Value Web: Perspective of Cellular Phone Industry of Bangladesh

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Abstract

Cellular phone is the one of revenue generating sector in Bangladesh. 100 million subscribers milestone has been achieved in 2013. Significant development and availability of Internet brought new scope to add value to the customer which facilitates companies to redesign existing business process and fabricating new value web. Value web is a collection of independent firms that use information technology to coordinate their value chains to produce a product or service for a market collectively. It is more customers driven and operates in a less linear fashion than the traditional value chain. In this paper the author investigated and explained the role of information system to develop value and the extent of value web in telecommunication industry of Bangladesh.
Keywords: Value web, cellular phone industry of Bangladesh, Information system

1. Introduction

elecommunication sector is the one of the booming and contributing sector of the economy of Bangladesh. The total no of companies working in telecommunication sector is 681. Among them the cellular phone service provider is six- Grameenphone Limited (GP), Orascom Telecom Bangladesh Limited (Banglalink), Robi Axiata Limited, Airtel Bangladesh Limited, Pacific Bangladesh Telecom Limited (Citycell), and Teletalk Bangladesh Limited (BTRC[Bangladesh Telecommunication Regulatory Commission],2013). In 2013, 100 million mobile subscriber milestones had been reached with the penetration rate 72% (Budde, 2013). The voice call market is already saturated and potential scope is in data and other value added service. Revolutionary growth in internet technology has affected the market dramatically and re-designed business process.

2. Literature Review

2.1: Information System

Modern firms in all sectors of the economy are making significant investments in information and communication technology to align business strategies, enable innovative functional operations and provide extended enterprise networks. A number of information systems researchers have regarded information and communication technology as an important ingredient of innovation development and business strategy alignment (Dewett& Jones, 2001). At the same line Berry et al. (2006) conclude the firms which implemented information and communication technology to enhance and/or enlarge the scope of their products and services. As many innovation activities involve adding new services, expanding existing ones and/or improving the service delivery process, the success of an organization hinges on how well it implements its service innovation to create new markets and enhance competitive capability. Management information System (MIS) is generally thought of as an integrated system providing information to support operations, management and decision-making functions in an organization (Ajayi and Omirin, 2007). The increasing interest in MIS had led to much activity in developing techniques and software for data management. MIS is basically concerned with the process of collecting, processing, storing and transmitting relevant information to support the management operations in any organizations (Laudon and Laudon, 2009). Thus, the success of decision-making is highly dependent on available information and partly on the functions that are the components of the process. For effective decisions to evolve in any organization, therefore, receiving information from and supplying information to, people within the system are a necessity.

Ajayi and Omirin (2007) stressed the need for MIS in decision-making as it provides information that is needed for better decision-making on the issues affecting the organization regarding human and material resources. MIS is useful in the area of decision-making as it can monitor by itself disturbances in a system, determine a course of action and take action to get the system in control According to Bush (2002). O'Brien and Marakas (2006) argued the organization which adopts information system can become an agile and customer focused company which can reengineering existing business process. At the same line Laudon and Laudon (2012) discussed the organization which adopted information system can achieved operational excellence; new products, services, and business models; customer/supplier intimacy; and improved decision making—chances are they have already achieved a competitive advantage. Doing things better than the competitors, charging less for superior products, and responding to customers and suppliers in real time all add up to higher sales and higher profits than the competitors which cannot match.

2.2: Value Web

Value chain was first explained by Porter (1985) as a serious of interrelated activities which developed to design, produce, and market, deliver and support to the customer developed through the experience. Porter also described value chain system for a firm which working in same industry. In value chain system all of the firms value chain which working to produce a goods and services are connected in an interconnected manner in a system such as firm's suppliers, firm's, market intermediaries and the customer.

Figure: Porter value chain adopted from insemble (2012) Building Bridges in the Software Value Chain through Enterprise Architects

Porter (1985) described how value streams but it was explained preciously by Martin (1995) is a collection of interrelated activities which working together to serve a customer. Customer could not be separated from the value stream. Value stream map indicates not only activity of the product, but also the management and information systems that support the basic process as well. Value stream is easier and practical than value chain as it focuses on activities required to deliver particular products or services. Value stream ensures maximum response to the customer by integrating partners. Partners must have to work concurrently but practically sometime it may not work which may lead to errors.

Bovet & Martha (2000) developed the idea of value web/net and designed a new networked paradigm that allows companies to fulfill customer expectations for speed, reliability, convenience, and customization. A value network is a web of relationships that generates economic value and other benefits through complex dynamic exchanges between two or more individuals, groups, or organizations. Any organization or group of organizations engaged in both tangible and intangible exchanges can be viewed as a value network, whether private industry, government, or public sector.

Smehro (2009) argued that value chain cannot demonstrate the actual picture of industry rather value web is more suitable to explain how an industry is generating value. He also added that internet and digital technologies had tremendous effect on entertainment industry such as Sony Music, EMI and Universal records.

Loudon & Loudon (2012) explained value web more clearly and how it can be achieved, is a collection of independent firms that use information technology to coordinate their value chains to produce a product or service for a market collectively. It is more customers driven and operates in a less linear fashion than the traditional value chain.
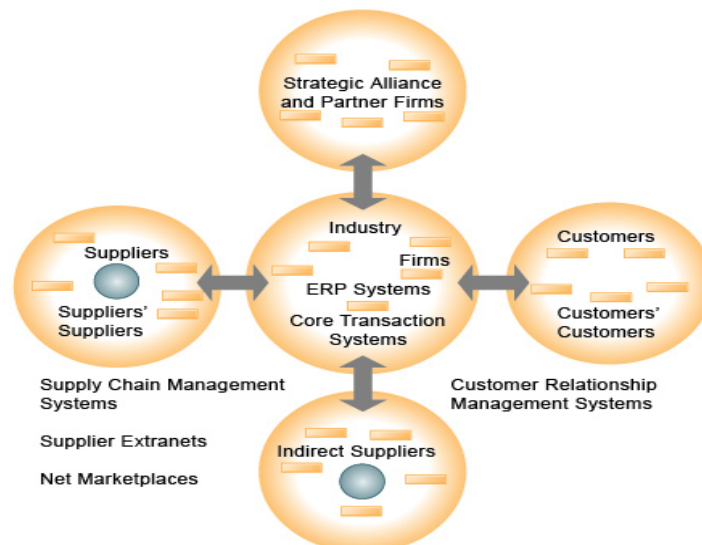

Figure: The Value Web adopted from (loudon & loudon, 2012) Management Information System 12th edition

Furthermore, Friedlande (2013) proposed a new model to observe each aspect of operation, uncovering latent

value and spurring creativity. Furthermore, because the interwoven parts are more difficult to copy, the Value Web creates competitive barriers. Since the expectations of each stakeholder group are constantly evolving, the Value Web is regenerative. The new model more focused to tack potential opportunities to refresh and revive as the company seeks to satisfy new stakeholder desires. As a result, this creates an atmosphere of continuous improvement, as company is always adjusting itself with the changing situation; there is less change to be obsolete.
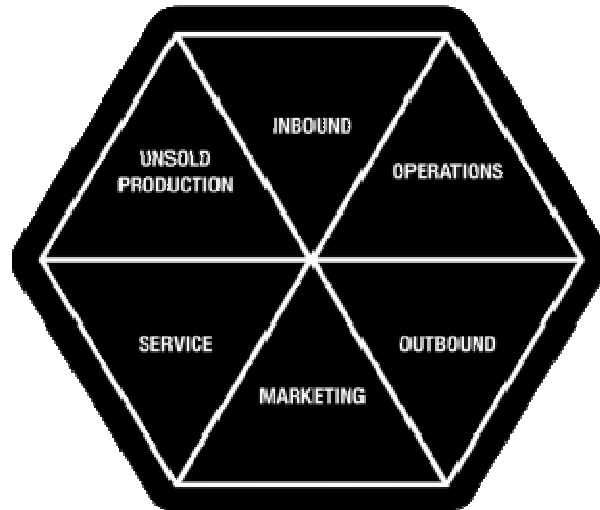

Figure: The Value Web adopted from Friedlande (2013) Strategic Sustainability: Introducing the Value Web

This study follows a logical approach showing the viewpoint of recent research that empowerment is a multidimensional and psychological concept that is affected by both personality and environmental variables.

Many definitions of employee empowerment and motivation have been suggested in the behavioural theories, management and human resources literature. Thus, psychological empowerment can be defined as the additive effects or gestalt of three separate dimensions validated by Spreitzer (2006). The dimensions are perceived impact, competence and self-determination. A detailed description of these dimensions has been depicted in the development of hypothesis. Based on a synthesis of past research, Spreitzer (2006) developed and validated a general model of the antecedents and consequences of psychological empowerment based on a survey of mid level managers at a large industrial firm.

In his model, two important elements of control systems play a prominent role as antecedents to empowerment-feedback and rewards (Spreitzer, 2006). In general, the model predicts that providing employees with higher levels individual performance feedback and performance based rewards will increase feeling of psychological empowerment. However, the exact type and form of the feedback and reward system is left largely unexplored. In addition, the model was developed using primarily manager level data (Spreitzer, 2006). It is suggested that the model will also hold for lower level, front line employees but further testing is needed.

This study is quite significant as it employs three-by-two between-subjects experimental design that manipulates the individual performance feedback and reward system provided to participants. These three levels of performance feedback consist of pay only, pay plus non financial performance feedback, and pay plus non financial and financial performance feedback.

3. Objective of the Research:
1. To understand the extent of value web in cellular phone industry of Bangladesh
2. The role of information system to upward value web

4. Methodology
Qualitative and Quantitative approached applied. The secondary data collected from different web sites total no of population is six. They are grameenphone, Banglalink, Taletalk, Robi, Citycell. The Grameenphone is the market leader and Banglalink is the market challenger. As a market leader Grameenphone is treated as a sample.

5. Overview of Cellular Phone Industry of Bangladesh
In Bangladesh the telecom services provided by the state-run Bangladesh Telegraph and Telephone (BTTB) since 1989. To enhance service delivery, the Government started two new companies Bangladesh Rural Telecom Authority (BRTA) to provide land phone services and Bangladesh Telecom Ltd (BTL) to provide cellular mobile phone and pager at 1989 (Khan, 2003). The liberalization of Bangladesh Telecommunications Sector started with small steps with the issuance of a license to a private operator for the provision of inter alia cellular mobile

services to complete with the previous monopoly provider of Telecommunications services the Bangladesh Telegraph and Telephone Board (BTTB) in 1989. Significant changes in the number of fixed & mobile services deployed in Bangladesh occurred in the late 1990 and the numbers of services in operation have subsequently grown exponentially in the past few years. The initiatives both from government and public sector have helped to grow this sector (BTRC, 2013).
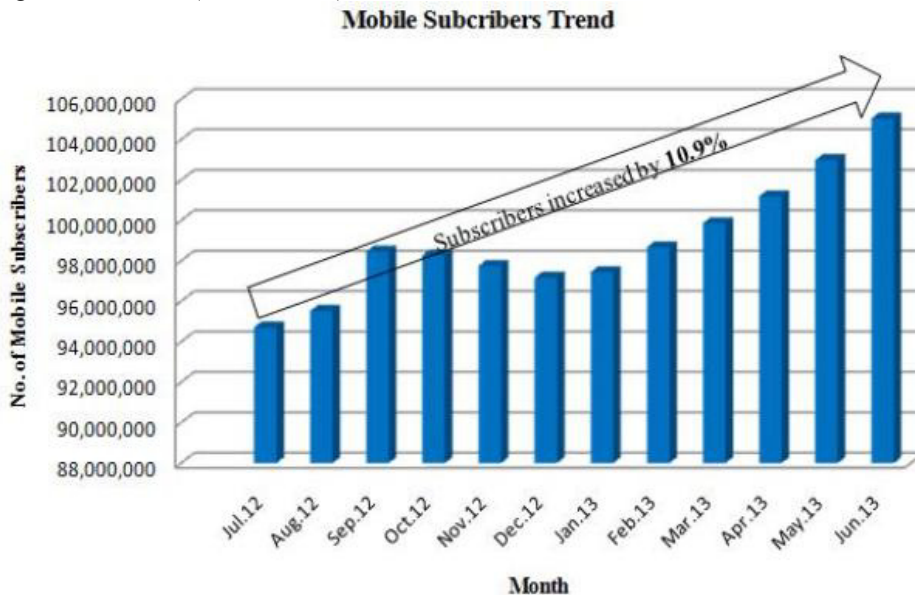

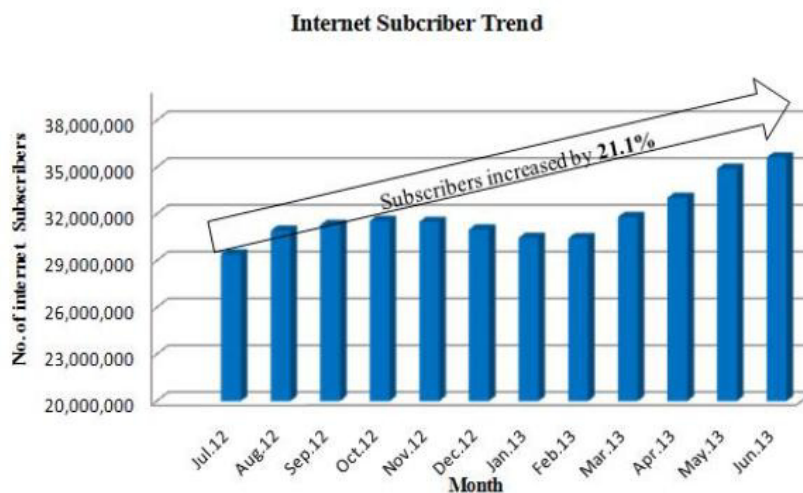Figure: Trend of Mobile Subscribers adopted from (www.btrc.gov.bd)

Figure: Internet Subscriber Trend adopted from (www.btrc.gov.bd)

Citycell (Pacific Bangladesh Telecom Limited) is a pioneer company at cellular operating from 1989, only CDMA mobile operator in the country to provide innovative, reliable and excellent telecommunication and mobile internet services/solutions covering 89.6% of the country in terms of network coverage *(*www.citycell.com).

Gp has built the largest cellular network in the country with over 8500 base stations and brought 99 percent of the country's population under the Grameenphone network with more than 47.64 million subscribers as of January 2014. GP was the first company to introduce GSM technology in Bangladesh launched in March 1997. In October 2013 the company launched 3G services commercially. The entire Grameenphone network is 3G/EDGE/GPRS enabled, allowing access to high-speed Internet and data services from anywhere within the coverage area. There are currently over 7 million 3G/EDGE/GPRS users in the Grameenphone network (http://www.grameenphone.com).

Robi Axiata Limited is a joint venture company between Axiata Group Berhad of Malaysia and NTT DoCoMo Inc. of Japan. Robi commenced operation in 1997 as Telekom Malaysia International (Bangladesh) with the brand name 'Aktel' with its strong network and seamless connectivity; it connected 24 million people across the country.

Teletalk 100% state-owned cellular service provider established at 2004 covering 64 Districts, 402 Upazilas, and

most of the highways of Bangladesh.it is continuing its network expansion to reach more corners of Bangladesh (http://www.teletalk.com.bd).

banglalink's launch in february 2005, its impact was felt immediately: overnight mobile telephony became an affordable option for customers across a wide range of market segments. Banglalink attained 1 million subscribers by december 2005 and 3 million subscribers in october 2006. In less than two years which is by december 2007, banglalink overtook aktel to become the second largest operator in bangladesh with more than 7.1 million customers. banglalink currently has 27.07 million subscribers as of june 2013, representing a market share of 25.7% (http://www.banglalink.com.bd/en/about-us/about-banglalink).

6. Application of value web at GP

GP applies Information system through out the company which allow company to build and maintain intimate relationship with the partners and revolutionary development and availability helps Gp to introduce new services to provide new services to the customer.

Supplier and Partner Portal

GP supplier and partner portal is a unique platform to maintain intimate relationship with its Franchisee, suppliers and distributors. The companies registered in this portal will get opportunity to bid when Gp needs any support.

eCare

Web based self service customer care. Customer can chose the package and customize his offer according to his choice by login 24/7 from any where.

Web Based Top up

Gp established collaboration with easy.com.bd and paypoint.com.bd. Easy is the first electronic delivery channel of prepaid and postpaid airtime recharging service offered to the mobile and internet users of Bangladesh. Currently it serves the subscribers of all Telecom Operators for online mobile air-time recharge along with the Internet users of "Qubee" and "Banglalion" for both prepaid and postpaid bill payment.
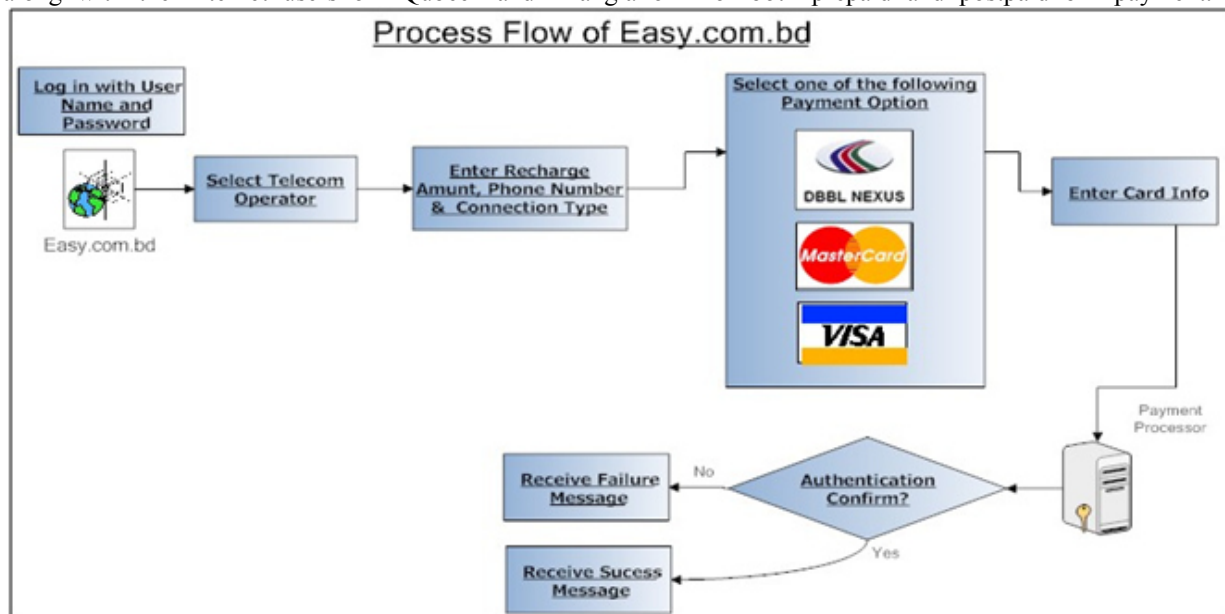

Figure: Web based top up adopted from grameenphone Web based top up

PayPoint is another online payment portal in Bangladesh and it is connected with the most connected payment Gateway of Bangladesh "shurjoPay". payPoint is the ultimate destination for the smart users who want to avoid the hassle of standing in line or waste their time in traffic to get the service with their own money. Recharge your mobile phone account, pay internet bill, pay admission/registration fees to your desired institute buy tickets for concert/theater all at the ease of your suitable place. and follow specific steps in order to complete the Top-up request. The flow-chart below shows the steps involved.

Terminal Based Top-up

Grameenphone has launched terminal based top-up facility for their valued subscribers through PayWell. This is a state of the art distribution platform, which aims to provide superior top-up experience to the customers at high end retail outlets (i.e. superstore, hotel & restaurant, fast food chain, café, large grocery store, amusement park, high end medicine shop & hospital, fashion outlets, and other branded shops). In Terminal Based Top-up, customer's mobile account is topped up instantly against payment of any value made at an alternate retail outlet. Valued subscribers will get printed money receipt for every single transaction from the designated retail outlet.

For this very new facility, Grameenphone subscribers need not to pay any additional charge.
Marketplace
MobiCash brought unique experience of buying ticket to its customer. Intercity Train tickets can be brought in advance from the subscribers' mobile phone.
Grameenphone's BillPay service brought hassle free and secures electronic solution to pay utility bills. Now subscribers can easily pay utility bills from nearest BillPay authorized shop or through GP mobile seven days a week anytime and from anywhere.
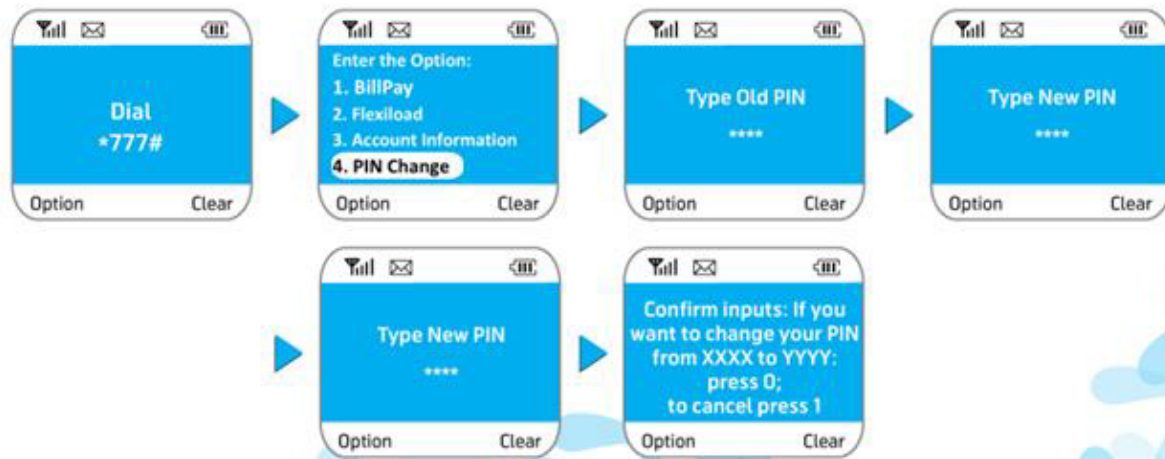
Figure: BillPay transaction process adopted from (www.grameenphone.com)

Conclusion
Internet technology with the help of information system proving larger scope to the firms to build and maintain intimate relationship with the customer as well as business partner which altering existing value chain and new value chain value web arose integrating partner companies through web based solution such as internet based self service customer care, internet based partners portal and market place.

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