EFFECT OF UISC ON BANGLADESHI KNOWLEDGE BASED ECONOMY

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Abstract

The descriptive study investigates how UISC (Union Information and Service Center) was established to setup ICT infrastructure in all 4,501 Union Parishads (UP, last tier of local government of Bangladesh), contributes to the knowledge based economy in Bangladesh, that represents one of the developing countries in the World. UISC provides different services to the rural areas through knowledge enhancement for both entrepreneurs and end customers in order to achieve benefits and plays role to make knowledge based society as well as contribute to the economic growth. All the functions and processes of UISC, including background, rationale, target, outcome, methodology, implementation strategy, social impact, way of increasing income etc. have been analyzed through the assistance of different stakeholders of UISC in the form of interview, data collection and desk work through reviewing documents and analysis by a statistical tool. Data collection and direct or indirect contact to the stakeholders' represents that UISC has been moving ahead as per its policy guidelines i.e. ICT infrastructure establishment, entrepreneurs build up, and make available maximum level of services as per need to the rural people. This paper encompasses how UISC contributes to enrich knowledge based economy in Bangladesh.

Keywords: Bangladesh; Knowledge Based Society; UISC

1. Introduction

Union Information and Service Center (UISC) has been established to setup ICT infrastructure in all 4,501 UPs (Union Parishad) in Bangladesh with a view of providing different services to the rural peoples through knowledge production so that both entrepreneurs and end customers get benefits and play role to make knowledge based society and to contribute economic growth as well.

Through UISCs, a large pool of skilled human resource has been developed specializing in Information Technology, English, Middle-Eastern languages and other high-demand skills. Women's lives have been

greatly improved owing to the availability of government services and livelihood information closer to their homes; and also Public service delivery gradually becomes more decentralized and accessible at Union, Upazilla and District levels with more and more government e-services being delivered.

In this paper, all the functions and processes of UISC, including background, rationale, target, outcome, methodology, implementation strategy, social impact, way of increasing income etc. have been analyzed with the assistance of different stakeholders of UISC in the form of direct/indirect interview, data collection and desk work through reviewing documents and analysis by a statistical tool. This paper encompasses how UISC contributes to enrich knowledge based economy in Bangladesh as per its policy guidelines i.e. ICT infrastructure establishment, entrepreneurs build up, and make available maximum level of services as per need to the rural people.

2. Literature Review

2.1 The UISC (Union Information and Service Center)

Union Information and Service Center (UISC) emerged from its earlier version known as CeC (Community e- Centre), a Public Service Delivery Chanel at union level. In 2007, two Community e-Centre (CeC) was established as pilot project under Democratic Government Thematic Trust Fund (DGTTF) of United Nation Development Program (UNDP). In early 2008, CeC has been included as a driver project of UNDP supported Access to Information (a2i) Program of Prime Minister's Office. In 2008, Local Government Division (LGD) started 30 CeCs at Union Parishads. In line with that, LGD established 4501 UISCs in all Union Parishads of Bangladesh step by step.

UNDP supported Access to Information (a2i) Program of Prime Minister's Office plays a catalytic role for UISC establishment and operations. Each UISC is operated by two local entrepreneurs – one female and one male local youth - who have invested in the centre, and is supervised by the associated Union Parishad which provides space and utilities. Union Parishad or the Local Government Division also has borne some initial costs including basic equipments such as a computer, a printer, internet modem and a webcam. Entrepreneurs are self-employed, they are not the paid employees of Bangladesh Government, and they manage their life with their own income. These employment opportunities created by the UISCs have stimulated thousands more employments in the country.

The entrepreneurs are free to install additional facilities to support business growth, at the same time, ensuring that the social sustainability of the center is achieved by delivering government information and services. The service partners of UISC are different public and private banks, life insurance companies, telecommunication companies and non-government organizations etc. Some of the partners also provide software and hardware troubleshooting support. Partnering with newer agencies help UISCs sustain economically enabling them to offer a wide variety of useful services. Government agencies also benefit from the UISC infrastructure and resources using them for data collection, identification of social safety net beneficiaries, and disbursement of allowances.

The top services provided by UISCs are public examination results online, birth and death registration, download government forms, livelihood information, mobile banking, email and internet browsing, computer training etc. Along with these services like online university admission, population census data entry, VGD/VGF card processing, employment information, visa processing or printing, video conferencing,

British council's English learning, photocopying, scanning, mobile phone services, etc. are also provided by UISCs.

2.2 Knowledge Based Economy

The 'knowledge based economy' is an expression coined to describe trends in advanced economies towards greater dependence on knowledge, information and high skill levels, and the increasing need for ready access to all of these by the business and public sectors. This term results from a fuller recognition of the role of knowledge and technology in economic growth. In the knowledge-based economy learning-by-doing is paramount where training and learning in non-formal settings increasingly possible due to information technologies. The knowledge-based economy is marked by increasing labor market demand for more highly skilled workers who also enjoy wage premiums. It shows that the more rapid the introduction of knowledge-intensive means of production, such as those based on information technologies, the greater the demand for highly skilled workers. The objectives of knowledge based economy ate-

- Promoting human development, dissemination of knowledge and expanding available opportunities for community members to acquire knowledge, skills and experience;
- Strengthening efforts to transfer knowledge and its indigenization in all economic and social sectors;
- Upgrading knowledge-production capabilities in all economic and social fields;
- Raising the level of knowledge content in production and service activities in the public and the private sectors;
- Providing the needed technical, administrative and organizational environment, as well as the ICT infrastructure;
- Reducing the knowledge gap among regions, increasing awareness of citizens of the importance of knowledge.

The four pillars of a knowledge based economy are

i. *Education and the Skilled Workforce:* Human capital is the basis of the other two forms of intellectual capital. Continuous improvement across societal and economic sectors increasingly relies on the generation and use of creative ideas and knowledge. Analytical work on long-term economic growth shows that in the 20th century, human capital has grown most rapidly among the factors of production. No signs indicate that the rate of return to investment in education and training has declined.

ii. *National Innovation Systems:* A national innovation system is a "a subsystem of the national economy in which various organizations and institutions interact and influence each other in the carrying out of innovative activity" (Balzat, 2002). The NIS provides a more comprehensive view of a country's innovation system, including embedded learning processes, incentives mechanisms, and interactions and relationships among the different actors involved in the innovation process.

iii. *Building Networks:* Modern economies are characterized by a complex interplay of competition and collaboration between economic actors. The contribution of competition to economic efficiency and productivity is easier to grasp. But some key determinants of growth in KBEs involve the acquisition of new and emerging technologies. This requires generation and adoption of scientific knowledge and new technologies, the pursuit of innovation, and the development of the necessary human resources. This also requires extensive collaboration and networking with relevant parties across the region and the world (ADB, 2006). Building networks, whether ICT-enabled and/or sustained by a foundation of social trust built through traditional face-to-face interaction, is one of the major tasks in moving toward

a knowledge-based economy and society. ICT infrastructure and social trust are ingredients for developing national stakeholder capital.

iv. *Setting Policy and Regulatory Environments*: The experiences of developed countries indicate that governments need to establish three conditions to attract investment, reduce transaction costs, and sustain economic growth: accountability, property rights, and the rule of law. The shift of commerce toward more online transactions requires creating the legal and regulatory environment to build trust and confidence among businesses and consumers.

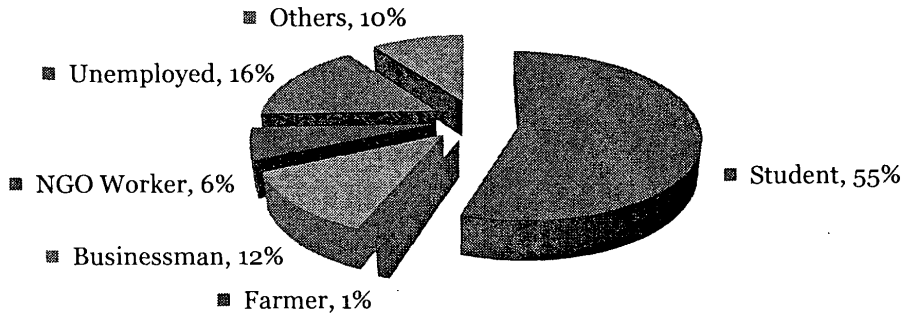
3. Study Design and Methods

This article has been structured based on data obtained from both the primary and secondary data sources. After reviewing the information from previous study on knowledge based economy and basic information about the functions of Union Information and Service Centers (UISC), questionnaires have been set up to collect data from different stakeholders. A total number of 310 respondents, namely UISC entrepreneurs and the customers, are representing the primary data. The researchers utilized non-probability sampling technique to collect information. Five-point Likert Scale (1= Strongly Disagree, 5 = Strongly Agree) were asked to the respondents to conduct the survey. On the other hand, secondary data are the information pull together from various brochures, manuals, reports, annual reviews, internet sources, scholarly documents, etc. The researchers used SPSS (Statistical Package for the Social Sciences) as statistical tools to furnish the data input and analysis and Microsoft Excel as the tool for understandable graphical representations.

4. Data Analysis and Discussion

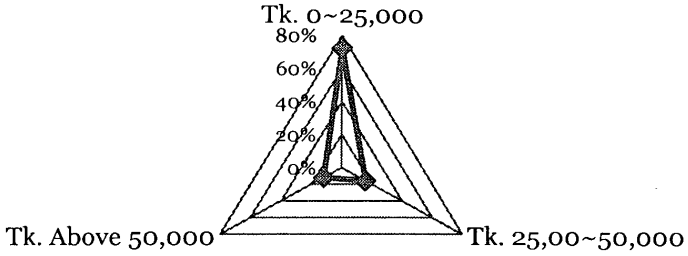
The article explores the establishment of UISC (Union Information and Service Center) in order to setup ICT infrastructure in all 4,501 Union Parishads in Bangladesh and the contribution of these centers to the knowledge based economy of this country. The analysis have been done as per the policy guidelines of UISCs which are entrepreneurs build up, ICT infrastructure establishment, and make available maximum level of services as per need to the rural people.

Figure 1: Previous Profession of UISC Entrepreneurs



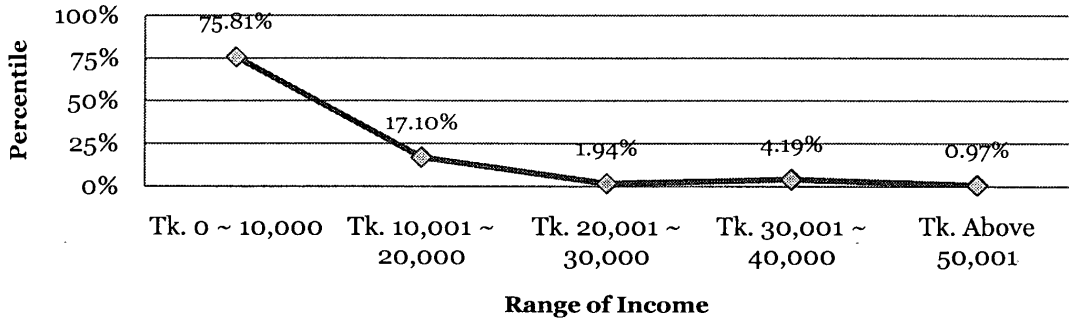
Each UISC is operated by two local entrepreneurs – one female and one male local youth - who have invested in the centre and run the center. According to the survey, most of the entrepreneurs are students (figure 1) among which 54% of them at least passed HSC (Higher Secondary Certificate) examination. All the entrepreneurs have completed the school level study and 25% respondents are university graduates as well.

Figure 2: Primary Investment (in Tk.) of UISC Entrepreneurs



Near about 72% entrepreneurs have invested upto 25,000 tk. (tk. is the abbreviation of taka – local currency of Bangladesh) to set up and run the operations of UISC. According to the figure 3, the average monthly income of maximum UISC entrepreneurs are close to ten thousand taka. Although there are some entrepreneurs who have the monthly income of more than fifty thousand BDT but about seventeen percent earn in between ten to twenty thousand taka per month.

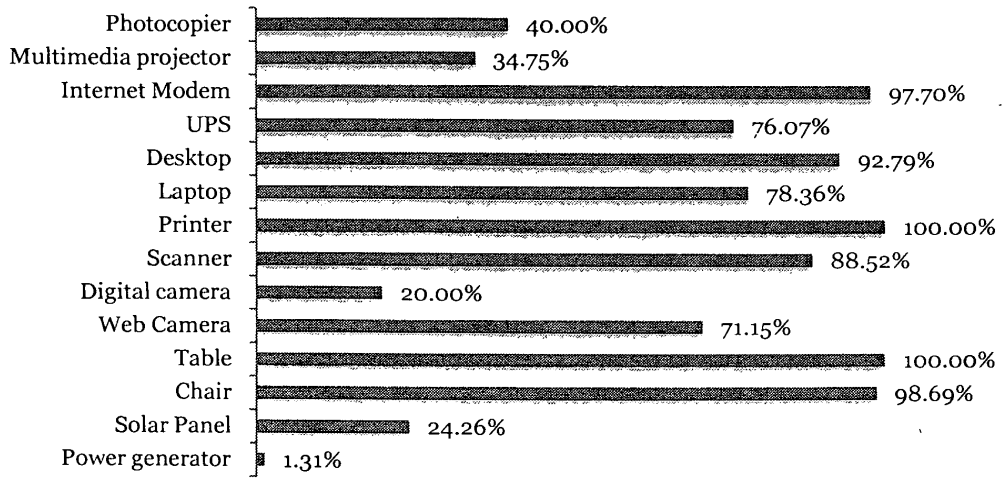
Figure 3: Average Monthly Income of UISC Entrepreneurs (1 Tk. = 0.023 USD)



4.1 *Infrastructure*

Almost all the UISCs are equipped with necessary devices like computer, printer, webcam, internet modem for providing ICT related services in Bangladesh. Interestingly, according to the survey report in figure 4, 24.26% UISC are operated by solar power.

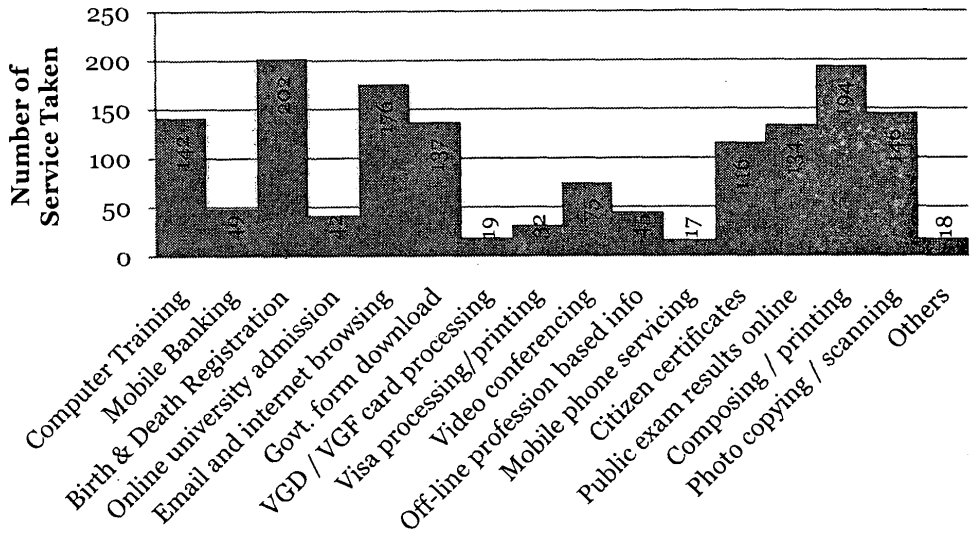
Figure 4: Accessories Available in the UISCs



4.2 *Maximum Level of Services*

Various services are provided by UISC, among which registration of birth and death, composing and printing, email and internet browsing, computer training, downloading of government forms, checking the public examination results online etc. are more familiar (figure 5). Online banking facilities are also available at 17% of the UISCs. According to the survey, about 47.74% UISCs trained 0 to 5 persons where as 19.68% UISCs trained more than 20 persons.

Figure 5: Services Taken from the UISCs



Based on the survey findings, people get the information through their friends (38.06%), relatives (9.68%), family members (5.48%), neighbors (14.84%), and through the advertisements (31.94%). It is interesting to mention that all the customers (100%) of UISCs want to take more services in future from the same centers.

Figure 6: Monthly Services Provided by All UISCs

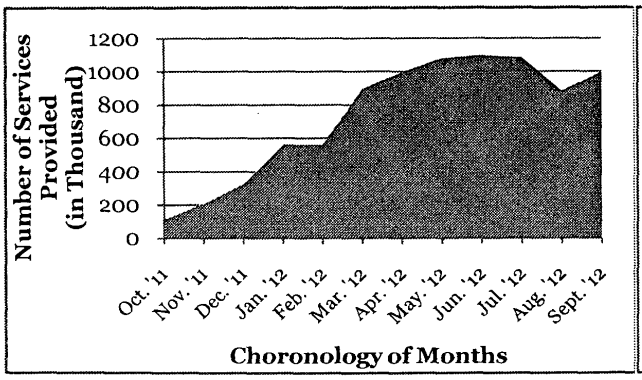


Figure 7: Monthly Income of All UISCs

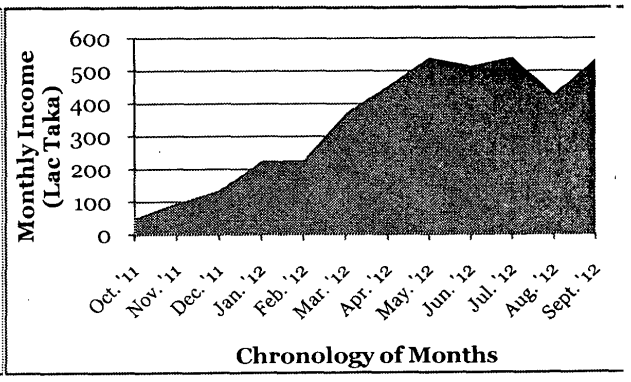
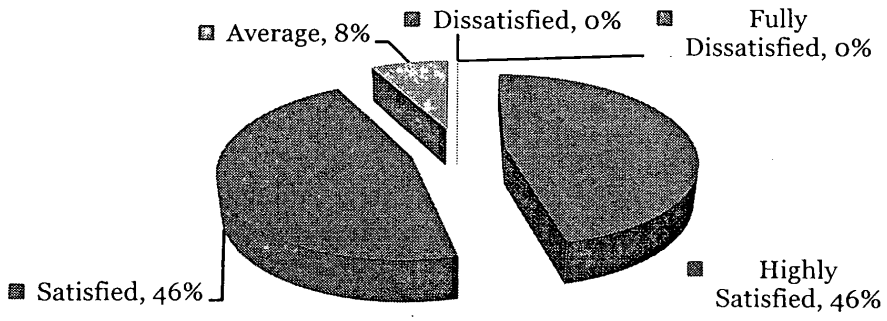


Figure 6 and 7 represent the information regarding the monthly services provided and monthly income of all 4,501 UISCs in Bangladesh respectively from the month of October 2011 to September 2012. Both the graphical representations indicating the upward trends with the chronology of time.

It a surprising fact that according to the investigation among the customers of UISCs, 46% are highly satisfied where as none of them are dissatisfied at all (figure 8). About only 8% of the customers commented that the service provided by UISCs are 'average', while 92% are satisfied with the services of UISCs.

Figure 8: Satisfaction Level of Customers of UISC



5. Conclusion

Knowledge support services are important for establishing and developing a knowledgeable society and knowledge based economy which gives an opportunity to boost the national economy to international level. Union Information and Service Center (UISC) is a very important initiative as regards to attainment of the goal i.e. establishment of knowledge based economy of Bangladesh. UISCs are delivering services to the rural Bangladeshi people as per their needs through application of knowledge based infrastructure which also contribute to the economy. More than 9000 entrepreneurial and self-employment activities help UISCs to generate a monthly average income of 2 cores BDT. Through these establishments, about 40 lac citizens per month receive hassle reduced government and private services countrywide. So far 12000 local youths got ICT training from UISCs. Therefore, UISC are contributing to enrich knowledge based economy in Bangladesh through the generation of skilled workforce, playing a part in national innovation systems and setting up ICT based networks, which are the main pillars of knowledge based economy.

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