

## Value Network of Mobile Content Providers

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**Abstract**—The mobile service market is entering the stage of saturation while experiencing some challenges such as debts from spectrum auctions, a saturated subscriber base and commitments to build new network infrastructure. A provider cannot succeed in this competitive market unless it is creating values and involving in relations with other service providers. Knowledge on the interrelation between and within the value network is needed to enhance our understanding of who has more power and role within the network using gravity theory. This paper introduces the concept of value network in a mobile phone service and addresses competitive interrelations of value network model based on a study of mobile phone service providers. We will look at the current structure of the mobile content sector and identify the need to expand value network of content services into combat the competitive challenges described above. Analysis revealed and identified through this paper is aimed to enhance understanding of participants in mobile content service network.

**Keywords**-Value network; Value chain; Mobile Content Service; Gravity

### I. INTRODUCTION

The growth of services in economies around the world has vast implications for business practice, academic knowledge creation, and education. Service industries have dominated the U.S. and other established economies for decades. Increasingly, manufacturers and IT companies are also shifting to a focus on services as growth and profit engines for their companies. Many contend that future success depends on service innovation across industries.

The telecommunications market has become saturated and more competitive in recent years. While attracting customer from competing operators is possible for mobile operators, they try to acquire more customers in a similar ways and spur stiff competition.

The ways to succeed in telecom markets are understood as an entrance to new markets, development or expansion of current markets by enlarging service ranges and providing improved quality services at competitive prices. As mobile phone continues to grow and evolve almost every type of

company with a stake in mobile content now offers some form of application service emerging a strong growth market for mobile content since it helps to increase mobile device's usage greater through availing of content services in addition to voice. Network Operators will have to turn to mobile data services as a new source of revenue and means for increasing ARPU. (Phillip & Nandish, 2002) The key business question in the knowledge economy is, "How is value created?" The traditional answer to that question is – "through the value chain." But value chain thinking is rooted in an industrial age production line model that gradually has been superceded by the new enterprise model of the value network or value web. A major strategic challenge today is reconfiguring a business from value chain organization to the more fluid structure of the value network.(Verna, 2000) Data services are seen as potential in sales growth which business model or value network still needs to be developed. The concept of a value network has assumed a dominant position in the strategic analysis of industries.

### II. PREVIOUS LITERATURE

There is growing demand for new knowledge and education; yet, we feel that much can be learned from existing research and knowledge. There is a need to apply robust research findings related to service excellence, service quality, customer satisfaction and loyalty, and service delivery and design (Bitner & Brown, 2006).

Service is the application of competences for the benefit of another (Vargo & Lusch, 2004). Service depends on division of labor and effective co-creation of value, leading to complementary specialization and comparative advantage among participants (Normann, 2004). Today people see a surge in interest in what is being called "services" since businesses oriented in customers.

Thus, service science is the study of service systems, aiming to create a basis for systematic service innovation. Service systems are value-co-creation configurations of people, technology, value propositions connecting internal and external service systems, and shared information (e.g., language, laws, measures, and methods)

Service science combines organization and human understanding with business and technological understanding to categorize and explain the many types of service systems that exist as well as how service systems interact and evolve to co-create value. The goal is to apply scientific understanding to advance our ability to design, improve, and scale service systems (Maglio & Spohrer, 2008).

The language, norms, attitudes, and beliefs of the people that make up a service system may evolve over time, as people adjust to new circumstances. In this sense, service systems are a type of complex system that is partially designed and partially evolving. Service systems are designed to deliver or provision services, but they often consume services as well.

Many scholars have differentiated between value chains and value networks in their descriptions of industry structure. Value chains represent industries in terms of sequences of value-adding activities. They are particularly appropriate for representing manufacturing industries. The concept of a value network is more appropriate for industries in which a firm's internal processes are less important than the multiple ways in which firms and customers are connected to each other.

The concept of a value network is particularly relevant to network industries such as the Internet and mobile phone. Unlike value chains that connect multiple activities both within and between firms (Porter, 1980) (Porter, 1985), value networks connect multiple buyers and sellers at a single node (Normann & Ramirez, 1994) (Weiner, Nohria, Hickman, & Smite, 1997). Such a node can be part of a value chain or a larger value network. For example, it is not only that the mobile phone industry can be described as one large value network; many individual firms within the mobile phone market are defined as networks of buyers and sellers and thus they can be represented rather more accurately as value networks than value chains.

The development of a robust market for mobile data and Internet access, key characteristics of the new technology, will depend on timely deployment of infrastructure, equipment and services. Furthermore, mobile industry players, including operators, must find profitable business models in an environment of high technological and market uncertainty (Maitland, Bauer, & Westerveld, 2002).

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#### A. Mobile opportunity

As the voice market reaches saturation continued industry growth is contingent on the development of new mobile data services. Information technology continues to

advance at a remarkable pace, creating new opportunities and challenges for providers of data applications.

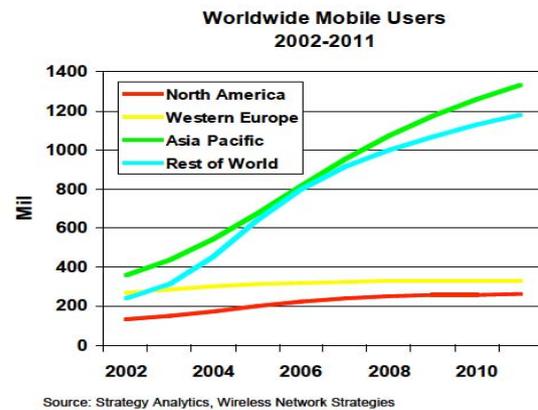


Figure 1. Growth of Worldwide Mobile Users.

Mobile handset is becoming a platform for a wide variety of those data applications since data usage has increased in last 5 years comparing to previous years as shown in Figure 2.

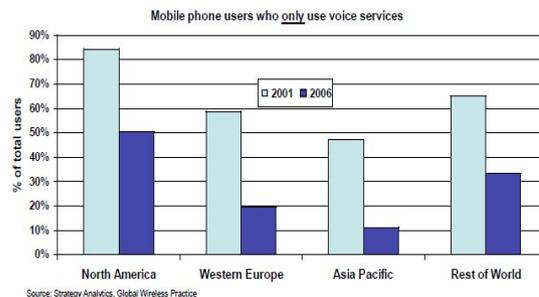


Figure 2. Comparison of Voice Service Usage.

To deliver on the full promise of content service, the value chain has been encouraging partnerships among content owners, designers and developers, publishers and aggregators, industry, service providers, delivery agents and among others. As a result, a new value chain is being carved out.

The key actors in the mobile value chain are:

- Content owners, ranging from multinational entertainment companies to individual artists
- Designers and developers, who prepare content for mobile distribution and use
- Publishers and aggregators, who assemble, test, and promote mobile content
- Provisioning and hosting providers, who provide the actual physical means for content distribution

Marketing and delivery agents are those including mobile operators, as well as others who sell mobile content to end users.

Previous studies of value network in mobile phone industry are shown in below Figures 3 & 4.

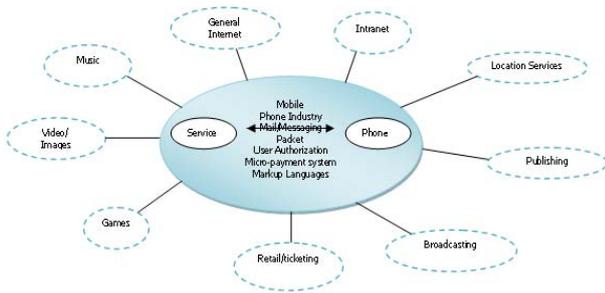


Figure 3. Value Network in Mobile Phone Industry.

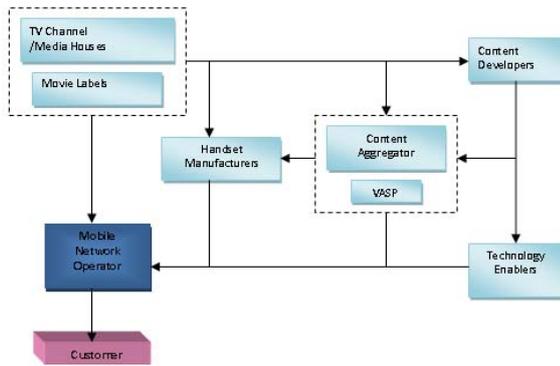


Figure 4. Mobile Content Generators.

As shown in above figures, previous studies explored interrelations of service providers and how mobile phone

content generators work together to deliver the service to end customers. Whereas, this paper explores and analyses interrelations with gravity theory explaining who has more power, role and influence within the value network.

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