Marmore Industry Report

Kuwait Telecom Industry

Towards a Connective Economy

Research Highlights

Analyzing the Kuwait telecommunications industry – focusing on market-size, infrastructure, key players and potential opportunities for investments.





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INDUSTRY RESEARCH REPORT

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Executive Summary

Telecommunication sector is constantly evolving, keeping up with the growing economic and demographic trends of Kuwait. This has led to a greater need for capacity building and maintenance. In the early eighties, Kuwait was an early bird in adopting telecommunication technology compared to its peers in the GCC, with the establishment of MTC (Zain), the first

telecommunication company in the region. Kuwait was also one of the earliest adopters of internet in the region. However, it lagged behind other countries in the recent years in terms of various key indicators. For example, in terms of network readiness index, it ranks 61 compared to 26 for UAE and 27 for Qatar. Similarly it has lower internet penetration compared to other GCC countries.

Table 1.1: Main indicators for the GCC countries

Indicator	Bahrain	Kuwait	Oman	Qatar	KSA	UAE
Govt. procurement of advanced tech	15	101	43	1	7	2
Mobile phone subscribers/100	5	2	15	29	3	4
Individuals using internet %	10	29	41	9	50	12
Broadband internet subscribers/100	42	104	86	69	37	64
Mobile broadband subscribers/100	4	2	26	27	15	9
Use of social networks	15	42	88	12	31	6
Mobile network coverage %Population	1	1	67	1	62	1
Int'l internet bandwidth kb/user	52	51	70	44	69	35
Internet and telephony competition	69	133	80	125	1	122

Sources: ITU, CIA, Telecoms Authorities, Industry Sources, and WEF

In April 2015, Kuwait's parliament approved a bill to create an independent telecom regulator. The Ministry of Communications was playing the dual role of regulating the sector as well as providing fixed-line network. In Feb 2016, the Communication and Information Technology Regulatory Authority (CITRA) was given the

responsibility of granting approvals and was given the responsibility of regulating the sector. At present the Ministry of Communications (MoC) supervises the wired network in Kuwait and has managed to put necessary infrastructure in place for the growing use of consumers across various sectors.

A relatively high percentage of the population in Kuwait is below the age of 30, (47%) translating into an "early-adopter" user profile. With nearly one-third of Middle East nationals aged between 15 and 30, the region is very dynamic in webbased and mobile communications. Apart from investments, e-government initiatives such as the Kuwait Information Network that envisions connecting all government departments through technology have given thrust to the development of the sector.

Telecom business model is dynamically evolving and change is expected to continue in the coming years as well. Declining ARPU (Average Revenue per User) has been a global phenomenon that has strained the top and bottom line of telecom operators worldwide. This however took some time to ripple its impact on the Kuwaiti players compared to its peers in GCC. Zain and Ooredoo, the telecom majors in Kuwait have started network infrastructure sharing and outsourcing to mobile virtual network operators (MVNOs) that rely on local infrastructure for their operations.

Tougher operating environment, pressurized profit margins, expected increase in competition and resulting price wars may hit the Kuwaiti telecom sector in the future. Kuwait's comparatively lower network readiness and poor business environment compared to its GCC peers (lowest in Ease of Doing Business) are further impediments in the path ahead.

Kuwait Telecommunications Overview

Kuwait's population tends to adopt new technologies faster as compared to other regional markets due to high spending per capita, higher literacy rate and large young, techsavvy population. The content and data market is one of the biggest areas for growth for all the operators. Kuwait's telecom infrastructure is one of the most developed in the region and has the ability to cope with new services¹. However in 2014, Communication and Information Technology Regulatory Authority (CITRA) was established by Amiri Decree, to regulate the Telecommunications and Information Technology sector in Kuwait. CITRA also governs all aspects of the Telecommunication sectors, previously submanaged by the Ministry of Communication.

In April 2015, Kuwait's parliament approved a bill to create an independent telecom regulator, which should end a conflict of interest for the Ministry of Communications. The MoC was playing the dual role of regulating the sector as well as providing fixed-line network. In Feb 2016, the Communication and Information Technology Regulatory Authority (CITRA) was given the responsibility of granting approvals and was given the responsibility of regulating the sector.

At present the Ministry of Communications (MoC) supervises the wired network in Kuwait and has managed to put necessary infrastructure in place for the growing use of consumers across various sectors.

Kuwait's Ministry of Communications has called upon the country's ISPs to reduce their prices to promote healthy competition within the sector². Pricing is one of a number of issues that the MoC hopes to address in the near future. Opening up the country's broadband market for other ISPs is also on the list. The undersecretary, Al-Mazidi, indicated that a new law, promoting the creation of a Communication and Information Technology Institute - which will be responsible to oversee such issues - is set to be soon approved by the National Assembly Committee. Salem Al-Athena, Kuwait's Minister of Information and Communication, has announced that the price of mobile phone calls is also set to be reduced in accordance with ministerial decision.

The Global Information Technology Report (2016), by the World Economic Forum, ranked Kuwait at 61 in terms of Network Readiness. While this is the lowest ranking among GCC nations, it represents an improvement from the previous year, where

it was ranked 72. But Kuwait has abundant cash and a large, young, tech-savvy population, which implies that there are several growth opportunities such as high speed mobile internet, on-demand video, MVNOs, cyber security etc.,

Internet Services Providers in Kuwait

Kuwait has four major Internet Services Providers: Fasttelco, Quality Net, KEMS, and Gulfnet communication. The companies provide internet services and communication solutions to small, medium and large corporations. As per ITU data, Kuwait's internet penetration rate is at 78.7%. Internet service in Kuwait ranges from dial-up to wireless connectivity.

The convergence between ISPs and telecom companies indicates that in the near future both entities will merge into one since they will be more or less providing the same services. Currently the ISPs are regulated by the Ministry of Communication (MoC) itself. Being regulated by a ministry hinders the development in the sector as many responsibilities are entrusted to the Ministry. Last year some ISPs unilaterally enforced its "Fair Usage Policy" thereby limiting bandwidth usage to users. The internet prices were increased due to the change in the bandwidths e.g., during infoconnect 2015 10Mbps was costing KD 165 compared to 2 years ago it was only KD 140³. The preceding examples show the need for an independent regulator to set guidelines that protect both users and services providers.

Table 2.1: Current ISP services – Residential

Service	Speed
Dial-up	56 KBPS
ADSL	2-24 MBPS
GPON	2-100 MBPS
Wireless1	2-15 MBPS

GPON (fiber optics) offers the best value for money but since infrastructure upgrade is still ongoing, a large number of suburbs in Kuwait use ADSL and Wireless solutions. ADSL speed is affected by the distance between the main switchboard and the end-connection. As the distance increase the telephone line capacity decrease and causes dropped performance. This limitation was overcome by wireless sub ISPs such as WIMD (Wireless Mobile Data Co) and MADA; which connects to the internet through wireless networks rather than landlines, thus providing a sustainable internet service. The limiting factor is that the services are more expensive than "wired

internet" and the services are also affected by the location of the user. Through LTE networks, telecommunication companies would be able to provide internet speeds up to 150 Mbps. Zain came up with new broadband technology (4.5G) that can provide internet speed up to 1 Gbps.

ISPs in Kuwait provide a whole gamut of services other than internet such as Voice services, Private wide area Networks, where resources could be connected under one network remotely, outsources IT services and data centers - and turnkey solutions for system integration, along with managing internet security.

¹ Meed, December 2010.

² Kuwait News Agency, Jun 17, 2011.

³ 248am.com

⁴ Mada and WIMD and does not include Telecom internet services which has download speeds of up to 21MBPS

Table 2.2: ISP	in Ku	wait Owr	nership	structure
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Company	Established	Owners
Mada	2011	Mada Group
		Al Deer Holding Company 39%
	2000	Abdul-Aziz Al Ghanim 30%
Fast Telecommunication	2000	Bibi Brothers 15%
		Heirs of Hamad Al Hamad 15%
		Ali Al Ghanim 46%
Quality Net	1998	BATELCO 44%
		National Bank of Kuwait 10%
KEMS	1991	Zajil international Telecom company
Gulf Net Communication Company	1991	United Networks

Mostly prices and quality of internet services could be considered uniform, while each company might be a first provider of certain service, but then it gets adopted by the rest rapidly. Prices do not differ much between competitors and the Ministry of Communication monitors prices regularly. Product offering in the residential sector is more standardized, which created saturation among the big 4 providers not taking into account several sub-ISP providers who offers residential packages. In efforts to alleviate the residential pressure, Internet Service Providers began to increase their presence in the corporate world, as companies rely more the internet.

3 Telecom Infrastructure & Access Indicators

Previously, the government used to have a 25% share in each telecommunication operators in Kuwait, which was viewed as a form of regulation. The significant share enables the government to exercise significant control over the financial and operational activities of the telecom companies. This control directly impacts the mobile sector and can be used as a regulatory measure to prevent destructive price-cutting competition between the operators. However, in late 2012 the government sold its "strategic" stake in Wataniya Telecom to Q-Tel, which indicated that a regulatory body could soon be established. And this was proven true with the establishment of CITRA in late 2014.

Telephone penetration (landline and mobile)

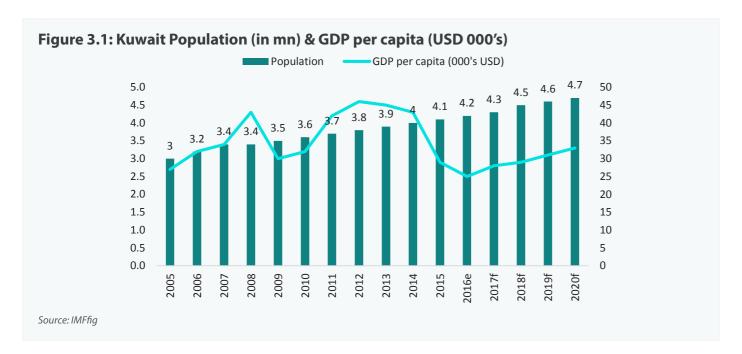
Kuwait's mobile penetration was 217% in 2016 - the highest of the GCC countries. It is estimated that approximately 30% of the mobile subscriber base owns more than one SIM card. The penetration rate in the fixed-line segment is around 13.4%⁵. Penetration rates are expected to remain at the same level because of the high household tele density (around 95%) and increasing use of mobile phones.

Table 3.1: Kuwait Telecom market growth trends

2011	2012	2013	2014	2015	2016
514,696	510,000	508,000	494,000	480,000	Na
16.5	15.7	15.1	14.2	13.4	Na
4,934	5,100	6,410	7,600	8,305	7,768
157.9	156.9	190.3	218.4	231.8	216.8
65.8	70.45	75.46	78.7	82.1	82.1
47,000	47,000	47,000	48,000	55,00	Na
1.50	1.45	1.40	1.38	4.53	Na
	514,696 16.5 4,934 157.9 65.8 47,000	514,696 510,000 16.5 15.7 4,934 5,100 157.9 156.9 65.8 70.45 47,000 47,000	514,696 510,000 508,000 16.5 15.7 15.1 4,934 5,100 6,410 157.9 156.9 190.3 65.8 70.45 75.46 47,000 47,000 47,000	514,696 510,000 508,000 494,000 16.5 15.7 15.1 14.2 4,934 5,100 6,410 7,600 157.9 156.9 190.3 218.4 65.8 70.45 75.46 78.7 47,000 47,000 47,000 48,000	514,696 510,000 508,000 494,000 480,000 16.5 15.7 15.1 14.2 13.4 4,934 5,100 6,410 7,600 8,305 157.9 156.9 190.3 218.4 231.8 65.8 70.45 75.46 78.7 82.1 47,000 47,000 48,000 55,00

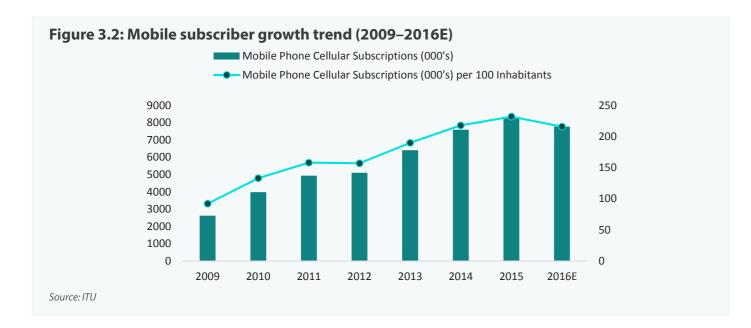
⁵ Latest available statistics from 2015

RM-O-RE



Mobile broadband subscriptions surged to 1.2mn in 2015. 3G-enabled handsets are usually counted as "broadband subscriptions." The Internet penetration level was at 82.1% (a 21% increase from 2010) and is poised to improve further in the

next few years because of the increasing usage by individuals and commercial units. Mobile cellular subscriptions more than doubled during 2010 and 2015.



All operators offer third-generation (3G) frequencies and fourth generation Long-term Evolution (4G-LTE). Mobile broadband speeds range from 7 Mbps to about 42 Mbps. In Dec 2015, Zain announced successful testing 4.5G broadband technology with strategic partnership with Huawei, in which Zain network reached the speed of 1 Gigabyte per second (1Gbps). Viva rolled out 4G in March-2013. The rise in data usage will eventually lead to more competitive data packages.

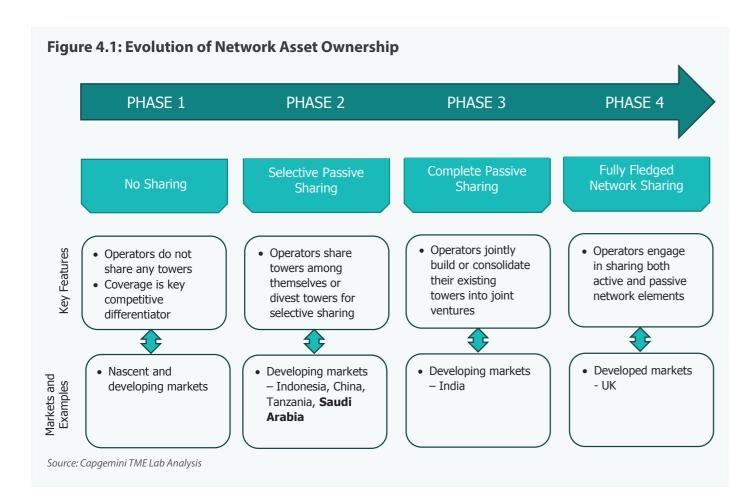
Internet Services

Even with advanced infrastructure, internet penetration is only at 78%, according to the International Telecommunications Union (ITU). Broadband is still expensive despite the existence of four Internet Service Providers (ISPs). The Ministry plans to only issue new licenses for ISPs as soon as a regulatory body has been set up.

Telecom Business Model

Telecom business model continues on its fastpaced evolutionary path across the globe; from the primitive phase, where operators relied on self-owned infrastructure and increasing coverage in areas of dense human settlements, to fullfledged network sharing, where all infrastructure elements are shared among various operators. In most cases, saturation in coverage and

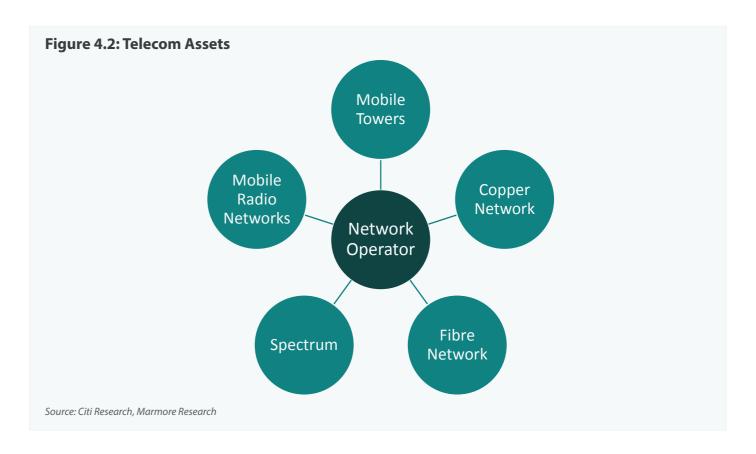
competition, transformation of the business from voice-based to data-based, and the subsequent decline in Average Revenue Per User (ARPU) have forced the hand of network operators to cut capital and operating costs, divest existing physical infrastructure and/or consider sharing network assets with other operators.



At present, network infrastructure sharing and outsourcing is finding strong acceptance with mobile operators around the world, with operators in the developed markets having already moved on to advanced active infrastructure sharing and outsourcing. But operators in developing markets are only just beginning to realize the potential of passive infrastructure sharing and outsourcing, as an effective way to cut down coverage costs, while reducing the time-to-market. For both incumbents and new entrants, tower sharing offers significant

potential for cost savings, at the risk of reduction in strategic control and potential for information leaks.

The telecom market is becoming increasingly competitive and operators are constantly looking for ways to reduce costs and streamline businesses. In emerging markets, infrastructure expenditure makes up a large proportion of operators' capital investments, and most of their operating costs.



Population distribution also complicates network infrastructure sharing, since access to telecom services vary significantly between urban and rural areas. Operators need to balance the cost of operations in dense and saturated urban areas and the costs of new network rollouts in non-urban areas. In such a context, tower sharing allows for cost savings, and reduces time-to-reach-market, as raising towers constitute almost 50 per cent of the total capital expenditure (CAPEX) for an operator.

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Operators in developed markets have already moved on to phase IV in the evolution cycle (see above table), in which they share both active and passive network elements to save costs, in some cases bypassing the intermediate phase of sharing only tower infrastructure. Operators in the emerging markets, on the other hand, are faced with low penetration levels, and the dual challenge of maintaining margins, while ensuring rapid rollout to keep pace with the growth in subscriber

numbers. Even in countries such as the Middle East, where network operators are in a nearsaturated environment, pressures on margins are forcing them to consider ways of reducing costs and improving efficiency. Estimates indicate that tower sharing could help operators in the Middle East achieve savings to the tune of many billion dollars, from having reduced capital expenditure (CAPEX) and operating expenditure (OPEX).

With the constant evolution of new technology in the communication sphere (for example, the transition from 3G to 4G services), together with, increased demand and pressure for network capacity and coverage in ruralttt areas, one way of freeing up cash for the development of their networks is for operators to share their towers with competitors or dispose of their towers to (and leaseback from) specialized tower operating companies (Towercos). Tower divestment also leaves towercos to manage the infrastructure side of the business, while operators can focus on their core business of technology and customer service.

This model is well established and actively encouraged by governments across the world. There is already an established telecom towers market in North America and India, and the model is receiving increasing attention in emerging markets such as Africa, Central and Latin America and Asia (particularly in Myanmar, Thailand and Indonesia)6. Verizon Communications Inc. and AT&T Inc. in recent years sold towers, while operators in Asia, Africa and Europe have followed suit freeing up additional cash and reducing capital expenditure and maintenance needs. The Gulf region are also now following suit, as telecom operators have begun the sale and lease-back of towers.

Kuwaiti telecom company, Zain has been looking for bidders to sell its base transceiver stations (BTS), or in general terms the mobile towers in Kuwait and Saudi Arabia. Zain appointed Citi group as advisors to finalize the deal with bidders. As of 2015, the company has sold/leased 310 towers in Kuwait, thereby reducing its costs by USD 15.1 Mn. Ooredoo Kuwait has also indicated its shift in focus on customer service and improve its customer base in Kuwait. In 2015, the company improved its cost structure through trial antenna sharing.

As a part of the group's strategy, Zain Saudi is in talks to sell 7,000 of its mobile transmitter towers to a consortium comprised of TASC SAL and ACWA Holding, to raise USD 1.5bn. Zain Group expects to sell its Saudi transmitter towers for over \$500m in the first half of 2017. Proceeds could be used to reduce its outstanding debt of USD 2.9bn, which will reduce its interest rate and losses, support its negotiations effort with banks to approve its new business plan and improve the cash flow. Zain also has to repay a loan of SR2.9bn in 2016E and SR1.8bn in 2017E which is expected to put pressure on the balance sheet. But two major operators selling towers at the same time at similar locations is expected to reduce the companies' negotiating power, putting pressure on prices.

All three telecom companies in Kuwait have been facing challenges to their profitability due to a confluence of factors such as intense competition, difficulties in foreign markets and changing technologies. Profit margins have been pressured in the past few years. Selling and partnering tower infrastructure has become a widespread practice among the telecom companies in India, Indonesia and Malaysia, while it is at the early stages in GCC. Deteriorating ARPUs and search for growth

opportunities have made telecom companies spin off their infrastructure.

MVNOs

Zain has partnered with Huawei in 2015 with the intention to optimize operational costs and boost efficiencies by using the concept of MVNO (mobile virtual network operator). MVNOs, which rely on the network and infrastructure of existing service providers, are part of long term vision of Zain telecom. For the first time in Middle East region, Network Function Virtualization (NFV) will be implemented on a live network. The agreement will see rapid developments in the Kuwait telecommunication sector in terms of cutting edge technology and will be a part of the transformation strategy of Zain telecom for the next decade.

Despite government drive to increase the role of MVNOs in the market, the earnings outlook in the telecom sector remains unclear. An increase in MVNO usage is likely to spur handset sales, as clients take advantage of new services, while improved technology and lower data tariffs may lead to growth in retail activity for advanced

Figure 4.3: Examples of OTT (Over-The-Top) Services

models of smartphones. However, an existing challenge for operators, and one which the MVNOs cannot directly resolve, will be the reach and capacity of their host networks. Without ongoing investment in infrastructure by the three network operators, their virtual clients may struggle to reach their full potential. Tighter margins and cost cuts prompted by increased competition could also limit infrastructure investment, which in turn could put restrictions on MVNOs' revenue streams.

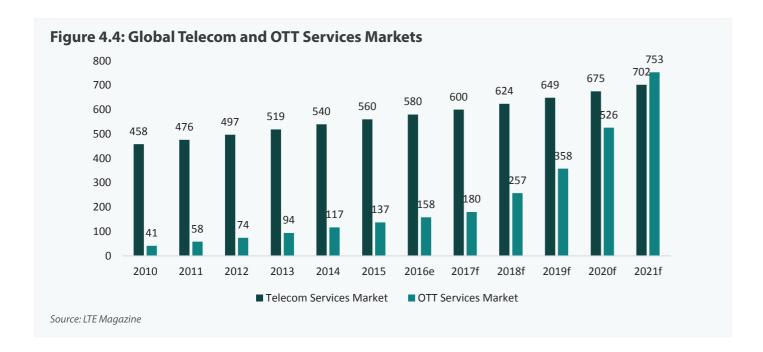
ARPU Erosion due to OTT: Return of pricing power due to growing demand for data

Operators across the world, and particularly in developing markets, face challenges in sustaining margins with declining ARPUs. The reason for the decline in recent years has been attributed to OTT (Over-The-Top) content, which is a term referring to audio, video, and other media transmitted via the Internet without an operator of multiple cable or direct-broadcast satellite television systems (socalled multiple-system operators) controlling or distributing the content.

Source: Internet

TV and Video Communication Community Pinterest iMessage foursquare CRACKLE NETFUR Google+ Google play **Viber** facebook WhetaApp Linked in amazon huluptus" Music Technology Productivity PANDORA EVERNOTE Dropbox sales force com iTunes Match iCloud 2 QH 0 amazon cloud drive Work. Online Outlook.com amazon cloud player amazon Google docs C Rhopsody DEEZER

⁶ Law360: Sharing Is Saving: Towercos Take Off In Telecom Market



Most OTT services such as search engines, online trading, e-commerce, video-on-demand, messaging services, and other third-party applications consume significant bandwidth. The economic model is based on the principle of the absence of telecom operators in the business relationship between the suppliers of OTT services and the customers. Therefore, no fees are paid to operators for the consumption of OTT services, other than charges paid to access data services.

Prior to 2002, VoIP (Voice over Internet Protocol) was not an issue, as it was relatively underdeveloped due to the complexity of the early servers, the high cost of bandwidth and the low implantation of broadband in businesses. Telecom regulators and operators were less worried about the rising innovation in this sphere, and did not foresee any changes in the industry model. After 2002, there has been an actual acceleration of the VoIP, after the emergence of newer technologies that have led to lowering bandwidth and infrastructure costs, and widespread use of smartphones and fiber technologies, such as FTTH (Fiber-to-the-Home). Internet giants, such as Google, Facebook etc. took advantage of the

technological progress, and began to offer free services such as voice over the Internet, SMS, chatting and sharing files, music and videos, from which earned a lot of money through advertising and the sale of data profiles of internet users to Big Data firms.

Voice was generally billed in per minute or per second and the internet is generally billed in as a flat rate. However, data calling has evolved to such levels, where subscribers pay the same rate for making international calls from applications such as WhatsApp, Viber, Skype etc., as they would do for local calls. Subscribers relying more and more on data services, at the expense of voice services, severely affected the revenue streams of network operators that were traditionally relying on the latter for the bulk of their revenue, thereby reducing the Average Revenue per User (ARPU) globally.

To increase ARPU, telecom operators in developed and some in emerging markets have started to move towards hard bundles (fixed amount of data, voice and SMS for a fixed price). Offering hard bundles targeted towards different customer

segments facilitates service arbitrage (offering more services that a certain customer group actually uses), which helps to preserve or increase ARPU. Retaining customers has also taken precedence over winning new customers.

Kuwait's mobile penetration was 216% in 2016 - the highest among the GCC countries. It is estimated that approximately 30% of the mobile subscriber base owns more than one SIM card. The mobile penetration might further increase with telecom companies such as Zain targeting to transit to 5th generation (5G) and as more MVNO players are expected to enter the market.

Among the GCC countries, Zain has the highest ARPU in Kuwait (\$27). The recent advent of technological developments such as 4G and relatively lower mobile internet penetration offer companies scope for revenue enhancements from this segment. Zain launched Voice over LTE (VoLTE) technology in Kuwait on its advanced LTE-A network in July 2016 to enhance the quality of the internet usage. The VoLTE advancement technology provides users the opportunity to make an uninterrupted phone call while browsing the internet in full speed capacity.

Kuwaiti telecom players have started to feel the pressure of declining ARPUs after 2011, relatively later than its peers in Saudi Arabia and UAE. The two incumbent companies (Zain & Wataniya) had been charging users for receiving calls from fixedline numbers; however, when VIVA entered the market, it did not have such charges. Consequently, Zain and Wataniya had to follow suit. This has had an impact on falling voice revenue for the operators. VIVA's competitive pricing approach almost halved the ARPUs to USD 54. By Q4 2016, the ARPUs for Zain further declined to USD 27.

1, 2016, which includes a cut in incoming and outgoing call charges, SMS, as well as data charges. Salem Al-Athena, Kuwait's Minister of Information and Communication, has announced that the price of mobile phone calls is also set to be reduced in accordance with ministerial decision.

GCC countries have agreed to reduce regional

roaming rates by 9-13 per cent effective from April

Cross border Acquisitions

Since the turn of the century, Gulf telecom companies had been on an asset-buying frenzy, and many became significant international players. UAE's Etisalat invested USD 1bn in India, before wrapping up operations, Ooredoo has significant international presence (only 3 per cent of its subscriber base are from Qatar, despite accounting for nearly a quarter of its revenues), and STC also has considerable investments in South East Asia and India. At present, the process is reversing, with most telecom companies attempting to sell-off existing assets in order to improve their profitability, by offloading underperforming units. Heightened geopolitical risks and volatile currency fluctuations have also impacted their bottom-line. Therefore, despite nearing market saturation in their home countries, local telecom companies are returning their focus back to the home turf.

Zain Telecom

Zain announced the acquisition of Celetel in 2005, when it acquired 85% of the outstanding shares of the company and promised to acquire the remaining 15% in 2007. Zain completed the acquisition process in 2007 by paying USD 467 million. Celtel, a leading telecom operator headquartered in Netherlands was by acquired

⁷ Marmore Research – Estimat ed from Zain Annual Report

Zain as part of its strategy to expand its operations in the region. The successful deal marked the beginning for Zain to pursue its expansionary policy by increasing its customer base in the sub-Saharan region. Following these deals, it increased its ownership to 100% of Sudan's Mobitel in addition to purchasing 65% Celtel Nigeria. Zain increased the customer base of Celtel from 5 Mn in 2007 to 20 Mn in 2009. Zain Group increased its

stake in Zain Iraq from its 32% to 62% in 2008. In 2010, Zain agreed to sell its African stake (except Sudan and Morocco) to Bharti Airtel for USD 10.7bn as 2008 global financial crisis slowed down its growth. Zain announced that the sale of African operations was based on a strategic decision to focus on the Middle East and North Africa region where ARPU's are relatively higher than Africa.

Table 4.1: Cross border acquisitions of Zain Kuwait

Company	Geography	Year	Total Stake
Celtel	Africa	2005	100%
Zain Iraq	Iraq	2008	62%
Zain Bahrain	Bahrain	2014	62.5%
FOO	Lebanon	2015	NA

Zain increased its stake in Zain Bahrain by 6.25% to 62.5% in 2014. As Zain wished to retain major control over the Bahraini subsidiary after the listing, it acquired additional shares from Vodafone Group in privately negotiated transactions. Zain Bahrain and Zain Iraq were listed in Bahrain Bourse and Iraq stock exchange in 2014 and 2015 respectively.

The company acquired majority stake in FOO, a Lebanon based app developer and digital service provider. FOO plans to open offices in Kuwait, the United Arab Emirates, and Saudi Arabia by 2019. It's partnership with FOO is based on the establishment of the Zain Digital Frontier and Innovation (ZDFI) business unit aimed in expanding its presence in the digital space.

Wataniya

The other telecom major National Mobile Telecommunications Company (Wataniya), a subsidiary of Qtel acquired 50% shares in Orascom Telecom Tunisie, for USD1.2 billion. The deal was considered as a landmark for the expansion of Qtel in the North Africa region in 2010. The proceeds of the sale were used to repay Orascom Telecom's outstanding indebtedness partly. The deal provided Qtel immediate access for 53% of the Tunisian market, then market share of Orascom.

Investor interest in telecom sector

Dividend yield is an interesting play of the company's financial performance and its stock performance. During 2016, Zain's stock price increase by 17.1% but the dividend has increased despite which the dividend yield for 2016 has fallen. Dividend yield of two major telecom players, Zain and Ooredoo Kuwait has been around 7% during 2013 and 2015, while its EPS has declined, indicating that it is predominately 'dividend play' in the Kuwaiti telecom industry.

Dividend Yield, %	2011	2012	2013	2014	2015	2016
Zain Kuwait	22.22	8.33	7.25	9.43	11.43	8.33
Wataniya	2.57	2.13	7.1	8.92	6.36	7.08
VIVA Kuwait	-	-	-	-	-	1.16
EPS, (in USD)	2011	2012	2013	2014	2015	2016
Zain Kuwait	0.25	0.24	0.20	0.18	0.13	0.13
Wataniya	2.63	0.63	0.53	0.30	0.26	0.31
VIVA Kuwait	(0.10)	0.03	0.17	0.28	0.29	0.26
DPS, (in USD)						
Zain Kuwait	0.24	0.18	0.18	0.14	0.10	0.12
Wataniya	0.18	0.45	0.44	0.25	0.33	0.28
VIVA Kuwait				0.00	0.00	0.03

VIVA Kuwait did not distribute any dividends despite turning profitable in 2012. The company retained its profits given the higher capital expenditure required.

Government Initiative: Digital Readiness of the Economy

Being a defensive sector, telecommunication remains a safe haven from the impact of oil volatility and lower government spending. CITRA, established in November 2014 by Amiri Decree, regulates the Telecommunications and Information Technology sector in Kuwait. CITRA oversees all aspects of the telecom sector. CITRA's vision is to ensure the establishment and sustainability of fair competitive market conditions through regulations. Regulations would be the prerequisite

to satisfy the government's goal to liberalize the telecom sector and encourage more international and domestic private players to enter the market.

Strategic Objectives for Telecommunications Sector included in the Kuwait Development Plan 2035, include:

- Improving the information security and information disaster management systems
- Skill development for workers in the field of telecommunications sector
- Advancement of technology in telecommunication and communication such as migrating to 5G.
- Interconnect all government departments to ensure e-governance for Kuwait people
- Support e-commerce
- Increase the IT industry's contribution in the non-oil GDP.

Regulatory Environment

Realizing how the lack of a standalone communication and information technology regulator could hamper development, Kuwait unveiled Communication and Information Technology Regulatory Authority (CITRA) in 2014 to regulate the ICT sector in the country. The end-users now have a clear entity to direct their concerns regarding service quality and price controls, and the country has a body to handle ICT regulations, thus ensuring a systematic way of addressing opportunities and challenges rather than by a ministerial resolution. The new ICT commission should be in charge of;

- a. Preparing policies and regulatory framework for ICT sector
- b. Granting licenses for ICT related services providers
- c. Protecting users right and enforcing code of conduct
- d. Regulating services Providers
- Setting quality standards
- Allocating radio spectrum
- g. Managing tariffs
- h. Studying the ICT environment and planning for continuous development of the sector

In April 2015 Kuwait's parliament approved a bill to create an independent telecom regulator, which should end a conflict of interest as the Ministry of Communications regulated the industry and operated the fixed-line network. Kuwait's National Assembly passed a draft law to establish an independent telecoms commission to oversee the country's communications sector in June. But on March 2016 the Ministry of Communications (MoC) stated that the MoC is the monopoly operator of fixed telecoms in Kuwait.

Communication and Information Technology Regulatory Authority (CITRA)

CITRA, established in November 2014 by Amiri Decree, regulates the Telecommunications and Information Technology sector in Kuwait. CITRA also governs all aspects of the Telecommunication sectors previously sub-managed by the Ministry of Communication. CITRA's vision is to ensure the establishment and sustainability of fair competitive market conditions through regulations in the Telecommunications and IT sector in Kuwait as well as develop the current telecom market sector

by inviting investments and advancements in Technology to add further growth to the booming sector. CITRA is administrated by an Independent Board of Directors consisting of The Chairman His Excellency Salim Alozainah and 6 members. CITRA's governing authority includes creating regulatory policies, development and implementation of these policies across the sector.

Communication and Information Technology Regulatory Authority (CITRA) in Kuwait will now be responsible for granting Type Approvals, which were previously sub-managed by The Ministry of Communications (MoC); all new applications will be on hold until the new authority internal procedures are in place, and delays are expected for pending applications. No changes to the process are expected, and MoC certificates previously emitted will remain valid until their expiry. Importation may continue with certificates that expire during this period of transition.

CITRA focus in Telecommunication

- 1. Competition Policy and Regulation.
- 2. Price Control
- 3. Interconnection Regulation
- 4. Dispute Resolution
- 5. Licensing
- 6. Spectrum Management
- 7. Universal Service Policy and Funds

CITRA focus on Information Technology

- 1. Internet Management
- 2. Information Technology Public Sector Governance.
- 3. Information Technology Sector Development.
- 4. National Cybersecurity.
- 5. Smart Government Strategy.
- 6. Information Technology Standards and Regulations.
- 7. Information Technology National Investments.
- 8. Monitor Information Technology Process.

CITRA Future Projects

- 1. Privatization
- 2. Fixed network
- 3. International gateway
- 4. Tower privatization
- 5. National broadband plan
- 6. Gbone Fiber
- 7. Kuwait Transit Hub

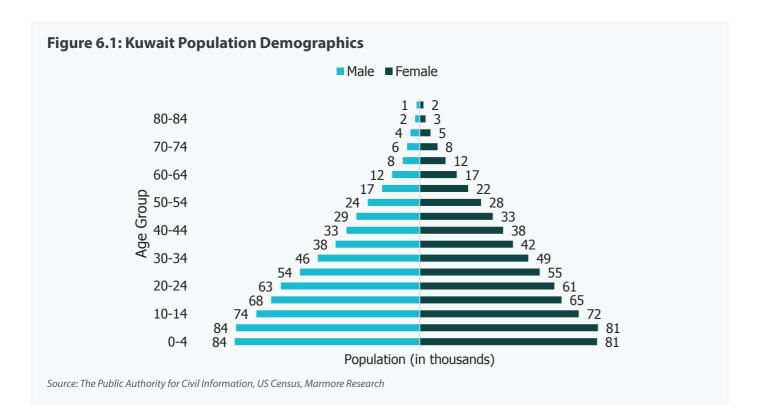
The Ministry Of Communication is entrusted with operating various services which include; postal services, public transportation services and fixed lines while regulating telecommunication service, internet service providers and allocates spectrum frequencies. Creation of CITRA eliminated the conflict of interest that existed in the telecom market as MoC was both a regulator and an operator of fixed lines earlier.

Growth Drivers

Young and affluent population

A relatively high percentage of the population in Kuwait is below the age of 30, (47%) translating

into an "early-adopter" user profile. With nearly one-third of Middle East nationals aged between 15 and 30, the region is very dynamic in web-based and mobile communications.



Data use and "bundling offers" or media convergence

The decreasing voice Average Revenue per User (ARPU) is another strong incentive to develop the required infrastructure to offer more value-added services. The development of mobile broadband will lead to greater integration of services and media convergence. Internet protocol television licenses⁸ are set to dominate the industry within five years.

Competitive retailing and foreign expertise

Healthy competition drives down prices (and increases value) for customers. Mobile Number Portability (MNP), the ability to switch to another operator while keeping the same number, if enforced by the regulator, allows for easier switching between service providers. The same applies to roaming charges. The example of the European Union is commendable whereby it has regularly forced operators to lower the very high roaming charges over the last decade. It is needed as to obtain the latest technology and upgrade the networks. Zain's partnership with Huawei could be the beginning of the foreign expertise being used by Kuwaiti telecom companies. Ooredoo and VIVA are making efforts to establish cooperation

with international players in order to improve technology and quality of services offered to the customers. In comparison with peers in GCC, Kuwaiti telecom companies have been slow starters in terms of international agreements and collaborations.

Technology

Telecom companies have to upgrade their regional networks to third (3G) and fourth-generation (4G) "Long-Term Evolution" (LTE) technology to keep pace with the demand and offer more valueadded services. LTE can deliver up to 150 Mbps high-speed Internet and high-definition video (4G wireless systems). Zain is testing its new broadband technology 4.5G which can deliver high speed internet at 1 Gbps.

Government Investment

The current network capacities cannot handle or cope with this growth, particularly for video services. To support the demand, governments are investing in new technology, including fiber-optic connections to speed up connection and replace the Asymmetric Digital Subscriber Line (ADSL) technology that dominates regional broadband infrastructure. Budgetary surpluses allow for a high level of spending, regardless of the economic cycle.

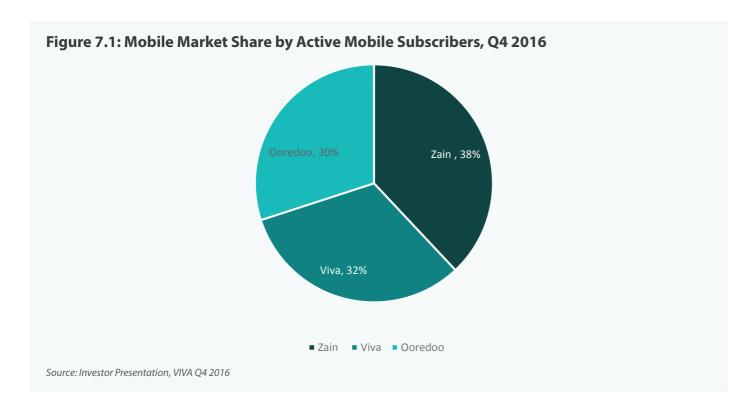
⁸ delivering content via the internet opposed to satellite signal and cable TV

7

Key Players and Market-Share

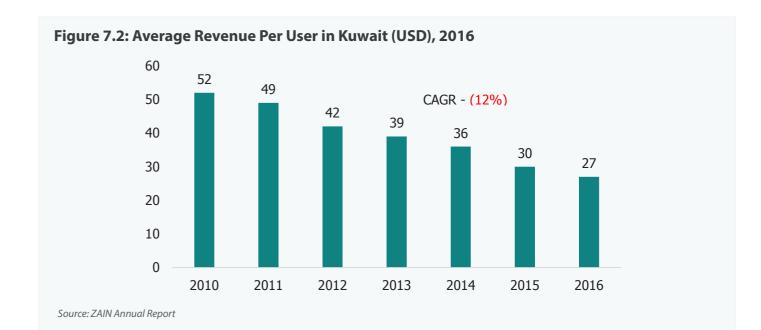
The telecommunications market in Kuwait is served by three major players: Zain Kuwait, VIVA Kuwait and Ooredoo Kuwait. While the MVNOs (Frindie) introduced in 2014 are increasing their subscriber base rapidly, they are private firms. The telecommunication sector might witness a

major convergence with the internet, as Voice over IP protocols gain more ground the distinction between an internet service provider and a telecommunication company will be hard if not impossible.



Zain remains the market leader with a share of 38% of the total mobile subscribers while Ooreddo and VIVA Kuwait have a market share of 30% and 32%

market share respectively. VIVA Kuwait was able to quickly acquire the market share, mainly with the attractive tariffs it offered to its customers.



After VIVA Kuwait positioned it self in the Kuwaiti market in 2008, the Average Revenue Per User (ARPU) for mobile has reduced over the years. ARPU in Kuwait declined at a CAGR of 12% from USD 52 in 2010 to USD 27 in 2016. This adversely affected the top and bottom line of the other two players, Zain and Ooredoo during the period, pressurising them to realign their business model to sustain their operating and net profit margins. However, among the GCC countries, Kuwaiti telecom operators still enjoy the benefit of having the highest ARPU.

Mobile Services Providers

Zain (formerly MTC)

Kuwait's mobile communication services are provided by three key players. Zain is the oldest and the largest player with 38% subscriber market-share⁹, followed by VIVA with 32% market-share and Ooredoo (Wataniya) has been able to usurp 30% market-share¹⁰. Zain also leads the revenue market share with 41% followed by VIVA with 35% and Ooredoo with 24%¹¹. Zain was established in 1983 as the first regional Mobile

Telecommunication Company, focusing on cellular telecommunication. Since then the company grew organically for the next 2 decades, after which it focused on increasing its regional presence by acquiring stakes in the Arab world and Africa. In 2014, Zain devised a five - year strategy to better serve its customers and build sustainable digital communications. The six components of the strategy are as follows:

- Prime importance will always be given to the customer experience.
- Improving operational efficiency through sharing towers, switching to sustainable methods of communication that will help the company achieve higher profits
- Maintain Zain's leadership position in the region
- Improve its Business to Business (B2B) marketing efforts
- Promote innovation in digital space
- Achieving excellence and innovation through employee engagement and training

Zain's growth strategy will be supported by its growth policy in MENA region and upgradation

⁹Zain Annual Report 2016t

¹⁰ Viva 3Q16 Presentation

¹¹ Viva 3Q16 Presentation

of technology to 5G in Kuwait. With the advent of increasing data usage, declining revenue from the conventional sources such as calls and SMSs, Zain is focused on innovation to entice young customers. Appealing to medium and small businesses and increasing the B2B collaboration with companies in Kuwait is considered to be one of the areas of focus for Zain in the coming years.

With the long-term objectives of the Kuwait government well defined, in the form of Kuwait development plan 2030, Zain, the primary telecom provider in Kuwait shares the bigger burden in the Digital Transformation of the Kuwait economy. To achieve this, the company has significant investments in integrated structure of cloud computing services and an integrated platform system for "Internet of things", to offer new smart services to customers from various government and business sectors, and to enable the knowledge economy and the information society.

At the start of the new millennium the introduction of National Telecommunication Company (Wataniya) broke Zain's monopoly in the telecommunication sector and cut down prices, while the divestment of the government stake in Zain from 49% to 25% reduced government red tape ushering a new era of inorganic growth for the company. From 2000-2010 Zain increased its presence in the regional market with acquisition and presence in Jordan, Bahrain, Iraq, Sudan, Saudi Arabia, Morocco and several African countries through Celtel. The 2008 global credit crisis lead Zain to slow down the pace of its aggressive growth across Africa and in March 2010, Zain agreed to sell its African stake (except Sudan and Morocco) to Bharti Airtel for USD 10.7bn. In 2011, Zain separated operations in Sudan

and South Sudan, in 2012 Zain KSA raised USD 1.6bn, in 2014 and 2015 Zain listed Zain Bahrain and Zain Iraq in Bahrain Bourse and Iraq stock exchange respectively. Zain announced that the sale of African operations was based on a strategic decision to focus on the Middle East and North Africa region where ARPU's 12 are relatively higher than Africa.

The divestment in Africa was controversial at first as it was in conflict with its main strategy in becoming the regional leader in telecom; however, focusing on quality and profitability rather than just size will in time bear its fruit. Zain's business in Africa contributed to the creation of the "one network" where customers in different African nations could contact one another without incurring roaming charges. This contributed to the "one network" in the Arab world between Bahrain, Jordan, Iraq and Sudan. The other innovation if one could call it that is the introduction of 'ZAP'- a payment medium through mobile phones.

Zain continues to maintain its strong brand recognition across the region, which contributed to its growing subscriber base, that been said; increased competition at home and abroad, challenge of declining ARPU's and with the internet gaining stronger foothold ARPU's is more likely to decline further. Before the 2008 Zain's strategy was clear and concise being a regional and international leader, however, the crisis changed Zain's strategy; however the strong support by Zain's major shareholders gave Zain's management the strong push to follow through with new plans.

The telecommunication sector in general is in for a major convergence with the internet, as Voice over IP protocols gain more ground the distinction between an internet service provider and a telecommunication company will be hard if not impossible. We could see that across the board as telecom providers are increasing their data plans and reducing prices, that been said the telecom sector will not become obsolete anytime soon, however Internet and Communication will more likely merge together as one and to some extent so will television broadcaster as content over the internet increase in intensity.

Zain group reported a 4.7% decrease in revenues to USD 3.6 Bn. For the period 2016, EBITDA reached USD 138.2, up 3% year-on-year, while the company booked a net profit of USD 525 Mn in 2016, down 4% from USD 552Mn reported in the previous year. The company disclosed that it incurred foreign currency losses amounting to USD96 Mn in revenue, USD38 Mn in EBITDA and USD44 Mn in net income for the twelve-month period to 31 December. Further, the continued political instability in Iraq and the newly introduced 20% tax on mobile services in the market severely impacted its operations and the group's overall key

financial indicators. In addition, investment in 3G and 4G network expansion upgrades across the group's operations saw CAPEX for the year amount to USD635 million (excluding Saudi Arabia), reflecting 18% of group revenues.

Zain Group highlighted that its Saudi Arabian unit received a 15-year mobile licence extension in October 2016, while securing a Unified Telecommunication Licence, which allows the company to provide all telecommunications services, including fixed telephony. The licence extension will reduce the annual amortisation charge by USD115 Mn starting from the date of the extension, reducing the company's net losses by the same amount. Further, in December 2016 Zain Iraq entered into a negotiated settlement with the country's Finance Ministry for USD93 Mn related to an imposition of a capital gains tax on its acquisition of Iragna in 2007. This resulted in the lifting of restrictions on the trading of Zain Irag's shares, access to the company's bank deposits and also waived penalties and interest on

Table 7.1: Zain Group subsidiaries/investments

Zain Group	Country	Effective Stake
Zain Kuwait	Kuwait	100%
Zain Iraq	Iraq	76%
Zain Sudan	Sudan	100%
Zain KSA	KSA	37%
Zain Jordan	Jordan	96.52%
Zain Bahrain	Bahrain	54.78%
Zain South Sudan	South Sudan	100%
Touch Lebanon	Morocco	15.50%
Source: Zain annual report		

¹² Average Revenue Per User

¹³ Telegrography

Table	7.2	: Zain	Financial	Highlights
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Zain (USD Mn)	2011	2012	2013	2014	2015	2016
Revenue	4,790.80	4,582.90	4,376.50	4,264.90	3,782.90	3601.9
Cost of Revenue, Total	1,282.6	1,290.5	1,240.8	1,181.2	864.5	883.3
Net Income	1,091.6	1,001.7	860.9	752.8	552.4	525.6
Total Assets	11,814	10,435	10,970	11,196	11,524	10,124
Total Liabilities	4,337	4,772	5,229	5,643	6,437	5,981
Total Equity	7,477	5,663	5,741	5,553	5,086	4,143

Source: Thomson Reuters Eikon

Table 7.3: Zain Metrics

Zain Group	2011	2012	2013	2014	2015	2016
Profitability						
Gross Margin	73.2%	71.8%	71.6%	72.3%	77.1%	75.5%
EBITDA Margin	45.4%	44.5%	43.4%	41.8%	43.8%	47.0%
Operating Margin	32.5%	28.8%	27.7%	27.1%	24.9%	26.6%
Pretax Margin	27.2%	26.0%	21.8%	20.2%	17.7%	17.8%
Net Margin	22.8%	21.9%	19.7%	17.7%	14.6%	14.6%
DuPont/Earning Power						
Asset Turnover	0.38	0.41	0.41	0.38	0.34	0.33
ROE	27.2%	26.0%	21.8%	20.2%	17.7%	17.8%
Reinvestment Rate	10.3%	10.7%	9.0%	7.7%	6.0%	5.9%
Liquidity						
Quick Ratio	0.91	0.77	1.01	0.85	0.79	0.84
Current Ratio	0.93	0.79	1.03	0.87	0.82	0.86
Leverage						
Assets/Equity	1.58	1.84	1.91	2.02	2.27	2.44
Debt/Equity	0.26	0.41	0.47	0.48	0.63	0.83
% LT Debt to Total Capital	8.2%	16.1%	22.1%	23.9%	27.9%	33.6%
Operating						
Account receivable turnover	3.5	4.7	4.4	4.1	4.6	4.1
Avg. A/R Days	105.9	78.7	83.9	89.4	79.4	88.8
ROIC	20.6%	21.8%	26.2%	21.2%	11.7%	12.1%

Wataniya

The National Mobile Telecommunications Company, Kuwait's second operator, was established in 1997 and operates under the Wataniya brand. NMTC is the first full-fledged private telecommunication company to be established in Kuwait. On March 2003 Qatar Telecom (Qtel) acquired a \$3.7 bn (52.5%) controlling stake from Kuwait Projects holding Company (KIPCO). Earlier this year QTEL offered to acquire Wataniya Telecom at KWD 2.6 per share, the deal was approved by the CMA and Q-Tel managed to increase its stake to 92.1%

Having established itself as one of the major telecom players in Kuwait, the company reassured its position by becoming the first to launch the LTE-A and 4G+ services in the country. Ooredoo's focus is on data and B2B to improve cost efficiencies through successful active antenna sharing. The company made significant investments in its network to widen coverage for customers, identifying many Greenfield sites to support data penetration. Ooredoo proposes to transform the customer experience by enhancing the digital platforms and data usage facilities. On these lines, the company has already introduced wearable technology for iPhone 6S and 6S+ users. As a part of improving its customer experience, Ooredoo Kuwait has planned to restart its popular Nojoom loyalty program which partners with premium stores to offer customers over 100 rewards and benefits by simply using their Ooredoo services.

Qtel Acquisition

Q-Tel owns a majority stake in Wataniya Telecom. Earlier this year Q-Tel offered to acquire Wataniya at KWD 2.6 per share. The offer was approved by the Capital Market Authority, but, what's interesting to note is that the Kuwait Investment Authority agreed to sell its 24% strategic share to

Q-tel. Although there is no limitation on foreign ownership of the telecommunication sector, historically banks, aviation and telecom were considered national interest stakes and were not allowed to be owned by foreigners.

The acquisition by QTEL broke the un-named taboo of foreign ownership in strategic sectors and paved the way for Saudi Telecom to purchase the 3rd telecom license. Qtel brought with it knowledge and experience, such as streamlining operations and most importantly its bill settlement process leading to commendable growth in both top and bottom lines.

Wataniya's entrance to the market broke Zain Groups (MTC) monopoly in the sector, driving ARPU's down (marginally) and leading to business wars. This can be attributed to lack of a clear frame work and regulation in the sector.

Q-tel's acquisition of Wataniya lead to change in investment strategy, Wataniya began to look outward to increase its growth rate although Kuwait has one of the highest ARPU in the region. Telecom business is a number's game, and, thus Wataniya established and acquired entities in different parts of the region namely; UAE, Algeria, Tunisia, Palestine and Maldives

Wataniya continues to be an established brand name in telecommunication service with more than 2.3 million subscribers in Kuwait, Wataniya telecom could capitalize on this subscriber base by increasing its data service offering since most countries were Wataniya operates suffers from low internet connection speeds due to infrastructure limitation and the predominance of copper wiring opposed to fiber optics.

In 2012, Wataniya launched USD 3bn bond programme in Irish Stock exchange, in 2013 brand Ooredoo was launched and won licenses to operate in Myanmar, also launched USD 2bn sukuk trust programme in Irish Stock exchange and in next year Wataniya started to rebrand itself as Ooredoo in Tunisia, Kuwait and Oman.

Ooredoo Kuwait also finalized the legal and procedural processes of acquiring 99% of the shares of internet service provider FASTtelco for a total of KD 11 million. The purchase aims to bolster Ooredoo's internet offerings in the fast changing telecom sector that is dependent on strong data services.

Change in strategy

Ooredoo Kuwait has made some significant change in strategy during 2016. In March 2016, Ooredoo Kuwait launched its revamped postpaid portfolio Shamel, at competitive prices with unparalleled features. The new Shamel packages

give customers more flexibility, allowing them to freeze contracts up to three months a year while traveling. Customers can also enjoy unlimited local voice calls on Ooredoo network, a feature included in all packages. They can also transfer contracts at any time and carry forward unused Internet data to the following month, which will provide customers with more freedom to use the web.

Ooredoo's customer base in Kuwait stood at 2.3 million at the end of 2016 a 3% increase over the previous year. Revenues for 2016 were USD 2.3 Bn, an decrease of 2% compared to

USD 2.4 Mn in 2015. The net income for the company almost doubled to USD 154.5 Mn in 2016 from USD 89 Mn in 2015.

Wataniya (USD Mn)	2011	2012	2013	2014	2015	2016
Revenue	2,640.8	2,655.0	2,580.3	2,631.2	2,389.1	2,340.6
Cost of Revenue, Total	911.5	964.0	955.8	1,069.5	951.1	998.6
Net Income	1,312.4	269.9	265.9	160.7	88.7	154.5
Total Assets	5,113.9	5,262.0	5,814.4	5,288.4	4,640.8	4,549.7
Total Liabilities	2,218.8	2,343.0	2,960.8	2,770.7	2,374.8	2,444.4
Total Equity	2,895.1	2,918.9	2,853.6	2,517.7	2,266.0	2,105.3

Wataniya Telecom	2011	2012	2013	2014	2015	2016
Profitability						
Gross Margin	65.5%	63.7%	63.0%	59.4%	60.2%	57.3%
EBITDA Margin	79.0%	38.3%	37.4%	30.1%	32.3%	31.2%
Operating Margin	61.8%	18.4%	18.7%	11.1%	9.8%	10.7%
Pretax Margin	56.8%	17.8%	17.2%	10.1%	6.7%	10.1%
Net Margin	50.8%	12.1%	13.3%	7.2%	4.8%	10.0%
DuPont/Earning Power						
Asset Turnover	0.60	0.51	0.47	0.47	0.49	0.51
ROE	56.8%	17.8%	17.2%	10.1%	6.7%	10.7%
Reinvestment Rate	34.1%	9.1%	8.1%	4.7%	3.2%	0.6%
Liquidity						
Quick Ratio	0.65	0.69	0.58	0.47	0.54	0.56
Current Ratio	0.69	0.72	0.62	0.53	0.61	0.60
Cash Cycle (Days)	62.8	70.9	80.1	(29.5)	(24.0)	(6.0)
Leverage						
Assets/Equity	1.77	1.80	2.04	2.10	2.05	2.16
Debt/Equity	0.15	0.13	0.18	0.24	0.28	0.28
% LT Debt to Total Capital	9.5%	5.5%	9.0%	6.0%	12.9%	12.8%
Operating						
Account Receivable Turnover	8.0	7.1	7.0	7.6	7.4	6.9
Avg. A/R Days	45.6	51.6	52.1	48.4	49.8	52.9
ROIC	46.4%	9.8%	10.6%	6.1%	4.1%	8.7%

VIVA

The Kuwait Telecommunications Company entered the market under the brand name Viva in 2008. Saudi Arabia's STC has a major stake (52%) in Viva. By the end of 2016 it had a 32% share of the market and about a 2.5 million mobile subscribers. The two incumbent companies (Zain & Wataniya) had been charging users for receiving calls from fixed-line numbers; however, when Viva entered the market, it dropped these charges. Consequently, Zain and Wataniya had to follow suit. This has had an impact on falling

voice revenue for the operators. Viva's competitive approach almost halved the ARPUs to USD 54. By Dec 2015 the ARPUs for Zain and Wataniya reached USD 30 and USD 18.76 respectively. In 2007 the National Assembly passed law 7/2007 which lead to the establishment of a 3rd telecommunication operator. Saudi Telecom Company won the bid for 26% of the company while the government embodied by the Kuwait Investment Authority (KIA) held a 24% equity stake and the rest (50%) was sold off in an Initial Public Offering (IPO).

Kuwait Telecom Company "VIVA" should be valued as a startup, since CAPEX spending and infrastructure building lead to negative equity. The revenue increased 16% YoY in 2015 to KWD 277 mn (USD 918.2 mn). Based on 2015 end of year report VIVA equity was KWD -93 mn (USD -308.31 mn) compared to KWD -50 mn (USD 165.7mn) in 2014.

Even after 4 years after the IPO and VIVA was not listed on the Kuwait Stock Exchange that could be due to its negative equity. Going forward the company is more likely to survive by restructuring and increasing its capital. VIVA listed on Kuwait Stock Exchange in December 2014¹⁴. It will still be difficult to compare Viva with Wataniya and Zain, since both operators diversified away from Kuwait while VIVA is mainly a domestic player.

In 2012, VIVA turned profitable in the fourth quarter of the year. Same year it also started to deploy 4G LTE Networks. Next year they offered complete national wide 4G LTE coverage, launched mobile number portability and reached 2 million customers in the same year. In 2014 VIVA ranked 2nd in terms of revenue and subscriber market share. In 2015 VIVA was the first to introduce all-new Voice over Long term Evolution (Vo LTE) technology. Recently VIVA became a member of ITU.

VIVA Kuwait was the game changer in the Kuwait telecom market. Its entry forced the existing players to lower the call charges apart from removing the charges for incoming calls from fixed lines to mobiles. This led to declining ARPUs

on one hand while it increased the benefits and services for the customer on the other. VIVA has access to technical support, technology for provision of quality telecom services, as well as stronger purchasing power benefiting from joint procurement and coordination of regional initiatives through its relationship with STC. VIVA Kuwait's strategy is inclined towards providing customer centric differentiated approach. The company was awarded for the best Customer experience management culture transformation program in the Middle East in 2015. The company has launched Voice over long term evolution (VoLTE) in collaboration with Huawei. Through various measures such as the above and capitalizing on its customer base, the company plans to sustain its profits in the coming years to remain the fastest growing telecom company in Kuwait.

VIVA's revenue grew to reach USD 924Mn; whereas the net profit in 2016 reached USD 131 Mn.

VIVA achieved these results due to the superior customer experience, high quality of services, innovative promotions and packages offered to its customers. The company managed to decrease its leverage ratio due to its conservative financial policy to reach 0.35x at the end of 2016 as compared to 0.78x recorded at end of 2015. On the other hand, VIVA managed to sustain healthy profitability ratios in light of intense competition where Return on Assets (ROA) has reached 15% while return on shareholders' equity (ROE) has reached 30% in 2016.

Table 7.6: VIVA Financial Highlight

VIVA (USD Mn)	2011	2012	2013	2014	2015	2016	
Revenue	339.2	491.4	643.8	840.1	920.8	924.0	
Net Income	(52.2)	13.8	85.6	141.9	142.9	131.8	
Total Assets	453.2	450.7	634.0	731.0	867.5	875.6	
Total Liabilities	519.8	502.9	600.1	560.4	561.1	441.0	
Total Equity	(66.6)	(52.2)	33.9	170.6	306.3	434.6	

Source: Thomson Reuters Eikon

Table 7.7: VIVA Key metrics

VIVA	2011	2012	2013	2014	2015	2016
Profitability						
Gross Margin	66.4%	66.5%	-	-	-	-
EBITDA Margin	0.5%	16.5%	36.0%	47.1%	47.3%	47.3%
Operating Margin	(15.7%)	3.4%	14.3%	18.8%	17.6%	15.6%
Pretax Margin	(15.4%)	2.9%	13.4%	17.1%	16.3%	15.0%
Net Margin	(15.4%)	2.8%	13.3%	16.9%	15.5%	14.3%
DuPont/Earning Power						
Asset Turnover	-	1.09	1.19	1.22	1.16	1.05
ROE	-	-	-	137.4%	63.1%	37.0%
Reinvestment Rate	-	-	-	135.6%	60.1%	30.9%
Liquidity	-	-	-	135.6%	60.1%	30.9%
Quick Ratio	0.25	0.21	0.19	0.53	0.59	0.65
Current Ratio	0.26	0.23	0.23	0.58	0.64	0.69
Cash Cycle (Days)	-	(295.3)	22.7	26.0	29.1	31.9
Leverage						
Assets/Equity	-	-	18.68	4.28	2.83	2.01
Debt/Equity	-	-	6.86	1.71	0.78	0.36
% LT Debt to Total Capital	232.0%	49.2%	54.1%	38.1%	19.0%	6.5%
Operating						
Account Receivable Turnover	-	16.2	16.1	14.1	12.6	11.5
Avg. A/R Days	-	22.6	22.7	26.0	29.1	31.9
ROIC	_	16.8%	75.6%	51.0%	37.2%	29.0%

¹⁴ Kuwait Stock Exchange



Kuwait and the GCC – A Comparison

Kuwait is another top mover in the NRI (Network Readiness Index) in 2016, moving up 11 spots to 61st place. This gain is supported by substantial improvements in particular in Readiness, Usage, and Impact. These improvements are very much driven by individuals and businesses. Kuwait is doing very well overall in terms of individual

adoption—ranking overall 32nd and very high in individual indicators: mobile coverage (1st), mobile phone subscriptions (2nd), households with personal computers (14th), and mobile broadband subscriptions (2nd)—and is close to attaining a rank in the top half for business adoption.

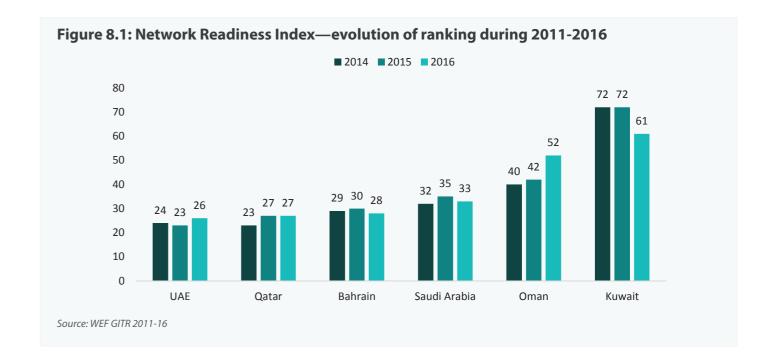
Table 8 1 Main	indicators for th	e GCC countries
Table 6.1. Maili	illulcators for th	e acc countries

Bahrain	Kuwait	Oman	Qatar	KSA	UAE
15	101	43	1	7	2
5	2	15	29	3	4
10	29	41	9	50	12
42	104	86	69	37	64
4	2	26	27	15	9
15	42	88	12	31	6
1	1	67	1	62	1
52	51	70	44	69	35
69	133	80	125	1	122
	15 5 10 42 4 15 1	15 101 5 2 10 29 42 104 4 2 15 42 1 1 52 51	15 101 43 5 2 15 10 29 41 42 104 86 4 2 26 15 42 88 1 1 67 52 51 70	15 101 43 1 5 2 15 29 10 29 41 9 42 104 86 69 4 2 26 27 15 42 88 12 1 1 67 1 52 51 70 44	15 101 43 1 7 5 2 15 29 3 10 29 41 9 50 42 104 86 69 37 4 2 26 27 15 15 42 88 12 31 1 1 67 1 62 52 51 70 44 69

A World Economic Forum (WEF) measure of "Networked Readiness Index" (NRI) shows the degree to which a country leverages telecom infrastructure for enhanced competitiveness. UAE and Qatar are the top GCC countries during 2016, with a world ranking of 26 and 27, (out of 143) respectively. Bahrain and Saudi Arabia followed with a ranking of 28 and 33 which indicates a negligible drop from 2011 ranking. Oman continues sharply since 2011 but lost ten places after 2013. to lag, however they managed to improve their

ranking relative to 2011. Oman declined by a two places from 40 in 2014 to 42 in 2015.

The survey consists of a total number of 143 countries. The evolution of the NRI rankings over the past five years are shown in the below figure. All the GCC countries have improved their rankings, especially Kuwait, which has improved

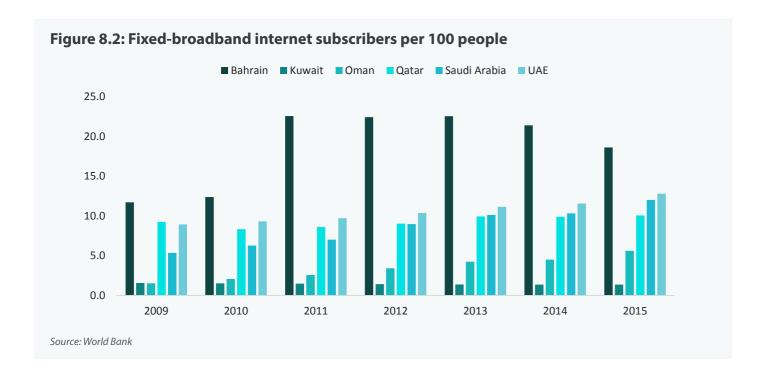


The average broadband penetration for the Arab States in 2015 was estimated at 40.6%. The world average was 47%. Broadband penetration in the

GCC was higher than both world and Arab states, as shown in table below for each GCC country.

Table 8.2: Internet penetration rates (2015)

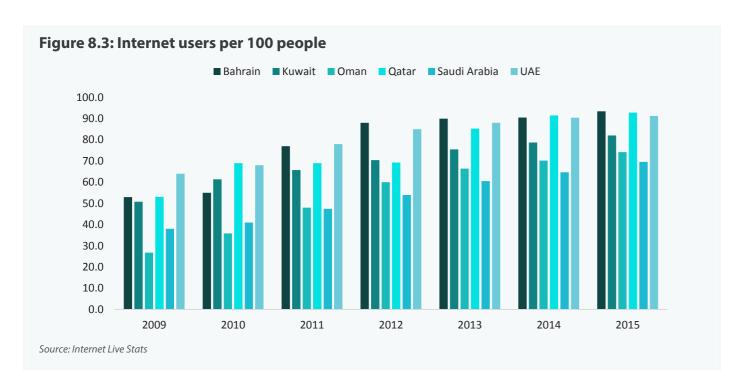
Country	%
Bahrain	93%
Qatar	93%
UAE	91%
Kuwait	82%
Oman	74%
Saudi Arabia	70%
Source: ITU	



Fixed broadband internet is still an area where the GCC lags behind the developed world.

Bahrain leads the GCC at 18.6 subscribers per 100 inhabitants, followed by UAE and Saudi Arabia at 12.8 and 12 subscribers per 100 users, respectively. Kuwait has one of the lowest fixed boradband penetration rates at 1.4 subscribers per 100 people.

64.7% of Saudi Arabians used the internet as of 2016 whereas Qatar, UAE, Bahrain, Kuwait, and Oman have had much higher rates of usage at 92%, 91.9%, 91.5%, 79.9% and 71.1% respectively. Key reasons that Saudis quoted in the CITC survey for not using the internet are lack of knowledge, cost considerations and family restrictions on internet access at home.



Iceland was ranked first 98.16%. The lower penetration of Saudi Arabia partly reflects larger household sizes.¹⁵ The large numbers of expatriates in the region, living in shared accommodation, could also skew figures.¹⁶ Qatar is making fast progress which would enable it to catch up very quickly with the other countries. It is a good example of leapfrogging whereby it jumped from the old "copper lines" for distribution (ADSL) to fiber optics, with parallel developments in mobile. Kuwait supersedes Middle East broadband penetration estimates by 10% [42% vs. 32% in the middle east] however when it comes to GCC penetration rates it lags behind. Kuwait is ranked last with 79% penetration rate vs. 91% for the U.A.E, large household size and shared accommodation for expatriates could be the main reason behind this low number, nonetheless, this low penetration level suggests endless opportunities in this segment.

The telecommunication penetration in 2016, the very high rate in the UAE is because of the large numbers of business visitors and tourist's.¹⁷ Kuwait's mobile penetration level stood at 240% exceeding Middle East average of 80%, while it has the lowest penetration level in the GCC we believe that the market is saturated and as mobile phones become more multifunctional the need to carry more than one phone/ SIM card will be curtailed. Kuwait witnessed high growth in penetration of mobile phones, registering one of the fastest growth rates in the world in terms of handset shipments. Indeed, historical IDC data shows that mobile phone shipments to Kuwait increased 159% between 2012 and 2014. This was mainly driven by the strong uptake of smartphones, which saw growth of 272% over the same twoyear period, primarily courtesy of Samsung and Apple¹⁸.

Table 8.3: Telecommunication penetration rates in 2015 per 100 inhabitants

	Mobile	Fixed	Internet	Broadband
Bahrain	185	20.5	93.5	18.6
Kuwait	232	13.4	82.1	1.4
Oman	160	10.5	74.2	5.6
Qatar	154	18.2	92.9	10.1
Saudi Arabia	177	12.5	69.6	12.0
UAE	187	23.1	91.2	12.8

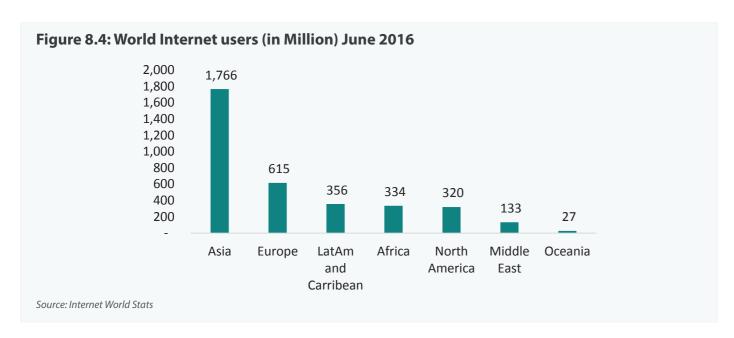
The following chart of Internet users shows that the Middle East is a small player with only 3.7% of world users. It is a much less populated area compared to other regions. However, the region is now experiencing fast growth in Internet usage.

¹⁵ Meed, February 2011

¹⁶ Meed, September 2010.

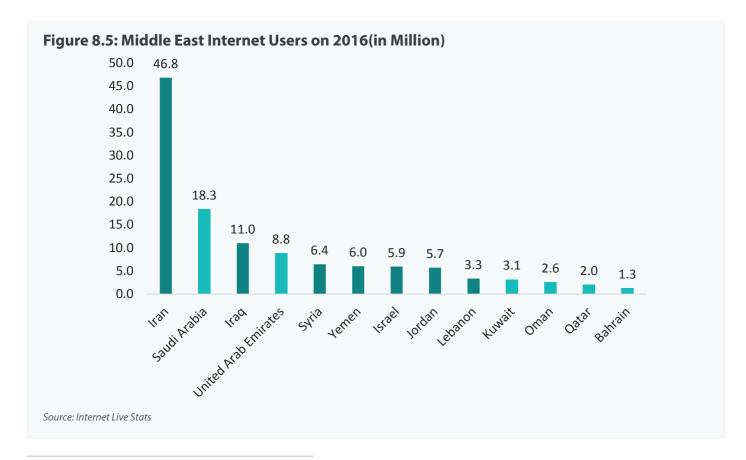
¹⁷ EIU–UAE Telecoms and Technology, Dec 2010.

¹⁸ **[**[



When it comes to mobile phone penetration, the Middle East is ahead of the world average at 96.8%.¹⁹ In 2015, the penetration across the Arab states was edging toward 108%. Mobile penetration topped 180% in Saudi Arabia and exceeded 218% in the UAE in 2014 (numbers excluding visitors will vary). Investments in

regional telecommunications infrastructure has created a market for Internet-enabled mobile gadgets (emails and web surfing on smartphones, reading books on e-readers, shopping online, and satellite navigation). Industry estimates suggest that voice services now account for only 10% of mobile phone usage.



¹⁹ ITU.

Investment Opportunities

A growing local demand for telecom products and services by individuals and institutions has created a favorable environment for regional and international companies to increase investment in the Kuwaiti market. In coming years, the country's public and private sectors are expected to rely more heavily on foreign companies services, opening the way for them to manage the sector and supply products and services, taking advantage of a number of incentives.

Telecom Markets

Hardware/Consumer Electronics

Burgeoning youth population coupled with high per capita income has led to increased adoption and demand for latest gadgets such as features-packed notebooks, smart phones, 3D technologies, advanced gaming systems and innovative digital solutions.

Services

As newer generation of services such as cloud computing, High Speed Packet Access (HSPA), and Long Term Evolution (LTE) networks are adopted, they provide ample opportunities for firms specialised in such services in a vast under penetrated market.

Application Market

Mobile Applications

Saturating voice revenues and increasing data revenues for telecom players worldwide, signify the growing importance of applications market, which is one of the most promising opportunities waiting to be tapped. M2M represents a strong opportunity for operators to generate revenue, and IDC expects these kind of M2M services, as well as security monitoring and smart metering, to spread further among enterprises in the coming years. 'Application support', 'vertical-specific solutions', and 'consulting/service expertise' were also mentioned among the most important factors by the enterprises when selecting partners for M2M projects.

Mobile Financial Services

Significant opportunities exist for companies specialised in offering mobile banking solutions as they could result in offering banking solutions to uncovered regions. Mobile trades (capital market) and mobile commerce are also being slowly adopted.

Glossary

Technical Term	Definition
Asymmetric Digital Subscriber Line, ADSL	A data communications technology that enables faster data transmission over standard copper telephone lines than a conventional voice band modem can provide. It does this by utilizing frequencies that are not used by a voice telephone call. However voice calls and ADSL service can happen at the same time.
Digital Subscriber Line, DSL	Family of technologies that provide internet access by transmitting digital data over the wires of a local telephone network. ADSL is the most commonly installed DSL technology.
Fixed Telephone Line Penetration	Metric calculated by dividing the total number of fixed line subscribers in service by population number for that particular period.
Fiber to the X, FTTx	Generic term for any broadband network architecture which uses optical fiber to replace all or part of the usual metal local loop used for last-mile telecommunications. The term is a generalization for several configurations of fiber deployment, ranging from FTTN (fiber to the neighborhood) to FTTD (fiber to the desk).
Global System for Mobile Communications, GSM	Standard set developed by the European Telecommunications Standards Institute to describe protocols for second generation digital cellular networks used by mobile phones.
Integrated Digital Enhanced Network, iDEN	Mobile telecommunications technology, developed by Motorola, which provides its users the benefits of a trunked radio and a cellular telephone.
Internet Penetration	Metric calculated by dividing the total number of broadband subscriptions by population number for that particular period.
Long Term Evolution, LTE	Often marketed as 4G LTE, is a standard for wireless communication of high- speed data for mobile phones and data terminals.
Mobile Penetration	Metric calculated by dividing the total number of active mobile subscribers by population number for that particular period.

Technical Term	Definition
Public Switched Telephone Network, PSTN	Network of the world's public circuit-switched telephone networks such as telephone lines, fiber optic cables, cellular networks, communications satellites, and undersea telephone cables, all inter-connected by switching centers, thus allowing any telephone in the world to communicate with any other.
Universal Serial Bus, USB	Industry standard that defines the cables, connectors and communications protocols used in a bus for connection, communication and power supply between computers and electronic devices.
Worldwide Interoperability for Microwave Access, WiMAX	Standards-based technology enabling the delivery of last mile wireless broadband access as an alternative to cable and DSL.
High Speed Packet Access (HSPA/3.5G)	An amalgamation of two mobile telephony protocols, High Speed Downlink Packet Access and High Speed Uplink Packet Access, which extends and improves the performance of existing third generation mobile telecommunication networks.
Third Generation (3G) & Fourth Generation (4G)	Set of standards used for mobile devices and mobile telecommunication services and networks that comply with the specifications by the International Telecommunication Union.

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