

# Chapter 61

## Innovation in Financing Mechanism of Information and Communication Technology (ICT)

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### ABSTRACT

*This research work presents a conceptual framework used for analyzing financing mechanism for ICT projects. The focus is on developing countries with a focus on bridging digital divide and using ICT services for economic development. This is an effort in achieving millennium development goals, and the conventional financing mechanism of international organizations has been summarized. The aim is to increase the effectiveness of investment, and for the same purpose, a number of new financing mechanisms are devised by funding organization/agencies. These innovative mechanisms have been summarized with special focus on advantages and disadvantages. The graphic illustrations help in understanding fund flow in financing mechanism. These innovative mechanisms are further explained with the help of cases. A number of innovative financing mechanisms have been presented, which can be adopted for ICT projects in developing countries.*

### 1. INTRODUCTION

Innovation in information and communication technology (ICT) is synonym to revolution in society for its development. It has wide implications to the social and economic aspects of a nation. Many

of emerging economies are also facing problem of digital division on the basis of accessibility of ICT. In spite of this division of society, it has also emerged as proven tool to integrate society into main economic stream provided it is made accessible to unprivileged section of society. Accessibility depends upon two factors i.e. expansion

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of infrastructure (network) and availability of ICT service at affordable price to bottom of pyramid (BOP) of nation. These two factors need high level of resources to be allocated, which is not possible for emerging nations with limited resources and commitments to other objectives. Besides limited resource, sustainability is also important for development of economy. In emerging economies, traditional methods of resource allocation are not able to provide sufficient resources and there is need to bring innovation in financing mechanism of ICT. The proposed book chapter is focused on this issue.

ICT sectors in many developing economies has been opened and it been observed that free market approach of ICT has seen improvement in the quality of services. The people having access to ICT are being benefited by such development in government policy. There is also another section of people, who remain unaffected if they are not getting access to the same. Many of them cannot afford to access ICT and for many of them it is not accessible due to limited reach of technologies in remote areas. This digital division is obvious in underdeveloped and emerging economies. Such economies are struggling with the problem of poverty and sustainable growth. Poverty reduction and ensuring sustainability of development have been set on priority of their agenda. These two objectives can be achieved integrating poor and rural citizens with the mainstream of nation's economy. The multiple purpose use of information and communication technology (ICT) has potential to serve the interest of nation in this regard. Therefore, ICT can be used as development enabler by government, provided access is provided to these people. It appears to be simple solution but these nations are facing problem of shortage of funds to implement their plan of extending ICT infrastructure and service due to limited resources and other commitments. The conventional financing models are not suitable within limited resources and there is need of innovation in designing financing mechanisms. This

funding problem has been realized by international bodies like the World Bank, UNEP, ADB, IMF etc. and a number of different financing mechanisms have been implemented by these organizations in underdeveloped and developing economies. Now days it became an issue of concern to increase ICT access by reducing the financing burden of government, which needs innovation in financing mechanism. Financing mechanism for ICT can be divided into two broader categories i.e. for development of ICTs or to expand ICTs. Objective of this chapter is focused on expansion of ICTs to provide access to rural and poor people.

The process of ICT financing can be broadly divided into three categories i.e. providing infrastructure, providing access and developing contents & applications through capacity building. A number of plans have been implemented for these financing with different financing mechanism. It will be interesting to compare various features of these financing mechanisms and analyze their implications based on macroeconomic indicators of concerned economy. Different financing mechanisms will be analyzed and observation will be generalized in the form of metrics to finding out suitability of financing mechanism for different economy on the basis of macroeconomic indicators.

With the above mentioned objective, this study will be conducted into three stages. In the first stage, we will conduct comparative study of policies for financial mechanism of international organizations i.e. World Bank, UNDP, ADB, AfDB etc. will be analyzed and features will be summarized. The focus will be on the innovations in the mechanism, advantages, disadvantages and their implication for three types of economies i.e. developed, developing and underdeveloped. The second phase of study will be based on different types of innovative financing mechanisms for ICTs, implemented in various economies. Many of these financing mechanisms have used international resources. So, it will be interesting to assess the contribution of international resources and

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