

Promoting universal access on ICT in the Kingdom of Bahrain

The concept of universal access/service is experiencing a transition from traditional basic telephone line access, to data capability line access, towards broadband access, driven by the increasing utility of computers and technology in general. Unless demand for basic technology and computers is high, the requirements for more sophisticated access is limited.

Ultimately, the objective is creating the right balance between affordability and sustainability and between cross-subsidy and cost-orientation. This challenge is usually defined by the following three factors:

- Availability
- Accessibility
- Affordability

Unfortunately these factors are all inter-related, whereby in the absence of high GDP per capita, although there maybe the propensity for the use of ICT, it lacks affordability, and without the demand there will not be the market pressure required to enable the investment decisions to be made to allow the infrastructure to be developed. This is ultimately the challenge of demand pull and supply push issues.

Examples of supply-side measures for extending Universal Access include:

- Market liberalization - e.g. allowing new suppliers to enter market, liberalising equipment markets, giving financial autonomy to PTO, encouraging foreign investment, offering Build/Transfer/Operate concessions. In countries where a larger number of operators exist, there is usually a competitive market, resulting in lower prices and higher penetration rates (within the scope of the country's wealth);
- Payphone liberalization - e.g. permitting private installation and ownership of payphones, community telephone shops, telecentres;
- Technical solutions - e.g. Mobile cellular, Wireless Local Loop, GMPCS, combined cable TV/telephony

Examples of possible demand-side approaches for extending Universal Access include:

- Universal service fund - targeted assistance for special needs (e.g. rural areas, disabled), but this may create an unnecessary administrative burden;
- Direct financial assistance to users - targeted assistance using non-telecom-specific criteria, but it may be difficult to control abuses;
- Community-wide initiatives - e.g. Payphone in every village, community

International evidence suggests there is a relationship between the GDP of a country and the combined teledensity within that country. The relationship implies that those countries that have higher GDP will also have higher teledensity. However the causality within this relationship is unclear. In many cases, investment in the ICT and telecoms sector and infrastructure can foster a higher value economy, which serves to improve the economic performance of an economy and leads to higher GDP over time.

Recently, the availability and adoption of alternative technologies, such as mobile cellular, has demonstrated that they are less dependent on underlying factors of affordability, such as GDP, and as such an opportunity presents itself to break away from the cycle discussed above.

The factors contributing to low penetration of services are usually threefold:

- Low penetration of PCs within the country and the consequent impact on lower penetration of other supply chain services;
- Concentration of market share in a monopoly operator or even 2/3 service providers can limit price competition;
- Limited use of the technology within businesses tends to undermine the diffusion of knowledge from business to consumers

The factors described above, help determine the policy drivers in Bahrain:

1. Affordable availability of PCs and other higher technology products, including the establishment of academic networks and computers in schools, and PC networks for the public sector
2. Market liberalization of technology neutral solutions that aim to create sustainable competition and allow the breakout from the service affordability cycle
3. Managed transition from monopoly to competition, which seeks to balance the interests of disadvantaged families in gaining affordable access with the requirement for adequate investment returns for businesses and entrepreneurs
4. Training and education including higher standards of literacy, and the policies that allow for the diffusion of knowledge from business to consumers
5. Creation and maintenance of locally relevant content and applications that are relevant for local markets, but at the same time, investment in international connectivity, to enable wider access to global knowledge and capability.