

SHOPPING CENTERS AND THE ENVIRONMENT: RECYCLING STRATEGIES FOR THE 1990'S

An Exploratory Investigation

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Overview

Shopping centers/malls occupy a unique "position" in distribution channels that puts them at the point where "bulk-breaking" takes place. At this "position," significant packaging-based solid waste streams are generated; concurrently, the opportunity exists to recycle corrugated cardboard materials (a green marketing strategy) and thereby moderate the solid waste disposal problem faced by local municipalities.

The present exploratory study was designed to uncover issues for incorporation in future research on a larger, more conclusive scale. Eleven shopping centers/malls participated in a two-part process. First, a short "ICSC Recycling Survey" was faxed to each mall's manager (the eleven respondents were selected on a judgmental and convenience basis; medians = 1,000,000 s.f., 5 anchors, 150 mall stores; 8 states covered). Upon return of each questionnaire (via fax), the manager was interviewed by telephone to further probe general issues related to recycling. The subjective output of this procedure is stressed.



Summary of Findings

FINDING #1: Corrugated materials are the major item recovered; however, a reliable estimate of the quantities of corrugated materials being collected through centers/malls is not available.

FINDING #2: "Corporate environmental conscience" (i.e., the desire to do the right thing for the community and the environment) is a major motivating factor in recycling collection. "Reducing waste management costs" is often simply not achieved; "Complying with legal requirements" may be an initial basis for involvement but once an ordinance is in place compliance is an assumed fact of business life.

FINDING #3: Promotional tie-ins with recycling and other environmental issues appear limited to occasional events, some with educational connections. The opportunity to differentiate through "environmental" image advertising is being missed.

FINDING #4: Managers have little difficulty achieving high levels of cooperation and control of recycling-collection programs using voluntary approaches. Implementing a continuous educational program is necessary because of the constant turnover of lower-level employees and store managers.

FINDING #5: There is a clear separation between the recycling activities of anchor stores and the mall stores.

FINDING #6: As public policy recycling mandates are imposed, consumer awareness levels and expectations are also expected to increase. This suggests that proactive approaches should be developed and implemented now - not reactive approaches later.

FINDING #7: Packaging waste reduction plays a minor role in the waste management process at the center/mall level.

FINDING #8: The trend towards "environmental correctness" is permanent and enduring; therefore, mall marketers must "team" with operations personnel in order to extract maximum impact from the benefits associated with recycling involvement.

Some Preliminary Strategies

The exploratory work qualitatively suggests that the following strategies are being practiced:

Environmentally Committed Strategy #1: Demonstrates a serious and deep-seated commitment to environmental issues that goes far beyond superficial compliance and “doing the right thing to look good.” Waste reduction and recycling practiced on a mall-wide basis; continuous employee education stressed.

Waste-Management Focused Strategy #2: Sees the issue as the need to reduce waste management costs; collecting corrugated materials is waste management, not an environmental issue per se. Does not tie-in this issue to other marketing programs.

Environmentally Correct Strategy #3: Recognizes the marketing importance of the environmental issue, the need to curry consumer favor in this regard, and the need for marketers to strategically react to this trend. More concerned with “image” than with substantive environmental/waste management issues.

Compliance-Driven Strategy #4: Driven by legal mandates; sees little/no positive environmental impact from recycling activity, and regards it as a costly, unnecessary bureaucratic intrusion.

Recommendations for Future Research

The issues uncovered in this study can be re-structured and presented on a concise 3–4 page questionnaire that could be fielded regionally or nationally via the fax methodology. Sample sizes in the range of 500–1,000 locations would be necessary to make reasonably precise projectile estimates. The results would serve to provide benchmark data for which to measure future change and also be a valuable source of information for ICSCEF public relations and other programs.

■ Introduction

The work presented in this study is the result of a grant by the International Council of Shopping Centers Educational Foundation (ICSCEF) for the period 1993–94 and focuses on recycling by shopping centers/malls. It clearly supports the ICSCEF’s stated goal of performing research “. . .

on matters relating to the environment.” Since the management of municipal solid waste (MSW) is a sensitive local political and environmental issue, and shopping centers contribute importantly to the MSW stream, the relevance and timeliness of this exploratory study is heightened. It is further suggested that the issues uncovered could be further addressed and quantified by conducting a larger scale survey research project in the near future.

■ The Waste Management Challenge

Consumption by America’s households is a major factor in the generation of approximately 200 million tons of municipal solid waste annually, an amount that translates into over 4.4 pounds per person per day (Franklin & Associates 1992, p. 2–2). Even though post-consumer waste accounts for only two percent of the nation’s total annual output of 11.7 billion tons (Office of Technology Assessment 1992, p. 4), its disposal in concentrated urban areas is a major public sector challenge that must be dealt with in order to insure the continued health and safety of the average citizen. Further, given that high-consumer-access urban locations are a hallmark of the retailing industry, facilities such as shopping malls/centers contribute significantly to the municipal solid waste stream.

Waste management remained an “out of sight, out of mind” problem until the dumping of waste became linked to environmental degradation. In 1988, the odyssey of the *Khian Sea* became a “defining moment” in waste management (*Orlando Sentinel* 1993). Loaded with 11,000 tons of incinerator ash fresh from the City of Philadelphia municipal waste system, the *Khian Sea* sailed the globe for more than two years looking for a port that would allow it to dock and dump its cargo. Mysteriously, the vessel turned up later with empty cargo holds after plying the Indian Ocean. The owner has been charged with ocean dumping, an environmental crime that carries a maximum penalty of \$100,000 in fines and one year in jail.

Similarly, as long as landfilling of just about anything remained cheap, the “solid waste management” problem remained a “non-problem.” After all, this basic approach (dump and cover with earth) has been practiced for over 5,000 years in places such as Bronze-Age Troy and industrial cities such as London in the late 1800’s (Korzum et al. 1990). In fact, landfilling still accounts for over 72% of the municipal soil waste disposed of in the United States (Steuteville and Goldstein 1993, p. 46). However, the number of active landfill sites has been declining since the late 1980’s, and serious questions are now being asked about the long-term impacts associated with entombing large quantities of “who knows

what!" in the ground on a regular basis. The sciences of environmental engineering and integrated waste management are continuously sounding the alarm concerning potential threats in the form of air, water, and terrestrial (land) pollution. Citizens continue to register alarm by strenuously objecting to additional landfill sitings, a practice dubbed the NIMBY syndrome (*not in my back yard*). In addition, new Sub-title D provisions in the re-authorized 1993 Resource Conservation and Recovery Act of 1976, which tighten up landfill operating standards, are serving to increase the costs of dumping to the point that other disposal options, such as recycling, have taken on new life in terms of economic feasibility.

■ Rising Green Consumerism

Concurrent with the new realities of waste disposal has been the gradual recognition by consumers that they, themselves, are the ultimate cause of the waste streams that are causing persistent problems in our high-consumption, disposable society. In short, as Pogo said, "We have seen the enemy, and it is us!" "Green consumerism" is a general label for the propensity of some consumers to select consumption alternatives based on perceived impact on the physical environment (ecosystem). The message of green consumerism is clear: consumer attitudes, values, and priorities in relation to the environment have changed.

Without arguing which came first, the chicken or the egg, several "drivers" have been identified with the emergence of green consumerism. First, consumer levels of awareness about environmental/ecological degradation have been increased dramatically through widespread media coverage of episodes such as the Khian Sea, Exxon Valdez, Chernobyl, and the unfortunate loss of life at Bophal to name just a few. Second, most primary and secondary education programs now contain subject matter which exposes students to the nature of ecological systems and other environmental issues. A third factor is affluence. When living levels far exceed basic subsistence, as they generally do in the Western world, citizens find they can "afford" to take action on environmental issues. Finally, an explosion of legislative initiatives and mandates is reflecting the general public's growing awareness of and interest in solving the environmental problem (See Fuller 1993b; National Solid Wastes Management Association 1992; National Solid Wastes Management Association 1992). One major type of mandate, the curbside collection program, is now practiced in 5,404 communities and estimated to reach over 78 million individuals (Steuteville and Goldstein 1993, p. 43,46). Apparently the old

educational adage, "Tell me I forget, show me I remember, involve me I understand" applies when it comes to environmental matters.

The "fact" of green consumerism has been documented by both Roper (1990, 1992) and J. Walter Thompson USA (1990); each firm has independently uncovered significant "green" consumer market segments within the U. S. market. In particular, Roper's 1990 study identified five segments in North America (dubbed the "shades of green" segments) as follows (see Table 1): 1) True-Blue Greens (11%), 2) Greenback Greens (11%), 3) Sprouts (31%), 4) Grouzers (24%), and Basic Browns (35%). In short, the "True-Blues" are active environmentalists, the "Greenbacks" say they are willing to pay more for green products, the "Sprouts" represent an important "swing group" that feeds into "True-Blue" and "Greenback" segments, the "Grouzers" are waiting for others to act, and the "Basic Browns" are relatively apathetic and uninvolved on this issue - period. A 1993 follow-on study by Roper suggests that the combined categories of "True-Blues," "Greenbacks," and "Sprouts" is increasing (from 48% to 56%) although the relative shares within this broader segment are changing somewhat (See Table 1). Many authorities interpret this to mean that "green consumerism" is here to stay - it's an enduring, permanent trend that influences over half of all consumers.

TABLE 1. ROPER'S GREEN SEGMENTS: 1990 VERSUS 1993

SEGMENT	1990 SHARE	1993 SHARE
True-Blue Greens	11%	20%
Greenback Greens	11	5
Sprouts	26	31
Grouzers	24	9
Basic Browns	<u>28</u>	<u>35</u>
	100%	100%

Source: Roper, 1993.

■ Emerging Green Marketing

In the late-1980's, "green marketing" (also called environmental marketing and ecological marketing) began emerging as a tentative response to waste management/pollution concerns in the United States. However, initial applications came under fire and were labelled "green hype" and "greenwash" because they were based largely on differentiating products using unsubstantiated "green claims," a tactic that appeared to be an at-

tempt to crassly profit in the short run from consumers' anxiety about the environment (Bruno and Greer 1992; Humphrey 1990; Task Force of State Attorneys General 1990). These early forays into green marketing also triggered a landmark inquiry by the Federal Trade Commission (1992) that resulted in the publication of initial guidelines concerning the use of environmental claims by marketers.

As knowledge about the influence of marketing on ecological quality and sustainable development has evolved (Charter 1992; Coddington 1993; Fisk 1974; Fuller 1993a; Henion 1976; Ottman 1993; Peattie 1992), a more precise definition of "green marketing" has become necessary in order to provide much needed direction for marketing managers for marketing managers who want "to do the right things, and do things right!" Any definition must unequivocally link marketing activity and decision making to the root issue underlying ecosystem quality - the management and control of waste. Specifically, green marketing must be seen as a pollution abatement initiative that supports sustainable development and is premised on the idea that strategies *can* and *must* be designed to be simultaneously beneficial to consumers, the firm, and the ecosystem. For example, in defining environmental marketing Coddington (1993) emphasizes "... environmental stewardship as a business development responsibility," while other authors note that green marketing is "... sympathetic to the environment" (Burall 1991, p. 65), produces outcomes "... that do not harm the environment" (Pride and Ferrell 1992, p. 98), or results in "... satisfying the requirements of consumers and society in a profitable and sustainable way" (Peattie 1992, p. 11). The common thread in these very general definitions, a persistent reference to environmental concerns, is made specific in the following definition:

Green marketing is . . . the development, pricing, promotion, and distribution of products that satisfy three criteria: 1) meet customers' needs, 2) meet the organization's goals, and 3) minimize (eliminate) pollution of the ecosystem (Fuller 1993a, p. 283).

This definition maintains a traditional marketing management focus while explicitly differentiating green marketing by the addition of the criterion of minimizing (ideally eliminating!) pollution, a condition requisite for achieving sustainable development. The term ecosystem is carefully chosen because it defines the natural world made up of habitats (i.e., biosphere, terrestrial, ocean and eustarine, freshwater) that are subject to pollution. Sustainable development will only occur if ecological and economic factors are considered inseparable; that is, living levels are advanced while the quality of the ecosystem is maintained to insure the survival of future generations (Cairncross 1992; Fisk 1974; Ruckelshaus 1989; Schmidheiny 1992). Pollution results and blocks sustainable development when large quantities of man-made waste inhibit the ecosys-

tem's built-in waste remediation processes, a phenomenon that is now occurring (Postel 1992). Therefore, the central issue in green marketing is the management and control of waste. Given waste is the antecedent of pollution, and marketing activity directly generates waste by fostering consumption, it is axiomatic that green marketing strategy must be based on a clear understanding and application of waste management concepts, a practice that some predict will become standard operating procedure in the near future (Kovacs 1988).

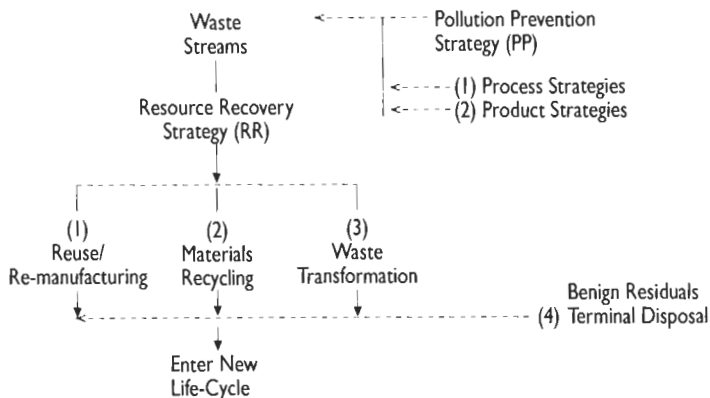
■ Green Marketing Strategies

Green marketing strategies are waste management strategies. At the fundamental level, the idea is to incorporate anti-pollution attributes into the production processes, products, and marketing channel systems that deliver benefits to consumers. The "green" benefit derives from the minimization/elimination of pollution and the resultant preservation of the quality of habitats (land, water, air) in which consumers and other life forms live. Two general strategies can be undertaken to achieve this result (see Figure 1) (Fuller 1993): 1) pollution prevention (PP), and 2) resource recovery (RR).

Pollution Prevention (PP)

Pollution prevention (PP) focuses on the "up-front" elimination of waste at the source. Stated another way, the prevention of waste early in a pro-

FIGURE 1
GREEN MARKETING/WASTE MANAGEMENT STRATEGIES



Source: Adapted from COPPE Info Backgrounder, 1992.

cess avoids higher long-term costs associated with waste processing and remediation during a later time period. It also enhances productivity in that more output “products” are created from less input “materials” because less ends up as by-product waste (*In Business* 1993; Freeman et al. 1992; Porter and Cannon 1992). Pollution prevention is implemented through two sub-strategies: 1) process pollution prevention, and 2) product pollution prevention. Process pollution prevention involves the design of clean production technologies to replace wasteful ones; it has major applications in the industrial sector. Product pollution prevention focuses on internalizing pollution abatement attributes in products themselves. The point is to “get more from less” by using smaller quantities of materials in product construction to begin with (i.e., light-weighting containers); by using non-toxic, standardized, and simpler mixes of materials (i.e., using only one plastic in a container rather than multiple plastics); by creating products that last longer or are reusable (i.e., products that can be serviced/maintained); and by reducing waste generation during product use (i.e., appliances that use less energy, autos that get higher mileage) (See Fuller 1993; Office of Technology Assessment 1992). Applied pollution prevention has been credited with saving the 3-M Corporation \$420 million during the period 1976–87 (Bringer and Benfardo 1989). Results such as this have led the U.S. EPA to establish the following strategic waste management priorities: pollution prevention (PP) first followed by resource recovery (RR) second.

Resource Recovery (RR)

Even with well-developed pollution prevention strategies in place, it is still clear that significant volumes of waste will continue to be generated as a cost of doing business and meeting consumers’ needs. In particular, there are no “0 waste” production processes; product packaging will remain necessary to guarantee product integrity during distribution and at retail point of sale, protect consumers in terms of health and safety, and provide reasonable levels of convenience. These types of waste are described as “end-of-pipe” waste and are particularly relevant to the wholesale and retail levels of distribution.

Four resource recovery sub-strategies can be applied (see Figure 1) (Fuller 1993): 1) product reuse/re-manufacturing (i.e., returnable, refillable containers; the refurbishing of components), 2) materials recycling (i.e., collection and processing of materials for later resale as commodities), 3) waste transformation (i.e., chemical-biological conversion as in the composting of organic materials or the incineration to create energy and reduce volume), and 4) the landfilling of benign residuals (i.e., after all other methods have been applied, bury what remains). Obviously, all options are not applicable to all product-market circumstances or equally

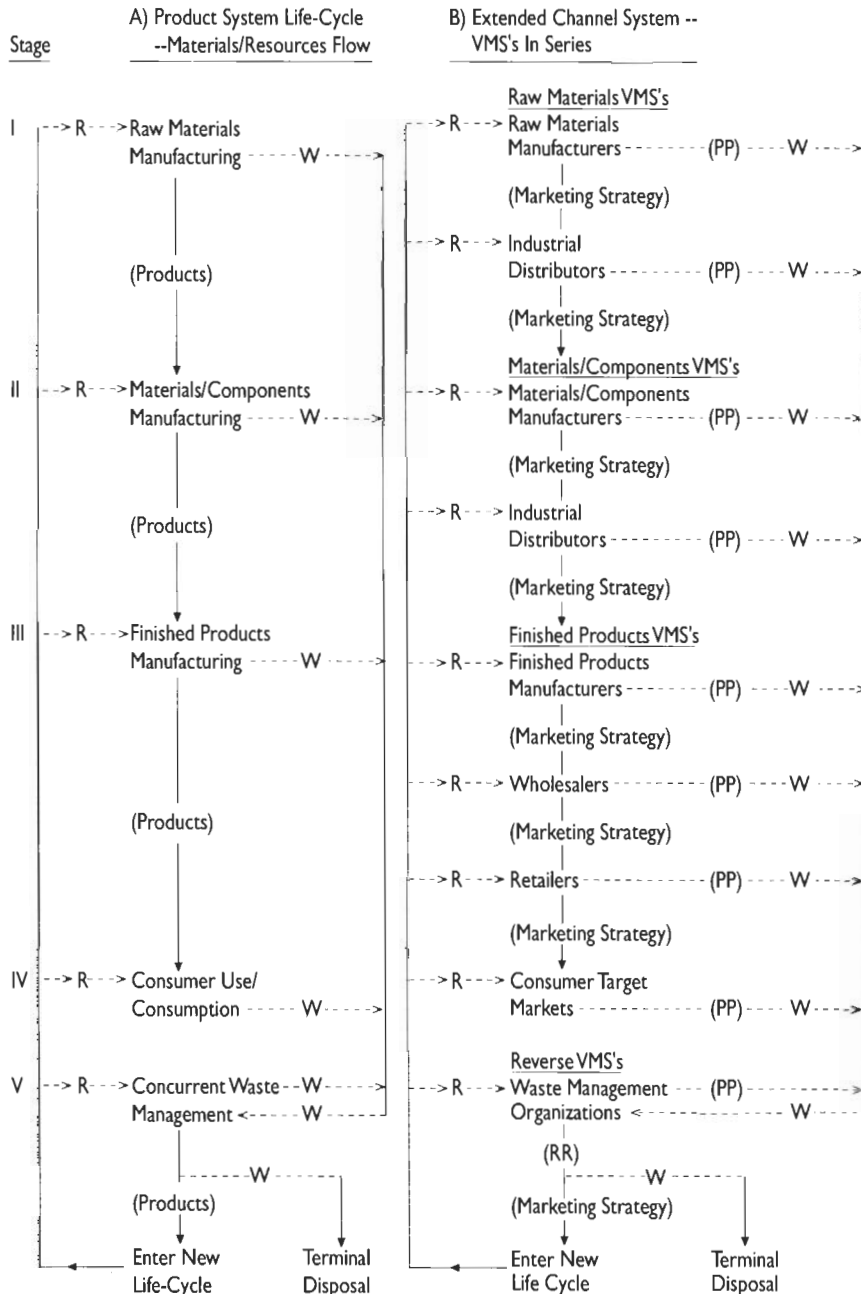
appropriate at all levels in distribution systems. For example, properly configured glass containers can be refilled by a manufacturer, but not aluminum cans; aluminum cans can be recycled for their material values, but not incinerated to obtain energy; many paper packages can only be transformed into energy after first use. Finally, there are always co-mingled residuals that must be landfilled.

■ The Extended Channel

The product system life-cycle (PSLC) is a "cradle-to-grave" representation of the events associated with the production and consumption of products (Davis 1993) (See Figure 2, Column A). When translated into a network of profit-making organizations aligned as a series of vertical marketing systems, the PSLC can be described as a normative extended channel.

The extended channel idea is important in the assessment of environmental issues for several reasons. First, it provides a basic decision-making framework for analyzing waste impacts by demonstrating that the delivery of marketing strategy is the result of the combined efforts of a broad coalition of organizations each supporting the other. As shown in Figure 2, Column B, the principal inputs to each organization are resources (i.e., energy, materials, products); the desired outputs are products in the form of refined raw materials, finished materials, components, and finished products (Society for Environmental Toxicology and Chemistry 1991; Environmental Protection Agency 1992). Since each organization "sells" to or through the next organization in the system, marketing strategy links the organizations in terms of common purpose and ultimate profit motivation. However, as "products" created at each level and passed down the channel, and ultimately on to consumers, waste (*w*) is generated as a by-product. The continuing and supportive relationships within the extended channel that are necessary to create products demonstrate Commoner's (1972) First Law of Ecology: "Everything is connected to everything else" (p. 29). The First Law implies that since each channel member is co-responsible in terms of product creation and also reaps a profit from doing so, each is also co-responsible for the waste that is collectively generated by the extended channel during this process. The creation of waste at each level brings into play Commoner's Second Law of Ecology: "Everything must go somewhere" (p. 33). This means that the waste that emerges at each level in the extended channel must be immediately managed (and controlled) through applications of green marketing strategies, that each organization has a stake (is co-responsible) in this matter, and that each organization will likely occupy a unique

FIGURE 2
THE PRODUCT SYSTEM LIFE-CYCLE (PLSC)/EXTENDED CHANNEL SYSTEM



*Adapted from Hunt et al. 1992; Davis 1993; and Fuller 1993b.

R = resources = energy, materials, products.

W = waste = air emissions, waterborne, solid waste.

PP = results of pollution prevention strategies.

RR = results of resource recovery strategies.

functional “position” in the waste management process based on level in the channel and the character of the waste generated at that level.

■ Shopping Center “Position”

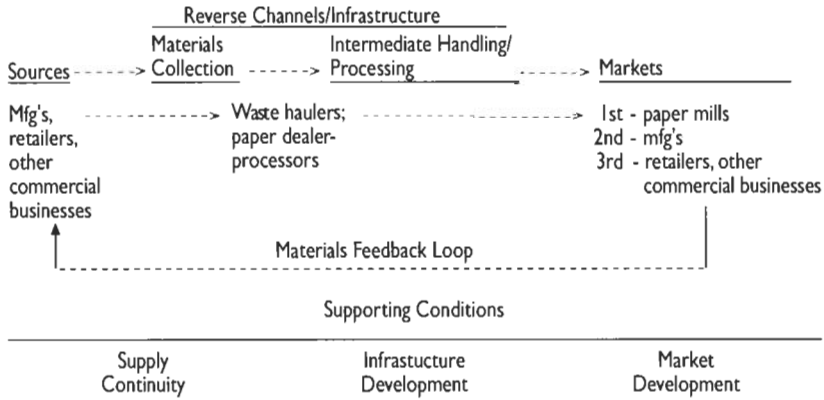
The relevance of all this to shopping centers is really quite straightforward. Retailing occupies a position that can be described as “downstream” in the extended channel. This position places it at the point where “bulk breaking” associated with product assortments takes place. As a result, predictable waste streams composed of packaging materials are associated with shopping center operations. The collection of these wastes places the center/mall at the head of what is classified as a “forward retailer/wholesaler” reverse vertical marketing system (See Fuller and Allen 1991). Therefore, materials recycling is the logical green marketing strategy through which center/mall management can achieve pollution abatement objectives.

The Recycling-Marketing Process

However, recycling must not be viewed as simply “the right thing to do” because of “position” in the channel. Instead, it must be looked at as a traditional marketing process (Alderson 1958) which links sources of products (in this case physical materials that have been re-processed to commodity status) with buyers through economically viable exchanges. For recycling to be successful, the following supporting conditions must be fulfilled over time: 1) supply continuity must be achieved, 2) markets for recyclables must be available, and 3) an infrastructure must be in place to link sources of supply with markets. Understanding recycling as a marketing process helps eliminate the function “bottlenecks” that may develop and prevent the attainment of recycling goals.

This process and the supporting conditions underlying it are shown in Figure 3 for the commodity old corrugated cardboard (OCC). Supply continuity occurs when a large and stable volume of clean and dry OCC becomes available from sources including manufacturers, retailers and other commercial businesses over time. These sources are serviced by waste/haulers or recycled materials specialists (dealer-processors) who package the materials in bulk, perform required quality control activities, and transport them to paper mills (first level markets) for use in the production of recycled-content corrugated medium. Corrugated boxes are then prefabricated and/or corrugated material is sold directly to manufacturers (second level markets) for end use as shipping packaging for

FIGURE 3
MARKETING RECYCLING PROCESS FOR OLD CORRUGATED
CARDBOARD (OCC)



consumer goods and other products which are then sold through the retail trade or to other commercial businesses (third level markets).

The recycling infrastructure is the reverse channel system made up of the organizations and associated facilities that link sources with buyers. Technology and management applications by these organizations allow the efficient collection/accumulation of large quantities of materials from sources, re-processing to acceptable quality standards/specifications, and delivery to first-level markets (buyers) on a continuous basis. In terms of the product system life-cycle (PSLC), this demonstrates that Stage V resource recovery (in this case materials recycling) only “closes the loop” when all three supporting conditions are met resulting in a continuous re-entry of material resources into new life-cycles (see Figure 2).

By recognizing that recycling is a marketing process, the role of the shopping center in recycling activity is clarified. First and foremost, materials collection activities are the most important functional consideration. In this regard, the shopping center must be looked at as an input-output process that continually generates waste outputs that are funneled through reverse channels back to productive use.

A center’s role is that of diverter and supplier of material; that is, by providing feedstocks to reverse channels it allows materials to be diverted from landfill disposal. The reverse channel’s role is to further processes and upgrade materials to commodity status, and seek out buyers in the marketplace. Important aspects of the center’s role include 1) maintaining volume and continuity, and 2) quality control (i.e., avoidance of contaminants).

Waste Generated By Shopping Centers

Because the present study is concerned with materials recycling, it focuses on the handling of waste streams generated by retailers. Investigation has shown that comprehensive studies of the waste streams of shopping malls are not available. However, the consensus is that while large variations in volume are to be expected based on the number of stores, the types of stores, and whether or not anchor tenants are included in the totals, the types of waste generated at retail will tend to reflect packaging discards.

In Table 2, R. W. Beck does shed some light on large retail store waste stream composition, an analysis that in many respects will likely

TABLE 2. SOLID WASTE GENERATION BY AN AVERAGE ANCHOR STORE

MATERIAL	ANCHOR STORE %
PAPER	51.5
Newsprint	1.5
Corrugated Paper	30.4
Computer Paper	1.8
High-Grade White	2.2
Colored Ledger	0.3
Boxboard (uncoated)	2.5
Boxboard (coated)	0.2
Magazines	0.3
Mixed Recyclable Paper	4.2
Non-Recyclable Paper	8.1
PLASTIC	7.2
PET (#1)	0.0
HDPE (#2)	0.2
Polystyrene (#6)	0.8
Film Plastic	3.5
Other Packaging	0.7
Other Plastics	2.0
GLASS	1.5
Clear Containers	1.1
Green Containers	0.1
Brown Containers	0.0
Other Glass	0.3
METALS	3.3
Aluminum	0.1
Other Non-Ferrous	0.1
Ferrous Food & Beverages	0.5
Other Ferrous Metals	1.7
Mixed Metal/Materials	0.9

TABLE 2. (cont.)

MATERIAL	ANCHOR STORE %
YARD WASTE	1.4
Grass	0.3
Leaves	0.0
Other Yard Waste	1.1
ORGANICS	33.4
Food	24.0
Tires and Rubber	1.0
Disposable Diapers	1.3
Lumber & Wood	4.1
Textiles	0.4
Other Organics	2.6
OTHER WASTES	1.6
Inert Solids	1.0
Brown Goods	0.0
Construction & Demolition	0.5
Pharmaceuticals	0.0
Fines	0.1
HAZARDOUS WASTES	0.1
TOTAL PERCENT	100.0

Source: R.W. Beck, Waste Age, February 1993, p. 86.

mimic total mall activity. The “average anchor store” shown provides some interesting insights. First, two categories - corrugated cardboard at 30.4% and food at 24.0% - account for over half (54.4%) of the total. Second, no other sub- category, except non-recyclable paper, exceeds 4.2% of the total; 23 of the remaining 39 sub-categories are 1.0% or less. Obviously, the presence or lack of food wastes will be a function of restaurant/food court activity and will require special handling. However, regardless of center composition, packaging waste in the form of corrugated materials will be present and represents the dominant recyclable waste “sourced” through shopping centers.

■ The Exploratory Investigation

This exploratory investigation looks at mall recycling activities and how recycling involvement is perceived by shopping center managers. The work is qualitative in character and was designed to probe this area, uncover issues, and suggest an agenda for future research.

Methodology

Shopping center managers were contacted in a two-part process. First, an initial telephone contact was made, followed by the delivery of a two-page exploratory questionnaire by fax (See Appendix). Each returned fax questionnaire was followed up by a telephone interview with the mall manager.

A total of thirteen (13) contacts were made, and eleven (11) questionnaires were ultimately received by return fax after four follow-up requests (a response rate of 85%) (Note: study requirements called for coverage of 10 centers). The centers were selected on a judgment and convenience basis, and all had on-going recycling activities under the jurisdiction of the mall manager. A profile of the study group is given in Table 3 and shows a diverse set of geographic locations, a spread across various size ranges, and an aging factor placing construction in the 1970's and 1980's. In all cases, the date built signifies that recycling activities were retro-fitted in the context of existing facilities, not "built-in" as in the cases of Mall of America (*Chain Store Age Executive* 1992b) and Home Depot's proposed recycling operation (*Chain Store Age Executive* 1992a).

Issues Explored

The following issues were targeted by the investigation:

1. Materials collection/collection arrangements.
2. Major influences on recycling activity.
3. The recycling-promotion connection.
4. Nature of contractual commitment/control of the activity/day-to-day challenges.
5. Role of anchor stores in recycling.
6. Consumer perception of center/mall recycling efforts.
7. Miscellaneous factors.
8. Importance of recycling in future operations.

■ Major Findings

Materials Collected/Collection Arrangements (1)

The obvious collection focus of each shopping center was corrugated box materials. This, of course, corresponds with the "bulk-breaking" position of retailing activity in the distribution channel. In this regard, 9 locations estimated combined annual collection at 1,756 tons (3,512,000 pounds),

TABLE 3. EXPLORATORY GROUP PROFILE

	NUMBER
<i>Mall Size In SF:</i>	
Less than 500,000	1
500,000–999,999	3
1,000,000–1,499,999	4
1,500,000 or more	3
<i># Mall Stores:</i>	
Less than 100	1
100–149	3
150–199	4
200 or more	3
<i># Anchor Stores:</i>	
3–4	5
5	5
6	1
<i>Parking Capacity:</i>	
Less than 4000 cars	2
4000–4999	3
5000–5999	3
6000 or more	3
<i>Year Built:</i>	
1970's	5
1980's	6
<i>Year Recycling Began:</i>	
1980's	4
1990's	7
<i>State:</i>	
Arizona	1
Connecticut	1
Florida	4
Illinois	1
New Jersey	1
New York	1
Virginia	1
Texas	1
(Base)	(11)

or .3959 pounds per square foot per year (median = .3868). However, this estimate showed a range of variation of 0.0543–1.1400 pounds per square foot, which not only reflects local conditions but the inclusion/absence of anchor tenants and probable misstatement (unintentional!). Some managers were extremely hard pressed to come up with an estimate, not because of confidentiality but because they simply did not track collections with accuracy. Considering that the average American generates over four pounds of waste per day, this level of collection is rather modest to say the least.

Some centers handled specific materials on a seasonal basis, and in the process created a seasonal promotional opportunity. Materials included telephone books and Christmas trees. Others collected additional materials on a continuing basis such as aluminum containers, glass/plastic bottles, packaging films (shrink wrap that sometimes is substituted for corrugated), and various types of food wastes (a function of restaurant and food court activity - and usually controlled by those tenants). Undoubtedly, the absolute quantities of these materials is quite low especially in comparison to corrugated materials.

Collection usually involved a combination of center and tenant employees; sometimes the tenants were asked/required to break down boxes and make them available to center "trash squads" (collection personnel) who would deliver materials to centralized (dedicated) compactors or dumpsters. At that point, the materials were taken possession of by an independent contractor (e.g., Waste Management, BFI, etc.) for hauling to processors or users and passed from the center's control. In one case, the maintenance manager was "given" the materials which he privately hauled after hours to a processor, the proceeds from which were simply viewed as a job benefit/perk for this individual.

FINDING #1: A reliable estimate of the quantities of corrugated materials being collected through centers/malls is not available.

Major Influences On Recycling Activity (2)

Participants were asked to react to four motivating factors/influences related to recycling activity: 1) reducing waste management costs, 2) corporate environmental conscience (doing the right thing), 3) compliance with legal requirements, and 4) desire to reflect consumers' values. In roughly half of the cases, legal requirements were not in place; in several cases, strict compliance was required via city/county ordinance. However,

most indicated that corrugated materials were (had been) regularly collected prior to any legal intervention and that these materials represented a relatively straight-forward cost reduction when alternative hauling and tipping charges were factored in; this was especially true in areas where tipping fees were relatively high. However, the handling of other materials (e.g., aluminum containers, glass/plastic bottles, etc.) was an all-around looser because volumes were relatively small.

Overall, management appeared to view recycling-collection as a cost reducing alternative, not a free-standing profit center. Overwhelmingly, the managers indicated that “corporate environmental conscience” and “reflecting consumers’ values” were the far more important factors, and in many cases managers lumped these two together. Several also indicated a pro-active approach by saying that their facility put recycling collection on line well in advance of any legal requirement and in most cases their activities exceeded anything required by statute.

FINDING #2: “Corporate environmental conscience” is a major motivating factor in recycling collection. “Reducing waste management costs” is often simply not achieved; “Complying with legal requirements” may be an initial basis for involvement but once an ordinance is in place compliance is an assumed fact of business life.

The Recycling-Promotion Connection (3)

All participants except one indicated they used environmental issues in mall promotion. Further probing revealed that this usually meant some sort of mall event such as a local recycling drive (i.e., annual phone book reclamation), an association with “Earth Day,” or a cooperative effort with city/local governments implementing new curbside recycling collection or similar programs. It did not mean image advertising on a continuous basis or any clear or consistent attempt to differentiate based on “environmental appeals.” One manager noted that he was probably “. . . missing an opportunity” in this regard.

Also missing was any strong association with local educational systems in the proactive sense. This also appears to be a missed opportunity.

FINDING #3: Mall/center promotional tie-ins with recycling and other environmental issues appear limited to occasional events, some with educational connections. The opportunity to use the “environment” to differentiate may be a missed opportunity.

Nature of Contractual Commitment/Control of the Activity/Day-to-Day Challenges (4)

The legal basis for managerial control of tenant recycling-collection was generally viewed as an unspecified part of the general rules established in the tenant lease in trash collection clauses. That is, most centers did not specify that tenants must “participate in recycling”; rather, it was understood/implicit that tenants would follow whatever rules center management set up and this included recycling involvements.

Some respondents indicated that their involvement included “policing” the program. Only one indicated that fines or other penalties were imposed for inappropriate behaviors (i.e., failure to comply with the recycling rules). Thus, the voluntary cooperation is seen as the norm control mechanism.

In basic terms, the recycling-collection operation in center/malls is relatively straight-forward and simple. Any operational challenges concern two factors: 1) maintaining program visibility and participation rates within the mall tenant community, and 2) continuing a plan of constant education of store managers and lower-level employees. Both impact volume and quality of collected product. In particular, the constant turnover of store managers and other personnel necessitates a constant education/re-education program which is tackled through memos, group meetings, and occasionally with trash sub-contractor support. As one center manager put it, “. . . it’s a matter of conscience versus convenience,” especially among lower-level employees who are tempted at times to simply dump trash rather than separate it per the rules.

FINDING #4: Managers have little difficulty achieving high levels of cooperation and control of recycling-collection programs using voluntary approaches. Implementing a continuous educational program is necessary because of the constant turnover of lower-level employees and store managers.

Role of Anchor Stores (5)

Anchor stores “do their own thing” and internalize any recycling-collection function thereby leaving the “mall stores” to similarly “do their own thing.”

FINDING #5: There is a clear separation between the recycling activities of anchor stores and the recycling activities of mall stores.

Consumer Perception of Center/Mall Recycling Efforts (6)

In all cases mall managers indicated that consumers looked favorably on their efforts and sometimes even requested that the mall "recycle" additional materials. Some managers reported consumers bringing household-generated materials to the mall for recycling. Consumers' awareness and favorable perception of a center's/mall's recycling efforts appears to be positively associated with the existence of in-place curbside recycling-collection ordinances.

FINDING #6: As public policy mandates continue to be imposed in this area, consumer awareness levels and expectations are also expected to increase. This suggests that proactive approaches should be developed and implemented now - not reactive approaches later.

Miscellaneous Factors (7)

As an alternative to the "end-of-pipe" recovery of materials, managers were asked if they saw any evidence that retail suppliers were reducing the volume of packaging (corrugated) being shipped forward. Almost all responded "no"; a few felt that the anchor store recycling-collection systems were attempting to reduce packaging volume by switching to "shrink wrap" as an alternative for corrugated materials.

FINDING #7: Packaging waste reduction plays a minor role in the waste management process at the center/mall level.

Importance of Recycling in Future Operations (8)

The opinion was unanimous among managers that the "environmental issue" was a permanent trend and one that would get even more important over time. Several mentioned that "eco-retailers" (See Deneen 1993) were beginning to become tenants of centers/malls. However, none of the managers mentioned plans to differentiate their operations based on a "green theme."

FINDING #8: The trend towards "environmental correctness" is permanent and enduring; therefore, mall marketers must "team" with operations personnel in order to extract maximum impact from

the benefits associated with recycling and environmental involvement in general.

■ Some Preliminary Strategies

The exploratory work qualitatively suggests that four strategies are being practiced:

- *Environmentally Committed Strategy #1:*
Scenario: Demonstrates a serious and deep-seated commitment to environmental issues that goes far beyond superficial compliance and “doing the right thing to look good.” Waste reduction/recycling practiced on a mall-wide basis; very concerned about continually educating employees about the issues and the importance of recycling correctly, etc.
- *Waste-Management Focused Strategy #2:*
Scenario: Sees the issue as operational waste management; collecting OCC is waste management, not so much an environmental issue per se. Is concerned over the economics of the process; sees its value as a cost reducer.
- *Environmentally Correct Strategy #3:*
Scenario: Recognizes the marketing importance of the environmental issue, the need to curry consumer favor in this regard, and the need for marketers to strategically react to this trend. More concerned with “image” than “substance.” Not well informed about waste management issues.
- *Compliance-Driven Strategy #4:*
Scenario: Is literally driven to undertake the process because it’s the law. Sees little/no positive environmental impact from recycling activity, but does see mandated recycling requirements as an unnecessary bureaucratic intrusion.

■ Recommendations for Future Research

The results of this work are similar to those from a focus group panel as they are qualitative and exploratory in nature. To get “hard numbers” a broadened survey research approach is recommended.

Many of the items on the initial questionnaire and follow-up guide could be re-structured and presented on a concise 3–4 page questionnaire that could be fielded nationally via the fax methodology used to make initial contact in this work. Sample sizes in the range of 500–1,000

locations would be necessary to make reasonably precise projectile estimates.

If the above work is commissioned, it would serve several purposes. First, it would provide benchmark data with which to measure future change in this area. Second, it could become a valuable source of "marketing information" which the ICSCEF could utilize for public relations and other programs.

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APPENDIX:

CASE STUDY PROFILES

CASE 01

Location: Florida

Size:

Square feet: 1,300,000

Parking capacity: 5,900

Mall stores: 164

Anchor stores: 4

Built: 1974

Recycling since: 1991

Scenario:

Double level facility with centralized collection and dedicated compactors for corrugated (78 tons per year). Sees the environment as a background issue for most consumers. Does not view recycling as an economic proposition (it is too labor intensive); main benefit is that it is good for the environment (corporate environmental conscience). Not using in mall promotions but that may change in the future. Located in an area where curbside collection is in place.

CASE 02

Location: Florida

Size:

Square feet: 1,100,000

Parking capacity: 5,500

Mall stores: 165

Anchor stores: 4

Built: 1973

Recycling since: 1980

Scenario:

Long time recycler of corrugated (130 tons per year). Use the revenues from corrugated as an employee fringe benefit/incentive. Other materials (aluminum, glass, and plastic containers; computer paper) are "combed" from trash by sub-contractor-hauler. Have held "events" and "political tie-ins" (local government officials, etc.). Curbside collection system is in place in local area communities. Uses a "trash team" to police process and inform/educate store managers and employees of need for correction, etc.

CASE 03

Location: Florida

Size:

Square feet: 1,000,000

Parking capacity: 4,000

Mall stores: 165

Anchor stores: 5

Built: 1978

Recycling since: 1992

Scenario:

Both corporate environmental conscience and cost reduction are drivers. Handle corrugated (36 tons per year); seasonal programs/events involve tires, Christmas trees, and telephone books. Tenants supply labor. The most active of all in the area of promotion; PSAs and other public tie-ins. Several annual events and a "recycling fair"; see future opportunities in the area of image advertising. Positive support from consumers and tenants. Curbside collection in place in the area.

CASE 04

Location: Florida

Size:

Square feet: 1,600,000

Parking capacity: 7,500

Mall stores: 200

Anchor stores: 6

Built: 1986

Recycling since: 1990

Scenario:

Main driver is perception of community support (combined corporate environmental conscience and desire to reflect consumers' values). Corrugated materials are collected from mall tenants, compacted, and picked up, by sub-contractor; volume estimate not available. Utilize promotional tie-ins with Earth Day, environmental fashion shows, school contests. See "environment" as an enduring, permanent trend.

CASE 05

Location: Arizona

Size:

Square feet:	1,600,000
Parking capacity:	8,350
# Mall stores:	210
# Anchor stores:	5

Built: 1973

Recycling since: 1989

Scenario:

The mall features two dedicated compactors for the handling of corrugated materials (300 tons per year). Seasonal collection of telephone directories in partnership with the telephone company. Driving force is needed to reduce waste flows into landfill (corporate environmental conscience); it's a loser in terms of costs versus revenues (highly labor intensive). Curbside recycling is just now being implemented in the area and is expected to enhance interest.

CASE 06

Location: New Jersey

Size:

Square feet:	900,000
Parking capacity:	4,500
# Mall stores:	168
# Anchor stores:	3

Built: 1988

Recycling since: 1994

Scenario:

Separates corrugated (360 tons per year); aluminum beverage containers, glass containers, food waste, and shipping pallets are handled. Very pro-environmental in outlook (corporate environmental conscience, desire to reflect consumers' values); believes shoppers are very positive about their activities. Heavy emphasis on continuing employee education. Not overtly promoted - wants to educate by example. Sees volume reduction as a future trend.

CASE 07

Location: Connecticut

Size:

Square feet: 250,000

Parking capacity: 1,000

Mall stores: 40

Anchor stores: 3

Built: 1975

Recycling since: 1989

Scenario:

Separates corrugated (51 tons per year); aluminum and glass containers collected in separate bins. Local township has an ordinance. Not cost effective but "corporate environmental conscience" and "desire to cater to consumers" (a college town) are the most important drivers. No budget for any promotion beyond basic event announcements. Training new employees a challenge; important to put relevant signage on dumpsters. Tenant cooperation is gained via contract requirements.

CASE 08

Location: New York

Size:

Square feet: 600,000

Parking capacity: 3,000

Mall stores: 105

Anchor stores: 3

Built: 1983

Recycling since: 1990

Scenario:

All corrugated (342 tons per year) handled by mall staff. Compliance driven; must meet provisions set by detailed county ordinance. Not cost effective; receive zero revenue for corrugated. Feels that the more government controls it, the more expensive it gets. Not used as promotion theme. Highly negative about the role of local government in this process (the inefficiency local government creates.)

CASE 09

Location: Illinois

Size:

Square feet: 1,200,000

Parking capacity: 5,600

Mall stores: 125

Anchor stores: 6

Built: 1980

Recycling since: 1991

Scenario:

Corrugated materials (261 tons per year) are collected in trailers and then taken to a compactor-bailer; tenants break down boxes, mall employees collect. Driven by corporate environmental conscience; has to be done - trend is here to stay. Some problems in educating lower-level employees. Local community is very recycling oriented; curbside recycling is in place. Educational tie-in via a children's club; little other promotion using this theme.

CASE 10

Location: Virginia

Size:

Square feet: 2,100,000

Parking capacity: 8,350

Mall stores: 210

Anchor stores: 5

Built: 1973

Recycling since: 1989

Scenario:

They face some of the highest landfill tipping fees in America so cost avoidance is a major factor; however, corporate environmental conscience is a factor of equal importance. Local county has a commercial recycling ordinance; curbside collection is also in place. Handle over 550 tons per year of corrugated. The education function has been developed in conjunction with the waste subcontractor. Tenant compliance is specified in lease.

CASE 11

Location: Texas

Size:

Square feet: 958,000

Parking capacity: 4,750

Mall stores: 115

Anchor stores: 5

Built: 1988

Recycling since: 1988

Scenario:

Separates and collects cardboard (26 tons per year) for handling by a sub-contractor. Tenants supply labor and deliver to centralized locations. Focus is on waste management cost savings, not environmental concern. The geographic area in which located does not have severe waste management problems to begin with; there are no curbside collection or other recycling mandates in place in the area. Does recognize a growing consumer trend towards "green" but sees it as a background issue.
