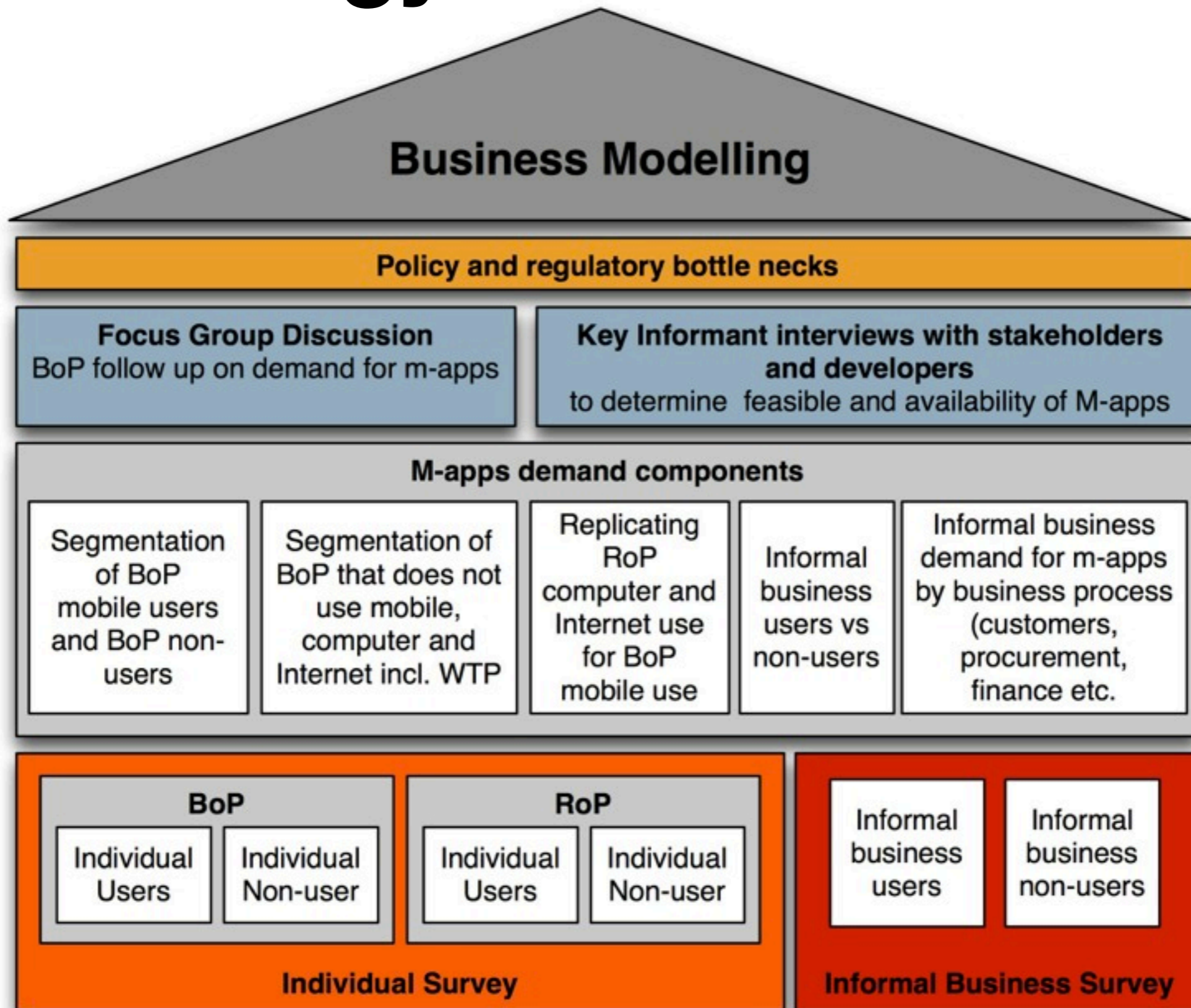


# Mobile Apps at the Base of the Pyramid - South Africa

Vodacom, Cape Town, 15 February 2013



# Methodology

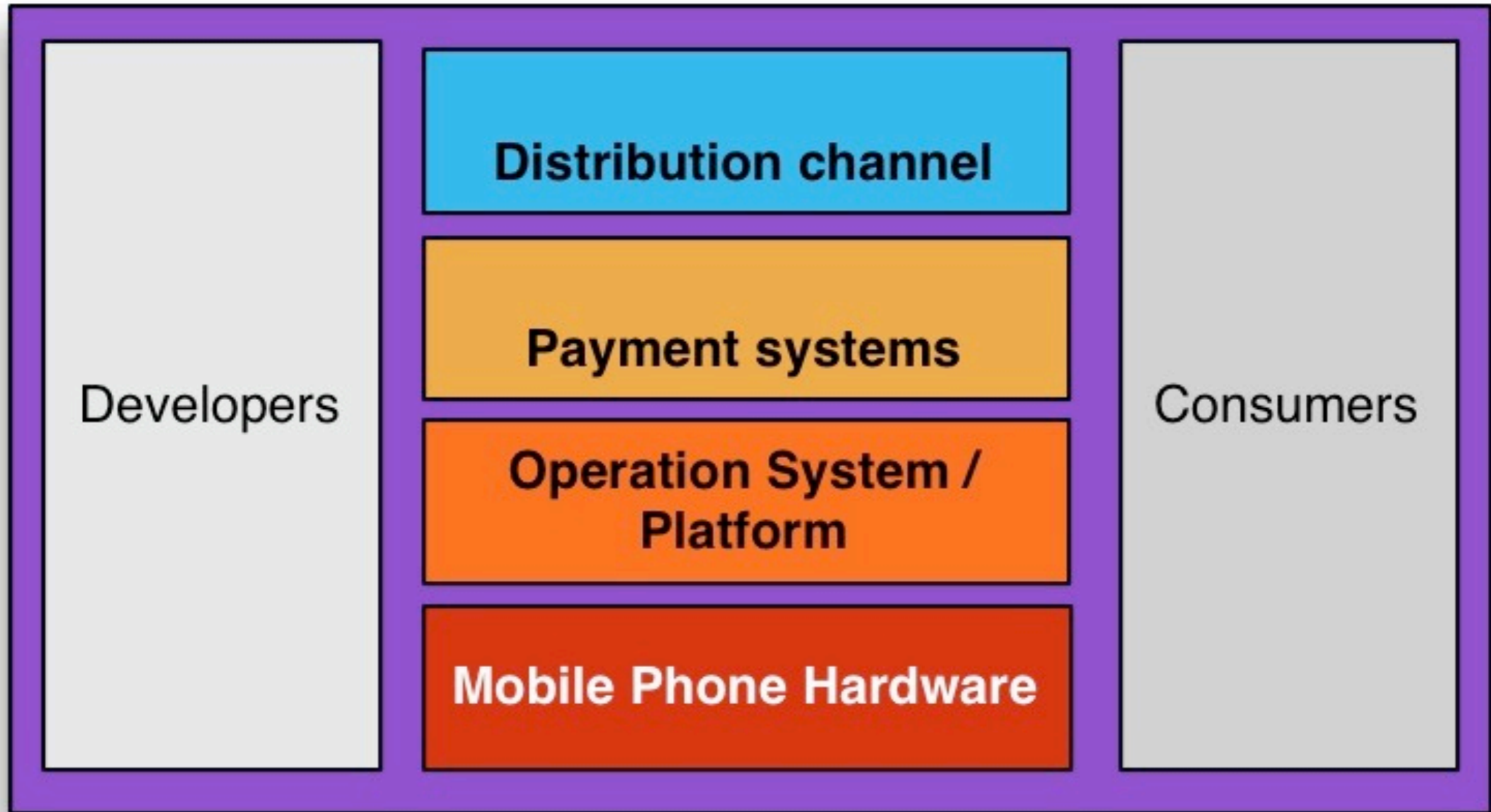


# Nationally Representative Survey

## Survey summary

Survey Characteristics	Household & Individuals	Businesses
Target Population	All households and all Individuals 15 years or older.	all businesses
Domains	1 = national level	
Tabulation groups	Urban, Rural	national level
Oversampling	Urban 60% Rural 40%	
Clustering	Enumerator Areas (EA) national Census	
None Response	Random substitution	
Sample Frame	Census sample from NSO	
Confidence Level	95%	95%
Design Factor	2	1
Absolute precision	5%	5%
Population Proportion	0.5, for maximum sample size	
Minimum Sample Size	768	384

# Mobile Apps Ecosystem



# Mobile Apps Ecosystem

Generic Framework	Apple's Model	Google's Model	Mxit model	Facebook	Blackberry
<p>API, Software development kits, (SDK), certification</p> <p><b>Training &amp; Support</b></p>	<p>Public API, iOS SDK, Apple stores, certification programme</p> <p><b>Training &amp; Support</b></p>	<p>Public API, Android SDK, 3rd party academies and forums</p> <p><b>Training &amp; Support</b></p>	<p>Public API, Mxit SDK</p> <p><b>Training &amp; Support</b></p>	<p>Public API, Facebook SDK for iOS, Android, Java, PHP</p> <p><b>Training &amp; Support</b></p>	<p>Public API, BlackBerry SDK and JDE</p> <p><b>Training &amp; Support</b></p>
<p>3rd Party</p> <p>OS app store</p> <p>Operator app store</p> <p><b>Distribution channel</b></p>	<p>Itunes</p> <p><b>Distribution channel</b></p>	<p>Google Play</p> <p><b>Distribution channel</b></p>	<p>Mxit App store</p> <p><b>Distribution channel</b></p>	<p>Facebook app store</p> <p><b>Distribution channel</b></p>	<p>Blackberry App World</p> <p><b>Distribution channel</b></p>
<p>Credit Card</p> <p>Mobile Money</p> <p>Air time</p> <p>Platform currency</p> <p><b>Payment systems</b></p>	<p>Credit Card</p> <p><b>Payment systems</b></p>	<p>Credit Card</p> <p>Google Wallet</p> <p><b>Payment systems</b></p>	<p>Standard Bank</p> <p>FNB Mobile Money</p> <p>Air time</p> <p>Moola</p> <p><b>Payment systems</b></p>	<p>Credit Card</p> <p>Local currency</p> <p>Airtime</p> <p>PayPal</p> <p><b>Payment systems</b></p>	<p>Credit Card</p> <p>Airtime</p> <p>PayPal</p> <p><b>Payment systems</b></p>
<p>Apple iOS</p> <p>Android</p> <p>Java</p> <p>Symbian</p> <p>Windows mobile</p> <p>Other</p> <p><b>Operation System / Platform</b></p>	<p>Apple iOS</p> <p><b>Operation System / Platform</b></p>	<p>Android</p> <p><b>Operation System / Platform</b></p>	<p>Apple iOS</p> <p>Android</p> <p>Java</p> <p>Symbian</p> <p>Windows mobile</p> <p><b>Operation System / Platform</b></p>	<p>Apple iOS</p> <p>Android</p> <p>Java</p> <p>Symbian</p> <p>Windows mobile</p> <p>Other</p> <p><b>Operation System / Platform</b></p>	<p>BlackBerry OS</p> <p><b>Operation System / Platform</b></p>
<b>Mobile Phone Hardware</b>	<b>iPhone</b>	<b>Android Phones</b>	<b>Feature or smart phone</b>	<b>Feature or smart phone</b>	<b>BlackBerry</b>

# Understanding the BoP and how they are communicating



# Mobile Ownership and use

		BoP	RoP	Difference
Mobile phone ownership		74.8%	88.7%	13.9%
More than 1 Active Sim Card		15.6%	14.2%	-1.4%
Is your Mobile Phone main sim card...	Prepaid	98.5%	83.7%	-14.8%
	Postpaid	1.5%	16.3%	14.8%
Where do you charge your mobile phone mostly?	Home	82.6%	96.6%	14%
	Shop	15%	1.5%	-13.5%
	Work/School	0.2%	1.6%	1.4%
	Other	2.2%	0.3%	-1.9%
Is your mobile phone capable of browsing the Internet?		33.2%	57.7%	24.5%
Do you share your mobile phone with others?	No	79.1%	88.1%	9%
	Daily	8.1%	6.4%	-1.7%
	Once a week	2%	0.9%	-1.1%
	Several times a week	1.7%	1.1%	-0.6%
	Several times a month	0.5%	0.1%	-0.4%
	Occasionally	8.6%	3.3%	-5.3%

# What mobiles are being used for

	BoP	RoP	Difference
Making and receiving calls	99.4%	99.3%	-0.1%
Missed call/please call me etc.	96.8%	91.9%	-4.9%
Sending and receiving text messages (SMS)	96.6%	96.6%	0.0%
Personal Organiser/Diary/Notebook/Watch	66.8%	75.7%	8.9%
Playing Games	42.8%	44.6%	1.8%
Listen to music/radio	37.5%	44.2%	6.7%
Taking photo/video clips	36.3%	61.7%	25.4%
Browsing the internet	13.6%	32.2%	18.6%
Facebook/Twitter/Mxit/other social networking	12.8%	29.3%	16.5%
Download applications to mobile phone	11.1%	26.3%	15.2%
Transfer airtime	10.2%	25.7%	15.5%
SMS to Radio or TV programs	6.1%	10.4%	4.3%
Reading and writing emails	5.2%	21.4%	16.2%
International calls	4.3%	18.1%	13.8%
Sending or receiving money	3.6%	9.9%	6.3%
Roaming when abroad	0.8%	6.3%	5.5%
Skype/VOIP	0.5%	3.9%	3.4%



# Mobile phone users that agreed with following statements:



# Using the mobile phone for health purposes

Have you ever used your mobile for health purposes?	RoP	BoP
Set an alarm for appointment at clinic or doctor	26.6%	14.1%
Set an alarm for taking medicine	19.3%	8.9%
SMS reminder from clinic or doctor	14.9%	6.8%
Contact with health-care workers (including doctor)	78%	73.6%



# Of those that do not have a mobile phone

		BoP	RoP	Difference
Why do you not have a mobile phone?	I cannot afford it	70.4%	54.4%	-16.0%
	No mobile coverage where I live	2.2%	1.1%	-1.1%
	No electricity at home to charge the mobile phone	12.6%	5.4%	-7.2%
	I don't have anyone to call	4.7%	7.7%	3.0%
	My phone is broken	29.3%	29.1%	-0.2%
	My phone got stolen	20.3%	15.9%	-4.4%
Did you use a mobile in the past three months?		48.8%	56.9%	8.1%
Whose mobile did you use?	Family Member	64.8%	67.5%	2.7%
	Friends/Colleague	26.1%	19.2%	-6.9%
	Public Phone on the Roadside	17.2%	18.1%	0.9%
Do you plan to get a mobile phone in the future? If yes, when?	No	44.1%	38.8%	-5.3%
	Within the next 6 months	20.3%	31.3%	11.0%
	Within the next year	26.9%	19.2%	-7.7%
	within the next 2 years	8.7%	10.6%	1.9%

# Internet access and use

Internet access and use		BoP	RoP	Difference
15+ using the Internet		18.4%	40.3%	21.9%
Used the Internet first on a computer		52.5%	70%	17.5%
Used the Internet first on a mobile		47.5%	30%	-17.5%
Where did you use the Internet in the last 12 months?	Any place via a mobile telephone	70.7%	68.7%	-2.0%
	Home	15.5%	48%	32.5%
	Work	6.5%	45.3%	38.8%
	Place of education	23.3%	17.6%	-5.7%
	Internet Café	40.5%	32.5%	-8.0%

# Internet access and use

		BoP	RoP	Difference
Are you signed up for any online social network (Facebook, Mxit, Twitter etc.)?		52%	78%	26.0%
Share of those that are signed up for a social network, that are on Mxit		47.7%	26.2%	-21.5%
Share of those that are signed up for a social network, that are on Facebook		68.4%	88.9%	20.5%
Do you have an email address?		29.3%	75.9%	46.6%
How often on average have you used the internet in the last 3 months?	Every day or almost every day	44.6%	68.9%	24.3%
	At least once a week	28.3%	23%	-5.3%
	At least once a month	27.1%	5.8%	-21.3%
	Less than once a month	0%	2.2%	2.2%

# What limits your use of the Internet?

	BoP	RoP	Difference
there is no interesting content for me	30.5%	19.4%	-11.1%
lack of local language content	4.3%	9.3%	5.0%
the Internet is very slow	20.8%	25.3%	4.5%
to expensive to use	47.9%	36.1%	-11.8%
few people to communicate with via the Internet	21.8%	19.3%	-2.5%

# Using Internet daily for the following activities

■ BOP ■ ROP



# Reasons for not using the Internet

	BoP	RoP	Difference
I don't know what the Internet is	65.2%	42.7%	-22.5%
No interest / not useful	34.1%	46.1%	12.0%
I don't know how to use it	85.8%	69.6%	-16.2%
No computer / internet connection	91.2%	83.8%	-7.4%
Too expensive	60.1%	59.1%	-1.0%
No time, too busy	20.1%	23.3%	3.2%
None of my friends use it	66%	50.7%	-15.3%
Is too slow, limited bandwidth	10%	9.8%	-0.2%



# Computer usage, BoP/RoP breakdown

		BoP	RoP	Difference
15+ using a computer (Desktop or laptop)?		12.8%	36.8%	24.0%
Where computer is used	Work	1.7%	49.6%	47.9%
	School, University	36.7%	17.8%	-18.9%
	Library	5.7%	5.5%	-0.2%
	At home	34.7%	63.9%	29.2%
	Internet Café	43.4%	26.9%	-16.5%
	At a friends place	30.3%	19.8%	-10.5%
What the computer is used for	Writing letters, editing documents	62.2%	76.2%	14.0%
	Calculations using spreadsheets such as Excel: What do you use your computer for	53.4%	53.9%	0.5%
	Browsing the Internet: What do you use your computer for	57.4%	75.2%	17.8%
	Programming: What do you use your computer for	14.1%	39.1%	25.0%
	Remixing content found online: music, videos: What do you use your computer for	40.7%	35.6%	-5.1%
	Playing games: What do you use your computer for	72.3%	60.5%	-11.8%

# Various health applications

Application	Description
HI4LIFE	A mobile service to allow South African women and their partners access to relevant up-to-date, health information on HIV, pregnancy and baby health
Eastern Cape Department of health Shared Call Centre	Provides a central point where all queries are received, processed and managed to provide value added service and bridge the gap between the health services and the communities that utilise the service
SIMpill	A Medication Adherence System that assists patients/or carers in making sure that medication is taken as prescribed. It can detect non-compliance in real time.
Cell-Life Communicate Services	Addresses health related logistical challenges such as the provision and distribution of anti-retroviral treatments, continuous patient monitoring and evaluation and collection and communication of relevant data
CommCare	Tracks activity and provides electronic job support during visits. Makes use of visual and audio clips to communicate health messages better.
EMIT	Allows facilitators to capture field data on mobile devices and submit via GPRS to a centralised database. OneVoice uses it to capture data on their HIV and AIDS prevention programme.
Wisepill	Provides ways to help users take medicine on time. It is a portable medication dispenser with a GSM communication chip. The dispenser provides message to a central management system whenever medication is taken.
Babyinfo	Pregnancy advise service.
MTN CareConnect	Healthcare offering a nurses' advisory line
Dispense.iDart	To assist antiretroviral pharmacies in dispensing antiretroviral treatment. Currently being used by 350,000 individuals and in 300 clinics
Young Africa Live	A combination of regularly updated dynamic stories and live chats and a series of permanent content pieces. Facts on HIV and AIDS; daily news & celebrity stories
be Bozza!	Platform ranging from social issues such as HIV, sexual health, to entertainment.

# Desirable m-app characteristics

## Mapp characteristics

Cost	<ul style="list-style-type: none"><li>•Up to ZAR5 to download the application</li><li>•No subscription required</li><li>•No additional costs required to use it except the paid for data-bandwidth</li></ul>
Payment/Billing system	<ul style="list-style-type: none"><li>•Once-off payment for the application or mobile content</li><li>•Airtime to pay for the mobile application or mobile content</li></ul>
Technical characteristics	<ul style="list-style-type: none"><li>•Low data bandwidth usage by the applications</li><li>•Optimised for micro-browsing</li><li>•No need to log-in to use it</li></ul>
Hardware	<ul style="list-style-type: none"><li>•Mostly basic phones</li><li>•Growing demand for feature and smart phones based applications</li></ul>
What for?	<ul style="list-style-type: none"><li>•Communicate with friends and family</li><li>•Entertainment such as music, videos and gaming</li><li>•Security and safety</li><li>•Search for job and education opportunities</li><li>•Health still relevant, but there are already many applications in the South African market related to health.</li></ul>
Distribution	<ul style="list-style-type: none"><li>•Word of the mouth</li><li>•Friends and family are using the applications</li></ul>

# Which m-app Ecosystem?

Generic Ecosystem	Apple's Model	Google's Model	Mxit model	Facebook	Bottom of BOP
M-app Type	OS based	OS based	Platform based	Platform based	Platform based
Distribution channel	iTunes	Google Play	Mxit App Store	App Center	Social Media
Payment systems	Credit Card or gift card	Credit Card or Google Wallet	Bank transfers airtime or platform currency Moola	Credit card, local currency	Airtime
Operation System	iOS	Android	OS agnostic	OS agnostic	OS agnostic
Hardware	iPhone	Android Phones	Feature / smart phone	Feature / smart phone	Basic, feature, smartphone
Revenue stream	30% of App & hardware sales	x% of App & advertising	Share of SMS and data revenue	30% of App & advertising	Share of SMS and data revenue
Key Players	Vendor	Vendor	Key Players	Key Players	Social media platform
Customers	400 million registered iTunes customers	+/- 350 million	45 million users, 10 million active	1 billion users	Facebook / Mxit
Number of Applications	635,000 225 billion downloads	450,000	+/- 700	9 million apps and websites integrated with Facebook	Unrestricted
Developer	43,185 iOS developer	10,199 Android developer	415	+/- 100,000	Unrestricted

