The State of Sudan Digital 2018
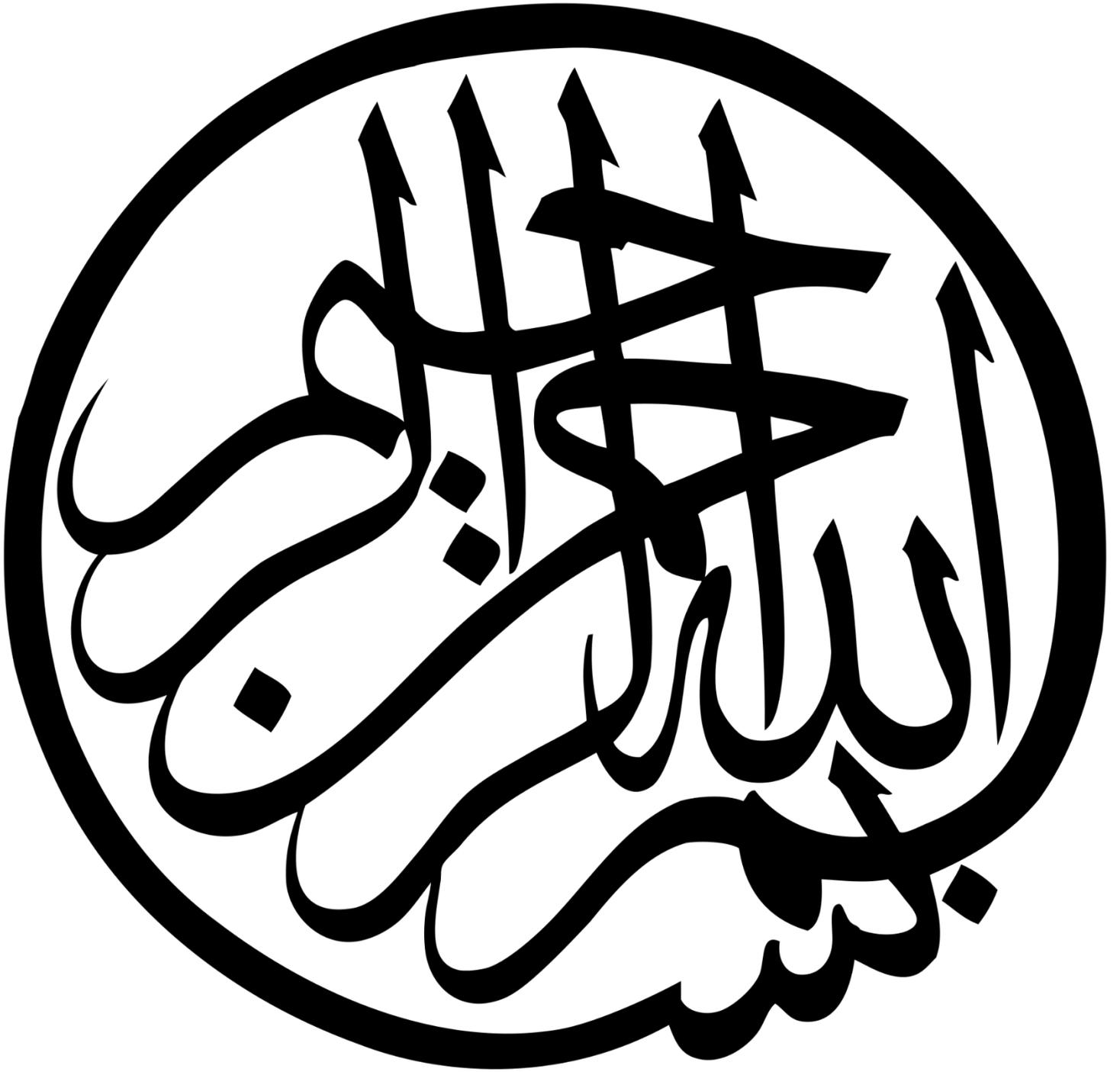
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ABOUT THE AUTHORS

Abdelaziz Mohammed Abdelaziz Musa

Abdelaziz moved to Sudan in 2017 following a 20-year career spanning the UK, USA, Australia, France and Dubai. He is a graduate of the Prestigious Warwick Business School (a Global top 20 MBA program), from where he obtained his MBA, and wrote a published dissertation entitled "How Big Companies Grow Small" an assessment and recommendation plan for creating innovation in different organizational structures. Abdelaziz is currently Chief Commercial Officer at Canar Telecom, where he is leading the growth strategy and LTE rollout.

Abdelaziz was most recently the CEO of Forbidden Technologies plc, a cloud video infrastructure company. There he led Forbidden to becoming a leading cloud video platform in the world. He was the youngest public company CEO in the UK and the only Sudanese plc CEO in Europe at the time. He led Forbidden Technologies to becoming one of the fastest growing companies in Europe following signing a multiyear agreement with Microsoft. He also negotiated agreements with NBC, Amazon and the BBC among many others.

Prior to this, Abdelaziz ran a digital agency in the UK called Pegasus Digital, part of the renowned Pegasus Agency. Here he grew the company from scratch to a multimillion-pound run rate in under 12 months. He has also been the General Manager of PhotoBox Australia, Global Product Strategy Director at PhotoBox Group, Director of Product Marketing at Reed Business Information (part of Reed Elsevier plc) and had several leadership roles at lastminute.com.

Abdelaziz is a digital leader who has grown several companies from nothing, and has a proven track record of generating rapid growth and high performing teams. He specializes in digital transformation, marketing strategy and creating high growth companies using a multidisciplinary approach.

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In his own words:

"I came to Sudan to make a difference and give back to my country and the country of my family in the best way I know how. This report has highlighted some incredible trends into the Sudanese market, and we hope that it will be a catalyst for companies and industries to make digital a core part of their growth strategy."

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Lumyaa Kamaleldeen Majzoub Eltayeb

Lumyaa is a Graduate of The University of Khartoum where she received a first class honors degree in Finance and Accounting Management. Following her degree, she pursued a career in marketing in the UK. Lumyaa is currently the CEO of Sudan Digital (and its associated companies).

Whilst in the UK, Lumyaa worked for a number of digital companies including Captevate, the world's simplest online video editing solution, eva a social network designed for millennials and Forscene a professional broadcast solution. During her time at these companies, she developed new methodologies for B2B marketing and Social Media Management.

Lumyaa is an expert B2B marketer, using a range of techniques both digital and traditional to collect data, segment and deliver targeted marketing communications designed to drive leads. She has an exceptional record of driving new leads, engaging prospects and closing large contracts.

In her own words:

"Sudan Digital is here to help make companies understand and exploit the value of digital technologies for the Sudanese population. We hope this report is interesting, but more importantly we hope it generates new actions within Sudanese companies."

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EXECUTIVE SUMMARY

Sudan Digital is pleased to present the first Annual State of Sudan Digital for 2018. The aim of this report is to highlight the major trends and opportunities in the Sudanese Digital market. We have collated this report by collecting data from digital and physical surveys, interviews with leading Sudanese CXOs and third party reputable sources.

The report highlights many core trends within the Sudan market. However the most critical is a very large gap between organizations use of digital and the general populations use. Sudan has 10.9mn digital users who are not addressed in any meaningful way by Sudanese companies. Furthermore, digital users represent the wealthiest 27.5% of society, therefore representing a huge marketing opportunity that is not being taken advantage of by Sudanese companies.

The wide-ranging economic sanctions placed on Sudan has effected its growth capabilities over the past 20 years by severely limiting both FDI and international trade. This has been acutely felt in its digital expansion. Whilst the rest of the world has undergone a digital revolution over the past 20 years, Sudan has been left behind. The major contributing factor is that this digital revolution has been led by US technologies and companies that have not operated in Sudan during the sanctions period. Their entry into Sudan is imminent. The Sudanese population is ready for their entry, whilst Sudanese companies are woefully underprepared.

Sudan's population is 39.58mn, with 29.6mn people being between the ages of 0-36. This means that 75% of the population are either Millennials or Generation X (aka The iGeneration). The significance of this is that these generations are digitally native, therefore represent the largest opportunity for digital engagement in any market.

In Khartoum 16% of people have a home internet solution whilst 22% of Khartoum inhabitants have a smart phone with 9% of the total Sudanese population having a smart phone. In total 24% of Khartoum inhabitants have either a laptop of a home computer. Internet users have grown dramatically over the last 5 years in Sudan, with currently more than 10.9mn users having internet access. This represents 27.5% of the population. The majority of these users consume the internet via mobile devices. This creates a unique opportunity for Sudanese businesses. In Canada, mobile internet represents 29.3% of internet traffic; in Sudan this number is 2.8 times higher at 82.23%.

There is a significant disparity between the salaries of those who regularly use digital channels and those who do not. Digital users salaries averaged SDG20,947 per month, whilst the average

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weighted salary for non-digital users was SDG7,914. Therefore, digital users have a 2.6 times greater salary than non-digital user. On average an iOS user earns SDG28,956 / month whilst an Android user earns SDG19,234 / month. The marketing opportunity that this data point creates is huge and almost entirely ignored by Sudanese companies.

Digital usage has become a method of differencing businesses in Sudan. 84% of Sudanese consumers have a significantly higher trust in businesses with websites. 69% has significantly higher trust in companies with apps. With Sudanese businesses having substandard digital experiences, this creates a threat to their growth capabilities and competitive advantage.

"Nobody uses email in Sudan" was a commonly used statement in the CXO interviews, and appears to be the general belief within Sudan. This report completely refutes this claim and in fact, it is clear that email marketing is one of the most effective digital channels open to Sudanese companies. In fact, email-marketing metrics in Sudan are significantly better than the global average. Open rates on emails are 106% more effective than the global average. We also found that emails sent in English had a 15% higher open rate than emails sent in Arabic.

Conversely, SMS marketing is less effective than global averages. The global average click through rate of an SMS campaign is 36%, with one major network, the click through rate was just 0.6%, with another it was 18%. This could be to do with the lack of accurately updated subscriber information or could simply be a trend within the market.

There are currently 3.2mn Facebook users based in Sudan, which represents an 8% penetration rate. There are 168,000 LinkedIn users. The report found that despite low user penetration rates for social media, those who did use social media were significantly more engaged that the the global average user. For example, in a random engagement experiment, 19% of people invited from Sudan engaged directly with the random account we had created after sending a friend request. This is more than double than any other country in the region.

In conclusion we believe that Sudanese companies need to take advantage of the digital opportunity that lies within Sudan. This can be done with 3 simple steps: Educating CEOs through personal coaching, Training a cross section of employees on digital techniques and undergoing a digital audit to identify opportunities.

INTRODUCTION

Aims

This is the first State of Sudan Digital report for 2018. The report is to be created and published annually with the latest market data collected from primary and secondary sources. The broad aim of this report is to help companies and institutions both inside and outside Sudan understand the digital landscape and its evolution. More specifically the aims of this report are to:

- Understand how individuals are using digital channels for communication and purchasing decisions making
- Highlight the main cultural differences between Sudanese digital proliferation and the developed world
- Understand where digital channels fit into the consumer purchasing value chain and whether they are effective or not
- Understand how companies are using digital to meet their commercial objectives
- Collect information the general level of understanding of core digital concepts
- Highlight the Gaps in knowledge regarding core digital concepts
- Explore where the future prospects for digital proliferation lies within Sudan
- Show the 'quick wins' that companies can adopt to improve their digital landscape and deliver value to customers

Methodology

The data sources of this report is split into Primary and Secondary research. Where there is a conflict between primary and secondary research it is highlighted and the primary research take precedent. The main sources of primary market research are:

1. Questionnaire: The State of Sudan Digital questionnaire was launched in December 2017. 827 people engaged in the questionnaire which included questions ranging from demographic information to use of digital platforms and technologies.
2. Street Questionnaire: Following the digital questionnaire a further street questionnaire was launched where more than 200 people were engaged. The street questionnaire was conducted exclusively in Khartoum, therefore the reader should expect some slight geographical bias. The primary objective of this exercise was the validate the findings of the digital questionnaire and the interviews.

3. Interviews CEOs and CXOs: We also interviewed 20 CEOs and CXOs in Sudan to better understand how digital is evolving as a platform for change within Sudanese companies.
4. Desk Research: We assessed the digital landscape of Sudan through 30 hours of desk research into the main digital channels and the main digital properties that exist in Sudan. So as not to bias the results, we will not directly name digital properties that we assessed unless we have received express permission from the owner.

Alongside this we also engaged in the assessment and usage of secondary market research from a number of sources. The sources of the secondary market research can be found in the Bibliographic, but include UNESCO, The Ministry of Interior, The Ministry of Housing and the Ministry of Education.
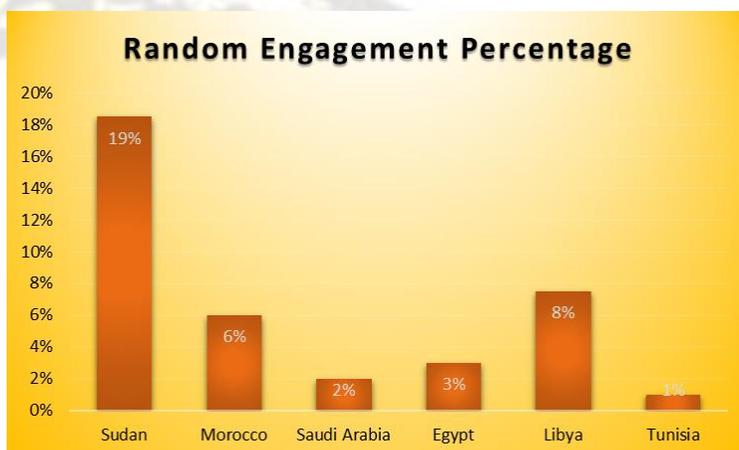
What's not included

This report is focused on the relationship between consumers and businesses through digital. It is mainly concerned with how consumers use digital channels and whether or not companies in Sudan are behind, on par, or ahead of the general consumers digital usage. It then makes recommendations to align the consumers usage of digital with companies usage of digital to maximize the digital opportunities. It therefore by definition does not include a number of other areas within the digital landscape including (but not limited to):

- Data centers: The use of data centers, cloud infrastructure and cloud services within Sudan
- Infrastructure: The telecoms and communication infrastructure in Sudan
- B2B marketing: The use of B2B digital marketing techniques, its prevalence and quality
- Company comparisons: A comparator of companies take up in technology usage

MARKET CONTEXT

Sudanese Market

Sudan is a rare market in that it has undergone years of sanctions that have limited foreign direct investment (FDI) yet has established a solid educational system that generates a large number of graduates annually. Culturally Sudan is most aligned with the North African Arab countries, yet has its own unique cultural nuances that reflect in quite dramatic ways through digital. For example, we studied how much engagement (defined as a 'wave', comment, question, call or messenger post) we received by randomly inviting 200 people to a fictional non-gender or country specific Facebook account.

Random Engagement Percentage

(bar chart)
- Sudan: 19%
- Morocco: 6%
- Saudi Arabia: 2%
- Egypt: 3%
- Libya: 8%
- Tunisia: 1%

19% of people invited from Sudan engaged directly with the random account we had created after sending a friend request. This is more than double than any other country. This directly relates to a Sudanese Cultural nuance that does not appear in any other MEA country: Extreme levels of social engagement. This occurs in real life, and is reflected in Sudan's digital life. This is just one of several examples of how digital in Sudan is significantly different, and in some ways, easier to maximize than any other country in the region.

Sudan is relatively poor compared to MEA and GCC countries, with a GNI of $4,014 compared to Iraq of $17,240. Undoubtable sanctions has had a dramatic impact on stagnant growth, and therefore the release of sanctions should have a favorable impact in the years to come.

Geographically Sudan is incredibly well situation to become the gateway to Central Africa and a connectivity hub of the region. Rich in natural resources and a vast well-connected country, Sudan is primed for an explosion of digital engagement.

Impact of sanctions

The wide-ranging economic sanctions placed on Sudan has effected its growth capabilities over the past 20 years by severely limiting both FDI and international trade. Therefore, it makes sense

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that the lifting of the economic sanctions should in time see an improvement in the economy of the country. These sanctions have effected Sudan in a number of key ways:

- The ability to launch new apps to the iOS app store has been severely limited. Whilst this is possible, it is most often achieved using VPNs or off shore partners. There remains no way to directly monetize iOS or Android apps

- Even updating Apple technology has been difficulty. Installing new apps or updating existing apps most often occurs either via a jail broken phone, or through a VPN

- Standard web technologies such as Google Analytics have been totally blocked. It's interesting to note that this has created a complete lack of understanding of basic terms that would be common place outside of Sudan such as 'Bounce Rate'

- Cloud technologies such as CRMs, CMS's and Automated marketing technologies have also been severely limited. Whilst the world of marketing has digitized dramatically over the past 20 years, Sudanese businesses, through no fault of their own, have been almost entirely left behind

- The availability of standard hardware from the likes of Cisco, Microsoft and AWS has not been available (legally) throughout the sanctions period

- There has been very little international attention paid to Sudan from digital companies outside of Sudan. A simple example of this is that 'Sudan' very often doesn't appear in country drop down lists when filling in forms online

- Without Visa, MasterCard, American Express or PayPal, Sudan has been forced to created its own digital money solutions. Whilst this has been a limiting factor, Sudan is not unique in preferring its own digital money solutions and therefore there is precedent to enable the country to maximize these opportunities
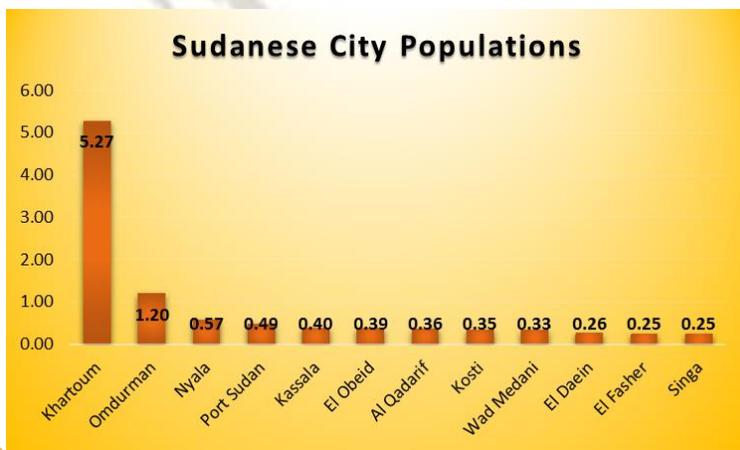
With that said, the lifting of sanctions has significantly shifted sentiment in both the population of the business and general population. In a survey of CXOs and the general population we assessed the general sentiment and levels of optimism for a post sanctions Sudan. Generally the favorability for growth will increase significantly within a 7 year period after sanctions. This will be
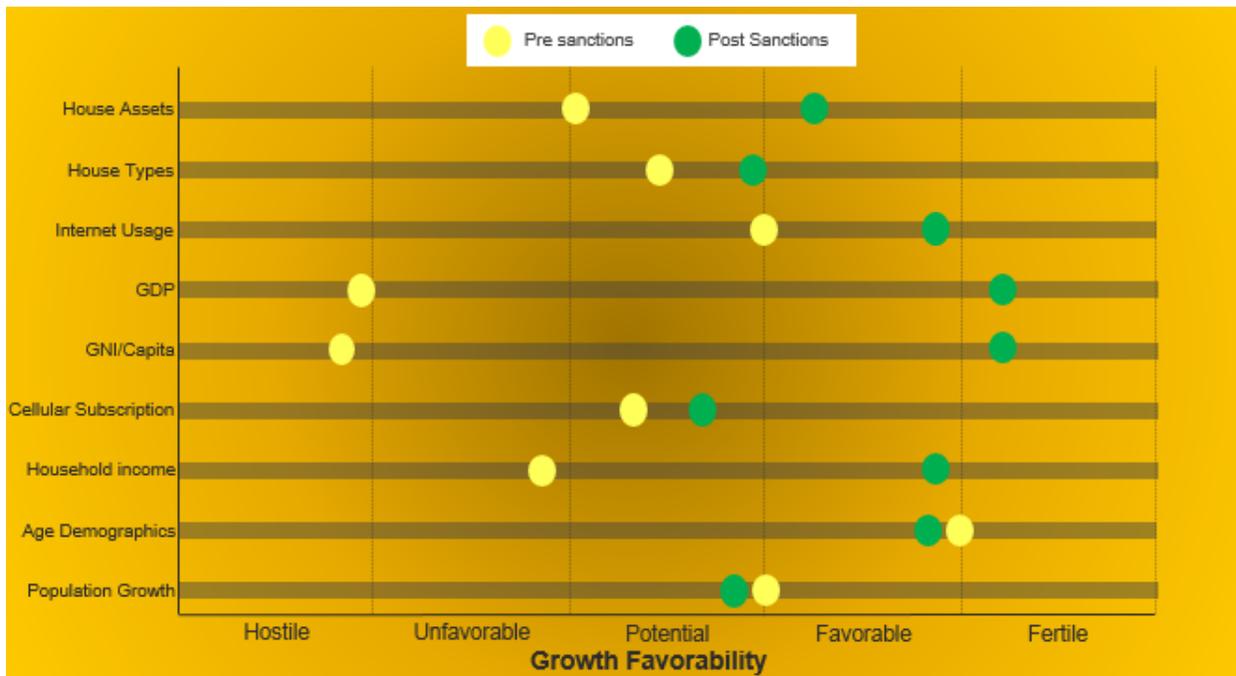
driven by easier international trade, accession to the WTO and greater FDI particularly from the USA.

Population

The population if Sudan is 39.58mn and has shown relatively linear growth over the past three decades. The main city, Khartoum has the largest population, and is one of only two cities with a population over 1mn inhabitants. However there are a large number of cities with populations over 200,000 inhabitants creating a good spread of opportunities for digital engagement across the country. However the centralization of the population around the capital isn't as interesting for the digital outlook as the marketing age group segmentation.

Marketing Age Groups

Sudan has an extremely interesting age segmentation, which makes it very favorable for digital growth and digital opportunities. The marketing age groups are a way of segmenting population age in a format that allows for greater understanding of target markets by different behavioral types. Here are some salient points about each marketing age group:

| Baby Boomers	Generation X	Millennials	Generation Y
• Place importance in accuracy to detail and ease of use • Consume printed materials but also still actively online (and will keep rising) • Simplified design – want to find out information easily • Primarily desktop-driven or tablet driven (less mobile)	• Enjoy clear and concise information • Mixture of mobile, tablet and desktop consumption • Enjoy comparisons and reviews/ testimonials	• Large internet users and can regularly multi-task so content needs to be attention grabbing • React to incentives and offers • Brevity is key – want information quickly • Mobile driven (and tablet use) • Articles or written content should be short and concise • Imagery drive	• Used to changing media, apps and content • Very mobile driven • Often enjoy whatever is most popular as they will be embracing this first • Sharing content easily is important • Enjoy visual and interactive experiences

Marketing Age group	Greatest Generation (72+)	The Baby Boomers (52-71)	Generation X (37-52)	Millenials (17-36)	Generation Z (0-16)
Age Range	72+	52-71	37-51	17-36	0-16
Liklihood to Engage In Digital	Extremely low	Low	Medium	Extremely High	Extremely High
Value for Digital Marketing	Low	Medium	Extremely High	Extremely High	Extremely High

Sudan's unique population split means that it is heavily weighted towards millennials and Generation Z. In fact 75% of Sudan's population, some 29.6 million people are either Millennials or Generation Z. This makes it ideal for digital proliferation.

Marketing Segmentation %age

Marketing Segmentation (mn)
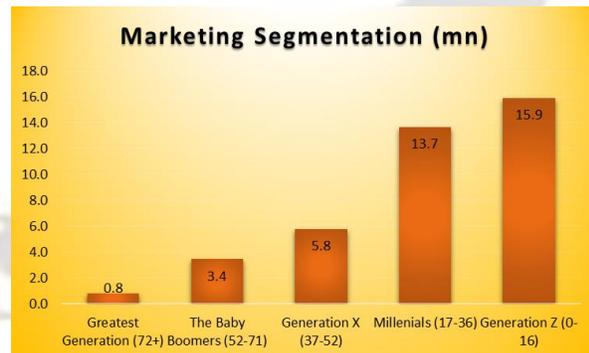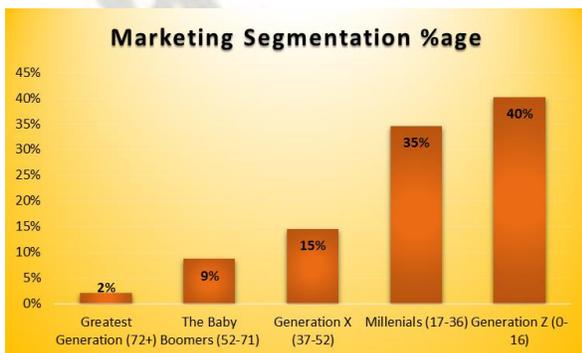
Housing

There are a number of different types of housing in Sudan that indicate socio economic status and therefore are a measure of likelihood for digital engagement. There are six main types of housing, and in this analysis we indicate the volume of houses of each type focusing exclusively on Khartoum. The majority (3million) houses are one storey mud or wood based housing. There are also 1.5 million one-storey brick houses. Housing type is also a reflection of the likelihood of having electricity, therefore the likelihood of having home internet. This will be discussed further in housing assets.
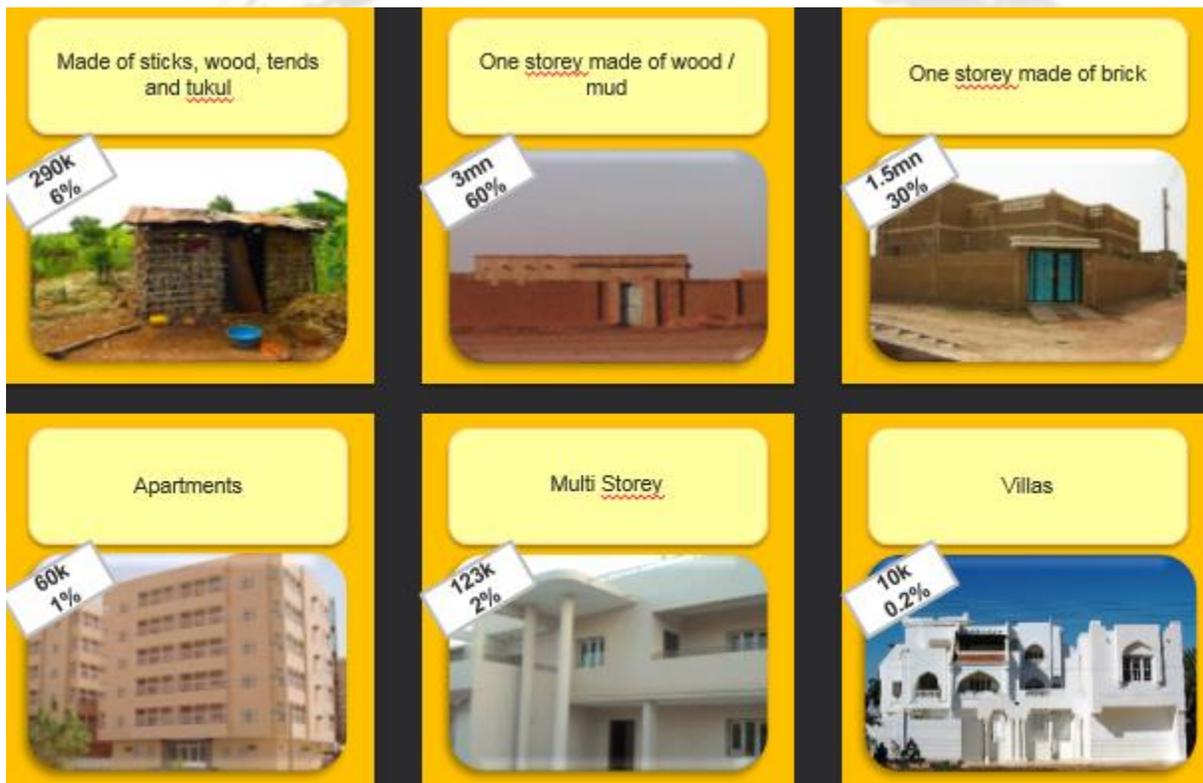

Housing Assets

By looking at housing assets we can start to understand the potential market size for digital engagement in Sudan which can later be broken down into a digital channel assessment. The housing assets in Sudan vary dramatically between housing assets in Khartoum and Sudan.

	Sudan	Khartoum		Sudan	Khartoum
Radio	35%	42%	Computer	4%	12%
Fixed Phone	2%	3%	Washing Machine	11%	31%
Mobile Phone	74%	91%	Bicycle	13%	14%
Smart Phone	9%	22%	Motorcycle	4%	4%
Refrigerator	26%	63%	Caro	15%	6%
Digital Receiver	34%	72%	Car	6%	16%
Television	40%	77%	Motor Boat	1%	0%
Flat Screen TV	2%	7%	Raksha	1%	4%
Internet	4%	16%	Thuraya Mobile	0%	0%
Laptop/Tablet	4%	12%	Bank Account	5%	13%

The data shows that in Khartoum 16% of people have access to the internet. It also shows that 22% of Khartoum inhabitants have a smart phone whilst 9% of the general population have a smart phone. In total 24% of Khartoum inhabitants have either a laptop of a home computer.
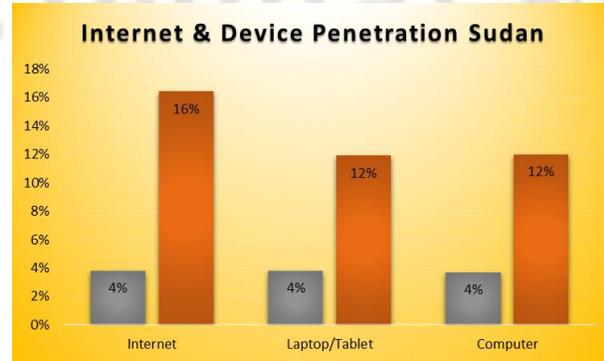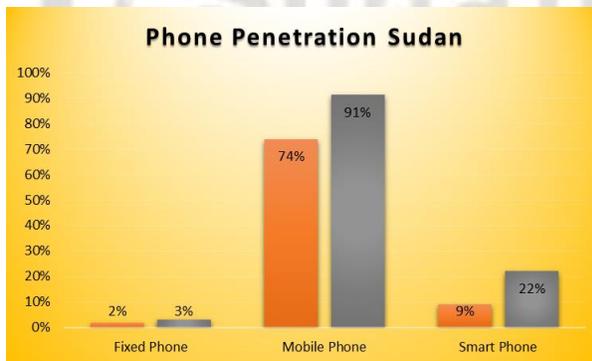
Whilst smart phone and internet penetration are low compared to international standards, there is a significant advantage to these low penetration rates for businesses: Only those that can afford these devices own them, therefore when a company targets using digital they are targeting the top 27.5% of consumers in Sudan.

Smart Phone Usage (Echo Chamber Fallacy)

There is an important trend that appeared within the research. When asked what percentage of Sudanese people owned a smart phone, respondents believed that on average 65% owned a

smart phone. We call this phenomenon 'The Echo Chamber Fallacy'. Essentially peoples view themselves and their immediate friends, family and contacts as a true representation of society, therefore if more than 50% of their immediate contacts have a smart phone they believe that to be true of the rest of the country. This would hold true in some developed nations where the gap between rich and poor is much smaller, however in Sudan the gap is much larger, thus creating a misrepresentation of smartphone usage.

Job Titles & Salaries

When engaging in the digital survey we received completed surveys from every level of organizations. We independently interviewed CEOs and CXOs in Sudan too. What we found interesting is that the average weighted salaries of Digital respondents was SDG20,947 per month, whilst the average weighted salary of street surveys and non-

digital respondents was SDG7,914. Therefore, digital respondents had a 2.6 times greater salary than non-digital respondents.
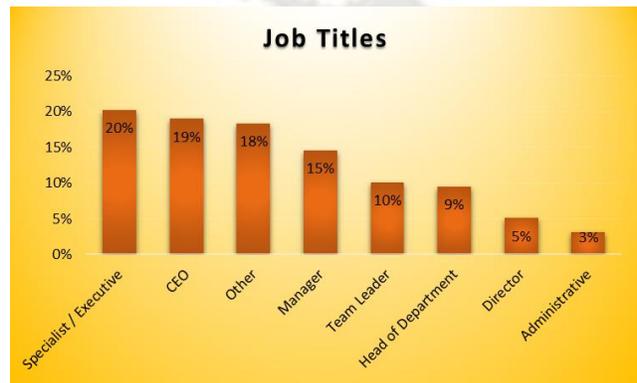

This data point is interesting because it reflects the research: Digital Marketing is an automatically segmented activity. If companies want to target the top 20% of earners in Sudan, then Digital is the most appropriate cost effective and efficient way of doing so. This trend will not continue forever. Following the release of sanctions, and an expected improvement in GDI, digital access will become close to universal. Therefore other digital techniques will be needed to segment users and target in this way. However, for the moment even the most rudimentary digital solutions will have a significant impact on targeting high earners in Sudan.

WHY IS DIGITAL RELEVENT

Internet Growth

Internet users have grown dramatically over the last 5 years in Sudan, with currently more than 10.9mn users having internet access. This represents 27.5% of the population. The reason this is significant is that the perception of Sudanese people is that very few people have internet access and this

simply isn't true. During the interviews, a Chief Marketing Officer of one of the largest companies in Sudan confidently stated; "We don't do any digital activities because nobody in Sudan has access to the internet." And yet, when you add all of the internet users in Greece, Israel and the United Arab Emirates, they still don't come close to the number of internet users in Sudan. It is true however that internet penetration as a percentage of population is one of the lowest in the world. However, there are two points to be noted:
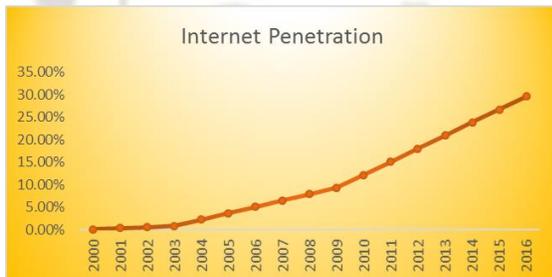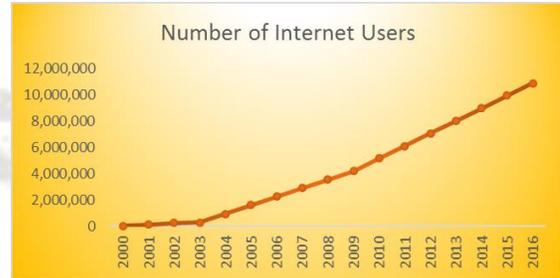
1.   This is normal for every developing country. At one point in the US internet penetration was also only 30% but the natural trend is for penetration to rise

2.   Whilst penetration remains relatively low, this represents a huge opportunity for marketers to target the top 27.5% of earners in Sudan as internet connectivity and personal wealth are directly positivity correlated

Once of the reasons for this mass underestimation of internet users is because Generation X still tend to associate 'The Internet' with a 'Computer or laptop'. This stopped being true from 2010 and in Sudan in particularly it bears no relevance to reality. The internet is mostly consumed via mobile devices. In fact Sudan has one of the largest mobile internet


penetrations compared to desktop and laptop penetrations in the world. As a comparator we look at a developed country such as Canada. In Canada, mobile internet represents 29.3% of internet

traffic, in Sudan this number is 2.8 times higher at 82.23%. This fact is not well known in Sudanese industry and yet has a dramatic effect on how digital should be done in Sudan. We explore this further later in the report.

Mobile Growth

It therefore stands to reason that this digital report should also give some attention to mobile penetration rates, as this is directly related to access to digital channels for consumers. There are 3 mobile operators in Sudan; Zain, MTN and Sudatel (Sudani). Combined these operators serve 28mn mobile subscriptions,
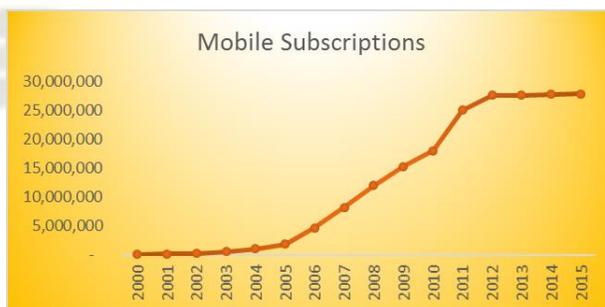
which represents a 71% penetration rate. However we believe this to be an over estimation, as there is a trend of having more than one device, or more than one sim card in a dual sim card


device in Sudan. Based on the market survey we estimate that 13% of mobile users have either two phones or a dual sim phone and use more than one sim card (NB it is likely that the penetration of Dual Sim phones is higher than this, but not all dual sim phones have multiple mobile subscriptions). This would make the actual mobile penetration rate 61%. The significance of this cannot be underestimated. When considering whether to engage in outbound calling, or SMS campaigns, it is important to know the likely penetration rates. We anticipate that as GDI grows in the coming years as will mobile penetration rates and mobile internet penetration rates.

Operating Systems

An important factor to consider with mobile digital is the penetration rates of Operating Systems. In Sudan 74% of all devices are Android devices and 13% are iOS (Apple) devices. A further 8% have both devices. This is important for 3 main reasons:

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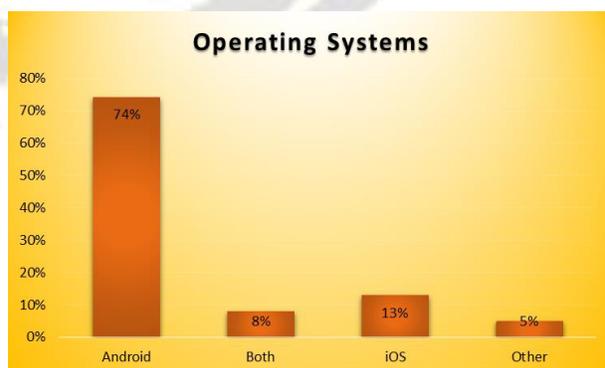
1. Launching apps on Android is significantly easier than launching apps on iOS
2. Android devices have much more variability in screen sizes, memory capabilities, operating system versions and pre-installed software. This means that launching mobile first websites requires rigorous testing across multiple android devices and operating systems
3. iOS users tend to download 3.6 times more apps than Android users. This is worldwide phenomenon although the ratio varies.

There is one further very significant variance between operating systems which has become clear during the market research: iOS users earn more than Android users. On average an iOS user earns SDG28,956 / month whilst an Android user earns SDG19,234 / month. This knowledge allows for further segmentation of digital marketing to different types of earners.

Youth Behavior

Generation Y, sometimes called the iGeneration behave differently to every previous generation including millennials. They are used to changing media, apps and content. We pay particular attention to this generation for two reasons:

1. They are the future consumers and the trends setters for earlier generations
2. Their pester power gives them a disproportionate decision making capability within the household despite their young age

Generation Y are very mobile driven. Parents amongst readers will recognize this behavior, as their GenY children appear to spend most of their time on their phone, even within the company of other GenY peers. This behavior is critical to understand as it creates three key differences in this generation; firstly, it improves their ability to decipher great digital experiences from poor digital experiences. Secondly, significantly reduces their patience, if they get bored they move on quickly. Thirdly it is their FIRST point of call for any information, be it where to eat, where to buy cloths, which phone to buy next, where to go on holiday or which hall to book for their graduation.

Another important trait of GenY is their willingness to try new things before everyone else. They then add to this by being regular and prolific sharers. Therefore, if they enjoy something they're likely to tell a lot of people, likewise if they do not enjoy something they are likely to tell a lot of people. GenY are the worlds future influencers and this is important to note.

Trust

The Sudanese digital market has evolved to a point where consumers no longer trust business that do not have a reliable digital presence. This is an incredibly significant statement: if your business does not have an attractive, reliable website / app / engaging social media then you are trusted less than your competitors who do. This directly affects your ability to sell to customers, attract customers to your business and retain them as recurring customers. Currently 84% of Sudanese consumers have a significantly higher trust in businesses with websites. 69% has significantly higher trust in companies with apps.

I trust companies with websites more

I trust companies that have apps more than companies that do not
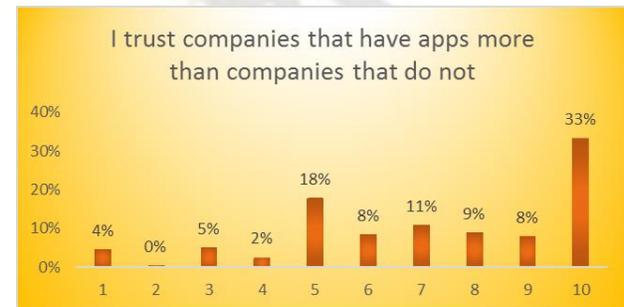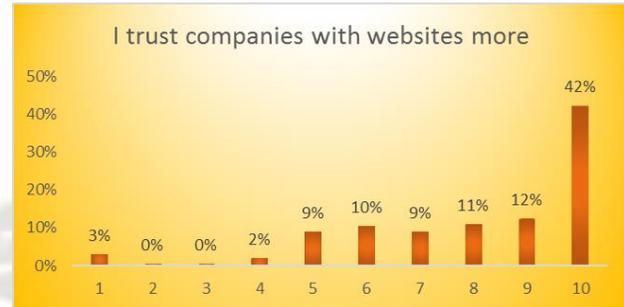
Missed Evolutions

The final area in the 'Why Digital is Relevant' section is a reflection on the missed technology evolutions that Sudan has undergone. Over the past 20 years, arguable the world has undergone as much change as it did in the previous 300 years. This has been driven by the technical and digital revolution. This revolution was empowered and spearheaded predominantly by American companies. During this time, Sudan was under sanctions and the use of US technologies as services was almost entirely blocked. This means that whilst the world evolved 300 years in 20 years, Sudan stood still. Sudan is far behind its neighbors and the rest of the world when it comes to digital. However, this can be seen as an advantage. Most industries had to go through major challenges and huge failures to adopt digital, Sudanese companies do not need to undergo the same duress. Furthermore, to some extend Sudanese business have an opportunity to leapfrog their neighbors when it comes to digital. Take the concept of 'Mobile First' for example. Traditionally websites were built for PCs and laptops. It has taken many years for companies to recognize the importance of building websites for the best mobile experience, and many still struggle to overcome this paradigm, as mobile consumption is relatively low still. Sudan is different. Sudanese companies have an opportunity to build their entire website paradigm based

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around mobile first as 82% of internet consumption is on mobile devices. In this example, Sudan has an opportunity to leapfrog the world in its use of digital.

USAGE AND VALUE OF DIGITAL

Email

"Nobody uses email in Sudan so we've never done an email campaign". This sentence appeared three times from three different CXOs at three different companies. It is the general belief that email doesn't work in Sudan; this study completely refutes that idea. The data shows that email is more powerful in Sudan than anywhere else in the
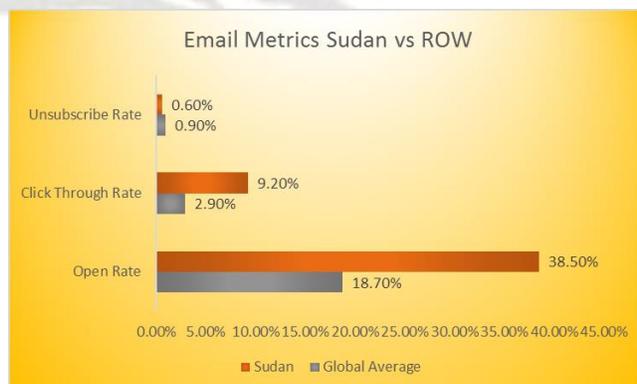
region. Open rates on emails are 106% more effective than the global average. We also found that emails sent in English had a 15% higher open rate than emails sent in Arabic. However we
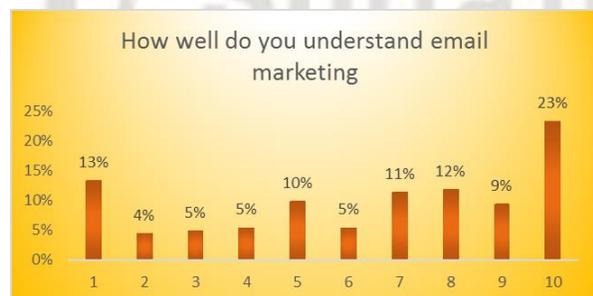
found that emails sent in Arabic had a 5% higher click through rate than emails sent in English. Upon analysis it is clear that the majority of the population do not have email addresses, therefore when sending emails within Sudan there remains an element of 'novelty value' which drives open rates and click through rates. This

trend may not still be in existence when the next State of Sudan Digital report is launched, so we urge readers to take advantage of this trend now.

Interestingly there is a generally good understanding of core email metrics compared to the comparative lack of use of email within Sudan. 60% of digital respondents have an understanding of open rates and 61% of respondents have an understanding of click through rates. Similar metrics were found in the interviews further validating the data. However like much of the existing knowledge around digital it is only understood at a theoretical level. When asked the question "What would you do to improve open rates?" not a single CXO could give an adequate answer,

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despite the rudimentary nature of the question (the most obvious answer is the improve the email subject line, but there are others.)

SMS

SMS marketing is relatively well understood in Sudan and is regularly used. This is because all of the major networks offer a Bulk SMS service with the ability to segment users by mobile device, gender, location and activity based behaviors. As part of this study we did conduct a full end to end test of every network provider. The results were dramatically different. The global average click through rate of an SMS campaign is 36%, with one major network, the click through rate was just 0.6%, with another it was 18%. To put that into context, if you send 100,000 SMSs with network A then only 600 people would click on the link in the message, whereas the same 100,000 sends for the same cost with network B would yield 18,000 clicks. We agreed not to publish the names of each network but anyone

How well do you understand SMS marketing

undertaking SMS campaigns in Sudan should ensure that they have the relevant metrics embedded into their message and are able to track click through rates. 59% of digital respondents understood SMS marketing. This was significantly higher in the CXO interviews with 95% able to give a clear comprehensive understanding of SMS marketing.
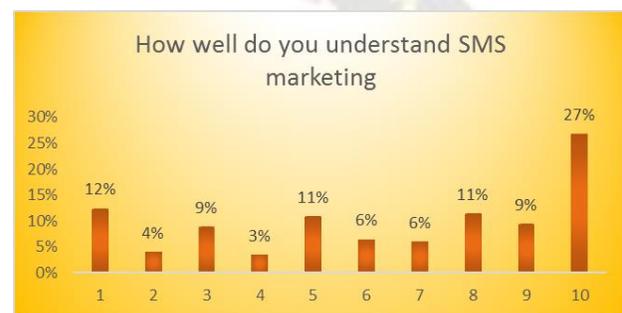
Apps

App development in Sudan has been late to bloom, partly due to a lack of demand and partly due to a lack of local capabilities. One of the disappointing aspects that this study has found is that the most well known apps within the Sudanese market are all developed abroad. Our

Apps in Sudan are generally very good

original hypothesis was that there was a lack of technical expertise in the country, however upon interviewing a number of technical agencies, we arrived at the conclusion that surprisingly there is no lack of technical expertise, nor are prices disproportionally high. However, all Sudanese app development agencies have one flaw in common; They lack app design expertise. Apps designed and launched by local companies look amateurish and unprofessional but are technically very
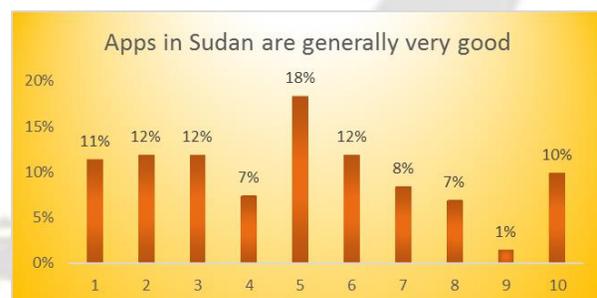
good. This is because unlike technical languages such as C++, Swift and Java, great design cannot be learned from a textbook. It requires exposure and a deep understanding of user behavior. This 'unprofessionalism' is reflected in the general population as only 38% of respondents believe that 'Sudanese apps are good'. When exploring the question deeper in the interviews, it appears that mostly respondents are referring to apps that have actually been developed outside of Sudan.

Social Media

Social media represents the easiest starting point for all companies wishing to enter into the digital space in a low cost highly effective fashion. However, social media does not just mean Facebook. There

Facebook Users (mn)

| 2013 | 2014 | 2015 | 2016 | 2017 |
| 1.9 | 2.2 | 2.4 | 2.8 | 3.2 |

are currently 3.2mn Facebook users based in Sudan, which represents an 8% penetration rate. At the time of writing this report Zain in collaboration with Facebook have launched 'Free basics' delivering a basic Facebook experience free to all users, therefore in next year's State of Sudan Digital we'll be able to see the impact of this.
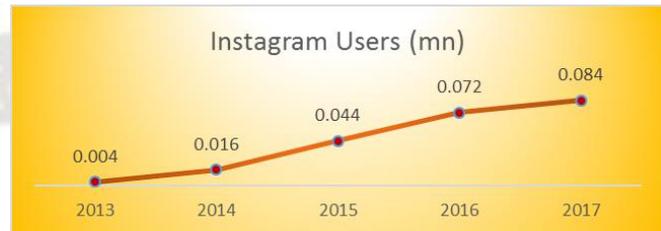
Facebook is not just about having a business profile or posting photos of your latest products. The most active Facebook businesses in Sudan tap into the cultural nuances of Sudanese people and play to them in order to create incredible engagement. Take for example "Sudanese Restaurant Recommendations". This group has over 300,000 members who post reviews and comments on restaurants in Sudan. This plays into two cultural nuances: the love of food, the love of recommending to friends.

There are 168,000 LinkedIn users in Sudan, but this number is growing at a much faster rate than any other network, with a 40% increase in the last 12 months alone. LinkedIn users are highly engaged,

LinkedIn Users(mn)

| 2013 | 2014 | 2015 | 2016 | 2017 |
| 0.04 | 0.06 | 0.068 | 0.1 | 0.16 |

and due to the lack of Sudanese focused content on LinkedIn, it represents a great opportunity to engage Sudanese based professionals.

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Both Twitter and Instagram have relatively low usage base in Sudan. Twitter remains almost niche in Sudan, whilst Instagram is a favorite amongst GenY. So much so that during street questionnaires we saw the 'Echo Chamber Fallacy' appear again, whereby most GenY couldn't believe that there were so few Instagram users in Sudan, and this is because all of their peer group use the network, therefore it is assumed that everyone must use it.

Twitter Users (mn)

2013	2014	2015	2016	2017
0.06	0.068	0.088	0.1	0.12

Instagram Users (mn)

2013	2014	2015	2016	2017
0.004	0.016	0.044	0.072	0.084
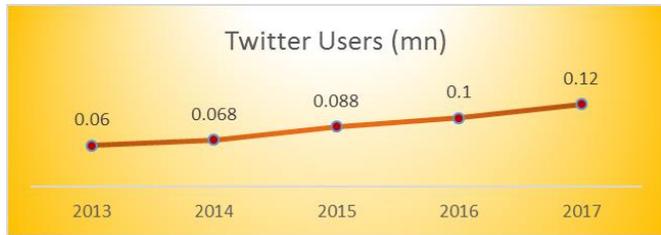
Websites

Any digital strategy starts with a website. The website is the equivalent of the 'flagship' store where the business can display its best self, refer people to review products and use it as a landing base for business activities. However the majority of Sudanese company websites are unfit for purpose because they fail to meet

Most companies in Sudan have a website

| 1	2	3	4	5	6	7	8	9	10
22%	9%	16%	9%	12%	12%	6%	5%	1%	5%
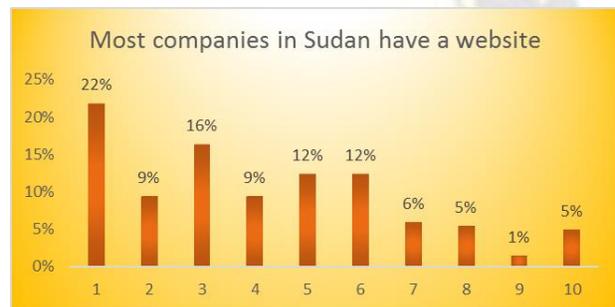
the basic standards set out in this report. Take for example the statistic that 82% of web content is viewed on a mobile. Even the largest companies in Sudan have websites that are designed for laptops but responsive to mobile devices, where in fact the opposite should be true. This is a

Sudanese companies need websites

1	2	3	4	5	6	7	8	9	10
1%	1%	0%	0%	4%	1%	4%	7%	9%	71%

small but critically important point. Take www.SudanDigital.com and go to any of the pages containing a video. On your mobile device nothing unique will appear but if you view the video on a laptop or desktop you'll notice that the videos aren't the highest quality. This is because we know that more than 80% of people will view the video on a mobile, and a lower resolution video will stream and load quicker and give a better user experience as well as consume less data. This is one of many example of building websites for mobile devices first. We have not come across a single website of Sudanese company that uses this principle, except our own.

The general perception is that Sudanese companies don't have website. This is more a reflection of the lack of referencing websites during media advertising. We found than that 80% of large companies surveyed had at least a URL if not a complete website. In all cases the websites were substandard. Only 5% then used the website in their marketing materials, and basic tasks such as having email addresses from the websites domain are regularly neglected.
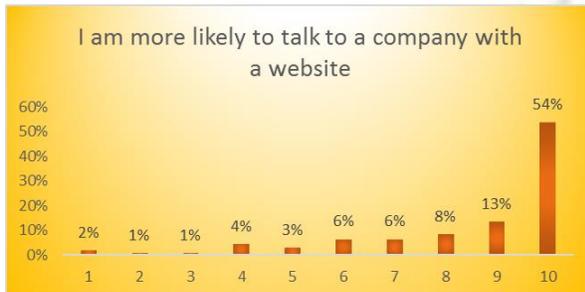
There is an overwhelming gap being missed by companies not having adequate websites. 98% of respondents believe that Sudanese companies need websites, and this stands to reason. Beyond the borders of Sudan, a company without a website is barely a company at all. The opportunity for Sudanese companies to lead the way in mobile first website creation is huge.

Building a website that meets customers needs, drives awareness and changes customer behavior isn't just about vanity. It's good business. 96% of respondents said that they were more likely to talk to companies with an adequate web experience, a further 76% said

that they were more likely to buy from a company that had an adequate web experience. Again, this follows the trends previously set by early web adopting countries. Today in Europe and USA consumers are unlikely to trust or buy from any company that does not have an adequate web experience. Eventually the same will be true in Sudan too.

OVERALL DIGITAL KNOWLEDGE

SEO

Search Engine Optimization is the process of having your website rank in Google and other search engines for selected keywords. For example, if you have a Paint company, when someone searches for "Paint Company Sudan" your aim is to rank in the top 10 search results in Google. In doing so you generate large volumes of high value free advertising.

How well do you understand SEO (Search Engine Optimization)

The process of understanding SEO is both complex and constantly changing. Nobody we interviewed truly understood the levels of complexity. However, there was a level of understanding of the basics of SEO. However, this knowledge was mostly found in young well-educated Sudanese citizens and almost completely absence at CXO level.


How well do you understand Keywords
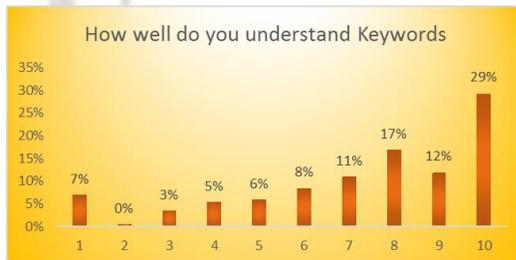
There was a basic understanding of keywords too, in that almost all respondents had some understanding that a keyword related to a search, and that keywords should appear in websites. However, there was very little understanding of the value of selecting the appropriate keywords and how keyword methodologies work.

Mobile First

Mobile First refers to building digital assets with the consideration of Mobile users before any other user. This is a relatively new phenomenon globally as the penetration rates of mobile internet users tend to be lower than in Sudan. Again, we found that there was a very general understanding of what mobile first means, but no understanding of how to implement it, or what the implications are of implementing it.

How well do you understand Mobile First

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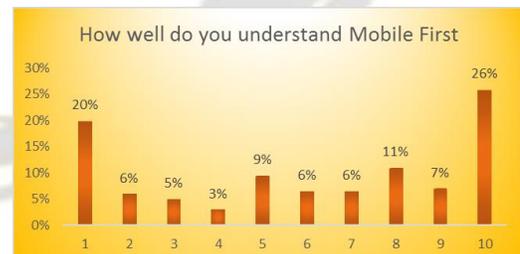
Responsive Sites

Responsive sites are the precursor to mobile first experiences. Essentially a responsive site changes some dimensions, images text to fit the device that is being viewed on. This isn't sufficient to offer a truly mobile first experience but is certainly better than non-responsive sites. Most websites in Sudan are responsive, but not mobile first. There was little knowledge of Responsive design in either the interviews or the questionnaires.

How well do you understand Responsive Design
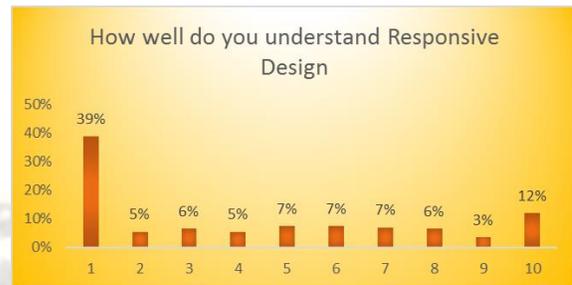
Digital Advertising

There are three main methods of digital advertising being tested in the study: Display advertising that shows on websites as banners, skyscrapers or alike, Facebook advertising that allows for detailed demographic and behavioral segmentation and in-app advertising that allows for adverts to be displayed inside a prebuilt app. All these of these methods (plus most other methods) are, at the time of writing this report, still unavailable in Sudan. This is because most of these companies are American and they have yet to update their accesses to allow Sudanese companies do digital advertising. Once

How well do you understand Display advertising

How well do you understand Facebook advertising

they do allow this, then there will be a rapid change in how marketing spends are allocated. We estimate that up to 40% of current outdoor advertising spends will be directed towards digital within the first 3 years of these tools being available.

How well do you understand in app advertising
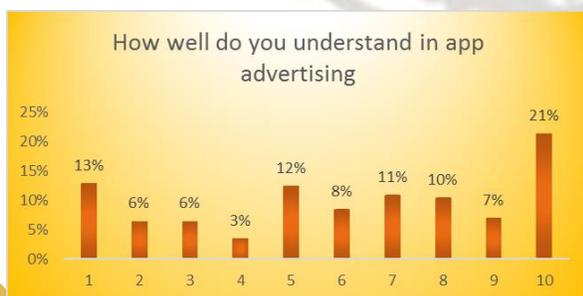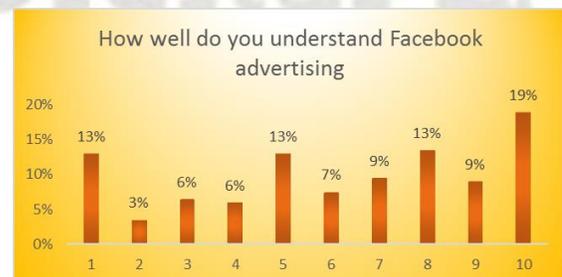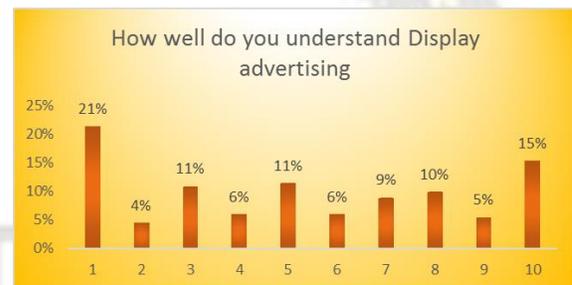
Generally speaking the Sudanese population at all levels does not understand digital advertising. They are yet to be made aware of the astronomical benefits of this method of advertising, and they have not seen the benefits for themselves. Therefore there is a lack of knowledge in the market and this knowledge gap

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needs to be filled. We hope one outcome of this report is that more Digitally Focused agencies such as Sudan Digital open and start to proliferate the knowledge that companies need to compete in a digital world.

THE CURRENT STATE OF DIGITAL

From Users Perspective

Sudan is in a rare situation, where consumers and customers are significantly ahead of digital engagement than companies. In fact digital engagement is rarely perceived as a business activity as so few businesses have embraced digital techniques. This is apparent most when a new digital business is launched. There is generally large-scale adoption quickly by the population. Customers that engage in digital do so regularly, across the web, and social media. They have high adoption rates and share frequently amongst their peer groups. Customers are desperate for more channels to engage digitally. There is a palpable

Most companies recognize the importance of digital strategy

	1	2	3	4	5	6	7	8	9	10
	11%	5%	10%	7%	13%	12%	11%	11%	3%	16%

frustration that companies do not see the relevance of digital engagement and do not invest in digital to meet customers needs. These investments need not only be in marketing and sales, but also in customer service, general information, social engagement and the creation of brand advocates through social media.

From Businesses Perspective

There remains a lack of belief around digital within Sudanese businesses and this lack of belief is driven by three things:

Digital is an important part of the Sudanese economy

	1	2	3	4	5	6	7	8	9	10
	6%	1%	9%	9%	9%	7%	5%	10%	4%	38%

1. The belief that "People in Sudan do not use digital". This is simply not true. The most valuable 27.5% of society regularly engage in digital channels and they are significantly ahead of businesses in their use of digital.

2. CEOs and business owners tend to be Baby Boomers and Generation X. As digital is not native to these generations, very few of them have tried to engage and learn about digital.

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Therefore their understanding of its value is limited. This, coupled with a Sudanese cultural tendency to believe that people who are older know more has limited the digital economy in Sudan.

3. The lack of knowledge about digital at an agency level. Most big companies rely on their marketing function and their marketing agency to recommend the best channels to engage their audience. The level of digital knowledge across the top five marketing agencies in Sudan is incredibly low, therefore there has been no impetus to drive digital channels within Sudanese businesses.

The Sudanese population is ready for more digital engagement and it is time for Sudanese businesses to catch up with demand.

The positive side is that Sudanese companies recognize that Digital will become an important part of the Sudanese economy. However they mostly believe that companies that enter the market will resemble 'Tirhal' a stand alone, non-disruptive businesses that do no effect their business and are

There will be more companies like Tirhal in the future

therefore not a threat. This was the same mistake made by businesses across the globe during the first digital revolution. Companies such as Hallmark, Clinton Cards and Happy days never believed that the digital economy could negatively affect their businesses until it was too late.

WHAT CAN COMPANIES DO TO CATCH UP

The Three Point Action Plan

Companies need to take action now to take advantage of the digital opportunity and protect themselves from pure digital entrants. Sudan Digital recommends at simple 3-point action plan:

1. **Start with the CEO** – We recommended personalized at home coaching for CEOs to better understand the digital landscape and recognize the digital opportunity

2. **Train In House** – Build digital knowledge within your business by training a cross section of people within the company on digital techniques

3. **Understand Where You Are** – Undergo a Digital Audit to better understand where you currently are as a business and create a personalized action plan

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Start with the CEO

Companies need to catch up, not only to take advantage of the digital opportunity now, but also to protect themselves from disruptive digital entrants into the market in the future. This process starts with recognizing the importance of digital and beginning the process of understanding what digital is. It ends with companies spending more on digital across the organization. As we previously mentioned, CEOs in Sudan tend to be less open to learning new business areas than their counterparts globally, as cultural factors partly dictate their behavior. For this reasons Sudan Digital has launched "1-2-1 Digital Coaching" exclusively for CEOs and Owners of businesses. This is designed as private training sessions on a 1-2-1 basis where we explore your business and over a period of 2 months, give you personalized digital coaching so that you can ensure your company is making the most of the digital opportunity. For further details and pricing information, please contact lumyaa@SudanDigital.com

Train and Develop in-house

We recommend that there should be a deliberate action plan to train digital skills in-house. This will benefit the company and the economy long term. We believe that this training should span across departments, and not be solely focused on the marketing function. General digital training will allow your teams to create their own digital solutions to take advantage of your organizations opportunities. At Sudan Digital we offer 1 day intensive digital training with a small number of delegates. This intensive training is followed up with individual coaching over a period of four weeks to really embed digital thinking into everyday activities. For further information and pricing please contact Lumyaa@SudanDigital.com

Digital Audit

It is important that your business understands where the company sits right know in terms of digital. Does your website meet the basic requirements of the Sudanese market (i.e. is it Mobile First)? Do you have access to the correct metrics? Does your social profile maximize your opportunities? Do you engage with your customers where they are in the digital landscape? Sudan Digital offers a full "Digital Audit" solution where we work with you to understand where

you currently are digitally and make a personalized action plan for your business. For further information and pricing please contact Lumyaa@SudanDigital.com

CONCLUSIONS

The digital opportunity in Sudan is much larger than most companies give credit to. It is also growing significantly faster than GDI. Penetration rates are low, but absolute numbers are high. This stage of the digital evolution allows for companies to target the most valuable sectors of society at relatively low costs. The general population within Sudan are much more digitally aware than companies. This represents both an opportunity and a threat. The opportunity is for companies to take advantage of this digital landscape to further their organizational objectives. The threat is that if they don't others will. Tirhal is an example of a disruptive digital business that is changing the market for 'Rickshaws' and Taxi Drivers in the market. It won't be long before digitally disruptive businesses are impacting most traditional business sectors.

Within the market, the levels of digital knowledge are relatively poor. This is due to isolation of Sudan and the relative lack of availability of technologies and associated training. However at a shallow level there is some understanding of digital techniques and concepts. It is imperative that companies increase their understanding of digital significantly. This should be done through both CEO and general training across the organization. Ignoring this threat will only lead to more complex business challenges in the future.

FURTHER STUDIES

That State of Sudan Digital 2018 is the first of a number of studies that need to be completed to better understand the digital opportunity. We will continue this report annually and we aim to deliver progress reports where appropriate. We also believe that there are market specific reports that would be advantages and are actively looking for sponsors to help us create these reports. Sponsors will be given access to the report 1 month before it is released to the general population. Market specific reports are paid for reports and therefore the distribution will be limited to a few key market players. The list of reports we are currently looking for sponsorship for are:

1. Digital Disruption In Food Manufacturing
2. How The Automotive Industry Can Leverage Digital

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3. Healthcare and the Digital Revolution
4. Making Digital Part of Your Marketing Agency
5. The Travel Industries Digital Challenges

We are also open to creating other market specific sponsored reported. For pricing and further information please contact Lumyaa@SudanDigital.com