Satellite television services
Supply chain management at work

Figure 1. The Network System Configuration for DTH Operation

By Mr. Alfredo C. Panizales, Assoc. professorial lecturer
Marketing Management Department

Overview

The rise of wireless data, the Internet and fixed mobile convergence is changing the needs and wants of the telecommunications market. Right now, telecommunications service providers are coming under enormous pressure from customers to go beyond competing on price and coverage to value and service quality. The emerging customer in the millenium market is looking for simplicity in usage, the flexibility of a single point of contact for sales and services, and a single bill. The challenge for the service provider is to find the winning formula. For the satellite communications industry, a new discipline in the provisioning of satellite services and value added networks is evolving - the supply chain management.

In the distribution of satellite services, particularly TV uplinking, programming services must be delivered in the right quality and precise timing to a specific location (say TV networks) most efficiently for the satisfaction of the end-users (the TV households). Logistics or supply chain management
are unwittingly or unwittingly widely used for management of the flow of satellite services and related information (See figure 1).

In a time of shortening life cycles, complex corporate joint ventures and stiffening requirements for customer services, it is necessary to consider the complete scope of supply chain management, from the supplier of raw materials through factories and warehouses to the demand for a finished product from the end-user. This concept of supply chain management in the satellite communication business is surely being adopted.

Theoretical Framework

Render and Heizer (1998) defines Supply Chain Management (SCM) as an approach that "deals with a complete cycle of materials as they flow from suppliers to production, to warehousing to distribution, to the customer. As firms increase their competitiveness via product customization, high quality, cost reduction, and speed to market, added emphasis is placed on the supply chain." The supply chain, therefore, includes all the interactions that occur in the physical distribution system within the marketing channel, between suppliers, intermediaries and end-users. This includes transportation, scheduling, information flow, cash and credit transfers, as well as material transfer between them (See figure 2).

Operational Benchmarks

McKinsey and Company (1992), in the November 30, 1992 issue of Business Week, showed that world class firms set world-class benchmarks to ensure 100% good quality in their "supplier-customer relationship" (See Table 1).

Curay (1999) in her paper entitled "Logistics: Keystone to Retailing Success," provided an insight on how supply chain partnership works between Procter & Gamble (P&G) and Wal-Mart of the United States. P&G received daily information via satellite on Wal-Mart's actual sales, requirement for particular products and volume forecast. Procter & Gamble ships orders automatically thereby maintaining Wal-Mart's optimum inventories of products (Pampers in particular). Procter and Gamble, on the other hand, was able to increase its proportion of just-in-time deliveries from 94% to 99.6%. The result has been astonishing as reported by Curay. Procter & Gamble's volume at Wal-Mart grew by more than 40% or by more than US$200 million in the fiscal year ended June 30, 1998.

Paterno (1999) in his speech at the "Shop Asia 99" Seminar Series held at the World Trade Center, noted that information technology has facilitated and required closer interaction among suppliers and key retailers accounts to manage their supply chain better. He cited Wal-Mart and their 7-Eleven chain of convenient stores worldwide as leading examples of supply chain management achievements. Cost savings have been the principal source of 7-Eleven's improved profitability without increasing the selling price.

Satellite Services and Value-added Networks

The Satellites

I recall a colleague, the former president of the Philippine Star, Gil Santos, telling me that there was a time when sov-
ereign nations, regardless of their economies or geographical size, wanted an airline for its national carrier. Before that, the fad was to have ocean-going ships to bolster international status. Now it is satellites!

Originally, if we flashback into history, satellites were used primarily by the Soviets (who can forget the Sputniks?) as a spy and communications satellite. The Americans followed closely at the Soviets’ heel and outran them, both in quality and quantity of satellites launched in space. USASat, Hughes and PanAmSat are very powerful US satellites. The United States even dominates INTELSAT, the world’s organization of government satellite service providers. In no time, Europeans joined them by launching Eutelsats. The Japanese with their Superbirds followed. The Chinese, the Koreans, the Indians, Malaysians, Indonesians, and the Filipinos (with their Agila satellites) now crowd the orbital space covering the Asia Pacific Region.

The Services

Commercial providers of satellite-based communication services, operate or utilize at least a satellite with regional beams. These resources enable these satellite companies to relay voice, data and analog or digital video programming for thousands of corporate accounts and millions of TV household customers in the Asia Pacific Region. Supported by technical experts within the alliance, these companies serve as crucial communications links for the products or services and the end-users/clients as shown in Table 2.

The Networks

Figure 1 is a typical network configuration of a Philippine-based satellite communications company providing direct broadcast or direct-to-home TV services. In this configuration, major players in the delivery of services, from program sources (CNN, HBO, Discovery Channel, etc) to the broadcasters (ABS-CBN, PTV 4, GMA 7, etc) or directly to the homes (TV households) formed a “holy” alliance. The delivery of these services is done in split-second anywhere within the Asia Pacific region covered by the satellite with broadcast quality and 99.9999% interference-free transmission.

The supply of programs, say from CNN or Star TV, is downlinked from a nearby satellite in the region like Apstar of China or PanAmSat of USA. The ground segment operator (DOMSAT/Destiny) provides the uplinking services. All transmissions to the Agila-2 satellite are monitored by the tracking and telemetry stations of the Mabuhay Satellite in Subic and Zamboanga. Agila 2 satellite is owned by the PLDT-led consortium located at 146 degree E orbital slot owned by the Indonesian government. TV signals are then directly beamed to the TV networks (ABS-CBN, ABC-5, etc) and finally being re-broadcast to TV homes. Some direct-to-home dishes are now cur-
ently undergoing prototype trials to some lucky homes in the Philippines provided by rival satellite providers from Malaysia, MEASAT.

The above network alliance is a true manifestation of supply chain management at work. It shows a connected series of functions, organizations, process and information exchanges involved in the creation and delivery of satellite services and value added networks to the end-customer. That alliance makes the difference.

For the satellite ground segment operator, Domestic Satellite (Phil), Inc (DOMSAT), the strategic importance of the synergy of the affiliated companies, the Destiny Group, is highly emphasized. In the operations environment, the purchasing function is managed by a subsidiary company in Hongkong, the Solid Trading, Inc., which also handles shipping of needed equipment and spare parts for the operations of the satellite hub facilities of DOMSAT in Manila. This purchasing function is supported by the product engineering group of the affiliated manufacturing firms of Destiny, Inc. and Destiny Cable, Inc. that conduct testing activities and evaluation of the purchased materials. In the service environment, Destiny Asia, Inc., Destiny Satellite Corp and DOMSAT have the responsibility for the sale and profit margins of cable and satellite services. Destiny Asia, Inc. on the other hand, is responsible for the sales and marketing of TV programs and set top boxes directly with the customers (See figure 3).

Destiny Satellite Corporation acts as the holding company of Destiny Cable, Inc. and DOMSAT. There's a matrix type of organization structure that practices forward as well as backward vertical integration techniques. Suppliers or providers of raw materials as well as distribution networks are wholly owned.

Conclusion
Impact of the SCM implementation (as in the case of Destiny Group) cannot be measured outright in terms of cost savings. Manpower reduction as a result of combined functions among the group of companies is a welcome reality and a painful process. Various human relations problems tend to surface due to undefined span of control of executives within the organization. However, in the long term, this functional relationship will create a cooperative climate between officers and employees within the group and the clients as well.

Supply chain management starts and ends with the customer and that's how it should be to remain competitive in the globalized environment of satellite services. The customer will be the ultimate controller of the supply chain towards the next millennium. As the following remark says:

"Supply chain management is not the wave of the future. It is the 'tsunami' that will engulf everything in its path that resists... every attempt to stockpile inventory, to blindly push product to market, to respond slowly to changing customer demands, to handle business transactions on paper..."

- Ms. Carazon C. Curay, President, Distribution Management Association of the Philippines

References
http://www.prenhall.com/renderpom
http://www.mabuhaysat.com
Figure 1. The Schumpeterian Model of Entrepreneurship

Cost of capital

Exogenous science and invention

Entrepreneurial activities

New production function

Profits from innovation (or losses)


He also emphasized that:

- The underlying motive of entrepreneurial action and capital accumulation is not greed (hedonism, a view shared by Marxists and many other economists), but in Schumpeter's own words, "the dream and the will to find a private kingdom," "the will to conquer," and "the joy of creating."

- The entrepreneur is not necessarily the manager since managerial activity consists mainly in overseeing routine production functions, while entrepreneurship requires the introduction of something new to help business grow and become profitable. "Carrying out a new plan and acting according to a customary one are things as different as making a road and walking along it.

- Nor is the entrepreneur synonymous with the capitalist, although again, they may be the same person. The capitalist provides the funds; the entrepreneur directs the use of these funds.

- "It is the leadership, rather than ownership, that matters."

Schumpeter's theory was framed primarily for economic analysis, but it opened new vistas; his contribution to the role of the entrepreneur as a person who explores possibilities for change to enhance value is the overriding theme that research now tends to support.

References


NOTES on Business Education

is published by the De La Salle University-College of Business and Economics Center for Business and Economics Research and Development (CBERD)

Vol. 2 No. 6 Nov.-Dec. 1999

Editorial Board
Dr. Teresio Tullao, Jr.
E-mail: cberst@dlsu.edu.ph
Dr. Divina Edralin
E-mail: cbedrne@dlsu.edu.ph
Raymund B. Habaradas
E-mail: cberbh@dlsu.edu.ph