A SUSTAINABLE SUPPLY CHAIN MANAGEMENT: AN INTEGRATED MARKETING COMMUNICATIONS PERSPECTIVE

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ABSTRACT

Sustainability has become an increasingly important issue in today’s business world. All firms operating in domestic and global business must be cognizant of all the myriad aspects of sustainability. All areas of Marketing, including Supply-Chain Management (SCM) have to operate in this new environment. This paper looks at sustainability and its importance in today’s business world from the perspective of marketing and Integrated Marketing Communications (IMC). More and more online marketing is helping businesses build and develop new, innovative and successful IMC programs, and special attention will be given to this function and how it works with other components.

This paper will focus on the interaction between IMC and SCM in terms of sustainability. The paper first examines SCM macro aspects. Next several SCM micro examples are used to show how various SCM members tackle the challenge of sustainability from the perspective of IMC. These firms and organizations will be selected from different components of the supply-chain. For example, there will be a railroad (CSX), a trucking company (YRC-The merged Yellow Freight and Roadway Express), a distribution center (Giant Food), a freight forwarder (UPS), and a port (Port of Baltimore). The paper will wind up with a relevant summary and conclusions section. The paper emphasizes the synergistic importance in developing excellent IMC programs to promote sustainability and for individual SCM members to promote their sustainability efforts.

INTRODUCTION

As the last decade of the 21st century draws to a close there are new and exciting things taking place that both excite and challenge marketing and supply chain managers. The economy is still dragging a little, but ethical and social issues are growing. Firms must face up to these issues, develop programs that assuage the negative impacts of poor practices in the past, and develop positive programs that make the universe a more environmentally pleasing place to work and play in. All members of the supply chain have to work together to develop, implement and promote sustainability programs.

SUSTAINABILITY

The world has turned green. Many of those who follow the tradition of sending Christmas cards are in 2009 mailing Earth-friendly greeting cards in Sweetpaper envelopes. There are green neighborhood advisors, green television networks, green cars, green college courses, etc. Jacquelyn Ottman, a noted environmentalist feels that the marketplace is greener now than ever before. She says that there are several reasons for the green wave. Some of these reasons are: People are worried; Environmentalism is a core societal value; Citizens are responding; Green product sales are soaring; Children are green; and, trading partners are green. (Ottman, Pgs. 1-11).

This green wave was born and prospered in an effort to make the world a better place to live in now and in the future, i.e., to advance sustainability. Philip Kotler and Gary Armstrong look at sustainability as a marketing management practice that looks at the present needs of consumers and businesses and then developing practices that satisfy these current needs while making sure that the needs of future generations will be satisfied. (Kotler and Anderson, Pg. 584) They go on
to make the salient observation that marketers (Including Supply Chain honchos) must think beyond immediate customer satisfaction and business performance toward strategies that preserve the world for future generations. (op cit)

Around the globe firms, companies, individuals, etc. are riding this green wave. Chad Holliday, a DuPont CEO, opines that no executive can afford to ignore this wave (Esty and Winston, Pg.1) Smart companies use environmental strategy to innovate, create value, and build competitive advantage. (op cit) A critical part of this environmental strategy involves the creative, effective use of Integrated Marketing Communications (Promotion), as well as all other aspects of those critical four P’s of marketing strategy-Product, Price and Place. (Perreault and McCarthy, Pg. 36)

INTEGRATED MARKETING COMMUNICATIONS (IMC)

In the early days of managing the promotion function the key was sending messages that sold products. Buy a tube of Crest toothpaste and you’ll prevent cavities. As Tom Duncan says, companies and agencies cared only about creating and sending brand messages in order to sell products. (Duncan, Pg., 3.) Sales are still important, but the emphasis today is on long term relationships that create value for both the buyer and the seller. In the old model, advertising was the main method of communicating with the ultimate consumer to generate sales. Today myriad methods are used to communicate with the consumer in order to create that desired long term value. Advertising is still important, but the focus has turned toward combining advertising and sales with other functions, e.g., online promotion. Online is an important ingredient used to reach today’s consumer. Pepsi has been advertising on the Super Bowl for 23 straight years. Come Super Bowl XLII in 2010 there will be no Pepsi ads. Instead, they will spend most of this Super Bowl money ($2.5 million for a 30 second spot) on online promotions. (USA TODAY, 18 December 09, Pg. 3B) This synergistic strategy is vital in today’s technology focused environment. Power lies in creatively combing all promotional tools to create that goal of long term value, i.e., Integrated Marketing Communications (IMC).

IMC can be defined as A strategic business process used to develop, execute, and evaluate coordinated, measureable, persuasive brand communications programs over time with customers, prospects, employees, associates, and other targeted relevant internal and external audiences. The goal is to generate both short-term financial returns and build long-term brand and share holder value. (Belch and Belch, Pg. 775) Those involved in managing IMC are creatively involved with planning, executing, evaluating, and controlling the use of various promotional mix elements to effectively communicate with a target market. (Pg. 775)

In order to be effective IMC managers in today’s business environment it is important to "keep up with the times.” As previously mentioned, online promotion is a critical ingredient in the new IMC. Often the online promotion is used in combination with other tools. For example, a recent insert in the Sunday Baltimore Sun by Dell provided general information for the target market. Those interested in additional information are advised to go online today for more deals from Dell. See: DELL.COM/DEALS. (Baltimore Sun, 1 November 2009)

If programs are developed in order to promote sustainability in the supply chain they have to be based on excellent IMC campaigns. These campaigns require a lot of cooperation, and often require a change in past practices. Sometimes this creates a host of problems. There are; however, some optimistic omens. Don E. Schultz, one of the pioneers in IMC, feels that the
integration of marketing functions has moved from theory to practice. Its specific applications may vary from market to market, indeed from enterprise to enterprise— but integrated marketing communications programs have become standard for marketing organizations, agencies, and the academic community. (Kitchen, Kim, and Schultz, Pg. 1) This paper posits that Dr. Schultz’s sage comment applies nicely to supply chain members.

Good effective IMC programs have grown in importance in today’s business world. They work for global giants like Samsung (Samsong.com) and are important for smaller firms like Cali Bamboo (calibamboo.com). There is no reason why IMC cannot help the world become a more sustainable place. Good IMC programs can help advance sustainability in the supply chain. In addition, individual members of the supply chain can use IMC to communicate to their target market what they have done to ride the green wave. Before exploring what some firms have been doing in the area of sustainability, it is important to make some observations about the overall concept of sustainability.

**BROAD VIEW OF SUSTAINABILITY**

The broad aspects of sustainability are vital. If the world is going to be a more sustainable place, then IMC has to be used to get this point across. On a more narrow aspect, firms, businesses, organizations, educational institutions, etc. involved in SCM must do their part to make the world a better place to live in both now and in the future. Integrated Marketing Communications is important in terms of showing what has been done in the area of SCM, what is being planned, and to encourage others to learn from good examples, and develop excellent sustainable marketing programs.

Promoting the concept of sustainability has made great strides over the past ten years. For the most part, individuals around the world are cognizant of the concept. Online marketing has been a wonderful way for the dissemination of information on sustainability. The Environmental Protection Agency (EPA) can be looked at as a major role player in communicating to everyone (epa.gov). The EPA follows the internationally accepted definition of sustainability as meaning the meeting of the needs of the present without compromising the ability of future generations to meet their own needs. In their early days the EPA served as a watchdog making sure everyone followed the rules and were not polluters. Near the end of the first decade of the 21st century their mission is now to make sustainability the next level of environmental protection drawing on advances in science and technology, application of diverse government regulations and policies, and promoting green business practices (EPA, Pg. 1)

The Sustainability Institute is another example of an organization working to promote the "green" concept. This is a non-profit organization founded in 1996. This Institute applies systems thinking, system dynamic modeling, and organizational learning to economic, environmental and social challenges (Sustainer, Pg.1).

Another organization working to promote sustainability would be an organization named SustainAbility. This organization, founded in the late 1980's, sees themselves as a strategy consultancy and think tank working with senior corporate decision makers to achieve transformative leadership on the sustainability agenda (Sustainability.com, Pg.1) In terms of
macro promotion it should be pointed out the value of this organizations Web address. That address probably was easy to get in 1987. How easy would it be today?

Publishing organizations have been a major factor in promoting sustainability. The Edward Elgar Publishing Company's fall 2009 brochure titled Environment & Ecology lists myriad books about sustainability. [Elgar] There are books on Tourism and the Environment (Becken); Sustainable Cities (Janssens, etc.); Handbook of Corporate Sustainability (Quaddus); Sustainable Innovation and Entrepreneurship (Wustenhagan), and many more. The Elgar publication also promoted a new journal coming out in early 2010. The publication will be called The Journal of Humans Rights and the Environment.

Stylus Publishing 2009 catalog, printed on recyclable paper, reads Earthscan: Publishing for a sustainable future [Styluspub]. Two of the publications listed are Sustainable Regional Retail Centers by Waer and Sibley [Waer] and Governing Sustainable Cities [Evans, etc]

It is clear that there is a global interest in promoting the concept of sustainability. It is the effective use of the tools of IMC, blended together in a strategic manner that helps make the concept become a reality. Some measures of success are spelled out by Chris Laszlo in his very timely book called Sustainable Value: How the World’s Leading Companies Are Doing Well By Doing Good [Laszlo]. In his book there are eight disciplines that are the backbone of developing and creating sustainable values. Those eight disciplines are: 1) Understand the current value position 2) Anticipate future expectations 3) Set sustainable value goals 4) Design Value creation natives 5) Develop the business case 6) Capture the value 7) Validate results and capture learning 8) Build sustainable value organizational capacity [Laszlo, Pg. 136].

What then have some firms done to maximize sustainability efforts? More specifically, how have they used IMC to achieve the goals set forth by laszlo? Several SCM firms/organizations and universities with SCM courses will be looked at including the Port of Baltimore, Yrc Motor Freight, UPS, CSX Railroad, Michigan State University, University of Maryland and Giant Foods.

SUPPLY CHAIN MANAGEMENT

An important part of marketing deals with the movement of goods throughout the channel of distribution. Historically the movement of commodities provided the focus of marketing, i.e., how does wheat flow from the fields of Oklahoma to the dining room table in Baltimore. These early studies of the Place function were typically looked at in piecemeal fashion. Transportation was an area in and of itself. There was a modal focus to the study of transportation with rail being the prime carrier early. The other functional areas shared their own spotlight. Warehousing, packaging, inventory management, etc. were important in their own domain.

Eventually there was movement to looking at these functional areas as a system. The development of computer science was a very vital contributing factor. The concept was to look at the total cost of distribution, and the level of customer service required. Managers then worked to deliver the goods where and when the customer needed them, at the lowest cost
feasible, i.e., a total cost concept. The first managerial phase was called Physical Distribution (PDM), *the storage of finished product and movement to the customers.* (Murphy and Wood, Pg.514)

As systems design and application progressed and improved so did the thinking about distribution. The PDM function shifted into a more all encompassing area that is known as Supply Chain Management. This new and exciting SCM can be defined as *the integration of the supplier, distributor, and customer logistics requirements into one cohesive process to include demand planning, forecasting, materials requisition, order processing, inventory allocation, order fulfillment, transportation services, receiving, invoicing, and payment. Also, the management and control of all funds, and related information in the logistics process from the acquisition of raw materials to the delivery of finished products to the end user.* (Coyle, Bardi, and Langley, Pg. 689)

A functional, efficient, smooth working supply chain has tremendous impact on the environment. In the steam engine days of railroading, for example, many cities were soot soaked by vapors spewed out by trains. Things have changed and sustainability has become important to supply chain members. Some of these efforts will be examined. In addition, several universities with excellent SCM programs will be looked at in terms of integrating sustainability into their programs.

**SCM MEMBERS AND SUSTAINABILITY EFFORTS AS PROMOTED VIA IMC**

A good starting point would be Educational Institutions. It is here that the minds of the future managers are being developed. The two institutions are the University of Maryland (UMCP) and Michigan State University (MSU).

**TWO EDUCATIONAL INSTITUTIONS WITH SCM SPECIALIZATIONS**

**UMCP** - In October of 2009 UMCP was named "America's Greenest Campus. *Winning this contest reinforces the level of activism and interest that our students have in environmental issues* said Mark Stewart, UMCP Sustainability Coordinator. {www.newsdale.umd.edu} In a news release on October 15, 2009 Governor Martin O'Malley, the Maryland Department of the Environment, and the Maryland Higher Education Commission offered their congratulations. On the front page of the UMCP home page (www.umd.edu) on 8 November was a banner pronouncement stating that junior Joanna Calabrese was awarded the Udall Scholarship for environmental leadership. The UMCP home page will allow a searcher to go to the Sustainability site.

**MSU** - The latest word coming from East Lansing is "Be Spartan Green." The MSU home page provides a link to their "Be Spartan Green" site. {MSU} The Web page is loaded with examples of the things going on at MSU including a brand new recycling facility. The fall 2009 issue of the MSU Alumni Magazine, with its green cover page, covers the new recycling center and other efforts. {MSU Alumni Magazine, Cover Page). Mark Fellows writes about the green activities going on at MSU. He writes that *Environmental stewardship makes sense...we have world class*
faculty, staff and students who can not only help the university but provide economic and environmental solutions for Michigan and around the world (Fellows, Pg. 25). At the Eli Broad College of Business undergraduate students can specialize in Environmental Studies and combine that with a business area of interest, e.g., finance. Even sports gets involved as the theme for the 2009 homecoming game on 17 October was "Be Spartan Green."

At College Park, East Lansing and college campuses around the world sustainability is in the classroom, on the sports fields, in administrative offices, and almost everywhere on campus. It is "buzz IMC" working every day.

TWO RETAILER MEMBERS OF SCM

WAL-MART (WM)-Wal-Mart needs no introduction. This mammoth retailer has changed the whole way channels of distribution operate. They have been, and continue to be a leader in operating a sustainable business. When Wal-Mart is Googled there appears the following statement, at Wal-Mart we see sustainability as one of the most important opportunities for both the future of our business, and the future of the world. (Google Search/Wal-Mart)

A visit to the WM web site helps to show just how strongly they promote, and how dedicated this organization is to sustainability. They have a Global Sustainability Report covering an Index, Buildings, Zero waste, Packaging, Value network, Textile, Wood and Paper. They promote their Index as the greenest thing ever to happen. (www.walmart.com/sustainability)

There is a most interesting video on the WM site that tell the story of The secret life of sour cream! Part of the video shows how dairy cow manure containing a high degree of methane is converted into energy saving electricity. (www.walmart.com) The site also promotes the sale of a CD titled Sustainability SU. They CD can be ordered online for the cost of a dollar.

This hugely successful retailer has set out on a mission to make sustainability a major part of their IMC Copy Platform. There is little doubt that a very strong channel captain WM will do their best to see that all members of the channel follow their efforts to “Go Green.”

GIANT FOOD-Giant Food is the largest food chain in the Washington, DC, Maryland & Virginia. Recently Giant changed their logo and redesigned their website. These changes favor a new color scheme that includes a lot of green. They have been community conscious for years, and now this has carried over to sustainability.

The Giant Web site is their major IMC tool that promotes sustainability. They have a Plastic Bag Recycling Program. They accept plastic shopping bags, dry cleaning and newspaper bags. They then send the bags to their recycling company where they composite decking. In addition, they sell reusable bags in their stores. They will take deduct five cents from each customer's total shopping bill. Giant has a large fleet of trucks and they work to fuel usage and CO2 output. They work closely with the trucking industry and the Environmental Protection Agency (EPA) to reduce greenhouse gases and air pollution. (Giant Foods Web) Giant, always has acted like a
good citizen, has been a leader in sustainability in their marketing area. They extol their "green" efforts in almost all IMC areas from store POP displays, newspaper advertisements, radio spots, etc.

TWO RAIL TRANSPORTATION MEMBERS OF SCM

CSX - The CSX railway is very interested in "investing in our future." They are devoted to reducing fuel consumption, upgrade technology, moving freight tomorrow more responsibly, improving processes that reduce nitrogen-oxide emissions, etc. They are active members in sustainability organizations, e.g., Climate Leader, SmartWays Transportation partnerships, etc. On their website you can take the "Clean Air Challenge." The CSX is a leader in sustainability in the railroad industry. (www.csx.com)

YELLOW/ROADWAY SYSTEM (YRC) - Like the CSX, YRC is a member of the SmartWays environmental organization. They are strong in promoting the program they call "Destination Green." On their website surfers can click on a video that explains Destination Green. (www.yrc.com/green/index.html) YRC has programs that promote sustainability, e.g., Fleet Strategy, Fuel-saving practices, Waste reduction/recycling practices, tips on living and working green, etc. (www.yrc.com)

UPS - visit to the UPS Website has a special section devote to explaining their position on sustainability. (www.community.ups/sustainability/index.html) UPS feels that it is their responsibility to operate in a fashion that is designed to preserve the environment. (www.ups.com)

TWO SEA TRANSPORT MEMBERS OF SCM

PORT OF BALTIMORE (POB) - The POB (www.pob.com) is committed to operate in a manner that is environmentally friendly. There is a POB clean diesel program. They are an important member of the Environmental Finance Club (EFC) at the University of Maryland. The EFC is dedicated to managing changes that facilitate a healthy environment and enhances the quality of life. (www.efc.MD.edu) Lt. Governor Anthony Brown spoke at the dedication ceremony for the new POB Marionville Cove Environmental Education Center. He said that the new facility marked the rebirth of the waterfront and reflects a true partnership between governments at all levels. He concluded his remarks by saying it is all about sustainability. (www.pob.com/news/pobmag/ma) There is little doubt that the POB is serious about sustainability.

PORT OF LOS ANGELES (PLA) - (http://www.portoflosangeles.org/) proudly displays a program for clean trucks, going into effect on January 1st 2010. The data below the caption reads: “About the Port of Los Angeles Clean Truck Program Building a cleaner future today!”

The Port of Los Angeles’ Clean Truck Program is a central element of the Clean Air Action Plan, which targets major sources of air emissions at the Ports of Los Angeles and Long Beach – ships, trains, trucks, cargo handling equipment and harbor craft.
The Clean Truck Program:
Establishes a progressive ban on polluting trucks
- October 1, 2008: All pre-1989 trucks were banned from entering the Port
- January 1, 2010: 1989-1993 trucks will be banned, in addition to 1994-2003 trucks that have not been retrofitted
- January 1, 2012: All trucks that do not meet the 2007 Federal Clean Truck Emissions Standards will be banned from the Port

Improves regional air quality
In its first year, the program reduced port pollution by 70 percent. When fully implemented in 2012, port truck emissions will be reduced by more than 80 percent.

Establishes a Concession Program
Concessionaires are held accountable for vehicle maintenance, insurance, security, and safety measures.

Facilitates the replacement of old trucks with low-emission vehicles
The Clean Truck Program is ahead of schedule in successfully achieving its objectives. That’s good news for the Port of Los Angeles, our communities – and most importantly, our environment. By creating a cleaner port, we’re building a brighter future for everyone. For more information, call 866-721-5686 or send an e-mail to ctp@tetratech.com. View program-related documents, applications and presentations at the links below.”

The above program description is directly linked to the port’s home page. Another link on that page shows a message from the port’s executive director, which goes on to say: Welcome to the Port of Los Angeles website, and thank you for your interest in "America's Port." This website is a great place to learn about our operations and get details about our wide array of projects and activities -- from industry-leading environmental programs, to our exciting waterfront development programs, to the many events and recreational opportunities just waiting for you here at the Port of Los Angeles. Clearly the need for greater sustainability in the form of a pollution free port and other environmentally responsible programs is very important to the management and operators of the port of Los Angeles.

THE ROLE OF IMC IN ENHANCING SUSTAINABILITY IN SCM-

DISCUSSION - The universities, retailers, and other supply chain transport organizations that were discussed above are fairly representative of other SCM institutions and SCM teaching universities. Most everyone is involved, at least to some extent, in sustainability efforts. Each one is very much involved in the go green movement. It is important if the world is to be a more environmentally pleasing place. Equally vital is the use of IMC to assist in getting the message out and thus making the world a greener place to live.

Clever, creative IMC is the backbone of a creative campaign and thus help create a more sustainable world. Television reaches the mass market with information about the value of good green practices. Radio can pinpoint specific target markets. Point-of-purchase promotions are strategically place and get the message across at the point of contact. Magazines target a specific market. For example, The Helen Delich Bently Port of Baltimore magazine is ideal for targeting SCM individuals involved in water transportation. Trade shows provide another
opportunity to zero in on a very specific target audience. Online promotions similar to those described in this paper help define and promote the green goals of site developers. Direct mail, transit, personal selling, still a big part of SCM marketing, are all tools used to get the green message out.

It has to be reiterated, however, that the dynamics of IMC rest in the synergistic campaign that cleverly combine all tools. Several vehicles sending out the same message gives a promotional program its real power. A radio spot by the CSX is strengthened when the POP display, sales pitch, advertisement in the Wall Street Journal, etc. all communicate to the target market the same message. The combined impact of a well planned, creatively created, excellently executed campaign is much greater than messages placed in an uncoordinated manner.

CONCLUSIONS - Sustainability is a crucial, important part of the 21st century business environment. It should be part of every one's life. Most are concerned and involved with making life more pleasant today and to take actions that help see that future generations will live in a safe, sustainable environment. **Sustainability issues involve everyone in an organization from the CEO to the janitor. They all have varying degrees of understanding, involvement, and perspectives about what can be done to assist in making your company more sustainable.** (Planet Partnerships)

This paper has explored some of the more important issues regarding sustainability, and specifically as it is related to SCM. A major concern involves communicating information to the target market. How do you convince people to Go Green? The focus of this paper is SCM, and what is taking place here regarding sustainability. Firms from various parts of the supply chain were observed in order to analyze what efforts were being taken to become more sustainable. Firms such as the CSX Railroad, YRC Transportation Company, UPS, Port of Baltimore, and Giant Foods were looked at. The UMCP and MSU were observed to see what steps they were taking to Go Green. The approach was to see how IMC was used in SCM to send a unified, consistent message. It is hoped that this IMC approach will be effective in making the SCM world a more greener one.

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