtain and use phones. For example, mobile phones are most often a gift from extended family members (30% of respondents), most likely reflecting the unique social structure of kinship and 'wantok' in PNG.³ Mobile phones were also purchased from a retail store (22%) or a gift from husbands (21%).

Though women are less likely than men to own a mobile phone of their own, phone borrowing from others gives them intermittent access. Women who do not own a mobile phone point to cost, technical literacy and infrastructure challenges as the main barriers to ownership. Subscribers report that the main drawbacks to owning a mobile phone are that it is expensive to top up and it makes their husbands suspicious.

Many women subscribers in PNG do not know how to use the basic functions of their mobile phones, such as texting and making phone calls. The use of advanced handset features is low, but respondents expressed a strong desire to learn more about these features.

Understanding these barriers and the usage habits of women customers will help mobile network operators (MNOs) to design appropriate and practical products and services and to introduce initiatives that lower barriers to access.

This report offers a starting point for those seeking to serve women through mobile in PNG or adapt their mobile products and services to the needs and aspirations of female subscribers.

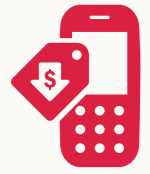
Reaching women through mobile

Women in PNG predominantly rely on advice from other women in all aspects of their lives. Only for matters of business advice did women seek advice from local leaders, while in all other dimensions in this report women most often sought out advice from other women. For example, on healthcare, children's education and money management women primarily turn to women's groups or female friends. In fact, 59% of women participated in a women's group at least once a week compared with just 37% watching TV once a week or more. This finding indicates the importance of below-the-line (BTL) marketing to reach women in PNG through mobile services.

1. GSMA mWomen, 2010, "Women & Mobile: A Global Opportunity," pp 11-12, http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/01/GSMA_Women_and_Mobile-A_Global_Opportunity.pdf
2. <http://www.gsma.com/mobilefordevelopment/gsma-mwomen-striving-and-surviving-exploring-the-lives-of-bop-women>

3. For more discussion on social structures in PNG, see Research Report: Deepening Financial Inclusion for Women in the Pacific Islands, Women's World Banking, April 2013.

Recommendations



Lower the total cost of ownership to help drive adoption



Utilise women's groups and BTL marketing techniques



Include design features appealing to women



Address technical literacy challenges



Address social and cultural barriers in marketing efforts



Find ways to help customers lower the cost of charging phones

Methodology

The findings of this report are based on qualitative and quantitative research conducted in Papua New Guinea as part of GSMA mWomen's 2012 report, "Striving and Surviving: Exploring the Lives of Women at the Base of the Pyramid". The study was designed to reveal new insights into the lives of low-income women, identify some of their key needs and aspirations, and explore how mobile might be able to improve their lives in the future. More than 2,500 women from Egypt, India, Papua New Guinea and Uganda took part in this research, representing a range of social, cultural and market contexts.

In Papua New Guinea, 509 women between the ages of 16 and 64 from low-income households were surveyed. About half (51%) of these participants were from the capital city of Port Moresby and the rest from Saroa in the rural district of Rigo. For the purposes of this study, "low income" is defined as those living in households earning less than 5 Kina per day, or approximately USD 2.30 per day.

For the qualitative analysis, ethnographic studies were conducted among men and women from low-income households. This primary research was supplemented with secondary research, which is cited in the report.

The scope and limitations of the report

It is important to acknowledge the limitations of this report. Papua New Guinea is a diverse country with a large proportion of its population living in rural and remote areas. This survey was limited to two regions: Saroa, a rural area, and Port Moresby, the capital city. Therefore, the data and findings are not necessarily nationally representative. Also, the data was collected in 2011, so the mobile market may have evolved since this date. However, the data and analysis can help operators understand the daily aspirations and challenges faced by women in PNG, when using the data for research, decision making or other purposes.



Life in Papua New Guinea

With a population of 7.3 million, Papua New Guinea (PNG) is the largest and most populous country in the Pacific Islands.⁴ Its rugged mountains, dense tropical rainforests, and sparse network of rough roads make many areas hard to reach and severely restrict the movement of goods and people in the country.

PNG is overwhelmingly rural; 87% of the population live in rural and remote areas⁵. There are few cities, and travel between cities and towns can be difficult because they are often not directly linked by road.⁶ As a result, many people are unable to access basic facilities such as schools and medical clinics.

Economy

The country is classified as a lower-middle income country by the World Bank and has experienced steady economic growth in the last few years due to large investments in extractive industries, which accounts for most of its export earnings. There has been consistent annual growth of the GDP (5% to 9%), but PNG maintains an extremely high poverty rate with nearly 40% of the population living below the national poverty line.⁷

The vast majority of PNG's labour force works in the informal economy, with 80% relying on subsistence farming to feed their families and make ends meet.⁸ Almost half the women in the survey group (47%) work in the informal sector and just 6% in the formal sector.

4. World Bank. <http://www.worldbank.org/en/country/png> September 2014
 5. World Bank Staff estimates based on United Nations, *World Urbanization Prospects*, 2011 (<http://www.indexmundi.com/facts/papua-new-guinea/rural-population>)
 6. Asian Development Bank, *Country Diagnostic Studies, Papua New Guinea: Critical Development Constraints*, p. 36. The full report can be viewed at <http://www.adb.org/sites/default/files/pub/2012/png-critical-development-constraints.pdf>
 7. World Bank. <http://data.worldbank.org/country/papua-new-guinea>, October 2014
 8. Department of National Planning & Monitoring http://www.treasury.gov.pg/html/publications/files/pub_files/2011/2011-2015.png.mtdp.pdf; 2010 (Page 88)

PNG at a glance

1976 The year PNG gained independence. Its government is a parliamentary democracy.

800 languages are spoken in PNG, making it one of the most culturally diverse countries in the world.

4 administrative regions: Highlands, Islands, Momase and Papua

85% of the population lives in rural areas

Only 10% of households have access to electricity

60% of adult women and 65% of adult men are literate

Over 50% have no clean water or access to sanitation

Sources: World Bank, National Statistics Office, 2012; Asian Development Bank; <http://www.adb.org/sites/default/files/pub/2012/png-critical-development-constraints.pdf>

Mobile communications

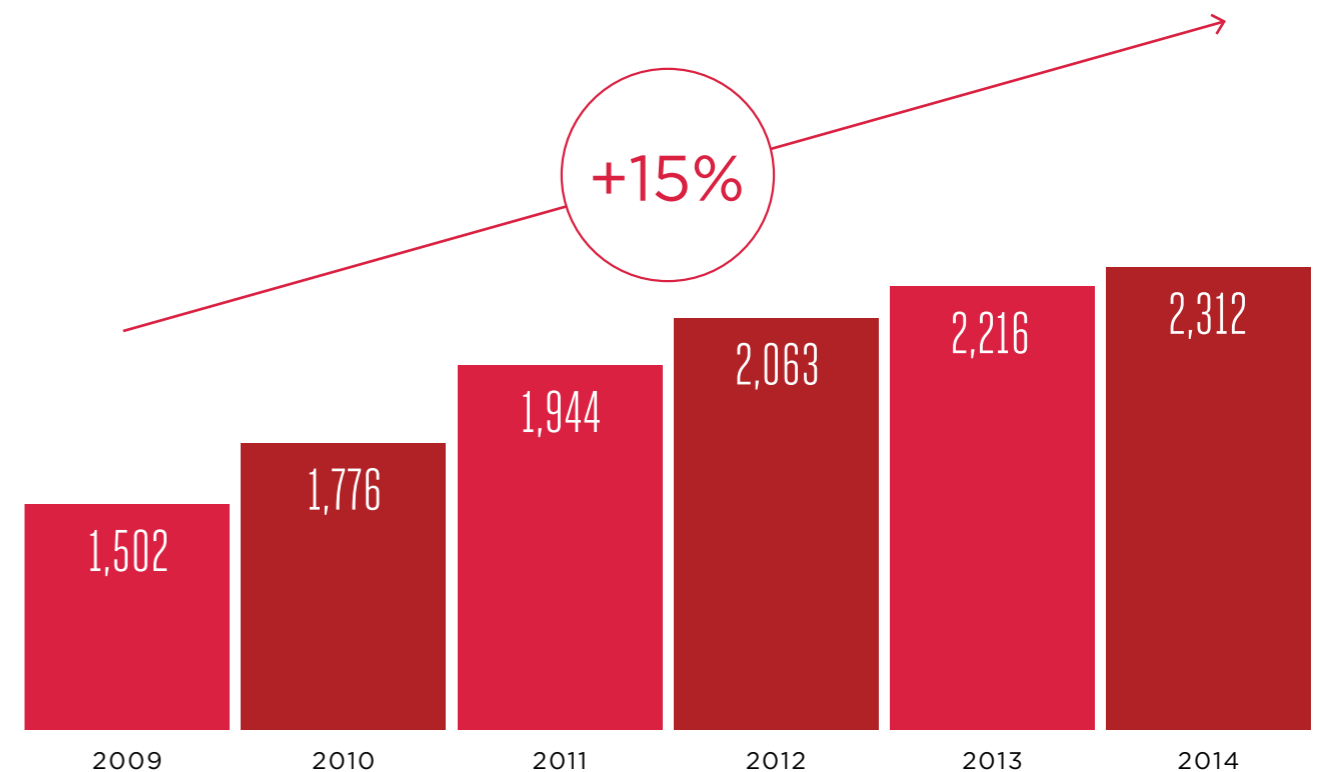
PNG's mobile industry has grown rapidly since the government opened the telecommunications sector to private investment in 2007.⁹ There are nearly 2.3 million unique subscribers in PNG and almost all subscribers (90%) use pre-paid SIM cards. The country's average revenue per user (ARPU) is just US\$6.37 per month,¹⁰ which is among the lowest in the Pacific Islands.

Nearly 70% of people in PNG do not have access to mobile services.

Figure 1

Growth in mobile connections

Number of mobile connections (thousands)



The two major mobile network operators (MNOs) Digicel and bemobile, dominate the market. Digicel is the dominant player with 70% market share. bemobile, in which the government has a financial stake, has the remaining share of the market (28%)¹¹ and operates primarily in urban areas.

9. <http://www.worldbank.org/en/news/feature/2012/09/11/papua-new-guinea-connecting-people-in-one-of-the-most-isolated-places-on-earth>
 10. GSMAi, September 2014
 11. Wireless Intelligence, September 2014 Data is sourced through MNO annual reports that are made public

Striving and Surviving: the lives of women in PNG

Women in PNG face significant challenges in their daily lives, whether they live in the 88% of households without electricity,¹² or are among the 50% of the population who do not have clean drinking water or access to sanitation facilities.¹³ Healthcare, education, and raising their children top the list of challenges faced by women living in low-income households.

Gender inequality

Gender disparity and inequality is a serious issue in PNG. PNG was ranked 135 out of 151 countries in the 2013 United Nations Gender Inequality Index, which uses reproductive health, economic activity and empowerment to assess the status of women in a country. Low levels of secondary education and women's low participation in Parliament were the main reasons for Papua New Guinea's low score. Only 7% of women (above the age of 25) in the country have completed some form of secondary education compared to 14% of men.¹⁴

Women in PNG contend with high levels of domestic violence and threats to their personal safety. Two out of three women have experienced domestic violence and 50% have been subjected to forced sex.¹⁵ This violence is fuelled by unemployment, drug and alcohol abuse among men and reinforced by traditional practices such as a bride price and weak law enforcement.¹⁶

Women hold only 3% of seats in Papua New Guinea's Parliament.

12. Asian Development Bank. Country Diagnostic Studies, 'Papua New Guinea: Critical Development Constraints', p. 36. The full report can be viewed at <http://www.adb.org/sites/default/files/pub/2012/png-critical-development-constraints.pdf>
 13. Ibid. Note: this percentage is much higher in rural areas.
 14. Gender Inequality Index <http://hdr.undp.org/en/content/table-4-gender-inequality-index>
 15. <https://www.oxfam.org.au/about-us/countries-where-we-work/papua-new-guinea/>
 16. http://www.msf.org.uk/papua_new_guinea.focus

Education

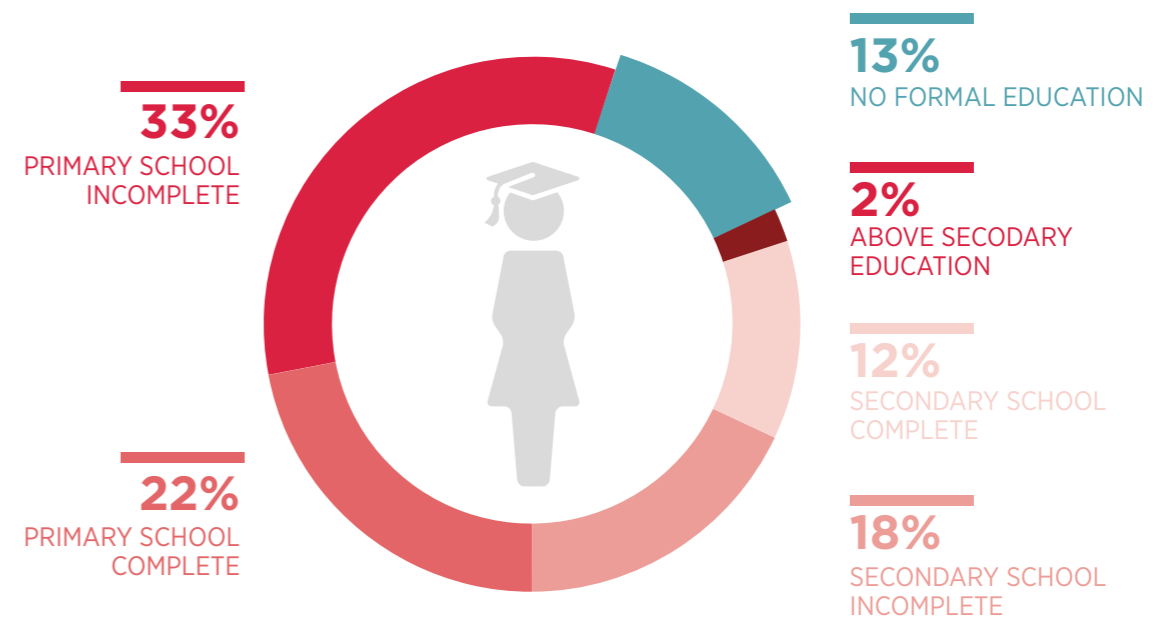
For a girl growing up in a low-income household in PNG, receiving an education is particularly challenging and, for some, completely out of reach. One-third (33%) of women surveyed had dropped out of primary school and only 12% of respondents reported completing secondary education. High school fees and traditional gender roles that make them the primary caregiver in their family are two of the main reasons for high drop-out rates.¹⁷ Without an education, women are less likely to find a job, which increases pressure on them to get married at a young age.

Figure 2 details the educational status of the survey respondents. One revealing finding is that the number of women with no formal education at all outnumber those who have completed secondary school.

Figure 2

Educational status of respondents

% of respondents



Healthcare

Healthcare is a serious concern for women in PNG. Severe shortages of doctors, well-trained medical staff, supplies and equipment are straining the government healthcare system, which is struggling to contend with a range of health challenges. More than one million cases of malaria are reported every year, and PNG's maternal mortality rate is one of the highest in the Pacific Islands.¹⁸ This problem is particularly acute among women living outside of urban areas, where most lack access to quality healthcare facilities, especially during pregnancy, and nearly 49% of births happen at home.¹⁹ It is reported that at least four out of 10 people in PNG have no access to healthcare services at all.²⁰

17. PNG CGA 2011-12
 18. The maternal mortality rate in Papua New Guinea is 250 deaths per 100,000 live births http://www.unfpa.org/sowmy/resources/docs/country_info/profile/en_PapuaNewGuinea_SoWMy_Profile.pdf
 19. Ibid
 20. <http://www.irinnews.org/Report/94352/PAPUA-NEW-GUINEA-Tackling-maternal-health-crisis>

Women's needs and aspirations

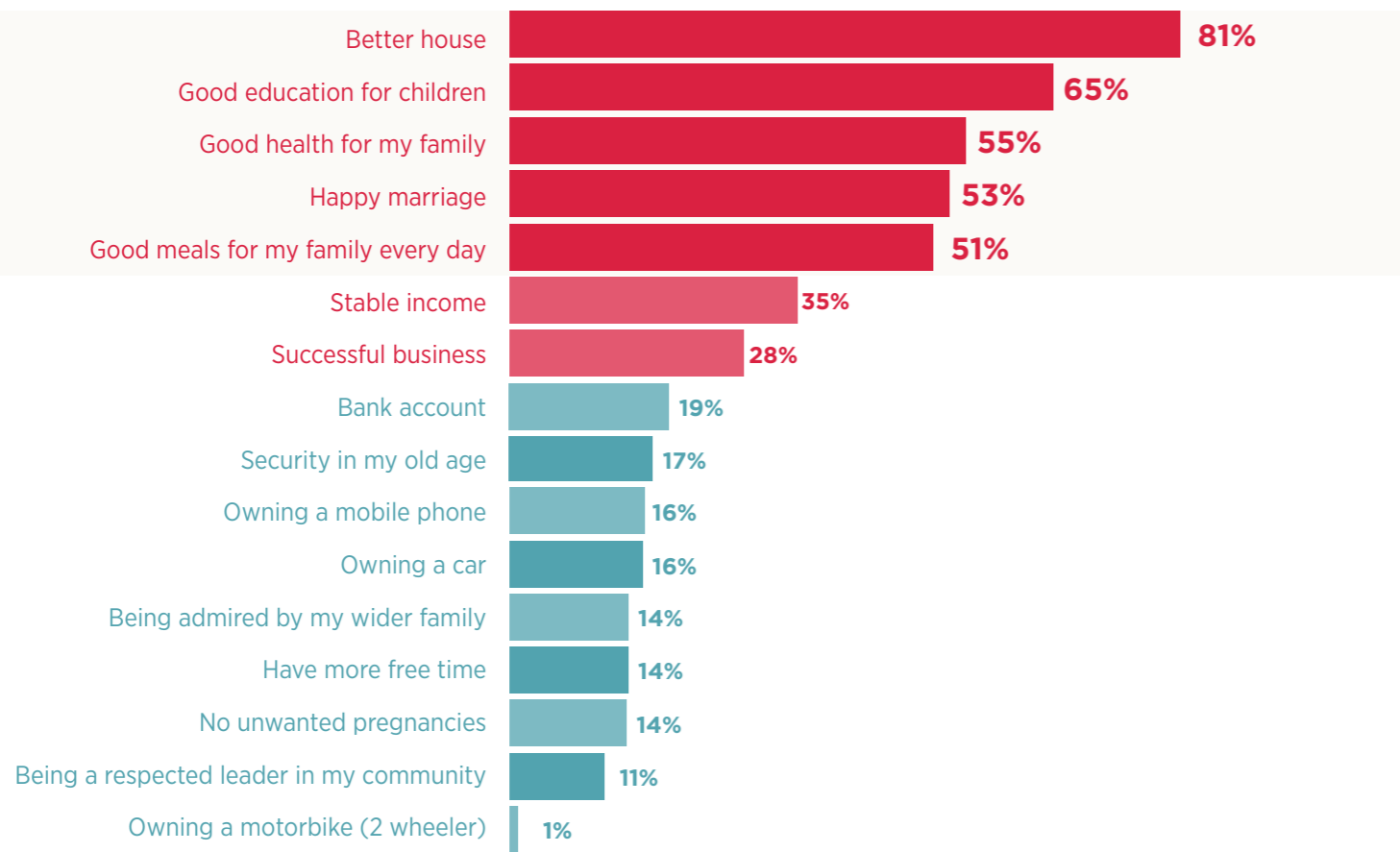
In order to understand how mobile network services can benefit women at the BoP in PNG and pinpoint the right areas for the mobile industry to make investments, it is essential to learn more about women's aspirations and priorities.

Figure 3 lists respondents' priorities in life by order of importance, and the following section will bring these priorities into sharper focus by providing additional information and insights into the highest priority areas as reported by survey respondents. These include: better housing, education for their children, healthcare for their families, a happy marriage, good meals everyday as well as a stable income and earnings opportunities, and successful business.

Figure 3

Women's life priorities

% of respondents



Note: Respondents could choose more than one option

As Figure 4 indicates, women's priorities change depending on their age and stage of life. Young respondents have relatively sophisticated needs and express a strong desire to own mobile phones and open bank accounts. The needs of married women are focused around their family. As women grow older, security and stability become increasingly important.

Figure 4

Life priorities by age group

% of respondents

HIGH PRIORITY LOW PRIORITY

	AGE-GROUP OF RESPONDENTS				
	16-21 years	22-30 years	31-40 years	41-50 years	51-60 years
Better house	73%	81%	91%	86%	65%
Good education for children	25%	67%	87%	77%	68%
Good health for my family	44%	50%	59%	59%	65%
Happy marriage	54%	66%	58%	51%	23%
Good meals for my family every day	37%	46%	57%	56%	63%
Stable income	23%	32%	37%	37%	49%
Successful business	18%	28%	27%	38%	32%
Bank account	42%	17%	13%	13%	11%
Security in my old age	9%	9%	15%	16%	49%
Owning a mobile phone	31%	18%	13%	12%	4%
Owning a car	35%	16%	9%	9%	8%
Being admired by my wider family	15%	16%	11%	13%	18%
Have more free time	37%	15%	5%	6%	7%
No unwanted pregnancies	39%	15%	6%	5%	1%
Being a respected leader in my country	11%	9%	8%	12%	23%
Owning a motorbike (2 wheeler)	1%	2%	1%	1%	0%

Note: Respondents could choose more than one option



“I want better housing, a house of my own that I do not have to share with my in-laws.”

FEMALE SURVEY RESPONDENT

Better housing

Housing is a major concern for both rural and urban women, with 84% of rural and 77% of urban respondents identifying it as a life priority. Housing is expensive in most areas of PNG due to limited supply and high demand, which means that married couples often must live with their in-laws. In interviews, many women said that these household arrangements reduced their independence and privacy.

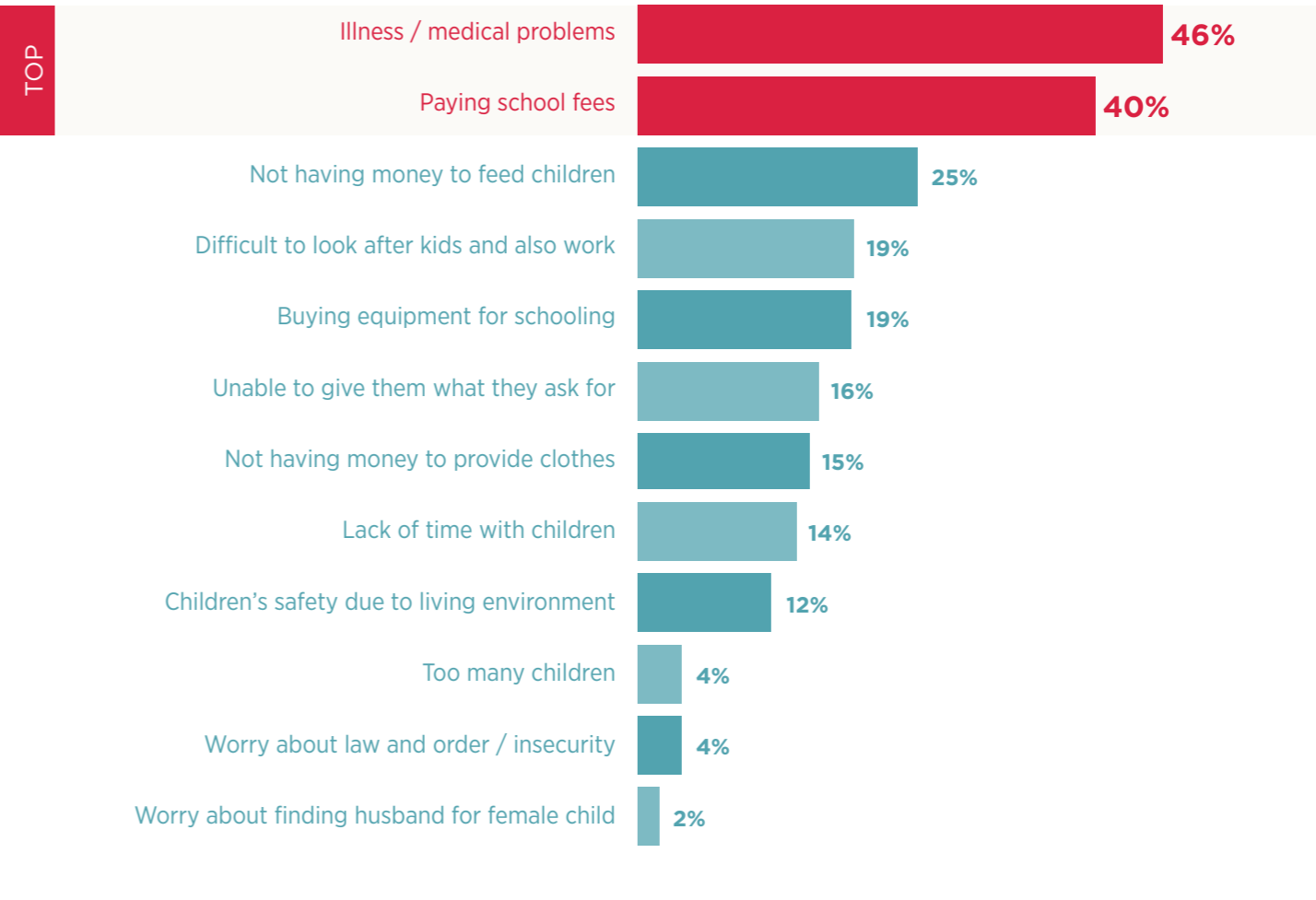
Good Education for Children

Women in PNG face the same basic challenges as parents everywhere: making sure their children are healthy, well-fed and educated. However, these challenges are felt more starkly in low-income households. Figure 5 brings these and other struggles into focus.

Figure 5

Challenges respondents face in raising their children

% of respondents



Note: Respondents could choose more than one option

“Paying school fees so my children can go to school, it takes everything I have.”

FEMALE RESEARCH PARTICIPANT

“Better schools for my kids. Better everything for my kids.... A better life for them.”

FEMALE RESEARCH PARTICIPANT ON HER MAIN PRIORITIES IN LIFE

Health and education top the list of challenges women face in raising their children. Many families have to pull their children out of school and into some form of employment because they cannot afford to pay school fees and need them to contribute to the household. Child labour is common in both rural and urban areas. In rural areas, children often contribute to household activities and subsistence farming. In urban environments, children work as “marketers”, walking considerable distances and selling products to people along the way.

Even for children enrolled in school, an education is no guarantee of a job – especially in rural areas where employment opportunities are limited. As a result, many students are unmotivated to complete their schooling,²¹ and girls are more likely than boys to drop out of school.

The majority of respondents (68%) wish they had more formal education and 65% consider providing their children with an education a priority in life. They see education as a path to a better life and a future job, and spend a lot of time and resources trying to ensure that their children attend school and become employable. In return, respondents hope that their children will support them when they grow old.

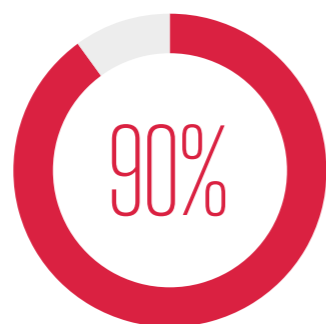
Figure 6

Respondent’s aspirations for their children

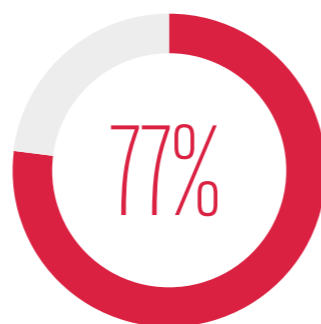
% of respondents



Good education

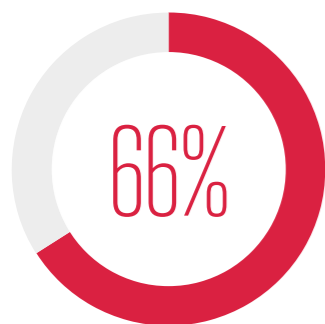


Good job



Support me when I grow old

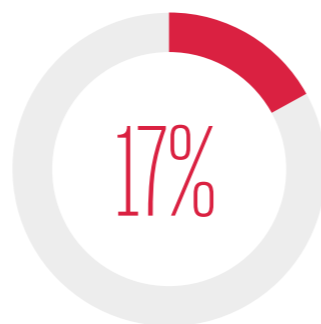
Note: Respondents could choose more than one option



Marry well



Stay healthy



Good farmer

21. <http://www.adb.org/sites/default/files/pub/2012/png-critical-development-constraints.pdf>

Good health for the family

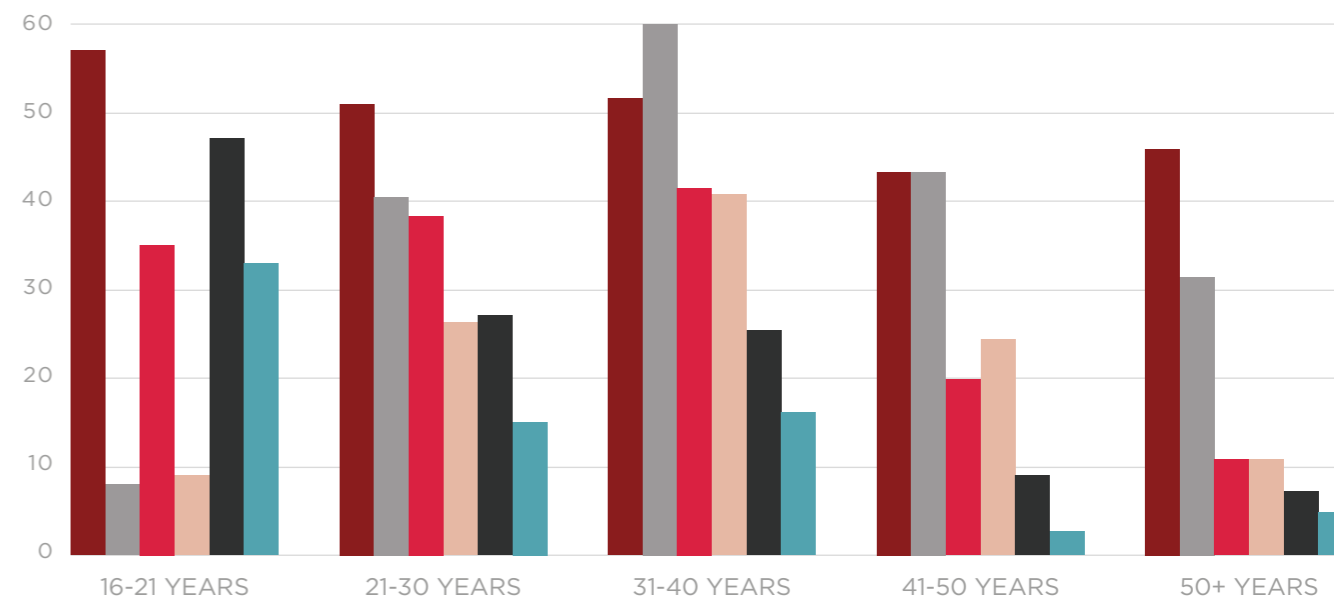
A major priority for women in PNG is the health of their children. Many women mentioned the need for local clinics since health facilities are inadequate and difficult to access, especially in rural areas. In order to care for the health of their family and themselves, women seek a variety of health information and advice.

As Figure 7 indicates, women’s health priorities and information needs change as they age. Young women and girls seek information on pregnancy and menstruation. For married women, children are the top priority, with a large proportion of them seeking information and advice on raising their children and caring for their children’s health needs.

Figure 7

Type of health information that respondents seek

% of respondents



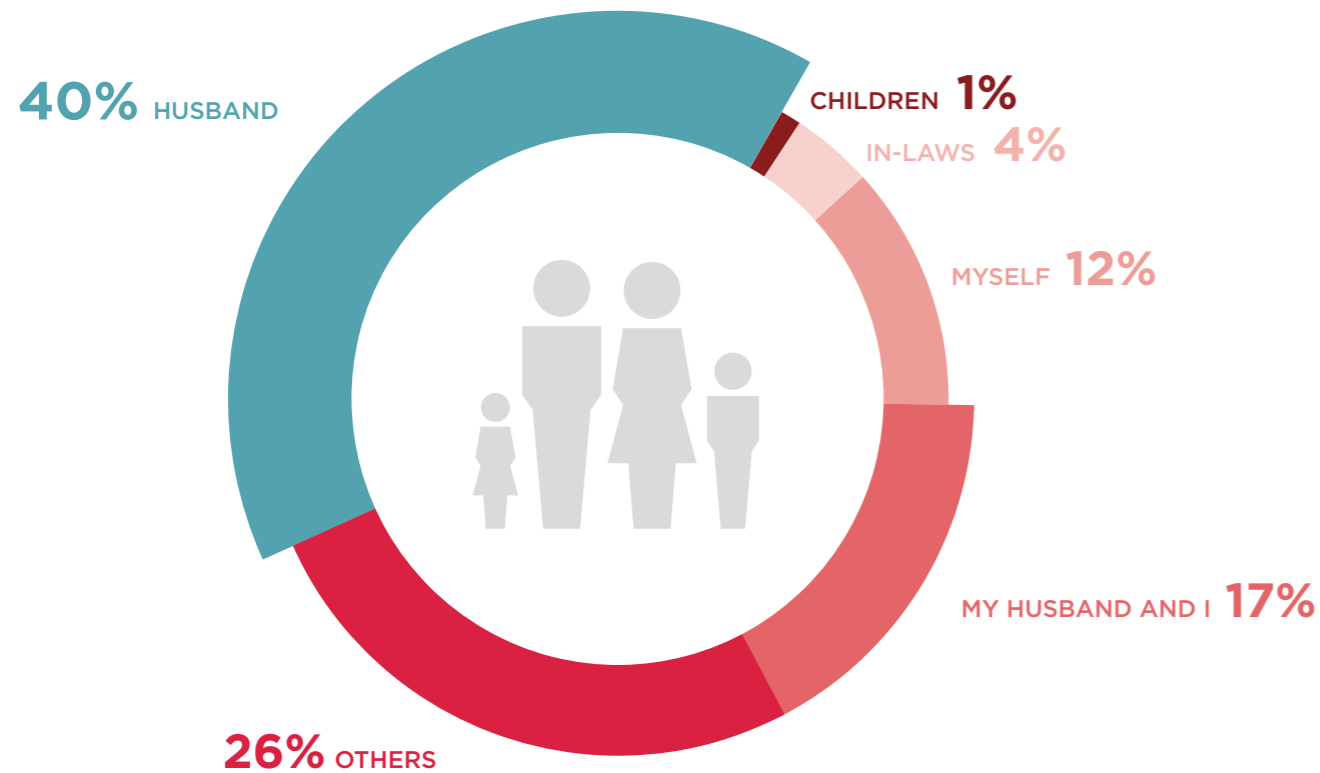
Happy marriage

In PNG, one of women's primary roles is taking care of her family – over 80% of respondents consider serving their husbands and family to be extremely important. Yet, women have a limited say in household decisions, with only 12% identifying themselves as the main decision maker in their household. Figure 8 provides a snapshot of decision makers in the respondents' households. Due to the kinship and 'wantok' family structures, elders and extended family members often play a key role in household decision-making reflected in the "others" category below.

Figure 8

Main decision maker in a respondent's household

% of respondents



Marriage is valued very highly in PNG society and this is reflected in women's aspirations: 53% of respondents consider a 'happy marriage' to be a life priority. However, the social importance of marriage can create particular problems for women. Since divorce and separation are difficult in this society, women are likely to be pressured into tolerating high levels of alcohol and drug abuse, as well as domestic and sexual violence. Many women also mentioned the need to protect their marriage from the threat of infidelity.

Good meals for my family everyday

Women in PNG increasingly cite good meals for their families everyday as a top priority, especially as they get older and begin to raise families. Only 37% of 16-21 year old women state that good meals are a top priority, while this number rises to 63% for women aged between 51 and 60.

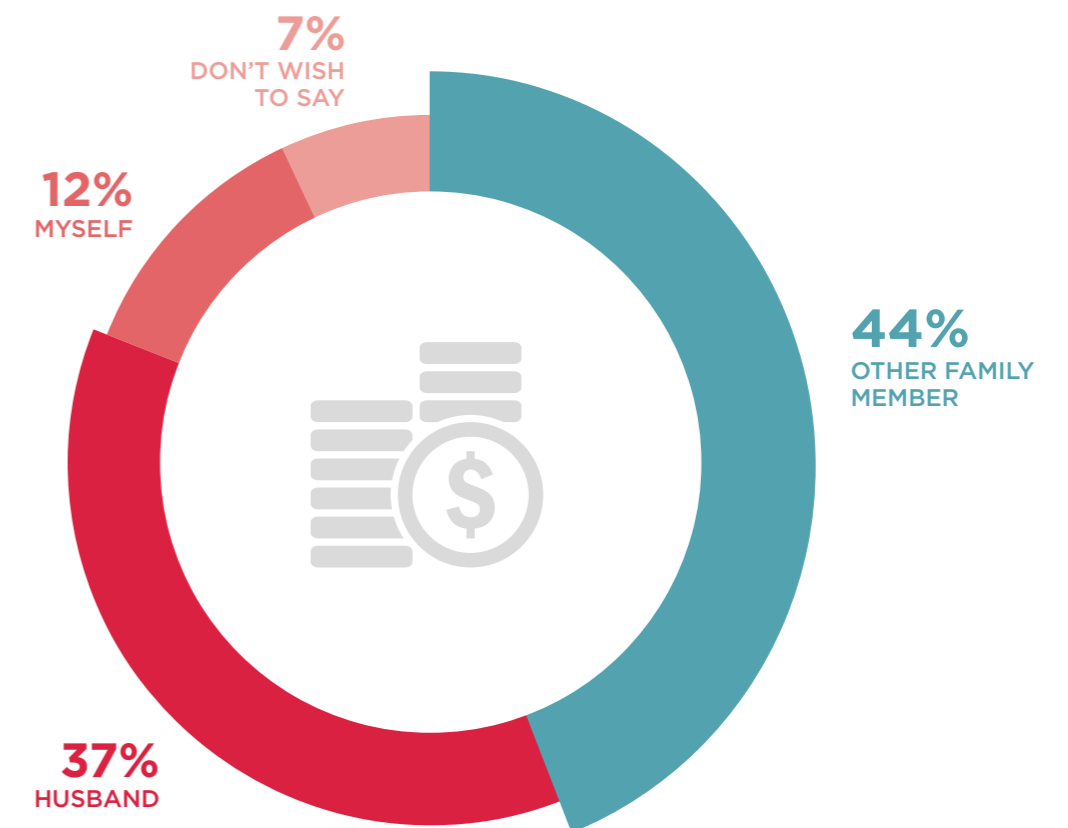
Stable income and a successful business

Although women are not typically the primary income earners in a household, 69% of respondents wish they could work more to support their family and improve their household's financial position.

Figure 9

Main income earner in a respondent's household

% of respondents

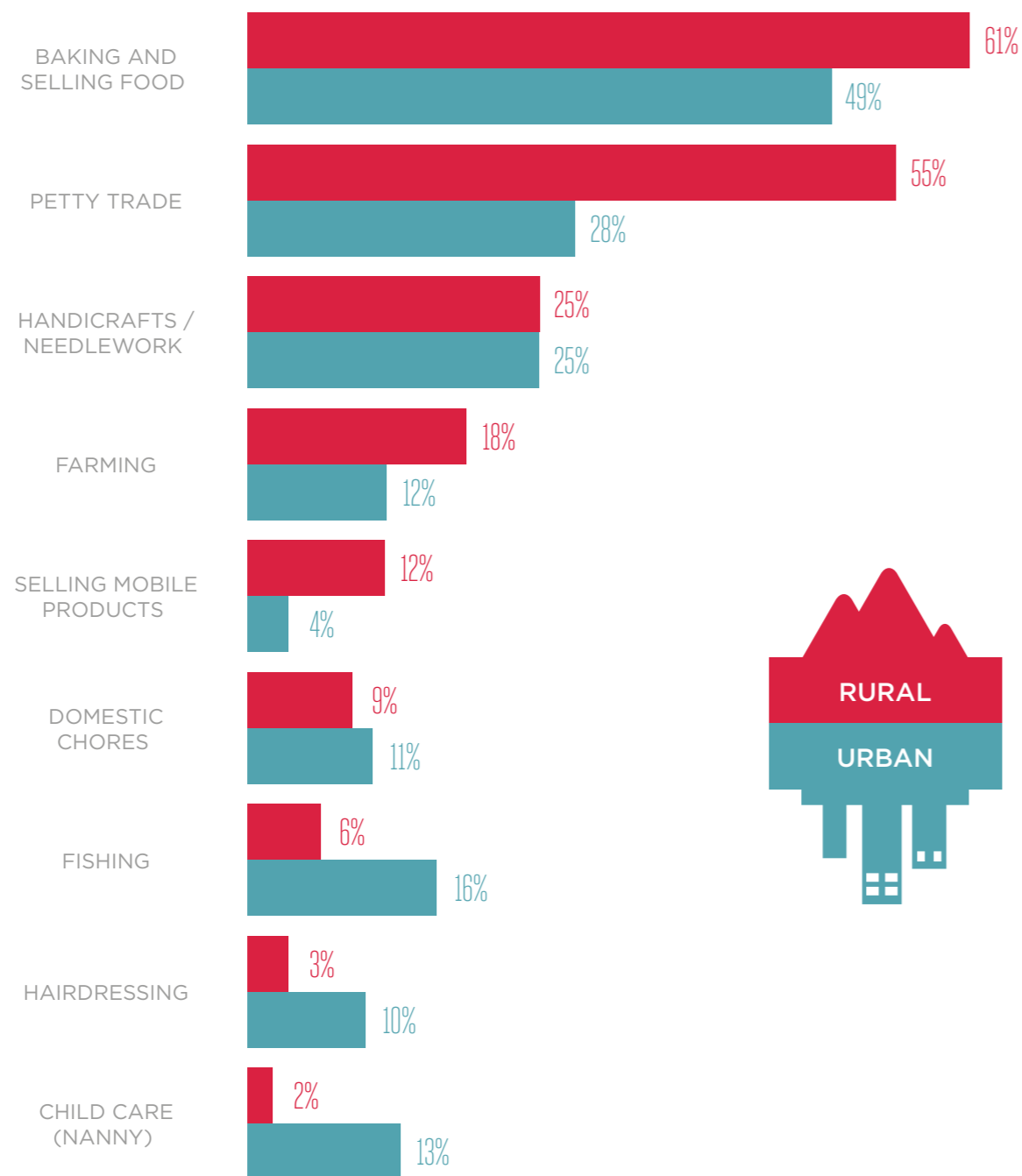


There was a strong entrepreneurial spirit among the women in the survey, with 62% of respondents expressing an interest in starting their own business. Baking and selling food, petty trade, and selling handicrafts/needlework are the main types of businesses women would like to start. As Figure 10 indicates, preferences vary somewhat between women from rural and urban areas. For example, petty trade and baking and selling food are much more popular choices among women living in rural areas.

Figure 10

Sectors in which respondents would like to start a business

% of respondents with an interest in entrepreneurship



Note: Respondents could choose more than one option



Mobile in women's lives

To understand how mobile phones can improve the lives of women in PNG, it is important to examine how women currently use mobile phone services and what barriers stand in the way of women accessing mobile services and using them in a way that will meet their greatest needs and help them to achieve their goals.

Benefits of mobile

The survey revealed that mobile phone ownership brings a range of benefits to women, with 85% of subscribers reporting a greater sense of independence and 41% of subscribers noting an increase in their income and professional prospects. Given the strong desire from the women of PNG to find alternative sources of income, mobile phones have a strong potential to help increase incomes and productivity for women in the country. Focus group discussions revealed that women feel proud when they first own a mobile phone and feel an immediate sense of connection to distant friends and family. Additionally women report continuous economic benefits in saved travel costs as well as for entrepreneurial women who use phones for everything from calculators to ordering supplies.

“Before I was in the dark, now I am in the light!”

RESEARCH PARTICIPANT DISCUSSING HER NEW MOBILE PHONE

“If I cannot be reached by my own family then I cannot be invited to any other function or outing.”

RESPONDENT ON THE ADVANTAGES OF MOBILE PHONES

Accessing and owning a mobile phone

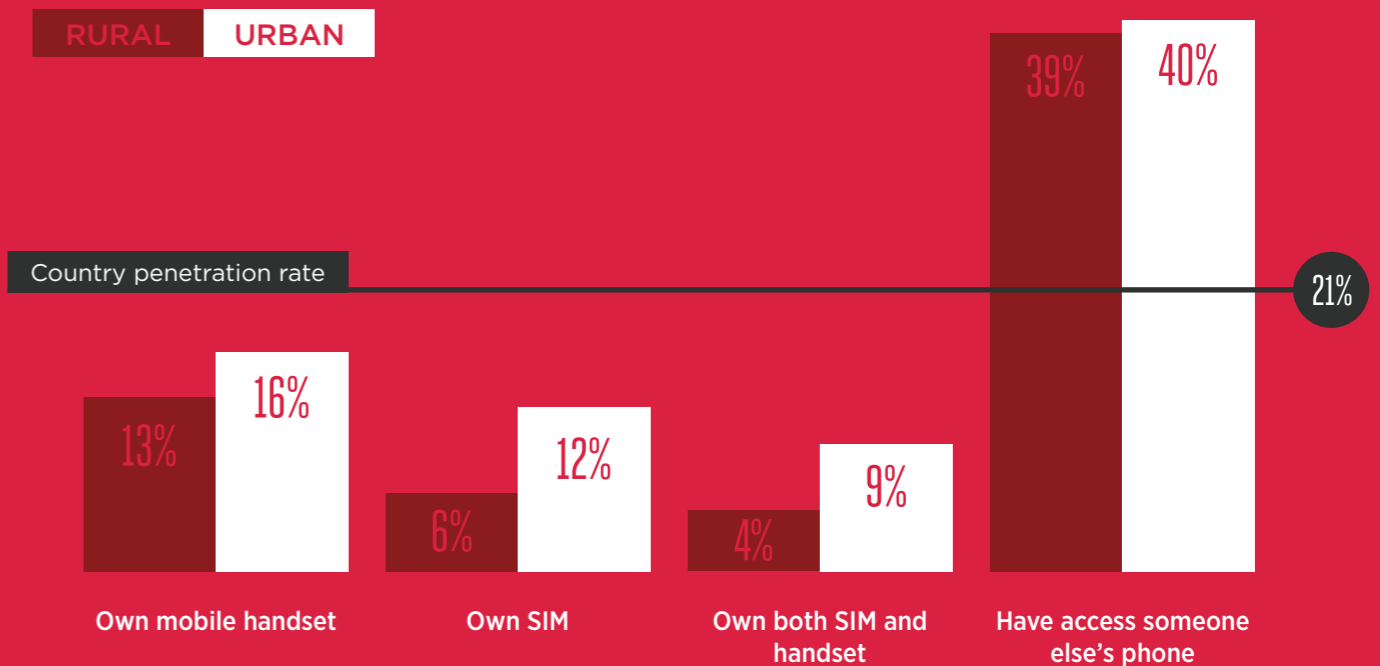
Mobile phone ownership among respondents is much lower than the national average. Only 9% of respondents own a SIM and 14% own a mobile handset, which is significantly lower than the national penetration rate of 21%. As Figure 11 illustrates, almost twice as many women in urban areas own both handsets and SIMs (9%) than women in rural areas (4%).

Respondents expressed a strong interest in owning a mobile phone – more than 50% of non-subscribers are interested in purchasing a handset. The main reasons why women want to own a mobile phone are having the ability to communicate during an emergency and connect with friends and family members (see Figure 13).

Figure 11

Mobile phone ownership among rural and urban respondents

% of respondents



Despite low levels of ownership, 39% of respondents report using someone else's mobile phone regularly, either another household member (69%) or a friend or neighbour (28%). However, almost half of respondents (45%) have no access at all to a mobile phone or SIM.

Borrowing mobile phones is well-established and socially acceptable, however focus group discussions revealed that owners of mobile phones want to minimise expenditure, not lose credit, and protect privacy and phone contents. As a result, an etiquette emerged that the borrower must make call(s) in full sight of mobile owner. Owners "keeps watch" on how long they are talking, and are very conscious of credit. Some will even dial the number for them, just to ensure they know who is being called. Borrower must provide clarity upfront on who they need to call and why. Mobile owner might insist the borrower use the "Please Call Me" service, so their contact can call them back (saves the owner's credit). As a result, borrowing is driven by emergency needs such as worrying about a husband or child who has not returned home on time. Also, women who borrow phones don't have access to value-added services or privacy that comes with phone ownership.

Figure 12

Ownership of mobile handsets and SIMs

% of respondents

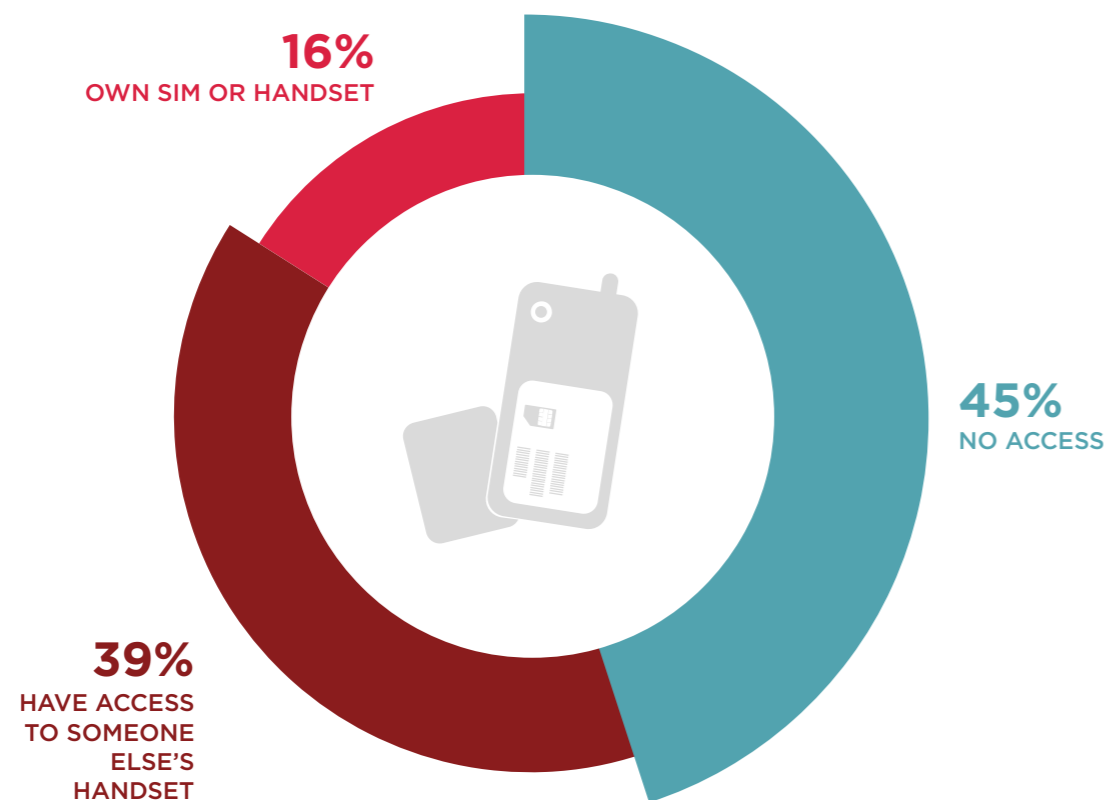
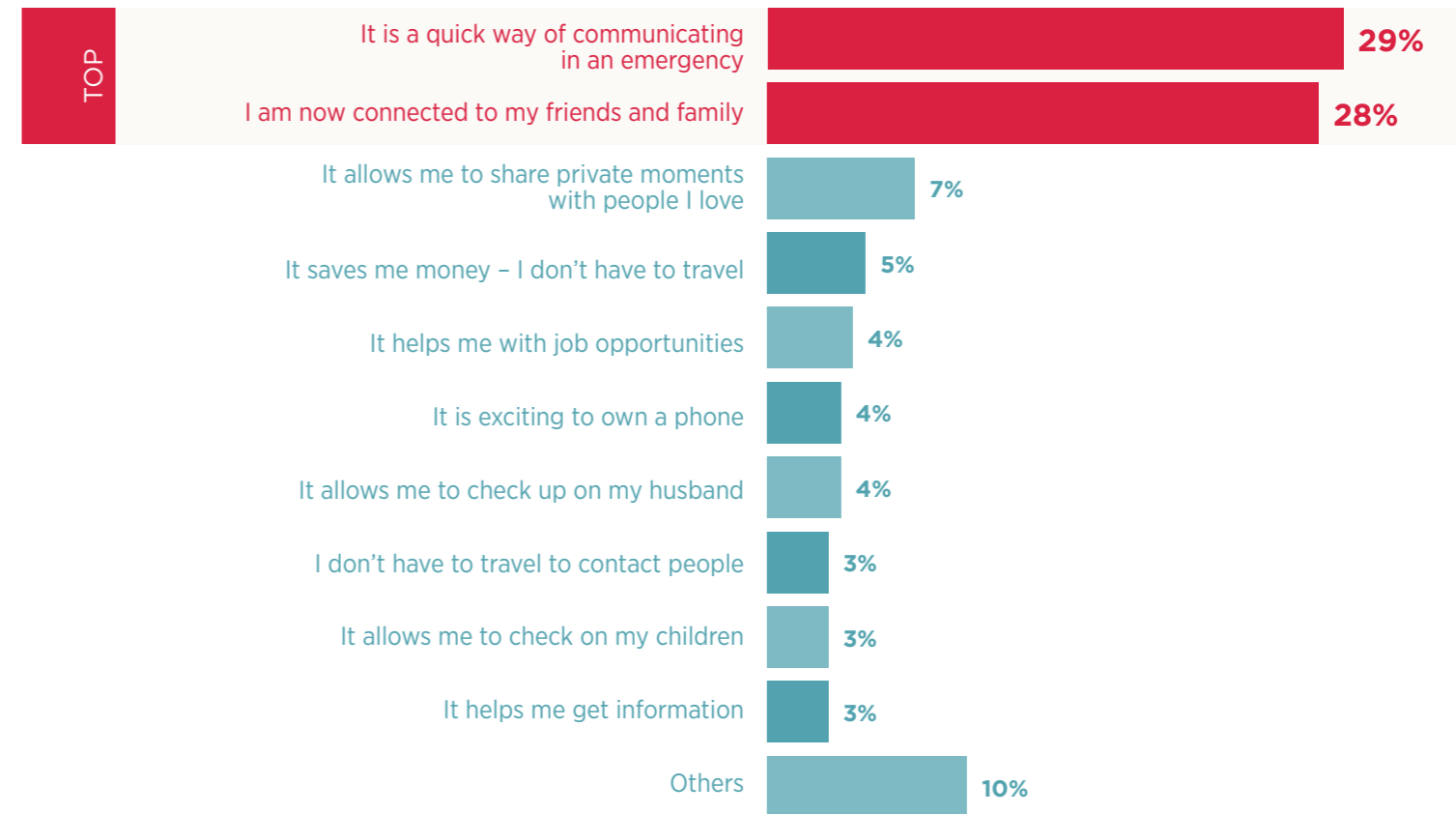


Figure 13

Reasons for wanting a mobile phone

% of non-subscribers

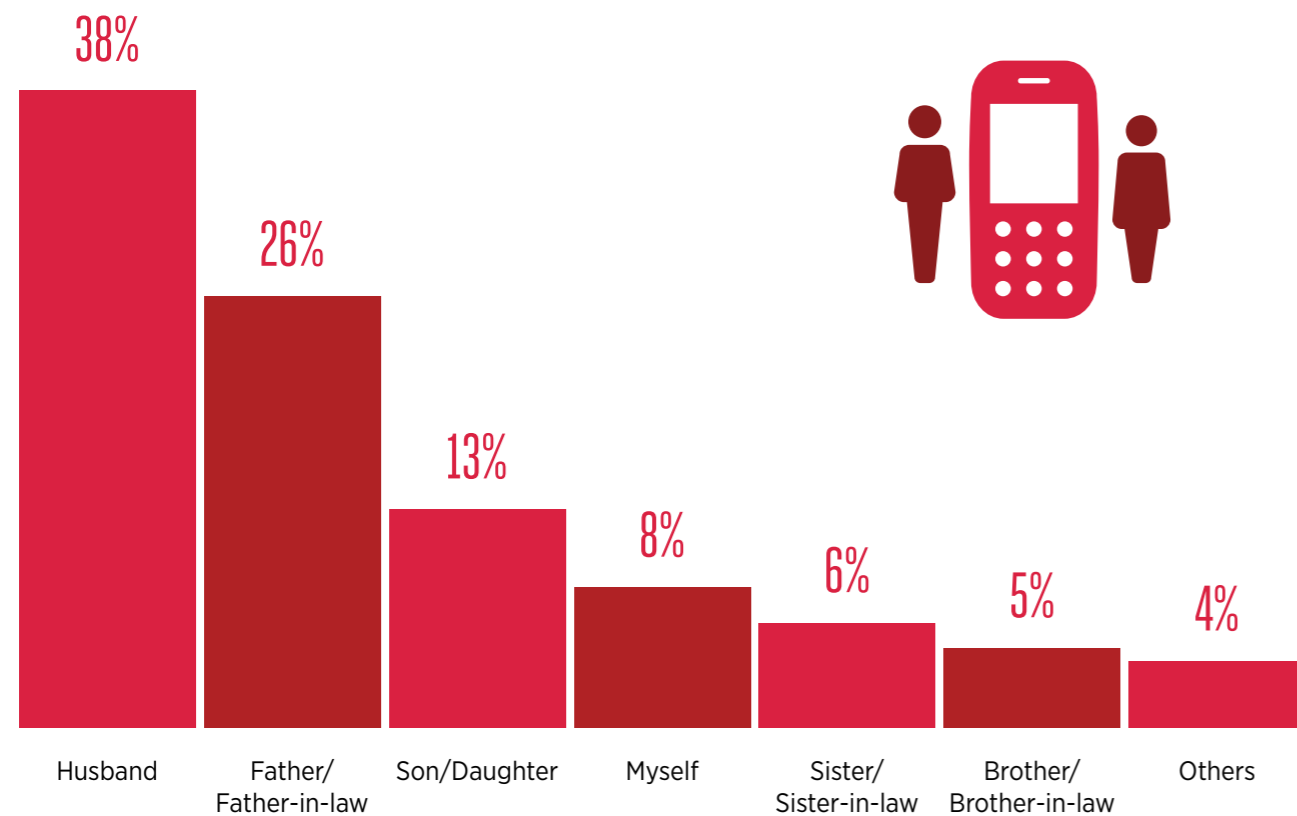


When it comes to purchasing and owning a handset, women are rarely at the front of the queue in their household. Respondents reported that their husbands were the first in the household to purchase and own a mobile phone followed by their father or father-in-law. Figure 14 reveals the order in which various household members will own a mobile phone.

Figure 14

First to own a mobile phone in a respondent's household

% of respondents who live in a household with at least one mobile phone



Mobile in women's lives: A snapshot

Tabitha, 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. 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 husbands' 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.

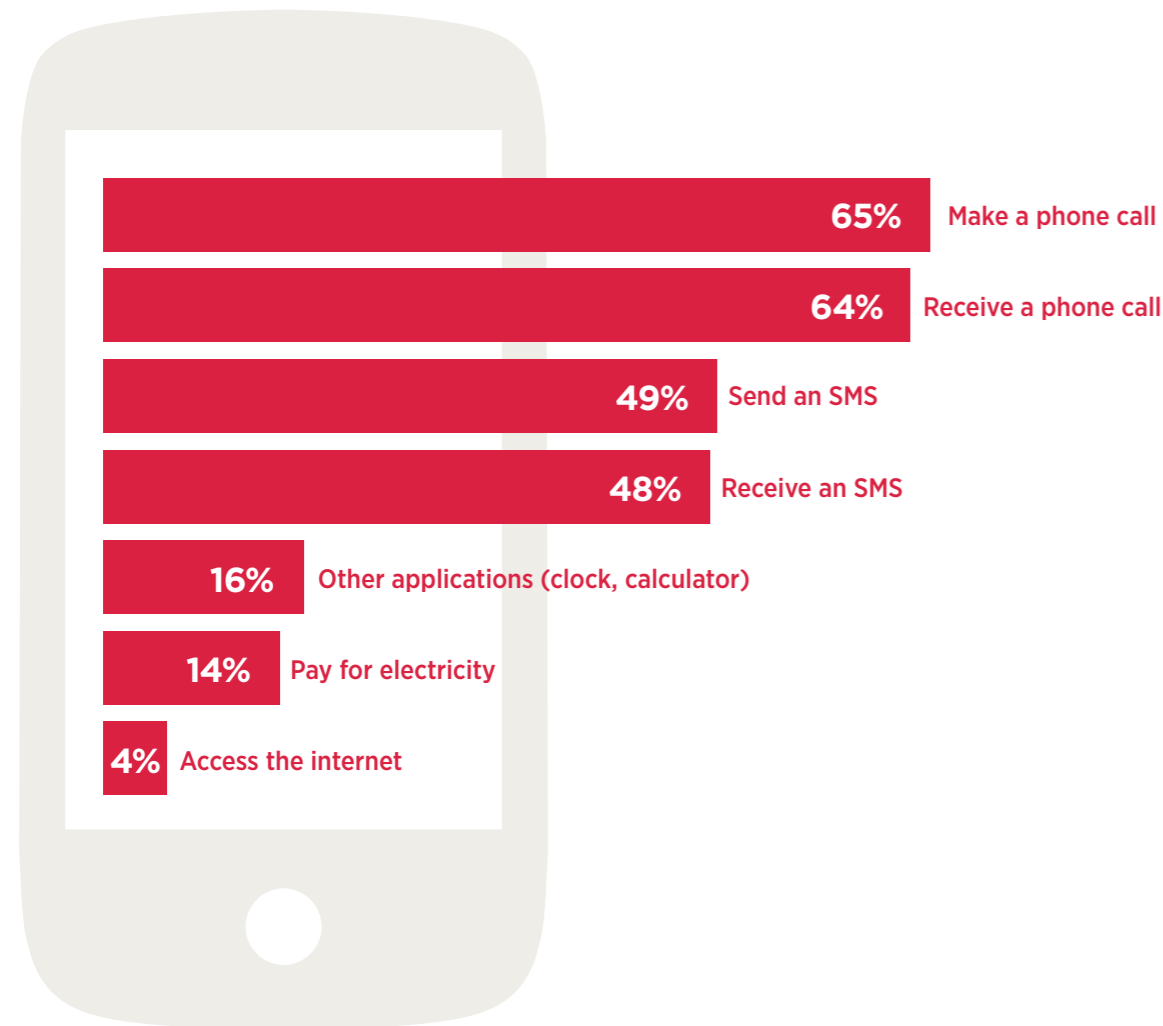
Some of the other women in our women's group are not able to get a mobile phone because they are afraid that the men will use it to control them. I've even heard a few women mention that their husbands have given them a phone, only to smash it when they are drunk and jealous. My husband is not like that,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

Over half of women subscribers understand how to use the basic functionalities of their mobile phone and the majority of subscribers (65%) are comfortable making and receiving calls. Just less than half of women are comfortable sending and receiving texts (49% and 48% respectively). Figure 15 includes these and other mobile phone features that respondents feel comfortable using. These figures indicate an overall lack of technical literacy for women in PNG in using mobile phones especially for more complex value added services that is a barrier to mobile phone adoption and usage. However, focus group discussions also revealed that women are eager to get the most value out of their phones as possible, including mimicking or desiring advanced handset features that other women utilized, indicating a strong desire and potential market opportunity for mobile service providers.

Figure 15

Mobile phone features respondents are comfortable using

% of subscribers



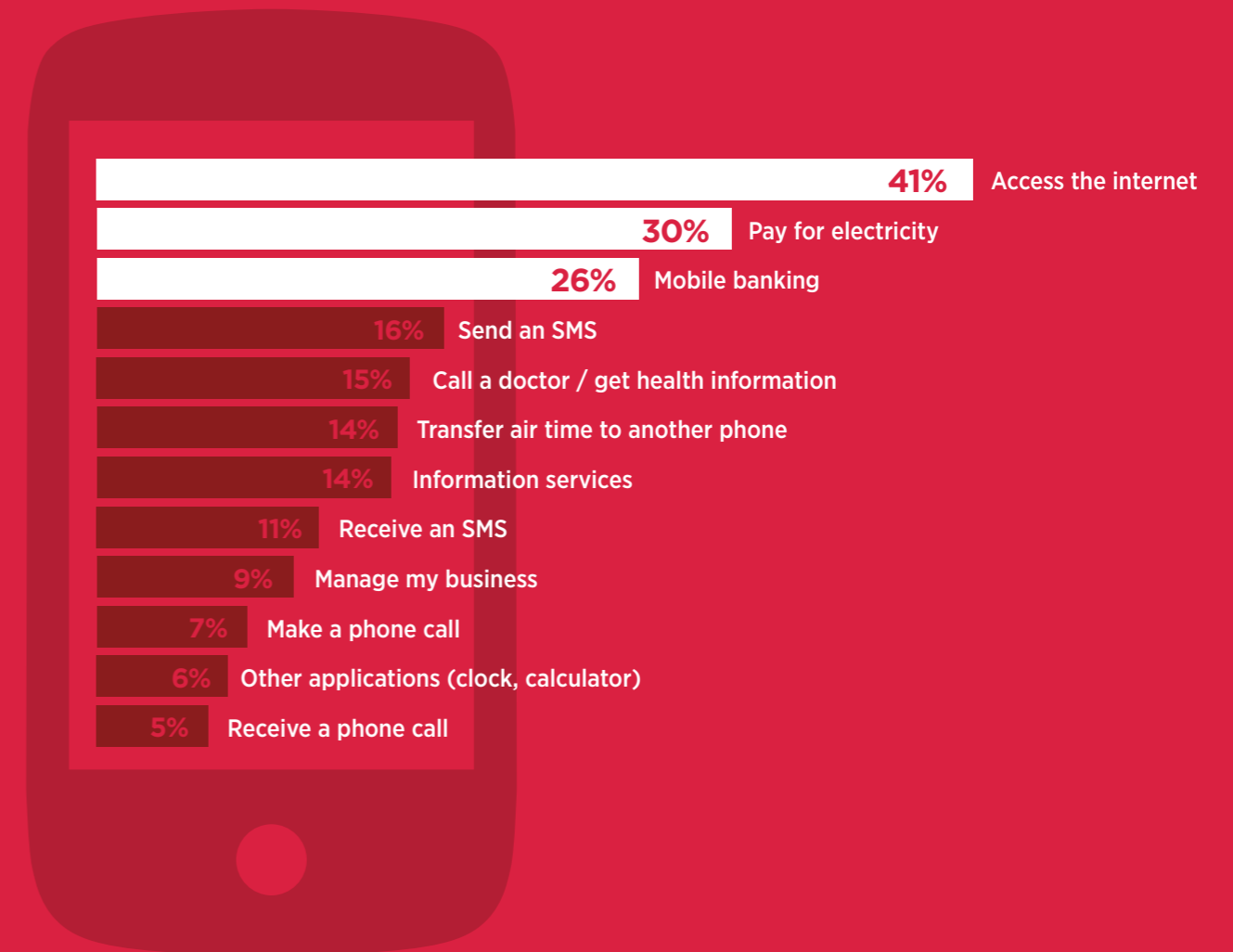
Note: Respondents could choose more than one option

For example, despite the low usage of advanced handset features by respondents, they expressed a strong desire to learn how to access the internet, pay electricity bills, and use mobile banking. Figure 16 details the range of advanced features that women would find useful.

Figure 16

Mobile phone features respondents would like to learn about

% of subscribers



Note: Respondents could choose more than one option

Understanding barriers to access

Understanding the barriers that stand in the way of women using mobile services – economic, social and cultural – will help mobile operators to find appropriate and sustainable ways to attract new women into the market and better serve existing subscribers.

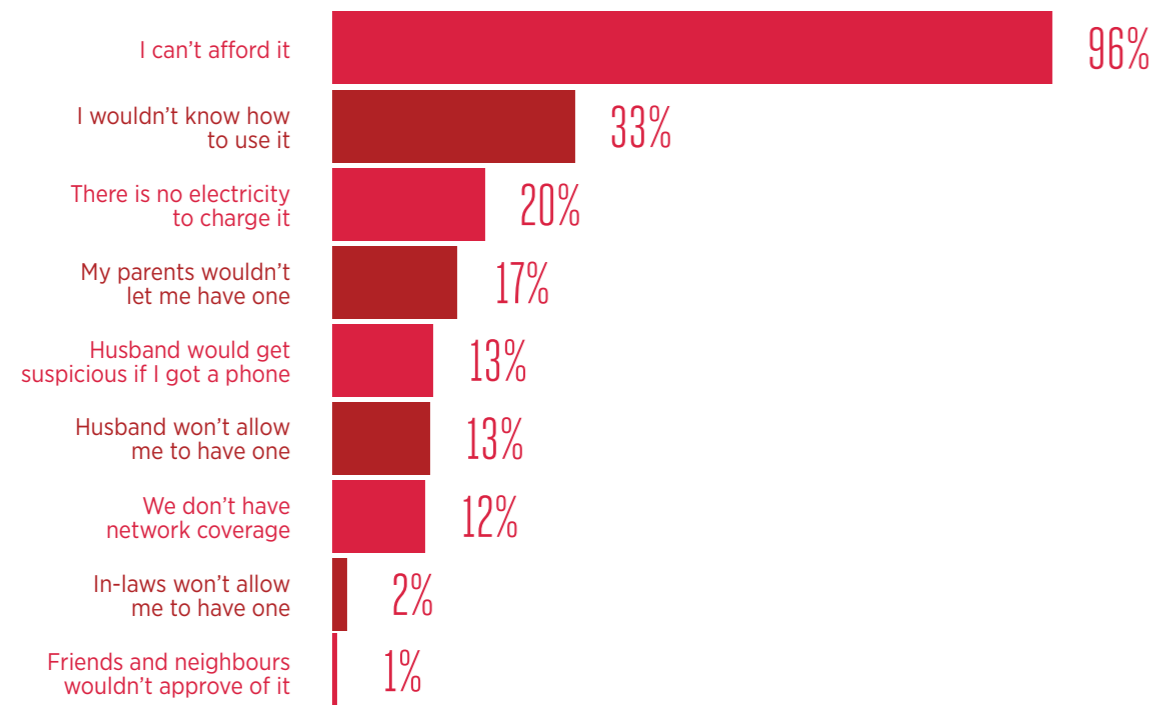
NON-SUBSCRIBERS

Total cost of ownership is clearly the greatest barrier to women adopting mobile phone services – 96% of non-subscribers identify it as a key constraint. Cultural resistance to women using a mobile phone, low technical literacy and lack of electricity are other major barriers (see Figure 17).

Figure 17

Barriers to adopting mobile phone services

% of non-subscribers



Note: Respondents could choose more than one option

SUBSCRIBERS

Almost half of respondents (48%) who own mobile phones also think that they cost a lot to use. About one-third (31%) of subscribers spend 10-20% of their weekly income on mobile services, while 60% spend between 1% and 10%.

Some women (22%) who owned a mobile phone reported that it makes their husbands suspicious of who might use the phone to contact. In focus group studies, many men mentioned that they often fear “loss of control” if their wives have access to a mobile phone. They also worry that if their wives own a mobile phone they will neglect their household duties. These and other disadvantages are detailed in Figure 18.

INSIGHTS FROM FOCUS GROUP DISCUSSIONS

Focus group discussions also revealed potential issues around gender based violence related to mobile phones. Aside from mobility benefits (which many men fear), there is a special issue in the market of “unknown callers”. Women fear receiving calls from “unknown callers” because this might aggravate their husbands. She might be beaten or the phone smashed as the husband will fear promiscuity. Suspicion of affairs is high. For this reason some women refuse to own a mobile, as they are frightened of what will happen with their husband if they do. Not having a mobile is a risk averse strategy. Some women allow their husbands to gate keep their mobile, and access it when needed in front of him. This is another risk averse strategy to prevent problems in the household.

However, especially in regards to daughters, fathers often felt protective and concerned about the safety of their daughters when using mobile phones. Teenage pregnancy is high and gender-based violence is common. Fathers desperately want to protect their daughters.

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

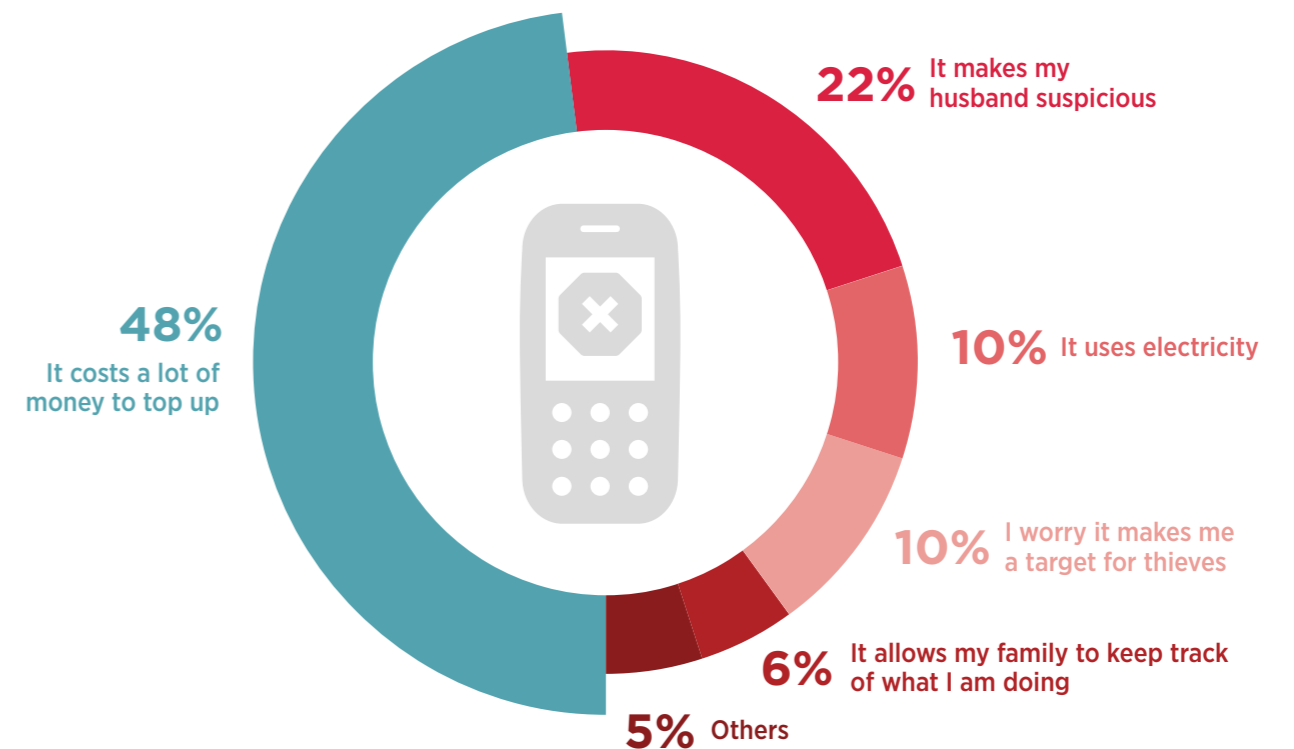
MALE FOCUS GROUP PARTICIPANT ON WOMEN OWNING MOBILE PHONES

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

Figure 18

Disadvantages of using mobile phone services

% of subscribers





Mobile in women's lives: A snapshot

Sussan, Papua New Guinea

My name is Sussan Staples. I am 36 and I live in a little seaside village in Papua New Guinea. Port Moresby is our nearest big city. My village used to depend on fishing, but now there is a foreign company here which extracts liquid natural gas and many people work for them, like my husband.

I live with my three children, my husband and his two brothers and their families, so it is a very crowded household. While my husband works I mostly look after the children, although I also make sure I bring in some extra money by working myself. I'm proud to say my little business selling betel nuts, sweets and ice blocks is doing well.

I have had a mobile for about four years now; I was one of the first women in the village to get one. Now I can't imagine life without it! These days, I use it mostly to text, because the phone company does a good deal on SMS. I often use it to stay in contact with my customers, and let them know when I have good things to offer.

Recently I heard that you will be able to use text to send money, which would be very useful, as sometimes I send money to my relatives, and sometimes they do the same for me if we are not doing well for money. They live far away, so this would save a lot of time and effort. I also use the phone for everyday things. I text my husband and tell him what food he should pick up for the family before he comes home. It's so useful!

This section reports the ways in which women from low-income households in PNG access information and communication technologies. Shedding light on women's preferred sources of advice and decision-making habits will help the mobile industry to identify appropriate channels for communicating the benefits of mobile and developing strategies to deliver mobile technology to more women. A key element of a successful outreach strategy is to communicate the benefits of mobile phones in a way that women will relate to and trust, in addition to lowering the total cost of owning a mobile phone.

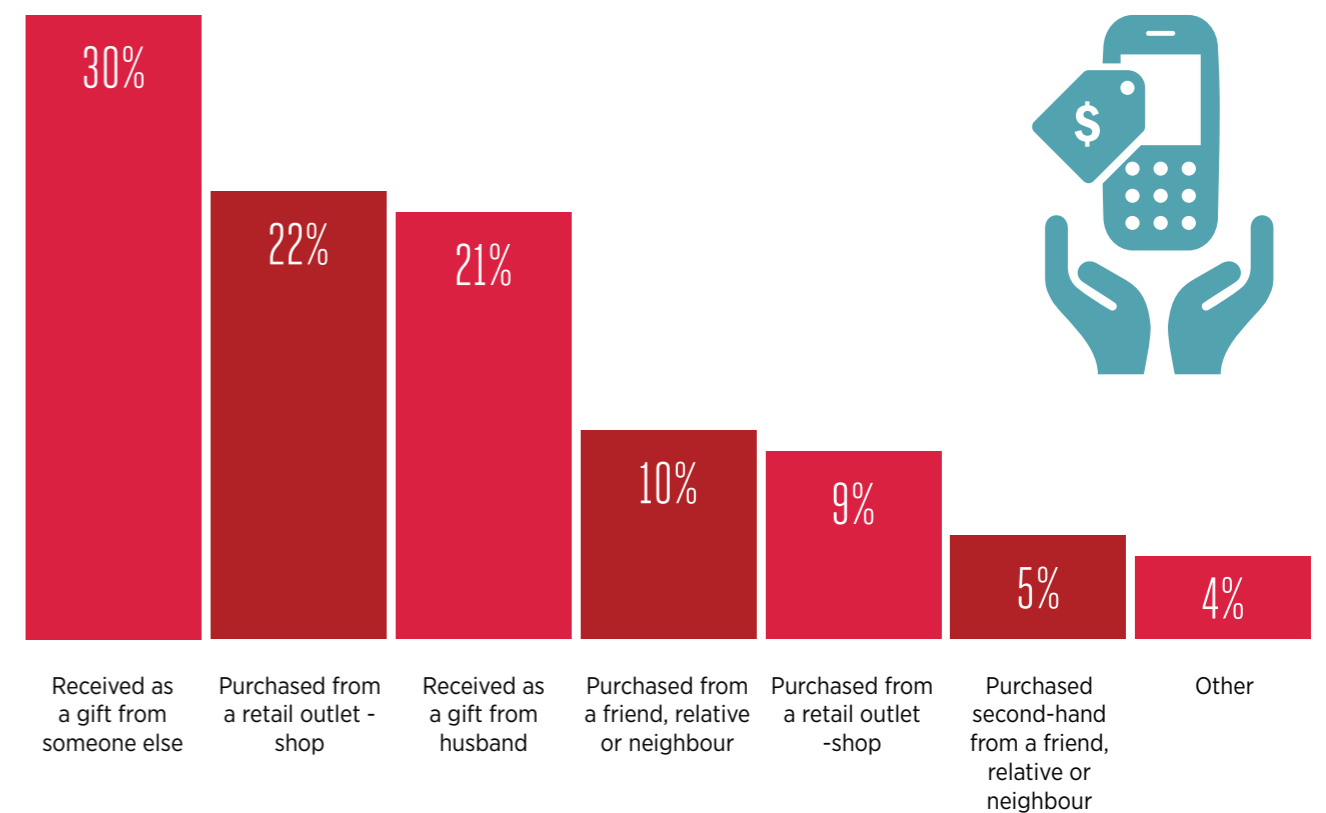
Purchasing decisions

Extended family members, especially parents, and husbands play an important role in helping women gain access to mobile services. Many subscribers (30%) received a mobile handset as a gift from others, and 42% of subscribers mentioned that their husbands have a major influence on their choice of mobile handset. These findings are consistent with the kinship and 'wantok' social structure in PNG.

Figure 19

Channels used to purchase mobile phone services

% of subscribers



Communicating the benefits of mobile

Women's groups are an important channel through which to reach women. Nearly 83% of all respondents participated in these groups, with 59% attending meetings at least once a week. This number is higher in rural areas, where 87% of respondents attend women's group meetings compared to 79% of urban respondents. In focus group discussions, many of these groups are religious in nature and are often church groups in the areas in which the research took place.

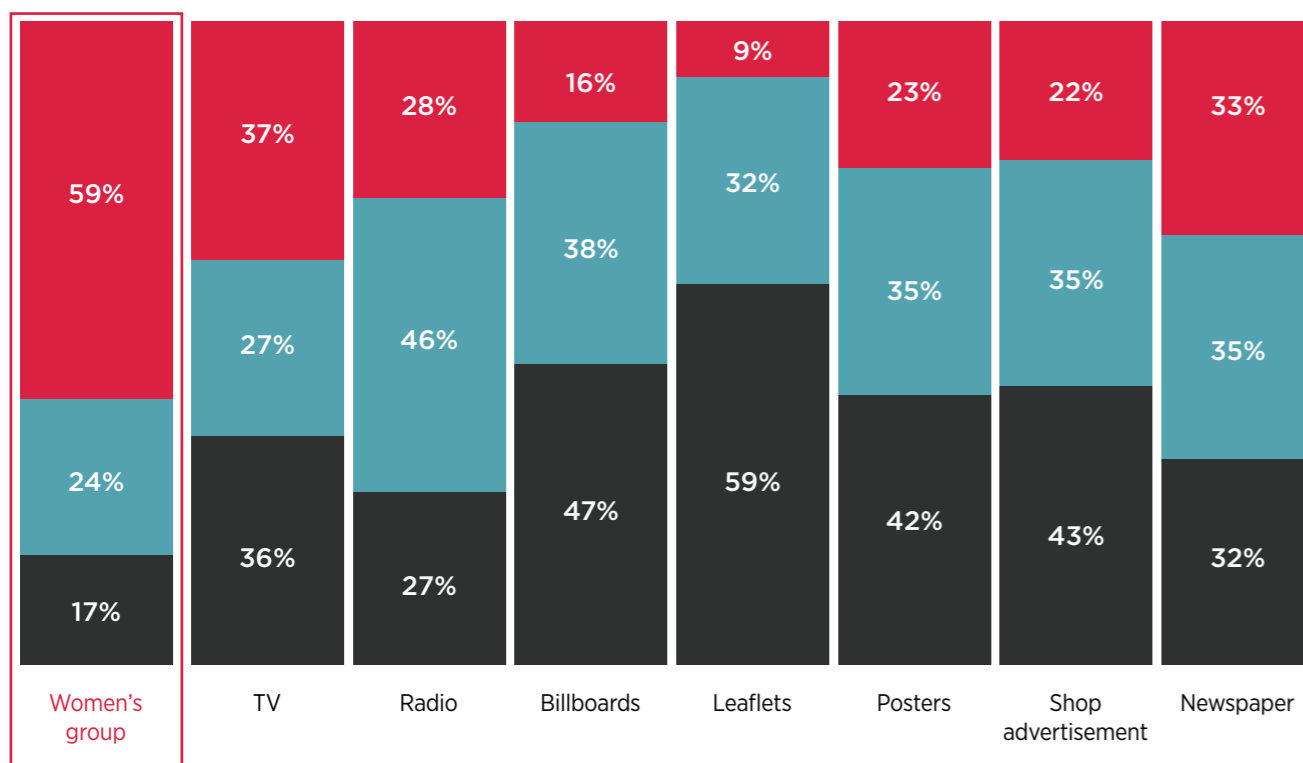
Marketing channels

Women report using a variety of marketing channels to access information, including television, local and national radio and newspapers. Radio and newspapers are equally popular in rural and urban areas, although television is more common in urban areas. However, given that women's groups are most commonly attended on a regular basis by women relative to above-the-line marketing channels, below-the-line marketing tactics to networks of women are most likely to be effective in PNG to reach women at the base of the pyramid.

Figure 20

Frequency of use of media channels and women's groups

% of respondents who utilise this channel



■ At least once a week
■ Less often than once a week
■ Unfamiliar with this media or not relevant

Women's groups

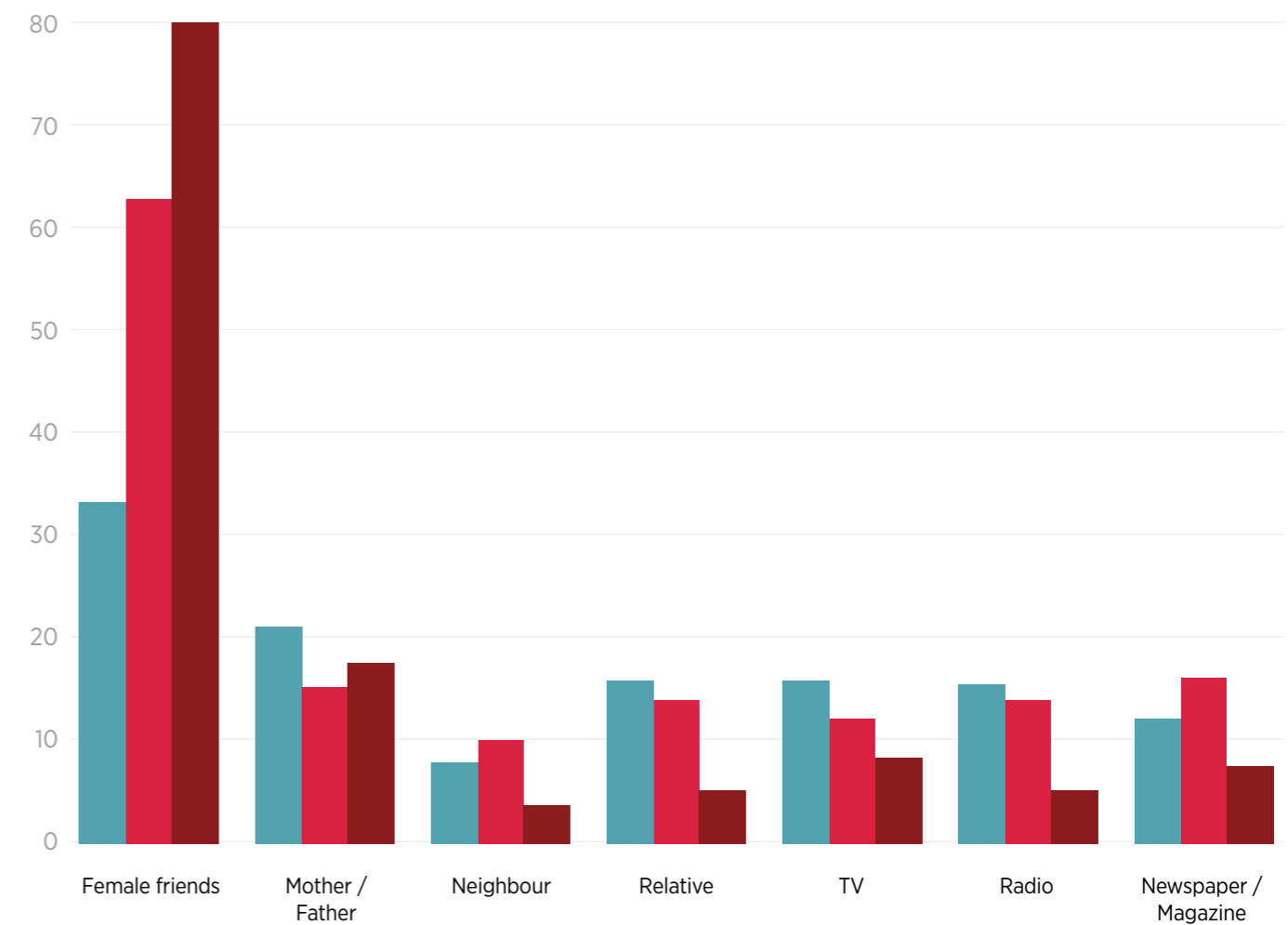
Women often consult their female friends for advice on various matters. For information on pregnancy and general health issues, women overwhelmingly consult women they know. Women turn to other sources as well, depending on the nature of the subject. Only for business advice do women consult local leaders more than other women. Figures 21-24 identify women's most trusted sources of advice on a variety of issues.



Figure 21

Source of advice on health

% of respondents



■ Children's healthcare
■ General healthcare
■ Pregnancy



Figure 22

Source of advice on business
% of respondents

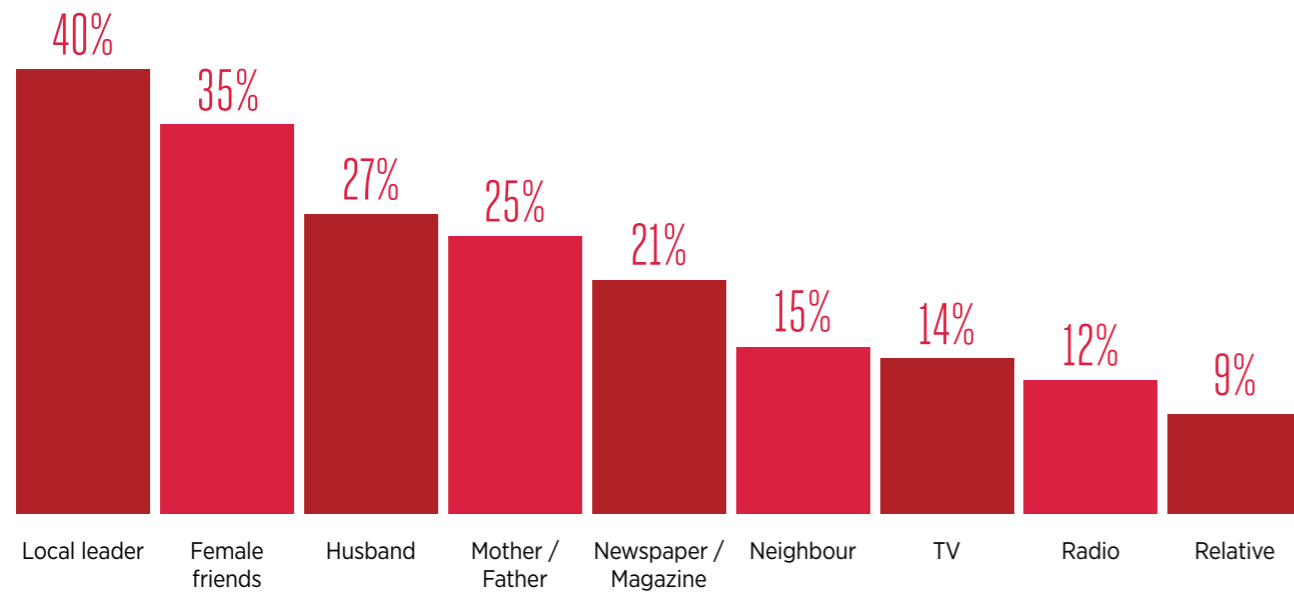


Figure 23

Source of advice on money management
% of respondents

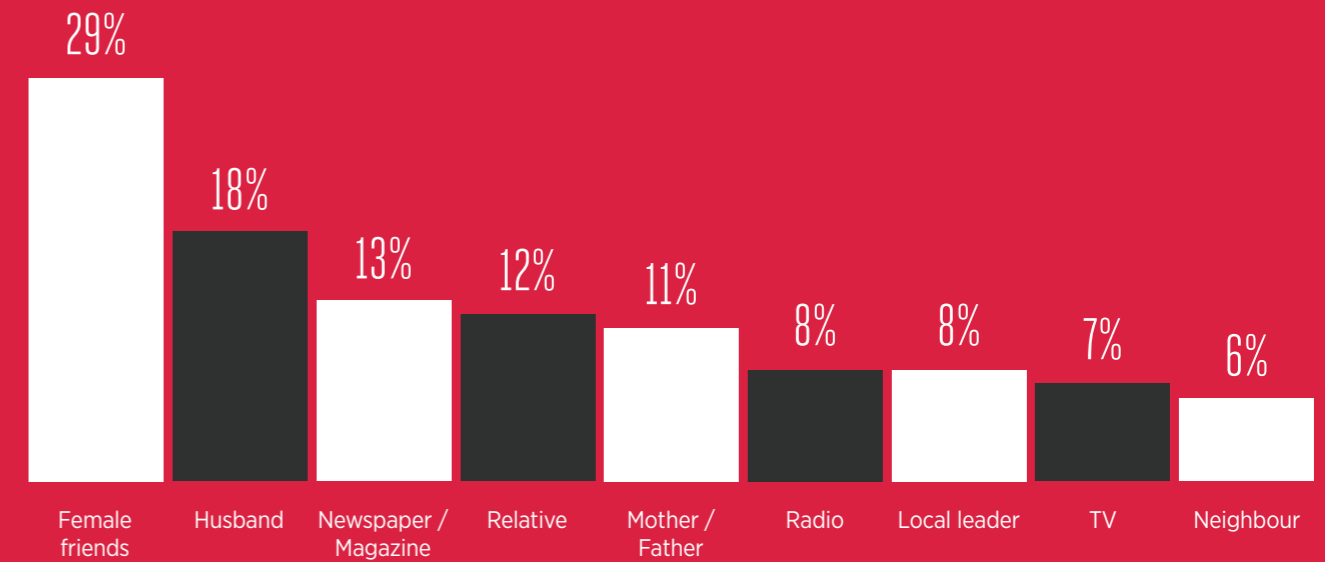
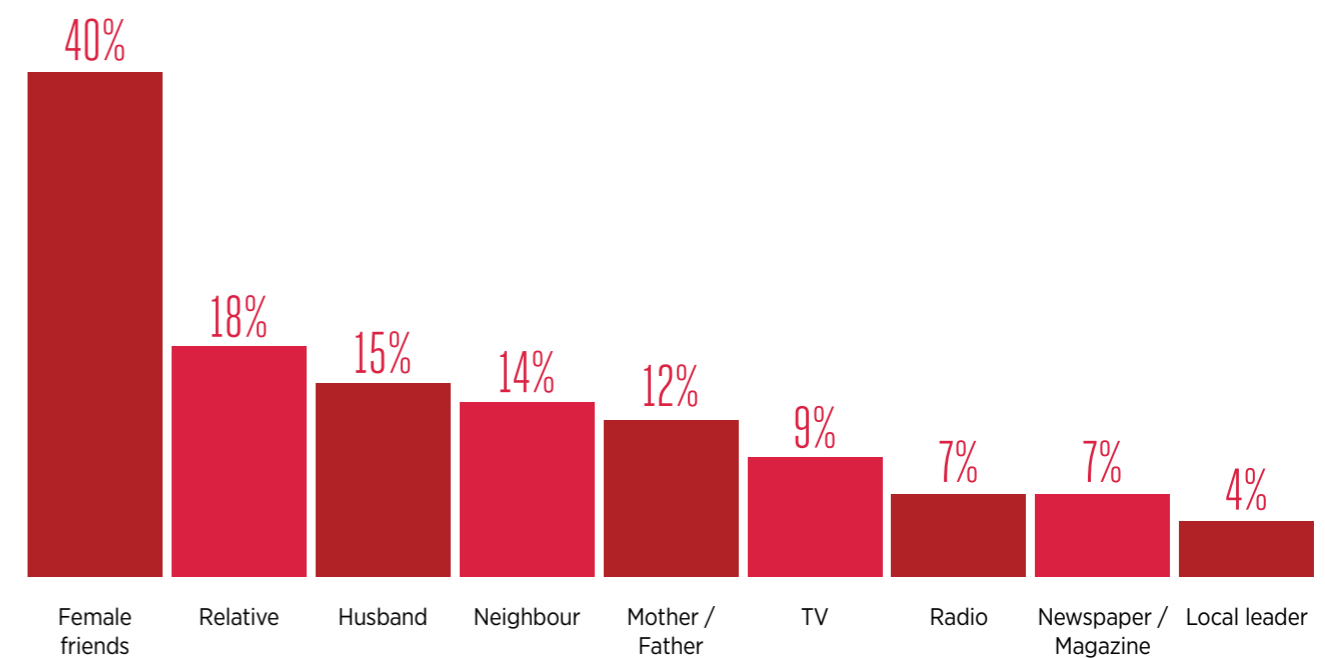
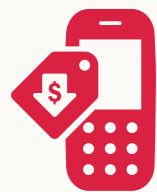


Figure 24

Source of advice on education
% of respondents



Recommendations for the mobile industry



Lower the total cost of ownership to help drive adoption

BoP women in PNG do not have disposable income to spend on non-essential items – only 6% rural women interviewed had their own SIM, and 96% of those without a phone identified cost as the major barrier to owning a mobile phone. For those with a phone, almost a third of women reporting spending 10-20% of their weekly income on calling and using SMS. It is imperative to market to these realities. Industry players should continue to find ways to offer affordable plans to lower the cost of the initial handset purchase, voice and data plans, and facilitate charging of phones in places where electricity is expensive or unavailable.

In focus group discussions, women reported topping up credit in increments of 3-4Kina typically, and as they understood how pricing worked on their phone, often waiting until promotions, or other offers came through to top up credit as well as shortening calls or even giving up meals to top up phones when necessary. They also turned off phones at night to preserve battery life.



Include design features appealing to women

In focus group discussions, BoP women in PNG cited design features such as longer battery life, ease of use, and durability. Also, given the risk of theft, women wanted phones that “fit with being a rural woman” and do not stand out too much or are too flashy. Waterproofing was one of the most heavily cited features that would be desirable for women. Women also had aspirations for cameras and touch screens, which seemed practical and modern.

Results of Focus Group Discussions: Handset brand perceptions in PNG



Nokia – well known, simple functions, easy to use, longer battery life, easy to charge because they were an early market entrant and are ubiquitous



LG – wireless, clear keypad, has a good torch (easy to turn on), one touch button for FM radio, so easy to use, modern look



Alcatel – strong brand awareness, common handset, strong case (“can be dropped over and over and does not break”), popular (“it’s coming up”), cheaper (K26 purchase price)



Motorola – cheap, older handset style, strong handset - lasts long time, maybe 5 years or more, “unbreakable”



Huawei – new, started coming in, Chinese made (so cheaper, lesser quality), some knowledge of dual SIM variant, associated with BeMobile (also means lower quality, less modern)



Address social and cultural barriers in marketing efforts

Manifold antisocial behaviours such as gang activity and extramarital affairs are associated with mobile use in PNG. Because of this negative association, significant numbers of women stated that their family (17%) or husbands (13%) would not let them own a mobile phone. A clear rationale other than just communicating with friends needs to be demonstrated to build the case for women’s mobile ownership to gatekeepers. Aspects such as safety and time savings should be highlighted. As a result, reframing and marketing mobile as a life-enhancing tool not only to potential women owners, but those community members who can influence or control women’s usage.



Utilize women’s groups and below-the-line marketing techniques

Women’s groups in PNG play an important role with 59% of survey respondents attending at least once a week. This finding, in addition to the fact that women in PNG largely go to other women for advice on a wide range of topics, indicates that traditional media channels to reach women are unlikely to be effective. Below-the-line marketing activities through women’s groups are likely more effective to reach these women. Partnerships with NGOs that work with large groups of women are potentially an effective mechanism to reach these women.



Address technical literacy challenges

In rural environments women are less likely to own a mobile phone than men, borrowing mobiles from a household or community member is more common. When a phone is borrowed, a woman is less likely to use it frequently and has less opportunity to become familiar with different tools and functions such as SMS or mobile money leading to low levels of technical literacy. Women also typically have lower levels of reading and writing ability than men, which further exacerbates these issues. These issues then naturally lead to lower adoption of mobile and less usage of VAS and other advanced features, which lowers revenues for MNOs and prevents women from gaining the full social benefits of phone ownership. To address this issue, operators should consider working with community organisations, savings groups and other partners to develop and implement tools and resources that will help women understand key mobile functions and how to use them, utilising voice and visual aids to ensure appropriate levels of learning materials for low literacy communities in PNG.



Find ways to help customers lower the cost of charging

With the majority of PNG off the grid – 88% of respondents do not have access to electricity at home – charging mobile phones represents a challenge, both in terms of costs to travel to a location with electricity and the cost of charging the phone itself. This infrastructure challenge is likely to remain for some years to come, and will only be felt more acutely with the introduction of smartphones, which drain battery life significantly faster than basic or feature phones. Mobile operators must consider this issue when selling to rural communities and consider alternative solutions, such as solar power resources, both at a household and community level.

Conclusion

This report aims to provide a deeper understanding of the needs and aspirations of women from low-income households in PNG, how they are currently using mobile phone services and the barriers to adoption and usage to mobile services. We hope that our research findings will help to inform the work of the mobile industry, government and the development community, and enable them to better serve women in PNG.

Mobile phone services have the potential to be a life-changing tool for women at the BoP, whether they are providing women with crucial healthcare information or giving them access to financial services to set up businesses of their own. There is a strong link between the needs and aspirations of the women we surveyed and the services and benefits that mobile provides.

However, women in PNG today are much less likely than men to have access to mobile phone services primarily due to barriers around cost, technical literacy, cultural and infrastructure constraints. If the mobile industry is to be successful in reaching and meeting the needs of low-income women in PNG, it will have to address these barriers when designing products, services, marketing campaigns and distribution channels. Moreover, additional support from other stakeholders like government, regulators and NGOs is critical to reaching women at the base of the pyramid in PNG.

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 500 BoP women in PNG, ethnographic and qualitative studies in-country, expert interviews, analysis of TNS' Mobile Life Study and secondary research amongst both the academic and commercial corpus of knowledge. 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 PNG 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 Connected Women 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. 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 life stages – 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 500 BoP women aged between 16 and 64 were surveyed across PNG, 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
PNG	250	259	509

We employed a random sampling methodology to ensure that we interviewed a representative selection of BoP women in terms of age and other demographics, and also set quotas to ensure that a sufficiently large number of both mobile users and non-users were interviewed. Data was 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’ was defined as those living in households earning less than 5 Kina per day (equated to approximately USD 2.3 per day).

Our questionnaire was informed by input from the GSMA Connected Women 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.

Abbreviations and Glossary

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

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

CDR - Call Data Record/Charging Data Record

DFAT - Department of Foreign Affairs and Trade (formally, AusAID)

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



To view the report online visit
www.gsma.com/connectedwomen

