



Understanding Telecom Policy 2015: Another Step Forward Regulations Pakistani Telcos: Zuk Z1 Mobile a Pack of Style Grace & Class How the West has Won **NOIR E8** and the East **Device Review** has Lost!!!









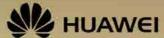
















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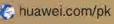


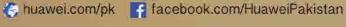
















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Adnan Khan Managing Editor

Dear Readers.

New Year brings along a lot of hope and anticipation, it is the time of the year in which everyone looks back at the achievements and failures of last year and make new resolutions for the upcoming year. Being a part of IT and Telecom industry, the year was especially important for us. During the year good growth was found in 3G/4G subscribers although operators struggled in order to increase their ARPU. Imports and internet taxation, SIM verification process and service shutdown have been the hot topic of debate inside and outside

The two major events of 2015 that will have long term effects on the industry are no doubt the announcement of long-awaited Telecom Policy and Warid-Mobilink merger. Due to the extraordinary importance of these events, our team has conduct a detailed researches on both topics to highlight the implications related to the issues. Our first feature article, "Understanding Telecom Policy 2015: Another Step Forward" is a comprehensive analysis of newly approved Telecom Policy in which major section of the policy and its impact are examined. Find out how it will shape the future of the industry. Whereas, our second feature article, "Pakistani Telcos: How the West has won and the East has lost?" explores the long history of telecom mergers and acquisitions in Pakistan and how they have weaken the position of local players in market.

The unbanning of YouTube is another interesting story that is part of our current issue. PTA has unbanned YouTube after Google introduced its localized version for Pakistan and the dispute is finally settled after almost three long years. The article focuses on the fact that unbanning of YouTube has not much affected the public at large as people have moved towards substitutes options. The article also highlights importance of social behavior and attitude in order to maintain harmony in the society.

Like always, our regular sections including phone reviews, TVC reviews, top applications and smartphone wish list are also part of our current issue. We always try to bring something new and interesting for readers, we hope you guys will appreciate our efforts and give us your feedbacks so that we can improve further.

Enjoy Reading...!!!

Thank you,

Adnan Khan

Managing Editor

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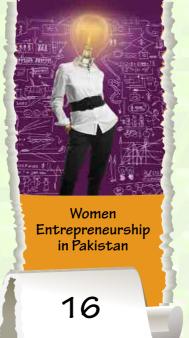
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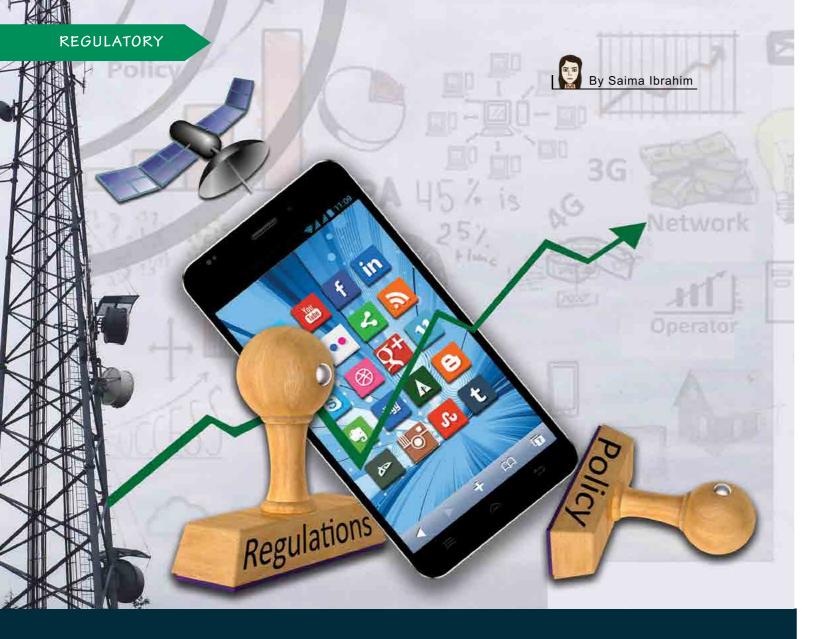
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Understanding Telecom Policy 2015: Another Step Forward

s Pakistan finally geared up for entering the digital age? The answer to this very basic question will remain unclear if one does not understand the Telecom Policy and the likely impact it may have on the industry and eventually on the consumer. The Telecom Industry in 2003 underwent a major change as the Government de-regularized the telecommunications sector under its "IT Policy 2000" followed by the "De-regulation Policy 2003". This invited a number of international and local players to enter the Pakistani market bringing new products and services and making them affordable to a larger segment of the society. The privatization of PTCL in 2005 proved to be a decision that finally led to the restricted role of state in telecommunication sector-to that of a policy maker and regulator. The fact that the

current role of the Government to keep itself out of the service arena, is something to be appreciated as all around the world the role of the Government is of a policy maker and facilitator whereas, the services are offered by the industry led by private sector.

Role of the Pakistani
Government to keep itself
out of the service arena and
restricting itself to policy
and regulation is something
worth appreciating

Anyways, the previous policies of the Government from IT Policy to the Broadband Policy and more

specific sectors were focused on total deregulation and establishment of the hard infrastructure i.e. availability of telecom services throughout the length and breadth of the country. With time, while the previous challenges have been addressed to certain level other remains unresolved. There also appeared new challenges for the sector as a natural phenomenon; which the new policies need to address in addition to the old ones.

In ICT Industry Status Quo is the biggest crime that should not be tolerated anymore and this goal can only be achieved if policies are accompanied by a Practical Implementation Strategy

A major case in point is the 3G licensing that basically was part and parcel of the previous policy but got delayed and was done last year through the NGSMA auction that now necessitates that the industry not only catch up with the roll out of the 3G services but also start off 4G services which should have been done earlier than this. Anyhow the current challenge for the new Telecom Policy 2015 is to provide not only an supportive environment to expand services and to ensure reach of basic infrastructure i.e. 3G/4G networks (and maybe start of 5G) but more so what kind of services and content pass through these information highways and how the state, industry, enterprise and consumers can benefit from them?

Two important points emerge from the above discussion that needs to be understood, first and foremost is that in the ICT Industry Status Quo is the biggest crime which cannot be tolerated anymore and equally important is that all good policies are accompanied by a Practical Implementation Strategy that should be followed in letter and spirit so that benefits can be reaped by all stakeholders. While, the current government may have inherited some industry challenges but there are humongous opportunities that can be reaped through future polices and their implementation but at a much faster pace.

In this regard, we have tried to analyze some major areas of the Telecom Policy 2015 highlight the impact and implication of this policy on the ICT Eco System and some areas that may have been left out of the policy scope or some that have been added but weren't required.

Background, Policy Vision, Principles of Delivery and Policy Goals

The policy document could have been drafted more professionally and with better esthetics could have been ensured as WB consultants were hired to do the job. The entire document seems to be quite disjointed as probably many people (at later stage of stakeholders' meetings) contributed to the drafting exercise. The areas that needed more professionalism in drafting was the need to have updated figures of the industry of the same period throughout the document (some of them are of June while others are of February with no source where they are taken from). Most importantly the policy goals should have included some tangible targets like estimate for broadband subscribers, industry revenues, GDP share etc., for 2020 or 2025 which could have set the bases for speed of implementation and more importantly measuring success of the policy in due course of time.

The policy goals should have included some tangible targets to set the bases for implementation process

The positive aspect is that the future vision of policy and its goals are so open that it can accommodate any market driven implementation strategy.

The Telecom policy of 2015 has covered or touched upon a lot more areas which were not part of earlier policies. Some important areas being:

- Market & Services (Competition Rules, Licensing Framework, Transfer of Business, OTT, PTCL, Cross Border P2P, Public Wi-Fi)
- Infrastructure (RoW, Sharing, National Roaming, Disaster Management)
- Spectrum (Harmonization, Sharing, Trading, Testing, Mergers & Acquisition, Interference)
- Telecommunication Laws & Regulations (Type approval, Content and Legal Intercept)
- Satellite Services (Licensing)
- Public Sector Service Providers (Manufacturing)
- Convergence
- Policy Review & Implementation

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Market & Services (Competition Rules, Transfer of Business, limited Mobility for WLL, OTT, PTCL, Cross Border P2P, Public Wi-Fi)

Generally, this talks about a lot of things and could have been a major development but it has failed to highlight any policy regarding encouragement or incentivsation of local companies and investment in the telecom market. We could have earmarked sectors such as MVNO, local loop, Manufacturing, Distribution, Public Wi-Fi and others either exclusively or partially for local companies. Anyways let's see some of the new policy points regarding development of market and services.

1.1 Competition Rules: Some separate rules are to be developed under this policy item for Telecom Industry; after which all competition related matters of the telecommunications sector will be governed by these new Telecom Competition rules.

Separate competition rules for telecom in the presence of CCP maybe an over kill and that too in 6 months seems a humongous task to achieve

This is a very complex matter and invites a debate as Competition Commission of Pakistan (CCP), an independent quasi-regulatory body, is responsible to ensure that competitive forces are unhindered in all spheres of commercial and economic activities in Pakistan; now separate rules maybe an over kill and that too in 6 months seems a humongous task to achieve.

- **1.2 Licensing Framework:** Policy ensure continuity of current licensing regime with the addition of a new CVAS licensing for Satellite, since these services were operating in grey area. More importantly, it calls for PTA and MoITT to conduct periodic assessment for new licensing frameworks and policy with the 1st of such exercise to be held by year end. This essentially enables the MoITT & PTA to issue licensing periodically.
- **1.3 Transfer of Business:** This is a good addition to the policy as the rules were mainly arbitrary and open to manipulation.

This should help existing companies that are struggling to survive to merge or be acquired. The immediate beneficiaries could be WLL players (the likes of Telecard, Worldcall etc.) as well as MNOs and most importantly the recently announced acquisition of Warid by Mobilink.

1.4 Single Mobility for Local Loop (LL) Licensees: Under this new policy, WLL operators

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especially PTCL will have to curtail its Data Services being provided through EVO & NITRO services. The MNOs now offering 3G/4G services feel that this is an infringement of their license domain, previously they did not push hard to restrict data mobility since they did not have any Data service to offer. The implementation of this policy essentially will be the last nail in WLL industry's coffin as almost all operator expect PTCL has already been phased out. This restriction also surprisingly contradicts the policy vision and goals to ensure efficient use of technology, resources and other such statements made in the opening chapters of the policy.

- 1.5 Over the Top (OTT): Globally and even in Pakistan now OTT services (WhatsApp, Facebook, Skype, Viber etc.), have become increasingly popular and have been impacting traditional operators' profitability. The policy necessitates to bring them under some licensing framework and at the same time giving flexibility to the MNO for having commercial arrangement with them independently. The fact remains that no framework exist that could achieve the objective of the policy and it remains unclear how it could be made possible. The other OTT services related to content (Netflix etc.) which is discussed later in the article, involves PEMRA as a content regulator.
- **1.6 PTCL:** PTCL seems to be the favorite punching bag in the entire policy document. The policy makers probably overlooked the fact that the organization does not enjoy the monopolistic situation it had a decade back and is just a step away from being crumbled if policy and regulatory support is not provided immediately.

Policy necessitates to bring OTT services under some licensing framework but fact remains that no such successful framework exist

PTCL seems to be the only organization that has been mentioned by name in the policy document. PTCL SMP status is not due to its expansion strategy or huge subscriber base (rather they have been losing subscriber both for fixed and their WLL customer base for last couple of years and is on the negative growth) but the failure of other companies to expand their local loop business.

1.7 Cross Border Point to Point (bilateral)

Links: Policy now allows LDI carriers to enter into international transit agreements with operators from other countries subjected to approval by PTA on a case to case basis.

While this policy also existed earlier but LDI operators were seldom allowed such facilities especially

when it came to links with India and Afghanistan that probably are the most profitable business destinations for the LDI operators. With Pakistan's strategic location it could really play a very important role in connecting the entire region horizontally and vertically.

1.8 Public Wi-Fi: While this is a new policy item, the impact is yet to be ascertained. No countrywide or even limited public Wi-Fi operator has emerged in Pakistan. PTCL could be a good candidate having extensive fixed network to offer such services in collaboration with some local distribution company.

2 Infrastructure (RoW, National Roaming, Disaster Management)

The main issues in the roll out of network in Pakistan are related to right of way, infrastructure sharing and increased cost. Additionally, dealing with multiple government entities and civic organizations are at play that necessitates inclusion of specific policy guidelines like having outside plant code, in-building cabling, use of utility infra and use of fibre that could provide relief to operators specially MNOs in rolling out network across the country. So these are a good addition to the policy document-most of them having specific deadlines for the MoITT and PTA.

MNOs themselves are to be blamed as they failed to agree on fair infrastructure sharing hence, damaging their businesses

However, the fact remains that MNOs themselves are to be blamed as they failed to agree on fair infrastructure sharing in the first place that would have greatly benefited them in terms of reducing CAPEX & OPEX and rolling out networks at a much accelerated pace.

- 2.1 Right of Way: Policy stresses that MoITT and PTA lead a coordinated and effective mechanism for speedy one window treatment for rights of way. While, MoITT/PTA could act as a middleman between telecom operators and other relevant Ministries, Provincial Governments and the Council of Common Interest but on ground this still looks a very tedious task as some organizations such as DHAs and now the local Councils will continue to act arbitrarily. Anyhow the proposed new framework to be developed by July 2016 by MoITT has been left to the PTA for implementation that will need to enhance its capacity three fold to enforce such a framework.
- **2.2 Infrastructure Sharing:** The policy identifies the significance and principles for infrastructure sharing. It should also have timelines defined as

in other policy items to make this more practical and effective and at the same time benefiting the entire telecom industry specially the mobile eco-system.

2.3 National Roaming: This is a new and very good policy initiative if implemented properly, it could be very useful for the entire mobile ecosystem. This could not only reduce CAPEX and OPEX for the operators but will increase revenues as well. At the same time this could provide more value to customers, protect environment and increase profitability for operators.

Disaster Management is very relevant and important due to the nature of disasters that happens very often in Pakistan and Policy presents some very useful and practical steps in this regard

2.4 Disaster Management: This again is a new policy item that is very relevant and important due to the nature of disasters that happens very often in Pakistan such as earthquakes, floods and Law & order situations. The policy presents some very useful and practical steps for implementation.

3 Spectrum (Harmonization, Sharing, Trading, Testing, Mergers & Acquisition, Interference)

Pakistan mobile operators make up for almost over 75% of the telecom revenues and is no doubt the most important segment that will continue to grow for the time. Spectrum plays a very important role in development of this sector. The policy has touched upon some important areas relating to Spectrum Harmonization & Refarming, Sharing, Trading, and Testing, Mergers & Acquisition and interference and others

3.1 Spectrum Harmonization, Refarming, Sharing & Mergers/acquisition etc.: The policy provides some important guidelines for Spectrum Harmonization, Refarming, Trading, Sharing & Mergers/acquisition that shall go a long way in making better utilization of the fixed resources.

While the LTE launch by Warid has set a precedence for future refarming by the MNOs but important issues such as refarming or sharing of MMDS spectrum, completion of 850 Mhz chunk (Instaphone Spectrum) for future auction, Use & sharing of Warid-Mobilink and Ufone-PTCL combine merged spectrum utilization along with the cleaning up of leftover 2100 Mhz spectrum from WLL and availability of 700/800 Mhz are important areas that will also need very intense implementation strategies.

The important element in achieving these objectives

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The important element in achieving these objectives

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will depend on good implementation that will require strong and competent leadership to coordinate these processes at MoITT, MoD, MoI&B (at the political level) & PTA, FAB and PEMRA (at the regulatory level).

3.2 Test Licenses: The need for test licenses for limited time use arouse before the launch of 3G/4G as some operators wanted to test vendor equipment for making infrastructure decision as well quality assessment.

Policy has focused more the mechanism of identification and import of quality devices that are fundamental to ensure quality mobile services

Although that objective has been achieved with current commercial deployment but the policy item does pave way for any such requirement especially if 5G or new spectrum/equipment is to be tested in future

- 3.3 Interference Protection: Mobile operators have been effected in the past due to various interferences to their network and it would take years for them to be identified let alone resolved. The interference into GSM band for years and DECT phones in the 3G spectrum quite recently necessitated to cap the time for interference resolution. This policy item caps the time limit on the regulatory agencies i.e. FAB, PTA & PEMRA of 30 days to have such issue resolved once reported.
- Telecommunication Laws & Regulations (Type Approval, Content Management and Lawful Intercept)

The telecommunication laws and regulation are quite widespread to the extent that the policy has given extension to the previous regulation on a number of issues. Three new areas that are worth mentioning, include Policy guidelines on type approval of equipment, content management and legal Intercept.

4.1 Type Approval: While type approval of telecom equipment is an old issue but this time policy has focused more on the mechanism of identification and on the import of the mobile device. This is primarily because of the necessity as mobile phone devices are now increasingly used (or misused) for security, health, banking and other applications and if not controlled may result in catastrophe. Not only this but to ensure some regulatory control on imports of quality devices that are fundamental to ensure the quality for network operators i.e. the better the devices the better will be quality of network. The policy would require human resource and technical

capacity building of the regulator plus support from the operators and the consumer itself to achieve this.

4.2 Content Management on Internet: This is again a very important Policy area that identifies PTA to manage and regulate content over the internet irrespective of the channel used for its supply. The policy allows PTA to devise a well-defined framework to monitor and manage content that shall include any blasphemous or pornographic material.

A well-managed content will definitely help in avoiding incidents like YouTube in future which has been blocked in Pakistan. While, the policy empowers content to be regulated it will need to coordinate this aspect with PEMRA that issues licenses such as Mobile TV, IPTV etc., and then also a CVAS license from PTA- such content licenses should essentially be licensed by PTA only without the need to for separate license from PEMRA for effective regulations avoiding duplicity to ensure that Pakistan will not stay behind and channels like YouTube, Dailymotion etc., remain accessible for all.

4.3 Lawful Interception: Among many additions, rules for Lawful Interception (LI) are important as licensing KPI and cost of services are effected if these are not well managed.

Important element to achieve the objectives of spectrum harmonization will depend on good implementation that will require strong and competent ICT leadership

Since, there are multiple LEAs in Pakistan it becomes very important that PTA plays a coordinating role to ensure that the requirements for Lawful Intercept are well balanced for both national security and the industry alike.

Satellite Services

The policy regarding satellite commination and licensing has been quite vague in Pakistan and most issues were created because of the un-regulated market. The policy recommends issuance of a new category of CVAS license for the marketing of bandwidth by satellite operators and provide guidance for GMPCS services and terminals use in Pakistan.

← Public Sector Service Providers

The policy for some reason has vaguely addressed the issue of manufacturing alongside public sector service providers who could have been addressed under the telecommunication infrastructure head. It could be for reason that TIP is a government entity. Anyhow, the government should have done some homework to

provide specific policy guidance to rejuvenate TIP or the manufacturing industry that remains a challenge in Pakistan as it would need to be incentivize for making it a viable proposition.

7 Convergence

The presence of two separate regulatory bodies i.e. PTA and PEMRA have not only added to the confusion but organizational inefficiencies.

Content licenses using telco networks should essentially be licensed by PTA only, without the need for separate license from PEMRA

The policy has rightly indicated that there should be one regulator as is the practice in most countries and have given some roadmap on this mammoth task to be undertaken. While the policy guidelines are fine as the success of this would largely be dependent upon the political will to follow implementation guidelines.

Review & Implementation

Even the best of policies fail because of faulty implementation plan. The policy review and implementation in the policy document does have only broad guidelines and devil would be in the details specially the seriousness at the MoITT & PTA to follow-up on the policy guidelines. They will also need to engage the industry if the policy implementation has to made a successful. Last but not the least, both the MoITT and the PTA will have to undergo a drastic capacity building exercise to ensure that the policy objective are achieved.

Missing Elements in the Policy

Although the long-awaited policy document addressed most of the issues facing the telecom sector but some important elements are still missing which should have been part of the policy including:

- Inclusion of Information Technology as part and parcel of the policy document so that it could be called an ICT Policy or Convergence Policy rather Telecom Policy as is the trend globally.
- The policy should have given some guidelines for PTA and the industry on Alternate Dispute Resolution (ADR) as there are over hundred of litigations some of them very minor which could easily be resolved through ADR, saving a lot of cost and resources to focus on development.
- The policy has not been able to offer any incentive or identified any segment or initiative that could provide encouragement to local players/

investors to enter the industry. Some sectors such as MVNO, Manufacturing/assembly, application, content etc. could be made exclusive or partially reserved for local investor as is done in other countries.

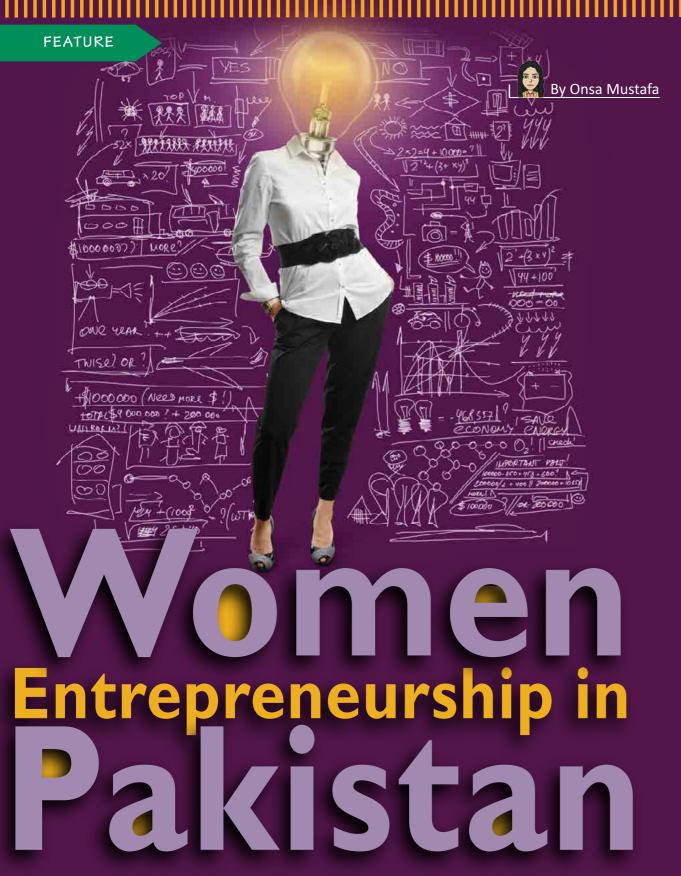
- The policy also did not clearly reflect the structure of tax rationalization framework. The policy should be reflective of commitments rather than only proposals. Although, it is said that MoITT is working on a tax package separately.
- The policy should also provide some clear targets and goals for the future that will provide the speed and resource required for implementation and will also ensure that the policy goals and achievements can been measured over a period of time.

Conclusion

Government can review this policy after five years taking into consideration the changing market and other developments in the industry. Until now the Telecom Policy 2015 has got positive response from the industry but it still quite early and much of the impact is dependent on its implementation. The MoITT has also announced that they are still open to consultations, which is a healthy sign as they conduct policy review. Again, the Telecom Policy 2015 is an important development. Ensuring its successful implementation will be the next important phase.

MoITT and the PTA will have to undergo a drastic capacity building exercise to ensure that the policy objective are achieved

The Telecommunications Policy 2015 addresses a large number of issues facing the industry particularly cellular mobile operators (CMOs) who are seeing the new policy as a positive development that will strengthen the telecom sector. The Telecom Policy 2015 aims to facilitate the attainment of an all-embracing national agenda and to transform Pakistan into an economically vibrant, knowledgebased, middle-income country by 2025. It is expected to address many issues facing the telecom sector and hopefully should be closely followed by a comprehensive IT policy - preferably in early 2016. As the IT State Minister Ms. Anusha Rehman said, "The government shall provide a clear path to the information technology sector for the next five years"; so let's hope that it will direct Pakistan towards technologically prosperous nation. We must remain optimistic that the upcoming year will be better than the previous year as mobile broadband will continue to drive the ICT growth.



n this globalized and advanced world females are also making their mark in the market. They are not only creating wealth and jobs but at the same time they are also providing diversified and innovative touch to the existing system. Today women represent the fastest growing segment of small business and educated

population which has resulted in more stable and stronger version of a country's economy. In this current era of communication and technology, women are at leading position at every front, especially in various fields of ICT like e-commerce, information technology, engineering and software development and

entrepreneurship. Their role in a nation's growth and prosperity cannot be denied today.

The startup culture in Pakistan is thriving and positive thing about that is number of women we see participating in these ventures

If we look at the international history, we find many names of ambitious women in the world of technology. In 1837 Charles Babbage invented first mechanical computer the "Analytical Engine" and its first programmer was a lady named Ada Lovelace. Janie Tsao of Taiwan started a wireless and networking Retailer Company which was bought by Cisco later.

Today women represent the fastest growing segment of small business and educated population which has resulted in more stable and stronger version of a country's economy

The famous computer language COBOL was written by Grace Hopper (United States). Grass Hoppe is also known as 'Pioneer of Computer Science'. Marrisa Mayer (United States) latest CEO of yahoo and Sheryl Sandberg, COO of Facebook have also earned their names in search engine technologies and social media networks.

We talk about women empowerment but even today females face a number of challenges. In a developing country like Pakistan these challenges are even graver. There are many fields like performing arts, medicine, education etc in which women have a dominate presence in Pakistan yet they face many difficulties when they try to start their own business. But their professional role has somehow been limited in the society. The first problem faced by them is their family who doesn't support their idea to start a new business alone. Parents think that it is not good for them to do their dealings individually because they are not sharp enough to work independently. Also, Pakistani society is gender biased with old mindsets who think that women are fragile beings who constantly need protection. This type of thinking has

also created safety and security issues for women. Another major problem that women face is finding investors for their businesses. Even today investors are more inclined to hear out pitches made by males and are more skeptical about the pitches made by females. In Pakistani banking system, there is no special micro finance loan policy for women who want to start their own business even if microfinancing is provided, the requirements are so complicated making it difficult for women to fulfill them at their own. All of these issues create a huge barrier for women to reach their true potential.

In such unfriendly working conditions for women IT is like a ray of hope as it is a vast field through which anyone can reap benefits. It has opened new door of opportunities for women especially in Pakistan. The startup culture in Pakistan is thriving and positive thing about that is number of women we see participating in these ventures.

There are many fields like performing arts, medicine, education etc in which women have a dominate presence in Pakistan yet they face many difficulties when they try to start their own business

They have shown great commitment and courage to take over their roles in technological age by using IT as a tool for their success and dominating the industry with their efficiency and creativity. Whether its Jahan Ara, the mastermind behind PASHA or Saima Anwar Rao of Plan Solutions, their stories of breaking through discrimination and other barriers brings a ray of hope to rest of the Pakistani women.

Women make 50% of the Pakistani population and they are playing a constructive role in economy of the country. The success of agriculture

and small industries was only made possible with the logistic support that women provided. Women are playing a very product role in whatever industry they are working in

Whether its Jahan Ara, the mastermind behind PASHA or Saima Anwar Rao of Plan Solutions, their stories of breaking through discrimination and other barriers brings a ray of hope to rest of the Pakistani women

Their contributions can enhance even further if they are provided with better opportunities and support; government can play a vital role in that. MoITT and PTA recently launched "ICT for Girls" & Smart Pakistan Program where they provide training to women developers specially coming from remote areas. These initiatives are being expanded to rural areas. Telenor Pakistan also started "Naya Aghaaz" program back in August 2015 to recruits female who had to take break form their career for their family matters and want to start over. Punjab Government's Plan 9 has also supported women entrepreneurs with their startup projects. Government and private sectors should take more initiatives to encourage women entrepreneurs to start their own business. Public awareness programs should be developed in order to change the social norms and mindsets of people. These programs can teach society the role of woman in the society and how their contribution can be beneficial not only for themselves but also for their families and society.

MoITT and PTA recently launched "ICT for Girls" & Smart Pakistan Program where they provided training to women developers specially coming from remote areas. These initiatives are being expanded to rural areas

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Mobile NOIR E8

QMboile has launched yet another stunning device that comes with outstanding specifications. QMobile Noir E8 has all the necessary hardware features that will stir customers' interest.

Design and Display

QMobile Noir E8 comes with a high resistant Aluminum frame on its sides that can protect your device from breakage and cracks by absorbing the shocks. The grip is firm at the edges and the corners are smoothly arched. The finger print scanner is at the center below the camera which is supported with a dual LED flash lights.

The display of Noir E8 is 6" that supports high resolution videos and can play HD movies. The number of pixels per inch are 640 which is greater than any of the Qmobile smartphones launched up till now. The renderer for its display is PowerVR Rogue G6200 and the supported resolutions are 1440 x 2560 pixels. The screen is also guarded with Corning Gorilla Glass technology that leaves no scratches on the screen and supports up to 10 points multi touch.

Processor

With a powerful processor of type 64 bit, the frequency variations lie between 403 MHz to 1950 MHz. The processor is Octa core and each core of QMobile Noir E8 runs with up to 1950 MHz frequency. The devices runs on latest Lollipop OS.

QMobile Noir E8 has MediaTek chipset which gives it a super-fast performance. The temperature rise was just 3 degrees and the battery consumption was almost 15% after running with Antutu's stability test. Hence, proving the stability and performance of QMobile Noir E8.

Memory

QMobile Noir E8 has been launched with a huge 3GB RAM which is more than sufficient to run any app. Noir E8 is also the only device launched with

Final Verdict

Display and Look 4.5 stars
Battery 4.5 stars



64GB ROM. If you still need more memory, you can use memory card up to 128GB.

Camera

Both rear and front cameras of QMobile Noir E8 have special lense that can capture the true colors of the surroundings. The rear camera is bulged out at the center of the upper portion of the smartphone which has been supported by a dual flash light to capture images at low light situations.

The front camera is 8MP (3264 x 2448 pixels) and it takes up to 4MB picture in a perfect day light and denser details. The rear camera of QMobile Noir E8 is 24MP (5696 x 4272 pixels) and has been supported with a dual LED Flash light to capture images in low and dim light conditions.

Battery performance

QMobile Noir E8 has a non-removable battery with Liion technology and the capacity of its battery is 3520 mAh that lasts for long time and you can enjoy long calls, video calls, internet and can also play heavy games with a slight increase in temperature and long battery.

Network/ Connectivity

QMobile Noir E8 is 4G enabled smartphone with dual SIM support. SIM 1 can handle 3G bands as well which are WCDMA (900 / 2100).

Performance
Price Vs Device

5 stars 4.5 stars

Vellamo

The scores for QMobile Noir E8 with Vellamo are also not less than other international devices. The fast processor with multi-cores makes it even better and equal of Samsung's Galaxy S6. The single core performance is though a bit lower than many of the devices because the processor's single core's speed is 2GHz while Samsung Galaxy S6 has 2.4GHz. The browser's performance is also quite decent with 2426 points.

By Ikram Ullah Khan

6.0"

SIM, 4G LTE Support

Amoled with 2K

Li-ion technology

x 82 x 9.6) mm

Resolution

3520 mAh, (

(162 (



○ AnTuTu

Antutu which is one of the most trusted app used for smartphone ranking throughout the world. 50 thousands score in Antutu test has put Noir E8 on the top position. It has a ten point multi touch screen support which makes the device fast and efficient.



Memory: 3 GB RAM, 64 GB ROM Processor: 2 GHz Octa core

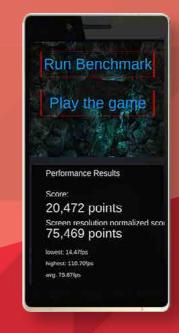
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QMobile Noir E8 has an average frames of 76 per second whereas, the overall score is 20,472 points.

QMobile Noir E8 also have almost 640 density pixels per inch with screen resolution

normalized score of 75,469

() GPU



Pakistani Telcos: How the WEST has WON



elecom industry is the one of the biggest and exuberant industry of Pakistan that not only contributes a large portion to the national economy but touches the social life of the entire population in different ways. Mobile networks in Pakistan have a very strange history in terms of their formation and establishment. The use of cellular services has increased dramatically in the last few years and Pakistani network operators have changed hands

resulting in unique scenario for the industry more specifically local players have been push out from the scene. Beside Telenor each operator has gone through many acquisitions made by different international companies. While the presence of so many multi nationals in the country, telecom industry is something that one can boost about as it brings in a lot of value but the downside to this is that through the transitions where foreign entities benefited from these

changes the Government had very little or no say at all. More importantly these merger and acquisition deals either pushed local investors from the industry or made their shareholding minimal. As of today, besides Government owned equity Ufone, there is no major local player in the mobile service business. The last we saw of them was in the once booming Payphone and WLL industries that were mainly run by local investors, the likes of Arfeens, Saifullahs, Salman Taseer. Dancom etc.

The major reasons for absence of local players and their growth in the Telecom sector of Pakistan are lack of any special fiscal incentive, protective legislation & regulations for local entities, absence of large local corporate conglomerates and lastly the globalization of the telco industry itself

Merger and
Acquisition
deals either
weakened or
have completely
pushed out local
investors from the
Pakistan telecom
industry

Keeping in view the emergence of global telco companies and their impact on local investments and effect on the economy, we have tried to draw comparison of how mergers and acquisitions take place in other regions/countries, what roles governments play in the process and how it is different

from Pakistan.

The objective is to highlight the discrepancies in the system and how our government can play effective role in the process to reap maximum benefits for all stakeholders specially to overcome the key elements that results in the failure of local investors in the industry.

International Case
Studies-How they do it?
In most countries it starts with the laws and regulations that are or seem very open and provide level playing field for all while other countries have very stringent laws & regulations for ensuring a larger portion and dominant position for local components.

Most of the countries where industries have matured and local companies are large and efficient, there are separate laws and regulations for licensing, mergers and acquisitions for telecom industry in which other departments beside telecom regulators are also involved. They have very extensive procedures and separate merger and

acquisition laws that companies have to go through before the finalization of each transaction and while they do not specifically mention protection to local companies, the rules of the game generally favor local companies.

Lack of any special fiscal incentive. protective legislation for local entities. absence of local corporate conglomerates and the globalization of the telco industry are major reasons for absence of local players

The case in point are the markets in the US, EU and most of the industrialized nations (Except China, Japan, Korea and Russia).

Regions	Ministry/Regulatory Body	Merger Regulations and Parameters
America	Federal Communication Commission (FCC)	Public Interest, convenience, and necessity and competitive impact of the license transfer
European Union	Directorate-General for Competition, National Competition Authorities	Public interest, Fair competition, protection of consumer interests
UAE	Securities & Commodities Authority, Telecommunication Regulatory Authority	UAE Companies Law requires a UAE company to be at least 51% owned by UAE nationals or 100% owned by Gulf Co-operation Council (GCC) nationals
India	Telecom Regulatory Authority of India (TRAI)	Frequencies valued at market rates and the difference paid by acquiring company
Pakistan	Pakistan Telecom Authority / Competition Commission of Pakistan	Fair competition, Convenience and Necessity

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They have operators like Verizon, AT&T, Telenor, Vimplecom, Vodafone, Telefonica etc., that have very healthy and sound historical records, huge financial muscle, expert human resources and to top it all, the backing of their respective government that is capable of arm twisting and specially financial institutions making it very hard for a small company to fight on their turf. Although, they beat the drum for ensuring level playing field but essentially it is not the case as strong companies become winners in an environment where the stage is set for the "best man wins", similar tactics are used when entering other countries as

Globally
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not be the case
as rules of the
game generally
favor local
players

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At the other extreme are countries that have very specific clauses for favoring local investors and nationalities that require compliance to either general laws even if they do not depend upon the structure of the economy and politics. The examples include GCC countries, China, Russia, Korea, Japan, India and a lot of African counties. Most of these countries (not all) are countries that have politically and economically closed structure as a government or as a society.

This ensures that their local corporate entities prosper. Hence, they require additional regulations when it comes to companies wanting to take over telecom sector in anyway.

In the Gulf Co-operation Council (GCC) countries such as in the UAE, despite recent revision in Commercial Companies Law (CCL) the company foreign ownership is still restricted. The CCL requires a UAE company to be at least 51% owned by UAE nationals or 100% owned by GCC nationals which may be the reason why two mobile operators in UAE i.e. Etisalat and Du are majority government-owned entities.

The reason for keeping the

telecom sector closed or restricted to local entities also stem from the fact that in past and even today, telecommunication is very high on any country's national security agenda. Only a couple of years back when the US House Intelligence Committee said as reported by the New York Times, "that after a yearlong investigation it has come to the conclusion that the Chinese businesses, Huawei Technologies and ZTE Inc., were a security threat because of their attempts to extract sensitive information from American companies and their loyalties to Chinese Government". Similarly, Chinese Government has either banned or restricted US based social media companies and services such as Google, Facebook and others citing same reason of threat to national security even though these are vendors and not operators but for mobile companies the rules are even tougher.

Strong government support at the local level is one of the major reasons why foreign companies not only have strong positions in their local markets but are also venturing outside their territories. FCC regulations in USA, although seem straightforward and open to all but in reality are quite difficult to fulfill and eventually it becomes impossible for new international player to fulfill those requirements, unless it is a major global service provider.

Keeping the telecom sector closed or restricted to local entities historically and even now is due to threats international companies can pose on national security

The encouraging environment for local players can be judged by the fact that three out of five mobile operators in USA are run by local investors. Similarly in the GCC countries, governments have always given priority to local investors. Regulations in the GCC countries are so strict that no international company can solely own a company there, it has to involve a local investor in order to enter market.

The case of Pakistan Telecom Industry: How we lost?

Pakistan telecom Industry saw an enormous history of changes in ownership of all operators in one way or another. But in each situation, the government played minimalistic role in mergers and acquisitions in telecom sector of Pakistan.

To get a better understanding of each mobile operator's merger and acquisition history, we have tried to gather some account of each telco's transfer of ownership.

Instaphone

Instaphone was the first ever cellular mobile service of the country that was launched in 1991. The company was jointly owned by Arfeen Group and Millicom International. Later on, in 2006 Millicom International handed over its shares to its local partner Arfeen Group. The deal was based on the agreement that Arfeen Group will divest its share in Paktel in favor of Millicom International and in return Millicom will do the same and dissociate its shares in Instaphone in favor of Arfeen Group. In 2008, PTA terminated Instaphone's license due to non-payment of outstanding dues although they fought a very lengthy legal battle to trying to convince the regulator at that time to make any meaningful shift in technology or get additional investment for growth they need to get full spectrum access.

Policy makers
and Regulators
should not only
apply legal
& regulatory
clauses to
local industry
for short term
compliance but
also apply their
creative minds to
avoid negative
long term
repercussions

They were demanding that the regulator complete 10 Mhz instead of 7.36 Mhz allocated to enable them to launch 3G services when every other operator was doing 2G. Bankruptcy and eventual exit of Instaphone is perhaps one of the biggest causality of the local telecom player of our time and a missed opportunity.

Had the policy and regulatory regime leadership of that time at some point applied some mind, it could not only have saved the local player from demise but could have made some meaningful contribution to the cause of furthering local players in the industry.

This carries a very strong lesson as well that the policy makers and regulators should not only apply legal & regulatory clauses to industry for short term compliance but should apply their creative minds to avoid such negative long term repercussions for the industry.

Paktel

Cable & Wireless also known as C&W (80% share) was the international company that launched Paktel's AMPS commercial service along with a local real estate company Hasan Associates (20% shares) in 1990 The local shareholders were made to sell its stake to C&W in the late 90's. In 2000 Instaphone majority owner, Millicom acquired Paktel for an unknown amount from C&W. later in 2006. Millicom sold Paktel to China Mobile for 284 million dollars which included the repayment of intercompany debt with total enterprise value of 460 million dollars. In May, 2007 Paktel was rebranded to Zong.

Mobilink is the first GSM operator

of the country that started its operations in 1994 after a joint venture between Saif Group and Motorola Inc. later on in April 2000, Orascom Telecom (OT) bought 38.6% shares of Mobilink. It then became a major stakeholder in 2001 by increasing its shares to 68.69% after buying Motorola's share.

To some
extent our own
successive
Governments
have been
instrumental in
the demise of
local investers
with their nonsupportive and
un-futuristic
polices

In 2007 Orascom acquired 100% shareholding of the company after a forced takeover from the minority shareholders reportedly compensating them with an undisclosed cash for their shares. The company was later sold as part of the Orascom telecom properties to Vimplecom. The 51% stake sold initially by Orascom to Vimplecom was valued at around USD 6.8 billion that did not include Egypt OT properties. At one time Telenor bought into Vimplecom for an undisclosed amount essentially making them to own two mobile properties in Pakistan i.e. Telenor Pakistan and Mobilink, but after a year or so reversed this decision. Billions of dollars were exchanged in these transactions that resulted in the real gains rather the business case based on organic growth of the individual company that

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now seems to be the order of the day for making profits for companies. This has reduced the real business case and also the role of local entities since the real transactions happens at the global level.

Ufone

Pak Telecom Mobile Limited (PTML) was incorporated in Pakistan in June 1998 by PTCL, as a public limited company to provide cellular mobile telephony services in Pakistan. It started its operations in January 2001 under the brand name "Ufone". PTCL's was privatized and handed over by Government of Pakistan to Etisalat. The deal basically was 26% with management rights for the group that included Ufone as part of PTCL in 2006.

Telenor

Telenor Pakistan was founded in 2004 by Norwegian Telenor Group which is among the largest operators in the world. Telenor Pakistan is the second largest mobile operator of Pakistan with

33.6 million subscribers and the only operator that hasn't changed its ownership through any merger or acquisition deal so far.

Warid

Warid Telecom was initially established by Abu Dhabi Group but in 2007 Singapore Telecommunications Limited (SingTel) acquired 30% equity stakes for estimated \$758 million.

The Local investers that have survived and could emerge strongly are mobile phone distribution and **VAS** companies but they will need special incentives and preferential treatment in future licensing

In 2013, SingTel sold back its shares for 150 million dollars and a right to receive 7.5 per cent of the net proceeds from any future sale, public offering or merger of Warid. Recently, in 2015 VimpelCom struck a deal with Abu Dhabi Group to acquire Warid for an equity swap in Mobilink but tied to a portion of a sell off. While, this transaction is welcomed by everyone but whatever is the value of transaction probably none of that amount is coming to Pakistan. Throughout the merger and acquisition history of telecom sector, successive Pakistani governments haven't taken up any substantial step to facilitate or enhance local participation in the telecom sector of the country rather they has been instrumental to some extent in the demise of local industry participation with non-supportive and un-futuristic polices. Initially, there were Arfeen group, Hassan Associates and Saif group who started Instaphone, Paktel and Mobilink respectively but later they either were forced

out because of Government

inactiveness or sold their shares

to foreign companies realizing that they will lose out in the big game. Presently, Ufone is the only operator that has some local component but is owned primarily by Government and controlled by Etisalat.

Government's focus has been on bringing international companies to the market instead of encouraging local investors

The WLL industry was mainly run by the local players but instead of facilitating the industry government overburdened it with various regulatory restriction on mobility due to the pressure from the mobile industry that it has almost been wiped out except PTCL, which is likely to be phased out in the near future since the regulatory and market conditions don't look very conducive for it either. Also in 1991 card phone companies started operations in Pakistan, these companies were mainly owned by local investors. However, when the MNOs expanded their networks and were allowed to establish their own PCOs, card payphone industry was also wiped out over night.

The local industry that has survived and could sustain probably grow as well if supported is the mobile phone distribution i.e. Q-Mobile, United Mobile, Haier, G-Five, Advance Mobile, Airlink Communications etc. (although some of them are struggling now). Their role in the industry can be increased by giving them some preferential treatment in the new licensing framework such as in MVNO, M-Commerce, Mobile Content, Public Wifi etc. This would allow

them to not only sustain in the increasingly competitive telecom industry but also expand into other areas and markets.

Some local VAS companies are also making their mark such as IBEX, Planet Beyond, RockVille etc., and if supported properly, they can increase the share of local industry as the Data Revenues are rising after 3G/4G and they play a very important role in maximizing revenues for the mainstream mobile companies. Some of these companies are now aiming for international markets as well and with the given IT human resource we have in the country, it can result in high dividends. After-all, the nature of telco business is also evolving from conventional engineering to IT.

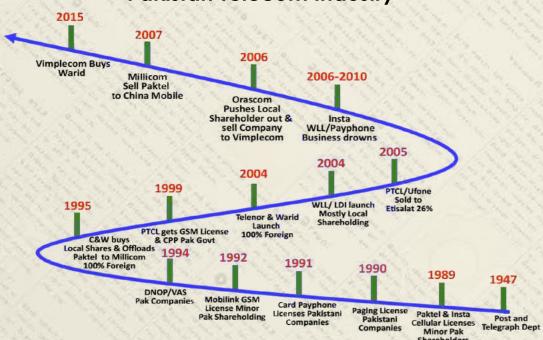
Our successive Governments have always been of the view that entrance of foreign companies and FDI in the market is the only method to boost national economy. Its focus has been on bringing international companies to the market instead of encouraging local investors. Considering foreign companies as a financial savior may be the reason why government didn't interfere in merger and acquisition process in telco industry as well. But as we have seen international players make investments in Pakistan market, do business for some years and move out after reaping heavy profits from sale of their shares leaving government no control or role to play besides being a silent observer.

Creating a fair and business friendly environment is the key but at the same time it should and can attract local investors to join in. The Ministry and the Regulator have an important role to play in each merger and

acquisition and should ensure that said change is beneficial for the country and its people. Even more important responsibility of government is to create better opportunities for its own people. There are many resourceful and affluent Pakistani businessmen settled in Pakistan and in foreign countries who are eager to invest in Pakistan but are hesitant due to lack of any special fiscal incentive and protective legislation & regulations for local investors. The government needs to come up with a comprehensive framework for telecom sector of Pakistan and at the same time create equal opportunities for all investors while giving special encouragement to local investors. The challenge may look very tough but not one that cannot be achieved; all is not lost to see Pakistani Telco companies making their mark at the international level

Creating a fair and business friendly environment is the key but at the same time Government should and can attract local investors to join in as there are many resourceful and affluent Pakistani businessmen eager to invest in the ICT industry if provided with the right environment

Licensing, Merger and Acquisition timeline of Pakistan Telecom Industry



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SAFE TAXI

Innovative Local Entrepreneurial Mobile Application based Taxi Service in Pakistan

afe Taxi is one of its kind innovative mobile application taxi service in Pakistan being launched by group of young entreprenures that aims to provide reliable and convenient public transportation to the masses. Starting from Islamabad, Safe Taxi Service will soon be available in all major cities of the country.

Safe Taxi service is a simple and convenient taxi booking Android

app that help users to book a taxi from nearby area by locating a taxi driver through GPS.

Starting from Islamabad, Safe Taxi Service will soon be available in all major cities of the country

The application provides detailed particulars of taxi drivers. The main emphasis is to provide a

safe and easy ride to customers through Safe Taxi service. In order to ensure safety of our customers a strict screening process is followed for selection of all drivers.

You can follow your driver in real time through GPS. In addition, you will also be able to see driver's identity, mobile number and license plate. To maximize the safety and protection, customers can also send their location to their emergency contacts by tapping "Emergency Number" icon in the app.

Safe Taxi service is a simple and convenient taxi booking Android app that help users to book a taxi from nearby area by locating a taxi driver through GPS

Safe Taxi service provides a complete solution for customers with taxis in Islamabad. Two separate application have been developed for customers and taxi drivers making it easier for both entities. The application has been developed in Urdu/English languages so that all users can also easily understand and use this app.

Features

Free Android App

It is a free application for android users.

Automated Locating Functionality

Safe Taxi is a GPS enabled application. It locates the current position of the mobile user and available Safe Taxis in nearby location.

English/Urdu Languages

Safe taxi application is available in English and Urdu languages for easy understanding of users.

To maximize the safety and protection, customers can send their location to their emergency contacts by tapping "Emergency Number" icon in the app

Save Time and Avoid Waiting

Run this app and locate the nearby available taxicabs to get a hassle free ride.

Trained and Professional Drivers

You will be directly connected to trained and professional drivers

via this app. Every driver goes through a screening test and only qualified drivers are entitled of this application service.

Rate your Driver / Cab Journey

Users can share their experience by rating the driver. In this case, users can view ratings of drivers will hiring taxicab.

ICE Number

ICE stands for in case of emergency. This feature enable users to provide contact number of one family member. In case of any emergency, a message (containing current location) and a message will be delivered to the receiver contact number.

The application has been developed in Urdu language so that all users can also easily understand and use this app



Scan QR Code to ownload this App

www.safetaxi.pk



Rivo Rhythm RX150

Powerful Battery & Bigger Screen

Rivo has launched a stylish Rhythm RX150 smartphone with great specs and amazing design. The phablet smartphone is packed with enormous 6.0" QHD IPS display and graphics are controlled with Mali-400 MP GPU, the powerful mighty 1.3 GHz Quad core processor paired with 1 GB RAM runs all kind of apps smoothly. Android 5.0 Lollipop provides the ultimate experience of multitasking and alluring interface. Rivo Rhythm RX150 is fetched with 8 GB huge memory space to store the all kind of data which can be further expanded up to 32 GB. Rhythm RX150 is packed with powerful battery to offer maximum usage time frame to its user, the battery has good back up time and lasts for one week on standby.

DESIGN & DISPLAY:

We have to admit that Rivo has really worked hard to prepare master piece; everything related to design is outstanding. Rivo has just 161 grams of weight and 6.0' QHD IPS display which is totally reasonable for a phablet phone.

Rivo Rhythm RX150 has shiny, well designed large screen with QHD IPS Display, the resolution is 540x960 pixels. The screen to body ratio is almost 70% which is an ideal and perfect ratio for a smartphone, whereas the huge 6.0" QHD IPS support 2 point capacitive touch.

PROCESSOR:

Rivo runs on ultra-fast Cortex A7 processor with clock speed of 1.3 GHz. The clocked speed of processor varies between 600-1300 MHz give fast processing environment. The graphics are handled by Mali-400 MP GPU that provide smooth platform for images to be appeared on screen.

MEMORY:

Rivo Rhythm RX150 is packed with well efficient 1GB RAM in combination with Quad core process which give fast processing and you don't face delays while apps are switching between RAM and processor. The internal storage of Rivo Rhythm RX150 is 8GB that can also be expanded up to 32GB with

CAMERA:

The Rivo Rhythm RX150 comes with 8MP AF rear camera with LED flash and 2 MP snapper on the front with sharp lens. In addition the camera possess smile detection feature and HDR mode for high quality images.

The 8MP AF rear camera is placed on the top center position. The image's resolution measures 3264 x 2448 pixels that is outstanding resolution. The rear camera is capable of making HD videos of 1080px.

NETWORK/ CONNECTIVITY

Rivo Rhythm RX150 is a 3G enabled smartphone with dual SIM support. It also has Bluetooth 4.0, Wi-Fi, Wi-Fi direct.

BATTERY PERFORMANCE:

Rivo is equipped with huge battery of 3000 mAh. The battery provides long standby time and doesn't drain out rapidly, on standby it can stay alive for at least a week. However, with regular usage, battery drains out in two days.

ANTUTU BENCHMARKING:

In Antutu benchmarking 👑 the performance of hardware is checked which includes the RAM, Processor, GPU. With Antutu benchmarking the Rivo Rhythm RX150 has achieved a good position by securing 19,838 points.



Efficient 1GB RAM in combination with Quad core process which gives fast processing and you don't face delays while apps are switching between RAM and processor.

VELLAMO BENCHMARKING:

With Vellamo Benchmarking we check the performance of processor by conducting two test. For its single core performance, Rivo Rhythm scored 797 points while in multicore test, we check the efficiency of all cores and their communication with each other. Rivo got 1113 points which proves that it is a trusted smartphone in terms of performance. It also got solid points in browser testing and has

proven itself as a manageable smartphone with score of 1562. Rivo Rhythm RX150 comes with Mali-400 MP GPU for handling the graphics. In GPU testing, the overall score is 13,519 which is a decent total making RX150 capable of

handling'



TEXTAL STORIES

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1662

heavy games and HD videos. The average frame per second is 50 fps which provide good grounds for playing games.

6.0" QHD IPS display and graphics are controlled with Mali-400 MP GPU, the powerful mighty 1.3 GHz Quad core processor paired with 1 GB RAM runs all kind of apps smoothly.

FINAL VERDICT:

Rivo Rhythm RX150 is overall a good package for those who want a good mid-level smartphones in low budget. It has all the features of a decent mid-range phone at a very reasonable price.

Rhythm RX150 Specification:

RAM: 1 GB RAM

Memory: 8 GB Internal Memory/Expandable up to 32 GB

OS: Android 5.0 Lollipop Processor: Media Tek MT6582

GPU: Mali-400 MP

Network: GSM: 850/900/1800/1900 MHz/WCDMA: 900/2100 MHz

Camera: Primary: 8 MP AF with LED Flash, 3264 x 2448 pixels/Secondary: 2 MP

Display: 6.0" IPS display/Resolution: QHD (540 x 960) pixels/Pixel Density: 240 dpi

Battery: 3000 mAh, Li-Po battery





struggled on many platforms

Government of Pakistan kept

on denying on the basis that

until it removed or blocked the

blasphemous content from it as

not be accessible in Pakistan.

Back in 2012, Pakistanis were

highly dependent on YouTube as

there were no other video-sharing

large population used YouTube for

positive purpose of doing business,

education, training or online classes

websites available. Also a very

along with the entertainment

While, the Government took too

on YouTube that enabled other

local initiatives to take its place

and some gained momentum to

A part from local initiatives, also

social media sites such as Vimeo,

Facebook, IM and also interestingly

compensate for the use of YouTube.

long to remove the restriction

vimeo

directed by the courts, YouTube will

to reopen YouTube but the

ne thrill and excitement over lifting the blanket ban on YouTube in Pakistan, after more than three years, didn't affect the public at large as it would have done so then. Ministry of Information and Technology (MoITT) and Pakistan Telecommunication Authority (PTA) with the Tech Giant firm Google, has finally come up with the decision to present a local version of YouTube, so that the blasphemous or for that matter any unacceptable material can easily be filtered.

YouTube ban enabled other social media sites such as vimeo, Facebook, tune.pk etc., to take its place and some gained good momentum

YouTube was banned in September 2012 sighting an order from the Pakistani courts as it failed to remove a video of Prophet (PBUH), which caused a huge uproar in Muslim world specifically Pakistan. Since

many international video streaming platforms were introduced during the period when YouTube remained inaccessible in Pakistan e.g. Facebook also launched its live video streaming

purpose.

feature; whereas Twitter is in process of integrating Periscope- an auto playing live video to user's timeline.

By Saima Ibrahim

websites are also a source of security threat as the data and its profiling is used by foreign Governments for their own agenda

While, the Government may be on one side most of the social media Governments for their own agenda. Unfortunately, the lobby of media right groups especially in country like Pakistan is so strong that the the consumer as they have to curb freedom of speech to some extend very cumbersome task.

international social media site but in Pakistan Tune.pk (www.tune.pk) is one such initiative that benefited from the ban of YouTube to dominate video sharing market and probably was the first to launch its services.

Welcome to Tune.pk!

WHO WE ARE AND WHAT DO WE DO

daily all around the world.

Most social media

concerned for the content regulations websites are also a source of security threat as the data and their profiling of the customer data are used by foreign regulator is unable to protect itself and that makes them quite unpopular. But it is high time for a IT Savvy country to develop its own local social media site as a back-up, which probably is not a

While everyone is aware of the

Tune.pk is one of the biggest video sharing website not only in Pakistan but also in South-Asia region serving millions of videos daily all around the world. Another local initiative included "YouTune Pakistan" (www.ytpak.com) which provided to Pakistanis.

YouTune Pakistan also has vast database of videos including songs, music, sports etc., but both these video sharing site do lack the kind of archives and library of video that YouTube offers and the fact that both site have chosen names similar to the incumbent is a fact that they tried to take advantage of the ban placed on it in the first place.

The ban on YouTube along with the launch of 3G/4G mobile broadband by the operators in Pakistan has also triggered a new wave of developers to develop and integrate video sharing and live streaming solutions. AppNex, a mobile centric technology APPNEM incubation

company that builds and offers VAS, **Application and Content solutions** focused on development sector such as Health, Education, Entertainment and Public Safety, has come up with an alternative platform by launching its own solution called "My Own Smart TV". This offers a live broadcasting and on-demand video solutions through an application directly from the mobile device. It is a cloud-based platform that empowers organizations to be more transparent and productive by combining high-quality video streaming, and scalability to reach viewers specially when they are on the move. The application is focused on enterprise as well as individual consumer to provide coverage to wide range events from internal meetings to press conferences to worldwide entertainment events as well. The solution boost keeping in view the low internet speed in Pakistan is quite good as the

Application works on "Adaptive Streaming" and it adopts itself according to internet speed. This is similar to Ustream services being offered by a similar company globally.

Another important thing is the behavior or reaction of society which is important to bring change on such issues. We need to understand that as a society our reactions to such situations play an important role and they must be changed in order to avoid knee jurk reactions from Government of the day.

understanding and character on our part. It is our duty to depict the true face of Islam and fight against the harmful propaganda by following Islam in its true spirit, which in no way permits causing harm to innocent people and destruction of public property. The life of our Prophet (PBUH) is filled with such occasions



Islam is a religion of peace some violent protestors that pose themselves champions of Islam but are infact miscreants who create havoc citing uploading of a video that too in some other country as an attack on religion.

During protests held against blasphemous material on YouTube damages were made to the properties and lives of fellow citizens who were in no way involved in the act. The sad thing about the whole situation is that culprits walked away unpunished after creating mayhem and justified their act by their so called faith in Islam and their love for Holy Prophet (PBUH). As a society we need to realize that such acts will only lead us to destruction. We need to handle situations and instead of getting infuriated on such things and then harming our own people is like falling prey to propaganda which only shows lack of religious

in which he showed patience and mercy towards non-Muslims despite their violent acts.

Back then YouTube was blocked in the hour of need & unbanning now is not going to impact consumers to a larger extent

YouTube was blocked at the hour of need in Pakistan and now it's opening is not going to impact us to a larger extent. Pakistan has remain deprived of it for more than three years. While looking at the other side, the ban of YouTube provided opportunity for other channels to grab the opportunity and grow. Let's hope that in future better sense prevails from this experience and such incidents do not occur.

The Pakistani team displayed stunning technological performance at the **Asia** APICTA Pacific ICT Awards (APICTA) 2015 and won 3 Gold and 1 Silver at the award in Colombo

Pakistani Fiza Farhan in Forbes list of 30 young Social **Entrepreneurs**





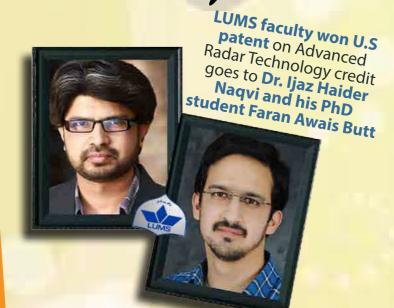


Waqas Ali received Bronze medal at Microsoft Office Championship

ing 2015 with a High Note



16 year old **Sumail won** millions of dollar in Dota2 Championship in Seattle





NetSol secured a place in Forbes for Best Software Companies to work for in 2015



Pakistani entrepreneurs launched **Uber** for Rickshaws

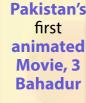




Ozair Belal, stood 2nd in Microsoft **Student Partner Insider Program,** he is from Pakistan and the former student of **Pakistan Air Force** Karachi Institute of Economic and **Technology** (PAF-KIET)



Pakistan Built world's largest solar power











Pakistan became first Asian associate Member State of **CERN** (Center for European Nuclear Research)



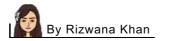
from

Pakistani boy **Shah Mir Aizaz** secured second prize at the NASA **Ames Space** Settlement Design Contest 2015









TA is responsible for evaluating and granting certification to all terminal equipment coming into Pakistan provided it qualifies within the prescribed parameters defined by PTA. With increased mobile phone devices penetration in the market the concerns of identity, safety and quality have also risen which led PTA to start type approval process a couple of years back. Under this process, it is mandatory for importers and manufacturers to submit specification details to PTA to get approval under section 29 of the Pakistan Telecommunications (Re-Organization) Act, 1996. The process which used to take months over the period has been streamlined and been made more efficient, reducing the turnaround period to a few days and mostly hours for NOC service specially in the last couple of months taking into consideration the inputs from the industry for the its type approval process who have been vocal about this change and efficiency by PTA.

PTA has recently revised its process and made some noteworthy changes to ensure quick turnaround time

In order to make the process more efficient and effective, PTA has recently revised its process and made some noteworthy changes to ensure the turnaround time is up to the satisfaction of applicants. In order to facilitate and expedite operations, PTA has created specific email ID's and guidelines advertised on the PTA website. This enables all applicants who wants to apply for type approval services electronically without physically coming to PTA. As per the new process once an electronic application is made, electronic trackers have been created

to evaluate the volume of applications being received and time it takes to complete each

The revised process enables applicants to directly send their devices to PTA OS & Type approval partner laboratory

The newly introduced process is not only transparent but it has also been made easy for applicants wishing to apply. Under the revised process, applicants can directly send their devices to PTA OS & Type approval partner laboratory prior to submission of application. Through this revised and upgraded system, e-ticket system, OS Ticket can be generated directly by applicant by emailing to ostesting@3gca.org and Ostesting@ pta.gov.pk

Another important step that PTA has taken to facilitate the mobile industry is that short range devices e.g. RFID, Bluetooth etc. tablets without SIM functionality have been exempted from the process. Additionally, PTA has also created two separate categories for personal and commercial NOCs issuance that facilitate the applicants to apply accordingly within the relevant category.

Type approval of RFID based devices. tablets without **SIM** functionality and Bluetooth only devices have been exempted from the process

Electronic acceptance and disposal of personal/ commercial NOC has resulted in expedited delivery of applications which has improved customers' perception about PTA and the Government. For anyone who wants to apply for such NOC service from PTA, following two email ID's have been assigned by PTA for such services.

- a) Personal NOC for Mobile Phones / Tablet PC with SIM Functions: typeapproval@pta.gov.pk
- b) Commercial NOC products: commercialnoc@pta.gov.pk

It is quite evident that there is a significant improvement in turnaround times and disposal of requests pertaining to Type Approvals and NOC reflecting a very positive approach from the regulator towards facilitating its consumers and also towards building an echo system to support new technologies for people of Pakistan.

Electronic acceptance and disposal of NOC has resulted in expedited process which has improved customers' perception about PTA and the Government

Brief summary of the Key Areas of Optimization are listed below

- Online Submission of Commercial NOC via commercialnoc@pta.gov.pk
- Online Submission of Personal **NOC for Mobile Phone and Tablet PC** with SIM via typeapproval@pta.gov.
- Electronic based OS Testing Ticket **Generation and Submission allowing** for both Local and foreign applicants to apply remotely without physically coming to PTA
- Revision of Type Approval categories in line with best international practices to support development of Telecommunication and specifically Mobile Echo System to compliment introduction of new devices and technology

SOCIAL MEDIA IS NOT MERELY AN INFORMATION, **BUT POWER!**

Threat

and

Security

Authority and

War and

Peace

Vulnerability

Victory and Defeat

Stability and Strength

Deceitful

Misleading

Policy and **Power**

SOCIAL WEDIA

r remains as a mankind. It still is and will remain an area of activity which will never stop. The focusing point here is the fact that now there are new types of weapons of mass destruction, which have changed the way of wars. Many old-style sets of politics do not make sense now; people take equal part in international politics. Media has step forward as a very strong pillar of state. War and peace, victory and defeat, authority and vulnerability, threat and security, policy and power, stability and strength - these and many other concepts are buying new meaning today.

As is the rule today, social media

played a part in bringing up many major events in history.

War and peace, victory and defeat, authority and vulnerability. threat and security. policy and power, stability and strenath these and many other concepts are buying new meaning today

We live in an era that is so deceitful and misleading in public opinion that propaganda no longer acts as an "invisible government". It works openly without fear of conflict and though its main aim should be to separate truth from lies. One has to accept that social media is not merely an information, but power!

The information age is actually a social media age; this is an age where we'll see social media playing a front role in war, strategies and politics of country. For example: There are number of blogs that have been written about how the Israeli army has been using social media to broadcast the details of its latest military campaign against Hamas, which includes live-tweeting rocket attacks, uploading YouTube videos of hits on specific victims, aggregating Instagram photos from the battlefield, and even posting infographics to a Tumblr

Another concrete example of this new sensation is when the Israeli army asked citizens not to post



the details of attacks or troop movements on social platforms such as Twitter, Facebook or Instagram because they might inadvertently reveal the location of specific targets. This shows how important this little tool in your hand can be.

In modern era. where every war is a social media war and everyone is a soldier having their weapons (gadgets) in their hands

Information flow has been democratized; now, anyone with a smartphone in his hand is capable of publishing not just a few sparse details about an occurrence but exact location, time, images, video and more.

Politics was the most dominant of all the subjects where we can see the power of social media. Instead of appearing on a podium many political aspirants have turned to their digital platforms.

Another major incident that is hitting my mind is when Donald Trump faced a backlash on Muslim tirade. Trump's anti-Muslim hate speech exposes continuous and direct exchanges between him and potential voters; Not only news and TV channels but even social media was flooded with toxic tweets, taunting statuses, funny meme and embarrassing videos that his most staunch supporter couldn't even ignore.

Politics was the most dominant of all the subjects where we can see the power of social media

Going through different articles and literature about social media I came across a 45 year old book

entitled "The Greening of America caused a sensation", on the cover were these words: "There is a revolution coming. It will not be like revolutions of the past. It will originate with the individual." I can easily relate it to this modern era, where every war is a social media war and everyone is a soldier having their weapons (gadgets) in their hands.

Just like anything else in this world, nothing is perfect, even Social Media. One of the problems with Social Media is that you cannot give it rein. Some people have argued that Social media exaggerates information and emotions and certainly exaggerates and generalizes violence. Many of its tools serve extremists to share space with their ideological opposites.

Social media gives air to the Shia-Sunni conflict; according to an analysis of over 7 million Arabic tweets from February to August 2015 put accelerated that violent events and social network structures play key roles in the transmission of this sectarian bombast on social media.

Once something is published on the Internet, it's instantly shared with followers and you no longer have control over it

Since it is hard to regulate socialmedia tools as they are multidirectional in nature, they can be a very dangerous double-edged

Let's look into the other side of the picture, we have seen that the terrorist organization, Al Qaeda has used social media to spread propaganda and ISIS has also used social media and Internet forums as a tool for

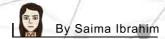
communication, uploading videos of beheadings, executions, and slaughters committed throughout the world.

Although, majority of the Official ISIS accounts were immediately removed by Twitter, Google, Facebook, and other tech companies, but once something is published on the Internet, it's instantly shared with followers and you no longer have control over it.

It is very sensitive time for everyone especially for leaders & governments to monitor and evaluate every single piece of information before it goes online but, this doesn't mean that they should limit the use of social media

Charles Lewis, the distinguished American investigative journalist said in an interview that if journalists had done their job "there is a very, very good chance we would have not gone to war in Iraq."

In other words, it is very sensitive time for everyone especially for leaders & governments to monitor and evaluate every single piece of information before it goes online. This doesn't mean that they should limit the use of social media for political purposes. It is a platform that can spread awareness and messages not only at national but internationally also. I would sum-up by saying that wars can be initiated and stopped with the help of the powerful tool we carry in our hands. It is our duty to investigate the propaganda instead of amplifying it.

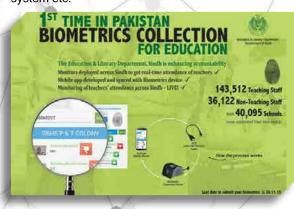


mart Moves for marter Nation

eeping in view the world wide advancements in technology, Pakistan is also trying to improve its system with the help of latest technologies. All provincial Governments have started working on many projects of e-Governance & m-governance by making use of latest ICT developments. The provision of technological services will no doubt revolutionize the performance of Pakistani Government from many perspectives. Therefore in this exclusive section we will discuss all the initiatives taken by government to make Pakistan a Smart Society.

Biometric Collection for **Education System**

M-government is now not something alien to Government in Pakistan. Mobile has already intervened in many departments of government e.g. in schools, for challan collection, disease surveillance



This time Sindh Government has also taken up an initiative and introduced first time in Pakistan the biometrics collection for education. The system will help to get real-time attendance of teachers and Mobile Apps developed will also help in keeping a check on traditional system of attendance.

• GeoTagging - Hotspot Policing

The Khyber Pakhtunkhwa Police has developed and launched a Centralized Crime Tracking and Analysis System. The new system is based on geo-tagging technology and all of the data, including pictures of

the militants/crime scenes, latitude and longitude coordinates and incident details are stored in the main database using Android mobile phones.



The data, when captured and submitted to the main server, is automatically plotted on Google maps which can be utilized to analyze crime trends in the province.

Online College Admission System (OCAS)

Online College Admissions System (OCAS) is built to provide easy, convenient, efficient and reliable access to the students for admissions in the government colleges for higher level of education.



The solution is based upon a collaborative relationship between Higher Education Department, Nine Boards of Intermediate and Secondary Education (BISE) of Punjab, Bank of Punjab and Punjab Information Technology Board (PITB). The traditional method of standing long in the queues etc. in Punjab is now replaced by this innovative technological intervention.



Haier Mobile Hosts Dinner for Pakistan Cricket Team Along with Dealers Meet and Greet

On 20th Nov 2015 Haier Mobile dealership trip went into full swing. The dealers got a chance to have lunch and watch Pakistan take on England at Dubai international stadium, which was a beginning to an exciting and eventful evening ahead. Haier Mobile dealers visited few of the world's most sort after malls around the desert paradise, and went for a splash at the famous Wild Wadi amusement park, followed by the highly anticipated and once in a life

Haier Mobile dealers listened to motivational speeches by Mr. Zeshan Qureshi who talked about Haier Mobile and its quickly escalating brand legacy and Chairman PCB Mr. Shereyar Khan who spread some light on the Haier Mobile and Pakistan Cricket Board fruitful partnership followed by meet and greet session where all the dealers had their questions answered by the Pakistan cricket team. The dealers were provided with signed T-shirts by the Pakistani

The dinner was held at the prestigious Hilton Conrad hotel Dubai in the beautiful Ball room where the Haier Mobile dealers enjoyed their dinner with the Pakistani cricket team, the dealers enjoyed their photo session where selfies were snapped, providing dealers with photos they can share with friends

In a nutshell it was a great event cherished by all the dealers and players of Pakistan cricket team who look forward to such interactions with their beloved fans across the country





igital commerce is a deliberate form of e-commerce because it deals with the exchange of electronic goods. E-Commerce plays an important role in economic development. It moderates cost of products and services and creates new job facilities.

Telecom companies have currently been capitalizing mostly in infrastructure which reveals that by 2020 3G internet will be accessible by 90% of the population, and mobile broadband will extent to 40%

In Pakistan, millions of people have access to internet and now it has turn out to be the most important part of our lives. The upsurge of digital commerce in Pakistan depends significantly on rates of internet access, as well as corporation between mobile operators, e-payments companies and government

departments. In Pakistan, e-commerce has largely persisted as a buy and sell process as most transactions are done in cash. Almost 95% of e-commerce users choose a cash on delivery (COD) payment

To enable the growth of online payments for digital commerce. mobile operators have arranged their own marketplaces and payment prologues. Telecom companies have currently been capitalizing mostly in infrastructure which reveals that by 2020 3G internet will be accessible by 90% of the population, and mobile broadband will extent to 40%.

To completely realize the opening of digital commerce in Pakistan, the priority is to increase digital accounts and digital payments

One of the major obstacle in the way of digital commerce

in Pakistan is lack of proper electronic payments system. Prevailing systems are either unapproachable in Pakistan or not suitable for local entrepreneurs. It mostly remains an underserved market in terms of both internet access and digital payments, yet there are probabilities of enhancement. Digital _____ payments signifies easypaisa an encouraging opportunity for branchless banking players to generate importance for their customers. mabicash Easypaisa, زبانكايكا Mobicash and Upaisa have created both frontend and back-end paisa payment products: these are in the trial period.

Pakistan's digital commerce market is still in its initial stages, but in the upcoming years it could show a more significant role in the growth of digital commerce. Mobile operators are playing a remarkable role in boosting both digital access and digital payments. To completely realize

By Asma Baloch

the opening of digital commerce in Pakistan, the priority is to increase digital accounts and digital payments.

Digital payments signifies an encouraging opportunity for branchless banking players to generate importance for their customers

Although digital commerce is all set to flourish in Pakistan, there is great possibility for government payments to be digitized. For this purpose the cost of delivery and rate of use of branchless banking should become better. GSMA also recommends that fintech companies should team up with branchless banking operators to make products which target different parts of the population.

With amplified assistance there is a huge potential for the growth of the industry (Shophive. in the country.

Many idealistic local players such as Shophive, Homeshopping, ROZEE, Just4girls.pk, and

Pakwheels, as HOME SHOPPING well as foreign financiers such as Rocket Internet

with their assorted online initiatives

Tripda, and Foodpanda, are all trying to build up their market share to evolve GirlSpk digital commerce

such as Jovago,

have

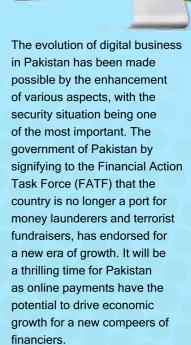
industry of Pakistan. In Pakistan all these businesses

PAKWHEELS.COM developed despite

of all the obstacles such as misunderstanding and distrust of digital commerce, security

concerns ROCKETINTERNET about online transactions, less access to

technology, low literacy rates, and inadequate infrastructure and logistical support.



Many idealistic local players such as Shophive. Homeshopping, ROZEE, Just4girls.pk, and Pakwheels, as well as foreign financiers such as Rocket Internet with their assorted online initiatives such as Jovago, Tripda, and Foodpanda, are all trying to make their market share in the evolving digital commerce industry of Pakistan

To impel this promising industry in the right direction, a multipronged approach is required, particularly to strengthen both the supplier and the buyer sectors. To make this possible, a mixture of stakeholders needs to come together to confirm the

following things: supplier- and buyer-protection; standardization of a simple five-click facility for merchant on-boarding; formation of attentiveness among consumers and merchants; and the consolidation of platforms for payment and sharing.

FEATURE

With an e-commerce potential of \$10 billion. Pakistan at present is on the radar of aiants like Amazon, Flipkart and Souk. PayPal and eBay may also start working in Pakistan

With an e-commerce potential of \$10 billion, Pakistan at present is on the radar of giants amazon like Amazon, Flipkart and Souk. PayPal **flipkart** and eBay may also start working in Pakistan. Innumerable other local and home operated business have also PayPal succeeded through Facebook pages as a result of fast penetration of the internet and smartphones.

Taking everything in to account, it indicates that the market and timing both are appropriate for growth of digital commerce in Pakistan. Regardless of the few interruptions, the industry is all set to generate substantial waves in the country, with vast scope for modernization and enhancement as well as exponential long-term growth.

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HUAWEI Nexus 6P The Best Nexus Ever

or its latest phone, Google has this time partnered with Huawei to produce Nexus 6P. The partnership is odd as Huawei's home market China doesn't support Google services bus still Huawei has managed to make one of the greatest Nexus phone ever.

Google Nexus 6P design and build quality

6P is the first all metal handset in the Nexus series with a premium design. It's made of CNC-machined "aeronautical-grade aluminium" which is quite nice. It's the same size as an iPhone 6S Plus but weighs 20g less. There is a glass window at the top back of the device, which protrudes slightly and houses the camera lens, laser auto-focus and flash, and also provides a window for the NFC and antenna. It serves a purpose, but aesthetically, it's the strangest part of the Nexus 6P design. Above the logo is the new fingerprint scanner, lined by a shiny circle.

Like the first Nexus 6, the new Nexus 6P has rather large bezel areas at the top and bottom of the screen. The reason for this is that the Nexus 6P has stereo front-facing speakers. While not everyone will appreciate the large bezels, they are sure to appreciate the sound coming from these speakers.

Display

The Nexus 6P's huge 5.7-inch display doesn't let the side down either. Its 2K (2560 x 1440) 16:9

AMOLED panel is among the best around with rich but accurate colors, deep blacks and wide viewing angles. The Nexus 6P's display is practical too. It uses Gorilla Glass 4 and there's an oleophobic finish which is one of the best at resisting fingerprint smudges and oil buildup. The pixel density of about 518 pixels per inch, so it's no surprise, then, that text and detailed photos appear incredibly crisp.

Camera

With the Nexus 6P, we get a 12.3MP Sony sensor on the rear camera and an 8MP front camera. The pixel size is at 1.55 microns on the rear sensor and 1.4 microns on the front camera. The rear camera is capable of shooting 4K videos at 30fps. In general, the 6P is a strong performer when there's plenty



of light but in low light shooting results are also quite better than a lot of the phone cameras. The camera has a good automatic shooter, and fast, even when shooting in HDR+ mode, with the processing being done in the background in the Gallery app.

Processor

The 6P is powered by Qualcomm's Snapdragon 810 SoC. This is a big with a quad-core ARM Cortex A57 cluster at 1.95GHz serving as the high-performance cluster and a quad-core Cortex A53 cluster running at 1.55GHz serving as the high-efficiency cluster. Graphics are powered by Qualcomm's own Adreno 430 GPU which should be plenty to serve the 1440p screen of the Nexus 6P.

Battery

Despite being a physically smaller device, the Nexus 6P packs a more capacious battery than last year's Nexus 6. In day-to-day use, the Nexus 6P routinely can last through 13-hour workdays with around 30 percent left in the tank. The inclusion of USB Type-C means the Nexus 6P can also act as an external battery for devices with the same power port. This will be an absolutely incredible feature once we get more phones with Type-C ports.



For the benchmarking of 6P, we used two benchmarking apps Vellamo and Antutu that gave the scores that tells us where the device stand with comparison to other devices.

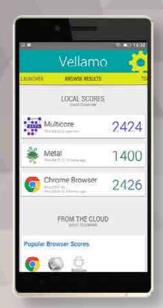
Vellamo

When we benchmarked Huawei 6P using vellamo, the result we got were better than Samsung Galaxy S6 which is a great achievement for 6P.Huawei 6P got 5294 points while Samsung S6 got 3589 as shown in the screen shot. Similarly we got the very impressive results for Metal and multi core as well.

Scores for Browser: 5294

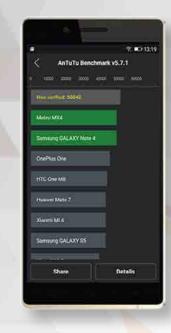
Scores for Metal: 2354

Scores for Multi core: 2030



Antutu

Antutu is another app widely used for smartphone benchmarking that also provide detailed information about the device. By using Antutu and we got approximately 79 thousands scores for our Nexus 6P that is comparatively a good score. Huawei 6P stands above Nexus 6 which shows improved performance in Nexus series. You can see Antutu result in the screenshots.



- Camera: 12.3 MP, laser

autofocus, dual-LED Flash

Memory: 32/64/128 GB, 3 GB RAM



O Price: 72999

Good

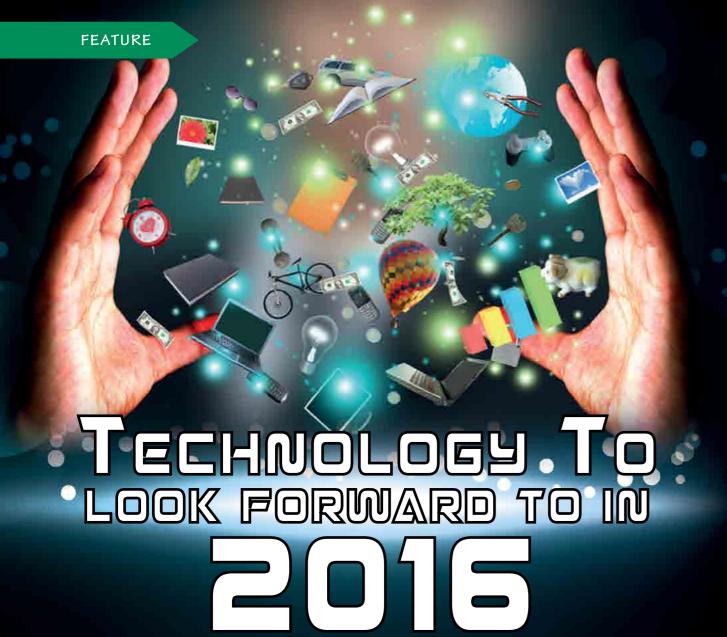
- One of the first two Android 6.0 phones
- Quality of speakers
- Excellent screen experience
- Fast and accurate fingerprint scanner
- Doze mode and battery saving mode

Bad

- Does not have wireless charging
- Fairly large bezels on the front

Final Verdict

All in all the Nexus 6P is a very solid device and Google made a good choice in sizing down to 5.7" to try to attract a wider user-base who maybe wasn't so convinced by the Nexus 6's very large size. The Nexus 6P is a highend phone, while offering a premium experience under the hood, including a camera that finally does justice to the flagship line. If you do want Android in its purest state, either of the two 2015 Nexus smartphones will do, but when looking for a highend experience, the Nexus 6P takes the crown.



015 has been a tremendous year for ICT across the globe with some of the leading tech companies unveiling their greatest flagship devices. There are number of new technology gadgets due this year as well. We have compiled our list of the coolest and greatest gadgets that will bring massive changes in the industry so everyone should look

Organic Light Emitting Diodes (OLED)

Over the years LCD got replaced by LED as the technology advanced and devices required more clear and effective display, consuming minimum energy resources to increase the battery

time. Now another improvement in technology is surfacing as traditional LCDs. And LEDs will be replaced by OLED.

OLED is better than LCDs and LEDs as it uses less power than traditional LCDs and still allows a sharper, thinner and brighter display

OLED is better than LCDs and LEDs as it uses less power than traditional LCDs and still allows a sharper, thinner and brighter display. An OLED screen can achieve a higher contrast ratio than an LCD. The reason is that OLED does not require the backlight.

Features of OLED:

- Lower Cost
- Lightweight
- Wider viewing angle
- Improved brightness
- Power Efficient

Wireless Charging for

Concept of wireless charging is not just a concept now. Smartphones are already being wirelessly charged but now laptops can get the taste. Intel has announced wireless charging laptops that will be made available in 2016. Cablefree desk is the new technology giving user the ease and comfort to charge laptop by just placing it on the charging deck. More interesting

invention will be the tables with built-in charging deck. 20 watt power will be available for charging a laptop which is four times more power provided by a charging deck/ mat currently available.

Ultrafast Charging Batteries

Smartphones will be fully charged within seconds. Ultra-fast charging batteries will make users able to charge battery form 0 to 100 within seconds.

tables with builtin charging deck. 20 watt power will be available for charging a laptop which is four times more power provided by a charging deck/mat currently available

Ultra-fast charging batteries will be available for the high end smartphones. Now the charging time can be reduced from hours to minutes and even seconds.

Modular Smartphones

Have you replaced your phone just because its camera was not working or may be the RAM was not as much as you needed? Now you won't need to do it because now you will be able to replace a module rather than replacing the whole smartphone.

User will have the option to replace a hardware module or may be upgrade device with better processor and higher memory availability.

Location Sensing

"Location Sensing" is an upcoming technology of 2016 that recognizes an individual's location within a few meters, it is a key enabler of the delivery of highly relevant contextual information and

services.

"Location Sensina" recognizes an individual's location within a few meters, it is a key enabler of the delivery of highly relevant contextual information and services

Apps influence indoor activity using Wi-Fi, imaging, ultrasonic beacons and geo magnetics. These applications will combine with mobile apps and will provide extremely personalized services and information. In the long term technologies such as smart lightening will also become important. This application manipulating precise indoor location.

Self-Driving Cars

Self-Driving cars a popular concept that is in limelight for few years now. Cars manufacturers have gone to an extra length to bring this fast-evolving field, ranging from hybrid autos to rearview cameras and voice-controlled in vehicle entertainment systems. These fast moving technologies will surprise everyone in this year in auto industry. So keep an eye on automobile industry to get the latest buzz because let's face it: even the best drivers can have an off day.

Biometric Tattoos

Chaotic Moon Studios researchers have created an innovative tattoo kit, which helps in observing individuals own body activity without any interference. Inking data gatherers on your skin might become the next step in wearable technology, letting them to acquire health and other biometric information from the body without any pause. While the tech is

still in a prototype stage, the possibilities of having cyborg-like augmentations without the need for invasive surgery, as well as being removable when one feels like going off the grid, are vast and exciting.

Qualcomm 600 and 800 Series Processors

Qualcomm has just announced their next generation of mobile processors, the Snapdragon 800 and 600 series. Snapdragon 600 includes two of Qualcomm's newest Krait 300 cores, clocked at 1.9GHz. The GPU is the Adreno 320 with an increased clock speed compared to the one in the S4. The Snapdragon 600 is aimed at mid-range mobile devices. Qualcomm new Snapdragon 800 is running four of the latest Krait 400 CPU cores clocked at an incredible 2.3GHz, along with a brand new Adreno 330 GPU, which is said to be 50 percent faster than the Adreno 320. Snapdragon 800 is also capable of encoding/deciding 4K content at 30fps.

Inking data accumulators on your skin might become the next step in wearable technology, letting them to acquire health and other biometric information from the body without any pause

Other features include integrated 9×25 3rd generations LTE baseband, integrated 802.11ac baseband and 2x32bit LP-DDR3 at 800MHz memory with 12.8GB/s bandwidth. Both the Snapdragon 800 and 600 are based on TSMC's 28nm process. The Snapdragon 800 and 600 are expected to arrive by the middle of the year.

FEATURE FEATURE



A Pack of Style, Grace and Class

The Broadband users in Pakistan have risen from 3.7 million in 2014 to 24.8 million in 2015. Out of this, 18.04 million are 3G and 4G users. According to statistic, the percentage of smartphone buyers was recorded as 52.7% by end of 2015.

This huge increase in 3G/4G user in very short time period has triggered the purchase of Smartphones. An increasing number of people are tend to use high end smart phones like iphone, Samsung and Huawei. The existing tetra combination of Camera, battery, screen size and processor is all set to be changed in penta combination with the edition of touch unlock feature. This is something that is getting famous around consumers of Pakistan but those available with finger scanner unlock are not under affordable prices.

The time has come when all of the above gaps would soon get fulfilled. Lenovo backed smartphone with a brand name of "Zuk" is all set to launch in Pakistan. The model Z1 of Zuk would give very tough time to Qmobile, Huawei and Samsung. Because the price at which is coming with marvellous specifications is not possible for these competitors to easily compete. Under such specifications, the available brands are above atleast Rs.45000. Zuk is all set to launch in thirties range. This is the time when consumer start preferring to buy new handset instead of buying a used iphone or high end Samsung models.

Lenovo backed Zuk Z1 was launched back in August in global markets, which received 3 million in pre order sales in just three months. Within a very short period, Zuk has been popular among many global markets, including WesternEurope, Middle East, Russia and Southeast Asia. Selling massively in Middle East, Zuk all set to give the toughest time to current players and utmost benefits to the consumers in mind-blowing price.

Designed for on-the-go power users, the ZUK Z1 comes preloaded with Cyanogen OS 12.1. Optimized for performance and equipped with the latest high-end hardware, the ZUK Z1 features a Snapdragon 801 processor, 3GB of RAM, and 64GB storage. The ZUK Z1 is known as the most cost-effective, high-performance phone in the market.

Other standout features of the Z1 include the latest fingerprint sensor technology — FPC's touch fingerprint sensor FPC1155. This sensor supports 360-degree finger rotation capability and provides fast response time. The ZUK Z1 is the world's first mobile phone that supports the USB 3.0 standard Type-C. The 3.0 standard enables 5Gbps data transmission —10x's faster than USB 2.0.

in addition, the ZUK ZI:

- Comes with the larger density Stack & Folding structure 4100mAh battery.
- Charging quickly, supports USB OTG and enables recharging of other phones.
- Is equipped with an IPS1080P display and 100% NTSC high color saturation, assuring a high level of clarity and an excellent visual experience.





Regarding the camera, the ZUK Z1 comes with a 13 megapixel rear camera featuring Largent lenses and a professional OIS optical image stabilization system.

After 2,400 hours of painstaking tuning, the camera is ready for use in 0.5 seconds. The 8 megapixel front camera and the newly designed facial beautification optimization feature can bring out the best in any image.

Regarding sound, the ZUK Z1 comes with Dirac's latest sound optimization solution for small speakers. This maximizes the potential of a small transducer to reproduce the best sound quality possible at the highest volume with minimum distortion.

For ZUK, of all the elements that go into the design, the feel of a phone in the user's hands is the most important. The Z1's central metal frame is made of aviation aluminium alloy, uses 16 different CNC programs, and involves 209 processes. The phone is sturdy, while a complex sand blasting process gives it a delicate touch.



From a software experience, Cyanogen OS delivers a number of advanced features across camera, audio, dialler, email and calendar. New in Cyanogen OS 12.1, Live Display intelligently adjusts the brightness and contrast of the screen. Cyanogen also introduces a new browser, delivering search results faster and more securely than leading browsers.

So in short getting a smartphone in thirties with a 5.5-inch screen with a 1080p resolution and 401ppi, Qualcomm 801 processor with Cyanogen OS based on Android 5.1.1.,3GB of RAM and 64GB of storage space 4100mAh battery. Dual SIM capabilities, an aluminium frame, fingerprint sensor integrated into the home button and cameras of 13MP and 8MP is something that is already making consumers exciting.



ZUK CEO Chang Cheng

In Pakistan a new coming online E-commerce platform-cheezmall (also has a China operation background) announce that they get the exclusive authorization for the Zuk launch. They claim to present the market a complete online and offline sales model. This is totally a new trend and revolution to the market, according to the reliable news, Cheezmall is planning to sell the Z1 even with a free smart watch under limited time and quantity, which will be really a good news to the consumer at one hand, and at the other there might be a lot of consumer need to wait for even longer time to purchase it.

While let's see this 21 phone and new cheezmall.com sales model could bring to us, we could soon find out the answer in the late Jan.

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PHONE EXPRESS

Phone Store With Official Warranty

Display: 5"

RAM

Huawei Nexus 6P





OS: Android, v6.0 (Marshmallow) Chipset: Qualcomm MSM8994 Snapdragon 810 CPU: Quad-core 2.0 GHz Camera: 12.3 MP, f/2.0, laser autofocus, dual-LED Memory: 32/64/128 GB ROM, 3 GB RAM

Rivo PZ20



QMobile Noir LT700

OS: Android v5.1 (Lollipop) Display: 5" FHD AMOLED CPU: Octa Core 1.7 GHz Camera: 13 MP, LED flash,

OS: Android, V5.0 (Lollipop)

CPU: Quad core 1.3 GHz

Camera: 8 MP, LED Flash,

Memory: 16GB ROM, 1GB

Auto Focus

Memory: 16 GB, 2 GB RAM

GFive President G10



Display: 5" CPU: 1.5 GHz Quad-core Camera: 8MP, Autofocus, LED Flash

OS: Android 4.2 (Jelly Bean)

Memory: 16 GB ROM, 1 GB

RAM

Haier Esteem V4



OS: Android v5.1 (Lollipop) Display: 5.5" CPU: Octa-core 1.3 GHz

Camera: 13 MP

Memory: 16 GB, 2 GB RAM

Huawei Honor 7i



OS: Android v5.1.1 (Lollipop) Chipset: Qualcomm Snapdragon 616 CPU:Quad-core 1.7 GHz & quad-core 1.2 GHz Camera: 13MP, Autofocus, dual-LED (dual tone) flash Memory: 16/32 GB ROM, 2/3 GB RAM

QMobile Noir X34



OS: Android v4.4 (KitKat) Display: 4" CPU: Dual core 1.0 GHz Camera: 5 MP LED Flash Memory: 4 GB, 512 MB RAM

Huawei Mate 8



OS: Android, v6.0 (Marshmallow) Chipset: HiSilicon Kirin 950 CPU: Quad-core 2.3 GHz + quad-core 1.8 GHz Camera: 16 MP, dual-LED (dual

tone) flash

Memory: 32/64 GB ROM, 3/4 GB

RAM

Mobilink Jazz Xplore JS700



OS: Android 4.4 (Kit Kat) Display: 5" CPU: Dual-Core 1.2 GHz Camera: 5 MP LED Flash

Memory: 8 GB ROM, 1 GB

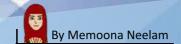
RAM

Rivo RX200



OS: Android v5.0 (Lollipop) Display: 5" HD IPS CPU: Quad-core 1.3 GHz Camera: 8 MP

Memory: 16 GB, 1 GB RAM



'Five LTE 3 is a third phone in the LTE series that is surprisingly low priced handset. G'Five LTE 3 is a CAT 4 handset that means it supports 150 Mbps download speed and 50 Mbps upload speed. G'Five LTE 3 has amazingly sharp looks.

G'Five LTE 3 is launched in partnership with Warid telecom, so it gives you warranty of 15 months and 2GB LTE data for 12 months. If you are a Warid user then you have an opportunity to register yourself with the handset portal and get 2 GB data free for 12 months.

Design

G'Five LTE 3 is a slender, slim and sleek device with neat design. G'Five LTE 3 back cover is made of Poly carbonate plastic and gorilla glass protection with 5 finger multi touch screen. On the front side of G'Five there is a 2 MP front camera, a sensor and a speaker that gives you a quality voice during your calls.

Display and GPU

G'Five LTE 3 has 5.0 inches Gorilla glass screen with 720 x 1280 pixels , $144.3 \times 72.2 \times 8.5$ mm dimensions with 293 pixels per inch. G'Five LTE 3 comes with Mali-T20 GPU that gives quality graphics result.

Memory

G'Five LTE 3 has 1 GB of RAM and 8 GB of ROM with expandable memory up to 32 GB.
Although the RAM is somehow low but still it has ability of multi-tasking.

Camera

G'Five LTE 3 has 8 MP rear cameras while 2MP front camera. Both cameras have different features like Geo tagging, face detection etc. Motion Track Mode is another mode of the camera that gives you availability to capture better quality images easily. The camera also has Panorama shot mode that captures the image in different angles.

Pros

- G'Five LTE 3 is a Low Priced handset with 4G connectivity
- G'Five LTE 3 has Removable Battery
- Selfie stick

Final Verdict

G'FIVE LTE 3



Processor

G'Five LTE 3 is released with MediaTek 7635M processor with 1.0 GHz Quad-core that gives it availability to run different apps at the same time without affecting the speed of the device.

G'Five LTE 3 comes with latest Android 5.1 (Lollipop). The combo of 1.0 G Quad core and 5.1 OS gives users an advantage of multi-tasking as well and speed.

Battery

G'Five LTE 3 has 2200mAh battery with talk time of up to 12 hours.

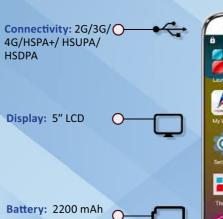
Connectivity

G'Five LTE 3 is a 4G LTE phone which is its key feature.

Cons

- 1 GB RAM 8GB ROM not sufficient for a smartphone that runs on latest Android 5.1 (Lollipop)
- G'Five LTE 3's back cover is made up of Plastic material

If you wants a smartphone with 4G network connectivity, good camera and amazing performance at an affordable price then GFive LTE 3 is a definitely a good option.





Camera: 8 MP LED Flash Rear, 2 MP Front

Memory: 1 GB RAM, 8 GB ROM





Benchmarking

Vellamo

Weight: 140 g

Vellamo is one of the Qualcomm owned application that separately shows the power of the browser, single core and multiple core performance of a smartphone. A Score of 828 for its single core is a good total despite frequency power of just 1GHz. The total score of its combined cores is 1268 which is also a good total, although browser score is a bit low and this may just be because of the low memory of 1GB and the 1GHz Quad core processor.



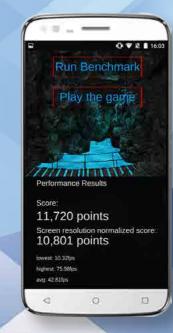
Antutu

GFive LTE 3 has 1GHz
Quad core processor and
there is just 1GB RAM and
8GB ROM. With these
specifications, expected
score is around 15 thousands
with Antutu benchmarking
application but GFive LTE 3
scored over 20 thousands,
which is a good total and
shows performance and
stability of GFive LTE 3.



GPU

The total score for GPU testing of GFive LTE 3 is almost similar to the score obtained by Huawei P8 LITE which was priced at 25,000 PKR. The screen resolution normalization score is over 10 thousands which is quite impressive and is even better than the display of Huawei P8 LITE.



TELECOM CAMPAIGNS

CAMPA GNS

Samsung Galaxy J1 Ace; Click Har Moment

Now a days advertising campaigns can only be made more effective if you hire a classy star. Ali Zafar, one of the Asia's most handsome man, became the new face of Samsung to introduce it's Galaxy J series in Pakistan. The rockstar no wonder did justice to the advertisement through his stunning performance. The eye-catching rock star feel and funny script of the ad has made it more lively and energetic for the viewers. The message is conveyed in an exciting and attractive way.

Verdict: Samsung & Ali Zafar rocked it....!!!



3G Song

Ufone 3G Song TVC is basically a beautiful song sung by stunning Shehzad Roy to celebrate the 3G network of Ufone. Along with the scenic beauty, it was the casting that warmed my heart. Shehzad Roy's voice and Faisal Qureshi's hilarious performance has added more fun to the ad. On social media, the ad has been criticized for being same as its last 10 year celebration song but we have found it interesting as the idea of campaign is unique.

Verdict: Smart Campaign !!!!



Telenor Talkshalk 3 Din Sahulat Offer

Mainstream marketers need to embrace new ways of marketing in order to become more efficient and effective. Same advise goes for Telenor as it failed to attract good reviews from viewers for its recently on-aired campaign of "Telenor Talkshalk 3 Din Sahulat Offer". Nothing went wrong with the cast performance but the creativity factor was missing. The rest of campaign was so so, there was no major highlight or catchy factor about this advert.

ict: Needs to be more Focused next Time..!!

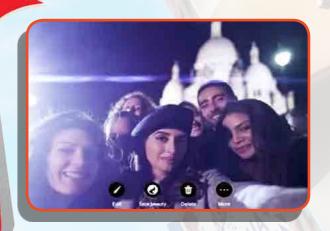


he advertising campaigns play a vital role in promoting a brand/product. A truly memorable campaign creates a visceral response – but one bad campaign can ruin it all. PhoneWorld keeps a close eye on the latest ad releases in telecom industry. Here is a critical review of the latest telecom campaigns.

QMobile Noir \$2; the Glamourous Phone

Paris the "City of Lights,, and stunning Emaan Ali in QMobile Noir S2 TVC made good combo on screen. Like always, the campaign is a creative attempt by Aemna Khan who put great efforts in doing justice to the campaign. Environment, performance, and music went smoothly in the ad while focus remained on the specifications of Noir S2.

Verdict: Glamourous Phone, Glamourous



Djuice: Data Hamesha on Rakh

Telenor as compared to the other operators usually releases less TVCs but when it comes to promoting it's campaigns; it works awesomely. This time Djuice "the brand of youth, has brought,, Djuice Always ON Plan TVC" that presented internet offer that will always provide you with high internet speed at an affordable price of just Rs. 2. The message is well conveyed by the young actors, the advert is lively and exciting. The TVC is a smart and effective and successfully reaches out to it's target audience.

Verdict: Simple yet Effective TVC



Aik Taar, Faiday Beshumar

This TVC is not an effective ad released by PTCL as it is on-aired on unfavorable time. PTCL internet services are quite disappointing these days and releasing such a campaign has only infuriated PTCL users. No famous cast or anything unique has been done in the overall script of ad. Being the only state owned telecommunication company; PTCL must provide good services and advertise creative campaigns that could fascinate the attention of viewers.

erdict: Really needs to Work Hard...!!!



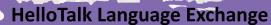


TOP MUST HAVE APPLICATIONS

FOR LOUR SMARTPHONE



Added call action in venue list, swipe right to left to directly make a call. Added inbuilt map, swipe venue left to right to view location & floating action putton to show all discounts on map of any particular category. Bug fixes and performance improvements.



The 1st Language Exchange Social Networking App in the world. Finally, learning and practicing a new language is easier and more intuitive than ever - Choose to learn from over 100 languages

Native speakers from around the world are your teachers

HelloTalk's intuitive tools provide an experience that's never made it easier to learn and practice a new language





Rating: 4.2 Price: Free

Order a rickshaw (TUK TUK) at your doorstep. Right now only available

Booking.com Hotel Reservations

The best thing about the Booking.com app? Instant confirmation, paperless check-in and offline maps, every time you book accommodation.



Smoke Cost Calculator

Would you like to know how much money you spend on smoking? Here is the most complete tool for you. Using this app you can calculate your smoking cost. It displays the money you

would spend if you keep smoking and help you quit smoking.

With Two simple steps to find out how much it costs you or how much you will

be saving as a non smoker.

APPNEH

Easy Sauda

The Easy Sauda app will take the misery out of your daily grocery. Delivery is absolutely FREE for orders equal to or greater that Rs. 300* and your groceries will be at your door within 45 minutes of placing your order! urrently, services are limited to Sectors E-11 and F-11 in Islamabad, Pakistan



Bill Calculator

APPNEM

This is a simple app that calculates the electricity bill of the user. User have to enter the previous reading and the current reading of the meter and cost per unit. The app will calculate and display the bill.



Valentine Love Calculator

Rating: 3.6 Price: Free



Advanced Application for Calculating Perfect Love Match! Wondering whether your class mate could ever become more than a friend! Check your real compatibility and precisely move forward...

B612 - Selfie from the heart

B612 has won the Red Dot "Best of the Best" 2015 Award! it is perfect for

taking selfies anytime, anywhere.
Designed as the ultimate selfie app, B612 is loaded with fun and fresh features you won't find anywhere else.





KP Citizen's Portal v1.2

Rating: 4.6 Price: Free

Rating: 4.2 Price: Rs 226



The Citizen's Portal is a step forward towards establishing responsive governance in the province. This android based application allows the citizens to register their complaints about multiple sectors of service delivery. These complaints are automatically forwarded to the concenrned Deputy Commissioner for appropriate remedial actions.

HomeShopping

Rating: 3.9 Price: Free

Homeshopping.pk: Pioneer in e-commerce industry, we stand exceptional in offering electronic products under one roof with best prices and availability. We strive hard in providing you with services at door step for your purchases of Mobiles, Cameras, Electronics, Watches, Fashion and Many More



FRAMED



Winner of over 25 Awards.

FRAMED is a multi-award winning noir-puzzle game where you re-arrange panels of animated comic book to change the outcome of the story. Featuring a fusion of all-new game mechanics & fiendish puzzles, FRAMED has received many design awards as well as being an ,Excellence in Design' finalist in the IGF 2015. Simply grab comic panels and swap them with a touch of your finger!

Fancy Picture Puzzle

Fancy Picture Puzzle game for everyone! Colorful pictures and sketches, Timer to track your time duration of level completion, Move Counter, Ten level puzzle game to challenge your brain, Build-in beautiful, high-definition images puzzles, Level selection of your choice. Keywords: Picture Puzzle, Game, High-Definition images puzzle, Brain Test



Rating: 4.8 Price: Free



One of The Most Successful **Entrepreneur of Our Times** Jack Ma

ack Ma is one of the world's greatest living examples of entrepreneurship today. Once a poor lad who survived by guiding tourists. Ma left no stone unturned to rise above his humble condition and achieve success. One of the first steps he took in this regard was to improve his communication skills by learning English. Jack was one of the first few individuals who saw Internet as a business opportunity even at a time when the rest of the world didn't believe in his thoughts. After starting his first venture using a mere \$20000, the entrepreneur earned around \$800,000 in a matter of just three years. However, it is the e-commerce based venture, 'Alibaba', which he founded in the early 2000s that catapulted this entrepreneur to global fame. The revenue earned by the firm has helped him reach the zenith of success and made him the richest man in China. He even co-founded a few other similar ventures which were also successful to a great extent; one of these was the e-commerce website called 'Taobao'.

I'm not a tech guy. I'm looking at the technology with the eyes of my customers, normal people's eyes - Jack Ma

Today, Alibaba is an e-commerce colossus that is roughly the equivalent of eBay, PayPal, and Amazon.com combined. Lately it filed for an initial public offering that could be the largest in U.S. history

China Central Television had mentioned Jack in its 'Top 10 Business Leaders of the Year' list. compiled for the year 2004. He was named the 'Businessperson of the Year' by the 'Business Week' magazine and also featured in the list of '25 Most Powerful Businesspeople in Asia', in 2005. He is also in Forbes "7 Richest in Tech" list



of 2015 and number 33 in billionaire list of 2015. 2009 was an eventful year in Jack's life; he secured a spot in 'Time' magazine's list of 'World's 100 Most Influential People'. The internet giant also received the '2009 CCTV Economic Person of the Year: Business Leader of the Decade Award'.

The world-renowned 'Forbes' magazine had named him as the 30th most powerful person in the world during 2014 and on Forbe's 2015 list of "7 Richest in Tech".

At the 'Asian Awards' ceremony held in 2015, he was felicitated with the 'Entrepreneur of the year'

#2 in China, #30 **Powerful People** (2014), #1 China Rich List (2014)





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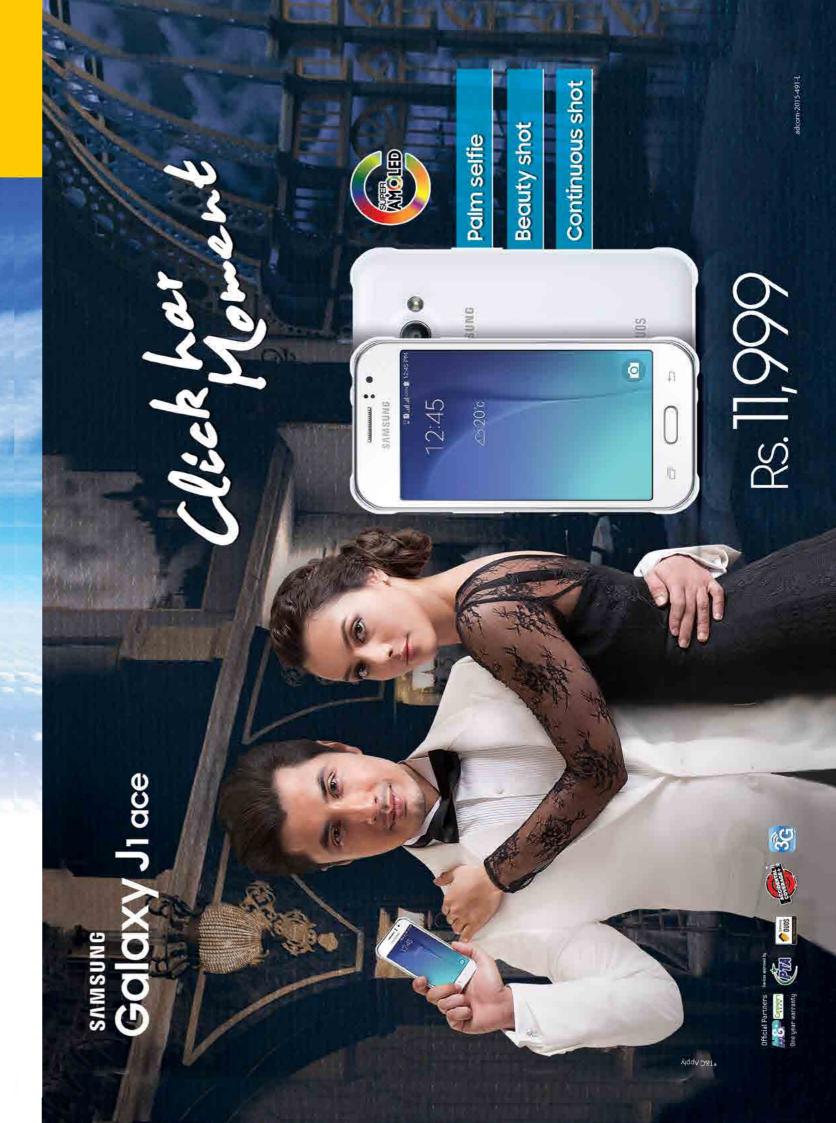
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2 MP Front Camera



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3G Enabled





