

# Packaging, the Environment, and European Legislation: Marketing's Response

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**ABSTRACT.** There is pressure from both consumers and the European Union or EU (formerly the European Community or EC) for companies to adapt their activities in order to minimize the impact on the environment. This paper reviews literature relating to packaging, the environment, and European legislation, and then identifies the current status of the proposed EU Directive on Packaging and Packaging Waste. To gain an insight into packaging and the directive, a survey was conducted with UK Marketing executives involved in the production of consumer goods. The survey found that the primary function of packaging is to protect the product until it is ready for use. The Marketing function carried the most influence within the organization when it came to making packaging decisions and, in the majority of cases, packaging accounted for less than 10% of overall product costs.

Companies on the whole are aware of the directive and most of them had taken, or planned to take, some form of action in relation to addressing the requirements of the directive within their company. This action mainly looked at package reduction, reuse or recycling. However, industry is still somewhat unsure of what the directive is meant to achieve and who will be responsible for carrying out its requirements. Apart from being aware of what the directive involves and how other

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firms are responding, it would be unwise at this stage for firms to make significant spending decisions in relation to the directive until it has been finally adopted, since the directive as it currently stands raises more questions than it answers. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: [getinfo@haworth.com](mailto:getinfo@haworth.com)]

## **INTRODUCTION AND OBJECTIVES**

There is little doubt that the impact of packaging on the environment is gaining increasing recognition. A Neilson study showed that more than 30% of UK consumers buy recycled paper products and use bottle banks. Nearly 30% had stopped using aerosols (Marketing, 1992). However, meeting consumer demand is not the only factor which is encouraging some businesses to adopt a more environmentally friendly approach to their packaging. In recent times the European Union (EU) has become involved in environmental legislation which in effect is "pushing" businesses into environmentally responsible behavior. A number of environment based legislative forces have already been introduced by the EU and more are expected in the future. One such legislative force is the proposed *EU Directive on Packaging and Packaging Waste* (1993). This directive, which focuses on increasing the recycling of packaging material and reducing the level of packaging waste, has major implications for business. The literature, however, has indicated that no research has been conducted to identify what manufacturers see as being the major implications of this packaging directive. After reviewing the literature examining the manner in which businesses have responded to environmental pressures in the packaging area and elsewhere, this paper uses research to identify the functions of packaging, marketers' awareness and perception of the proposed EU Directive on Packaging and Packaging Waste, and their companies' response to the directive.

## **CORPORATE RESPONSE TO ENVIRONMENTAL PRESSURES**

While a great deal of research has been done regarding consumers' attitudes and response to environmental issues, much less research has been done on corporate attitudes and response. There is evidence that some firms see concerns for the environment as being major and urgent. For instance, a survey of UK marketers (Mitchell, 1989) found that 80%

believe business will be forced to change dramatically in response to the growing ecological crisis and 92% see the green movement as a permanent change in society and consumers, rather than a short-term fad. The majority of these marketers, therefore, see the environment as being an issue which businesses will eventually have to respond to. The study by Peattie and Ratnayaka (1992) went beyond the study by Mitchell (1989) by looking not only at the urgency of environmental issues but also the extent to which firms have responded to them. They approached 42 chemical manufacturing companies in the UK and in most cases spoke to marketers. Just over 90% of respondents rated green issues as highly important; none rated their importance as low. Pressure to change is expected to come from rigorous legislation. Research reported by Szymankiewicz (1993) tends to be consistent with the latter by showing that UK firms perceive EU regulation as being the main source of environmental pressure. In terms of urgency, 71.4% of Peattie and Ratnayaka's respondents felt an immediate response was needed, 23.8% anticipating having to respond in the near future. When asked what specific measures were being taken to improve environmental performance, 35.7% said they had introduced more environmentally friendly packaging, while only 2.4% were using recycled paper.

Relatively more positive findings were found in research by David Bellamy Associates (Szymankiewicz, 1993). This study showed that many UK firms have taken some form of action in terms of more environmentally friendly packaging policies. This is shown in Table 1.

However, despite claims that businesses will not survive if they do not change their ways, there remains a great deal of evidence to suggest that many are not responding to pressures to preserve the environment. The UK has been described as "Europe's laggard on environmental issues"

TABLE 1. Companies Having Specific Packaging Policies

Policy	Percentage of Companies
Minimisation	70
Choice of materials	62
Re-use	56
Recyclability	54
Returnability	37

Source: Szymankiewicz, J. (1993), "Going Green: The Logistics Dilemma," *Logistics Information Management*, Vol. 6, No. 3, p. 41.

and “the dirty man of Europe” (Maxwell, 1990). Research by the Institute of Directors (Cowe, 1993) reinforces this perception by finding that only just over half of the directors polled said that their companies had environmental policies. Even among larger companies the figure was less than 50%. Again, new laws were the main reason cited for boards paying more attention to these issues.

Research by other groups tends to produce equally negative findings with regards to the environmental concern shown by firms: Henley Management College and Price Waterhouse found that many companies have stopped adapting their operations to reflect green concerns, which they see as irrelevant (McCarthy, 1992). A survey by the University of Westminster found that business people were prepared to abandon environmental concerns if they conflict with profit or personal status (*The Times*, 1992). Prothero and McDonagh (1992a) in their research of cosmetic companies also found that some companies were paying lip service to the issue of environmentally acceptable products.

Overall, therefore, the research suggests that the response to the green movement has been mixed. In those cases where firms *are* paying attention to environmental issues, it seems that legislation is the main factor driving them in that direction.

### ***PACKAGING AS AN ENVIRONMENTAL ISSUE***

Different authors point to different functions for packaging. Both Robertson (1990) and the Institute of Logistics (1993) point to up to seven specific packaging functions, which essentially can be condensed into three core functions. The first function of packaging tends to be logistical-related: packaging protects the product in movement (*Grocer's Review*, 1990; Dyllick, 1989). One of the basic reasons for incurring the added expense of packaging is to reduce the occurrence of damage, spoilage, or loss through theft or misplaced goods. As well as attracting attention to a product and reinforcing a product's image, packaging provides an attractive method to convey the virtues of the product (Theodore, 1974; Nickels and Jolson, 1976; Gardner, 1981; Leonard, 1981; Gershman, 1987; Ballou, 1987; Sara, 1990; Gray and Guthrie, 1990). This function is reinforced when one considers that packaging is the single most important factor in purchasing decisions made at the point of sale (Gray and Guthrie, 1990). Therefore packaging has a strategic purpose also since it helps a product stand out from competition. Packaging provides convenience (for both middlemen and consumers) of handling and storing the product. The package may be thought of as the outside wrapping of the product, or it

may combine small packaged units into a larger quantity. The package may facilitate use of the product, such as the application of shoe polish (Robertson, 1990; Hise and McNeal, 1988; Selke, 1990; Warbuton, 1990).

In the 1990s additional demands are being placed on packaging, especially in relation to the environment. Consumers are increasingly demanding more environmentally friendly packaging in terms of reduced packaging, or packaging which is able to be recycled or reused. Indeed research into consumer attitudes on new packaging indicates that consumers now expect all packages to be environmentally friendly (*Marketing Week*, 1993). Pressure for environmentally friendly packaging is not only coming from consumers but from EU directives. The EU has issued a wave of directives, some of which have direct implications for packaging. There are nearly 200 EC/EU directives and decisions which deal specifically with environmental areas, although more than half these directives had not been implemented by 1990 (Prothero and McDonagh, 1992).

### **PACKAGING LEGISLATION AT THE EU LEVEL**

The 1958 Treaty of Rome included no information of the EEC policies towards environmental areas; this major barrier was recognized in the 1987 Single European Act where it is now possible for the EU to deal specifically with environmental issues.

To demonstrate the growing importance of the environment in the EU it is useful to draw a comparison between different countries with regards to their concern for environmental problems. CEST—the Centre for Exploitation of Science and Technology (1991) considered twelve environmental problems and how seriously these issues were being taken on a global scale. They collected the data shown in Table 2, which illustrates how much money the UK, the EU and the US are expected to spend in certain problem areas in the next decade. The table shows that the environment is taken very seriously by the EU and vast amounts of money are being spent on improving the problems faced by the global environment.

The most recent EU directive of importance to marketing is the proposed *EU Directive on Packaging and Packaging Waste* (1993). According to this directive, packaging is defined as

... all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to

TABLE 2. Estimated UK, EU and US Expenditure on Twelve Environmental Problems (£bn), 1991-2000

Environmental Problem	£ UK	£ EU	£ US
Greenhouse effect	48	237	443
Water quality	25	75-100	71
Waste management	19	180-200	120-170
Acid rain	11	51	25
Heavy materials	9	80	52
Ozone depletion	7	70	76
Air quality	7	34	17
Noise	6	32	33
VOCs and smells	3	26	27
Persistent organics	2	23	15
Contaminated land	2	25	150
Major spills	1	7	7
<b>TOTAL £</b>	<b>140</b>	<b>860</b>	<b>1060</b>

Source: The Centre for Exploitation of Science and Technology (CEST) (1991), *CEST-Industry and the Environment*, CEST London.

the user or the consumer. Disposables used for the same purpose are to be considered as packaging too.

The central aim of this directive is to minimize packaging waste wherever appropriate and to reuse or recycle so that less goes for final disposal. Through creating a uniform European policy for the management of packaging and packaging waste, it is intended that the directive will encourage progress towards a single European market by reducing barriers to trade and competition.

The proposed directive was submitted by the EU Commission to the Council of Ministers in August 1992. The Council reached a common position in December 1993. Since its inception in 1992 amendments have been made to the directive, mainly in the area of targets set for the recovery and recycling of packaging. As it currently stands, the most important and controversial aspects of the directive are:

1. No later than five years after the directive comes into force, Member States are required to take measures to achieve the recovery of be-

tween 50% and 65% of packaging waste, and the recycling of between 25% and 45% of such waste.

2. All member states must ensure that within five years of the directive coming into force their packaging waste is no higher than the average per capita for the Community at the date of adoption.
3. Member states will have to take the necessary measures to ensure that, within five years of the directive coming into force, all packaging shall comply with the marking provisions laid down in the directive.
4. Member states will have to provide information on the magnitude, characteristics, and evolution of the packaging and packaging waste flow. This is necessary in order to check the attainment of the goals set.

According to the directive, responsibility for these activities lies with the manufacturers and distributors.

A second reading from the European Parliament is now awaited, after which the directive is expected to be passed as legislation (Department of Trade and Industry, 1995). The directive will then have to be implemented by law by each country, although there will be some minor modifications for each country. The exact date at which the directive will be adopted is not definite.

For marketers this directive is of considerable importance. According to Prothero (1990) and Prothero and McDonagh (1992b) the area of packaging is one where marketing has been heavily criticized. Criticism of marketing has then been based on the "window dress" strategy as far as environmentally acceptable goods and services are concerned. Schlossberg (1990) also stresses that terms such as recycled, recyclable and biodegradable have become little more than marketing ploys; coupled with this there is increasing "misinformation about plastic and its disposal" (Miller, 1990). The introduction of EU based laws governing these issues may make it more difficult for organizations to make dubious green claims about their packaging.

The success of such directives is dependent on well-informed manufacturers who are prepared to embrace the requirements of the directive. However, the Centre for Exploitation of Science and Technology (CEST) (1991) has suggested that there may be some way to go before British firms are proactive and well-informed over environmental issues and EU directives. There is little empirical research, however, to support this view. McDonagh and Prothero (1991) obtained UK cosmetics and toiletries industries' views of the proposed European eco-label, but no empirical

work has yet been launched in relation to the EU packaging directive. According to Prothero and McDonagh (1992b),

Further empirical investigations within Europe need to be conducted to consider the opinions of many industries. Such research would allow industries and business people to give their opinions to EU directives for the environment; where this information could provide insights into how such directives could best progress in the future.

### **METHODOLOGY**

In order to gain insights into packaging and, more specifically, how firms are responding to the EU packaging directive, a mail survey was conducted. Preliminary depth interviews with packaging/environment experts (such as other researchers in the area, members of the Packaging Institute, packaging designers and marketers in companies) and consulting the literature assisted in developing the content for the questionnaire. The preliminary interviews also suggested that the target for the questionnaire within companies should be marketers, since it was likely these individuals carried the most influence in the packaging decision.

To check reliability and validity the questionnaire was pretested on eight marketers: four by mail and four in a face-to-face situation. The population was compiled from a Dun and Bradstreet mailing list composed of named respondents from 350,000 actively trading UK businesses. Using this list, 600 named marketing executives were randomly selected from the following consumer goods industries: food and kindred products, beverages, tobacco products, pharmaceutical, soaps, detergents, polishes and sanitation goods, games and toys. These sectors were chosen since the literature suggests that they are more involved with packaging materials than other sectors and therefore are facing the greatest environmental pressures on their packaging (Szymankiewicz, 1993). A potential limitation to this approach, therefore, is that it does not include those organizations involved in the production and distribution of industrial goods.

The sample of 600 was evenly split between small (0 to 200 employees), medium (201 to 500 employees) and large (more than 500 employees) companies. Of the 196 individuals who responded to the questionnaire, more than 80% were involved with the manufacture of food and beverage products, while the remainder were in areas such as toiletries, cleaning products and pharmaceuticals. There was a disproportionate number of responses from large companies (33% of sample but 44% of

response). A summary of the characteristics of respondents can be found in Appendix 1.

## RESULTS AND DISCUSSION

### *Packaging Functions, the Parties Involved in the Packaging Decision and the Cost of Packaging in Relation to Overall Product Costs*

In order to understand the background to packaging, respondents were asked a series of questions in relation to the role of packaging, parties involved in the packaging decision, and the cost of packaging in relation to overall product costs. Note that in this instance packaging refers specifically to *sales* packaging since it was believed that the respondents (marketers) would provide more accurate feedback on this aspect of packaging as opposed to secondary or tertiary packaging.

The respondents were asked to divide 100 points between a number of packaging functions to reflect how important each function is for the line of products they are most involved with. The mean importance of each function is given in Table 3.

Table 3 indicates that the primary function of packaging is to contain and protect the product until it is ready for use. This is predictable since such a large proportion of fast moving consumer goods (FMCG) companies are involved with perishable food and beverage items. Products must be contained in order to prevent their contents spilling. In this sense the environment is being protected by the packaging. But the packaging also protects the product from outside environmental effects such as water, moisture, vapour, gases, odours, dust, shocks, vibrations, compressive forces, etc.

TABLE 3. The Role of Packaging

Packaging Function	Mean score out of 100	Standard Deviation
Contain and protect the product until it is ready for use	54.26	23.35
Attract customer attention to the product	19.19	15.88
Reinforce a product's image	13.41	12.24
Facilitate use of the product	11.92	13.21
Other function	.86	3.55
<b>TOTAL</b>	<b>100</b>	

The marketing concerns of attracting customer attention to the product and reinforcing a product's image were the next main functions of packaging. There is an expression that "a package must protect what it sells and sell what it protects." The ability of consumers to instantly recognize products through distinctive branding and labels enables supermarkets and other retail outlets to function on a self-service basis. If all packages were plain and of a standard size consumers would become frustrated without the numerous clues provided by the graphics and distinctive shapes of packaging.

In a similar fashion the respondents were asked to divide 100 points among the various functional areas within their organization to reflect how much influence each function had when it came to making the packaging decision, for the line of products they were most directly involved with. The mean value for each function is given in Table 4.

As one would expect, the Marketing function carried the most influence within the organization when it came to making the packaging decision (51.44 points out of 100). Marketing had more than twice as much influence as Production.

The "other" category scored 3.26 and referred mainly to the company's managing director having a direct influence on the packaging decision—this was especially so in smaller companies.

The respondents were also asked to estimate what percentage the packaging cost contributes to the overall product cost for the line of products they are most directly involved with. The results are shown in Table 5.

TABLE 4. Influence in the Packaging Decision

Functional Area Within Organisation	Mean score out of 100	Standard Deviation
Marketing	51.44	23.35
Production	21.20	17.74
Purchasing	7.76	10.35
Distribution/logistics	5.35	8.52
A specialist packaging function	4.30	10.41
Finance	4.28	9.17
Other	3.26	14.94
An external packaging specialist	1.97	9.45
<b>TOTAL</b>	<b>100</b>	

Nearly 50% of the respondents claimed that, for the line of products they are most directly involved with, packaging accounts for less than 10% of overall product costs. Only 15.7% of respondents said that packaging accounts for 30% or more of overall product costs. Similar to the somewhat dated findings by Guss (1967), currently packaging makes up less than 10% of overall product cost for nearly half of the respondents in the study. It is therefore a relatively small component of overall product cost. However, there was a small group of respondents, primarily involved with cosmetics and perfumes, who said that packaging could account for 40% or more of overall product cost. This is in line with the percentages suggested by de Rouffignac (1990). Often cosmetics and perfume are positioned as premium products which are sold on the basis of quality, and additional expense is required to develop a package which reflects and reinforces this image.

### ***Marketers' Awareness of the Proposed EU Directive on Packaging and Packaging Waste***

An attempt was made to measure the marketer's awareness of the directive. An aided recall approach was used by telling respondents that:

In 1992 the EU introduced a directive on packaging and packaging waste. The central aim of this directive, which is in its final draft, is to minimize packaging waste wherever appropriate and to re-use or recycle so that less goes for final disposal. "Packaging" includes not

TABLE 5. Packaging Cost as a Proportion of Overall Product Cost

Packaging costs as a proportion of overall product costs	Frequency	Percentage of sample
0% to 9%	91	48.4
10% to 19%	48	25.5
20% to 29%	20	10.6
30% to 39%	17	9.0
40% to 49%	7	3.7
50% or more	5	2.7
Missing	8	--
<b>TOTAL</b>	<b>196</b>	<b>100</b>

only primary packaging but also secondary and tertiary packaging materials which may assist in warehouse handling and distribution.

They were then asked "were you previously aware of this directive?" This approach produced an awareness level of 74.5% (it must be remembered, however, that one often obtains a high level of awareness when an aided approach is used, and in hindsight an unaided approach may have produced more valid responses). Respondents were then asked for their awareness of specific aspects of the directive. Again recall was aided in the sense that the questionnaire listed the key aspects of the directive and the respondents had to tick which aspects he/she was aware of. The results are shown in Table 6.

TABLE 6. Awareness of Specific Aspects of the EU Directive (n = 146)

Aspect of EU Directive	Frequency of Aware Respondents	Percent (N = 146)
Suppliers of packaging are responsible for what happens to it once it is disposed of.	120	82.1
The directive has set an intermediate target of the Community achieving a 60% (by weight) recycling target for packaging waste. This figure must be 90% within 10 years of the directive being implemented by law.	85	58.2
Packaging will only be permitted if it complies with the requirements of the directive. The essential requirements include minimisation, reusability or recoverability, and constraints on the presence of noxious metals and other hazardous substances.	95	65.1
Within five years of implementation of the directive all packaging must be marked under a system to be agreed which will identify reusable and recoverable packaging. There will be a common symbol to identify the use of recycled materials in packaging.	93	63.7
Information systems will have to be established recording information such as the magnitude, characteristics and evolution of the packaging and packaging waste flow.	36	24.7

The second part of this table suggests that the directive requires a recycling rate of 60% to 90%. It should be noted that since this research was conducted the directive has been amended and now only 50%-65% of packaging waste must be recovered, and 25% to 45% of such waste must be recycled, within five years of the directive coming into force.

Table 6 indicates that aided recall produced a high level of awareness for all aspects of the directive apart from the fact that information systems will have to be established (only 24.7% of respondents were aware of this aspect of the directive). There were significant differences across respondents from small, medium and large companies when it came to their awareness of

- the 60% and 90% recycling targets (Chi-squared significance = .00018)
- the necessity for packaging to comply with the requirements of the directive (Chi-squared significance = .02935)
- the directive's requirements for marking packaging with a common symbol (Chi-squared significance = .03063)

with awareness being higher amongst respondents from large companies.

Awareness of the packaging directive is therefore very high, while awareness of the specific components of the directive is variable. Most of the respondents were aware that the directive focuses on packaging reduction/recycling/reuse, yet were relatively unaware of the requirements to use recycling labels on packaging and recording the magnitude and characteristics of packaging waste.

### ***Business Opportunities and Constraints Created by Directive***

The respondents were asked what they saw as being the main business opportunities and constraints which the directive would create. This was an open-ended question and the results are categorized in Tables 7 and 8.

Ninety-one (46.4%), or nearly half of the respondents, stated that there would be no business opportunities for their company created by the directive. For instance, one respondent said "there is nothing in this for our business." Another respondent had similar views:

. . . . . in our experience no directive achieves much environmental benefit and always involves extra production costs and nuisance.

This perception potentially represents a major barrier to encouraging firms to abide by the requirements of the directive. A study by the University of Westminster (*The Times*, 1992) found that business people were

TABLE 7. Business Opportunities Created by Directive

Business opportunities created by Directive	Frequency of respondents mentioning this opportunity	Percentage of respondents mentioning this opportunity
Benefits for some parties external to the firm, such as waste recovery services	43	21.9
More competitive packaging	35	17.9
Lower packaging costs	12	6.1
The Directive does not create any opportunities	91	46.4
No comment	26	13.3

Figures add to greater than 100% due to multiple responses.

TABLE 8. Business Constraints Created by Directive

Business constraints created by Directive	Frequency of respondents mentioning this constraint	Percentage of respondents mentioning this constraint
Increase in costs	69	35.2
More administrative work	25	12.8
Products will become less competitive	41	20.9
No constraints	24	12.2
No comment	21	10.7

Figures add to greater than 100% due to multiple responses.

prepared to abandon environmental concerns if they conflict with profit. Indeed companies which do not comply with the requirements of the directive will have a distinct cost advantage over those companies which do comply with the requirements of the directive.

Forty-three (21.9%) of the respondents stated that, while not benefiting

their own company, the directive would create opportunities for outside parties such as a government agency, waste recovery services and recycling plants. This is reflected in the comment of a respondent who suggested that the directive would create “a lot of tiresome bureaucratic procedures which some opportunist agencies will make a fortune out of” while another said that the directive would create “opportunities for specialized waste contractors but no opportunities for us.” Germany, which is somewhat more advanced in terms of its own packaging legislation, has also found opportunities have arisen for packaging collection specialists which have evolved to operate in tandem with existing distribution channels. The system, known as “Duales System Deutschland,” is funded by retailers, manufacturers and the packaging industry.

A smaller proportion (17.9%) of the respondents mentioned that the directive would lead to an increasing competitive focus on improved packaging. This view is illustrated by one executive who said that his/her firm “can look at developing products with recyclable packages and use this as a marketing plus point.” In addition to the advantage of more competitive packaging, twelve of the respondents had the view that the directive may lead to *lower* packaging costs. For instance, a respondent from a large organization said that the directive “forces us to look at our materials and reduce amounts used. This can lead to savings,” while another executive suggested that the directive will lead to “production efficiencies resulting from packaging redesign/reduction.” Such comments are consistent with the view of a number of authors who have agreed that a more environmentally friendly approach to packaging may in fact lead to a reduction in packaging costs. For instance, both Torok (1989) and Auguston (1992) suggest reusable packaging can lead to reduced waste while also improving ergonomics—especially when considering secondary and tertiary packaging.

The respondents were then asked what business *constraints* they considered the directive would create. The results are shown in Table 8.

The main constraint (mentioned by 69 of the respondents) was that the directive would lead to an increase in costs. Consider the following comments from executives:

cost disadvantages for those who comply

storage and separation of waste on site will be costly in terms of manpower and space

all the processes involved in recycling are costly. This cost has to be recovered

It is well known that the main internal constraint to packaging changes are costs (Kassaye and Verma, 1992). Chynoweth (1993) suggests that it remains to be seen whether the targets and deadlines of the directive are realistic. It may be that, as has happened in Germany, specialist channel members evolve who are responsible for the recovery and redirecting of packaging materials. These channel members would operate in tandem with existing channel members. However, such an infrastructure takes money and time to develop. Payment for the German recovery system has rested largely with the consumer goods companies and a major problem facing the system is insufficient plastics recycling capacity (Shea, 1992).

Forty-one (20.9%) of the respondents were concerned that compliance with the directive would make their products less competitive. For instance, one executive said that the directive will result in "less attractive packs" while another executive said that "standardization reduces the ability to market a product." Essentially these individuals are arguing that one of the basic functions of packaging is to differentiate their products from competitors' offerings. However, if there are regulations in place to encourage packaging uniformity, there will be less opportunity to do so. It is interesting to note that 17.9% of respondents earlier mentioned that the directive would lead to opportunities for *more* creative and competitive packaging.

Twenty-five (12.8%) of the respondents said that the directive would lead to more administration, including "bureaucratic waste watching and accounting" and "more paper for the paper mountain." Twenty-four of the respondents said that the directive would not cause any constraints.

### ***Action Taken by Company, and Planned to Be Taken, in Response to the Directive***

The respondents were asked what action their company had taken and planned to take in response to the directive. This was an open-ended question and the responses have been categorized into Tables 9 and 10.

Forty-two (21.4%) of the respondents said their company was investigating the possibility of recycling and/or reducing packaging materials. Those firms which become involved in recycling will not only meet the demands of the directive, but also the demands of buyers, since a survey by 700 UK retail buyers showed that more than half are concerned about the recyclability of packages when they select suppliers and nearly 70% consider the economical or minimal use of packaging to be most important (Suart, 1992).

Thirty (15.3%) of the respondents mentioned that their company had

TABLE 9. Action Taken by Company in Response to Directive

Action taken by Company	Frequency of respondents taking this action	Percentage of respondents taking this action
Have begun to consider recycling and/or reduction of packaging materials	42	21.4
Have reduced packaging materials	30	15.3
Have begun to use recycled materials	27	13.8
Have begun to use recycling label	16	8.2
No action has been taken yet	30	15.3
Working party has been established to look at the implications of Directive	25	12.8
No comment	37	18.9

Figures add to greater than 100% due to multiple responses.

taken action to reduce the amount of packaging material they used. This is reflected in the following two comments from respondents:

our company is actively reducing the amount of packaging it uses on its products

we have reduced the packaging we use by 23% in the past year

This figure of 15.3% is substantially lower than that in the survey of members of the Institute of Logistics and Distribution Management reported by Szymankiewicz (1993) which found that more than 70% of respondents said that their companies have specific policies for packaging minimization. However, it should be recognized that the research reported by Szymankiewicz was concerned with firms' environment policies in general, and not only those in specific response to the EU packaging directive.

A smaller number of respondents (13.8%) said that their company had actually begun to use recycled or recyclable packaging materials. One respondent said that, for his/her company, "finished goods packaging is all recyclable" while another respondent said "we offer a refill service. Customers can bring their package back and we'll fill it up." This figure of

13.8% is somewhat higher than the research by Peattie and Ratnayaka (1992) which found that in the UK only 2.4% of chemical manufacturing companies were involved in recycling. This is an interesting comparison because chemical firms are considered to be at the forefront of environmental pressures—even more so than consumer goods firms (Peattie and Ratnayaka, 1992). Again, the research reported by Szymankiewicz (1993) found an even higher proportion of firms were involved in recycling (54%). The differences in these rates across the various surveys is unexpected, especially when considering that they were all conducted in the UK within a two-year period. It may be that the differences stem from different definitions of “recycling” and “recyclable materials” used by the various researchers. For instance, the work of Peattie and Ratnayaka was concerned with the recycling of paper materials only, and no other materials. The research reported by Szymankiewicz was concerned with whether or not firms had a specific packaging *policy* for recycling materials. However, having a policy for recycling does not necessarily mean that the firm is actively involved in recycling.

Twenty-five (12.8%) of the respondents (mainly from large firms) said that within their organizations working parties had been established to look at the implications of the directive for their company. This was the case for a respondent from a medium sized company who said that his/her company has established a “specific working party considering environmental aspects of packaging. All aspects of the directive are now included in our business plans.” A similar comment was made by another respondent: “establishment of a multifunction product team to evaluate the packaging systems we use and identify areas where changes need to be made.”

The respondents were then asked what action their company *planned* to take in response to the directive. The results are shown in Table 10.

This question produced a variable response. Some planned nothing, while others planned compliance to the directive. Some planned to simply sit back and wait and see how the directive develops. A smaller number of respondents had a range of planned actions such as lobbying the government or conducting an environmental audit. Six respondents actually said that their company did not plan to take any action in relation to the directive.

### CONCLUSIONS AND IMPLICATIONS

Although packaging makes up a relatively small proportion of overall product costs, it has a number of functions which are vital for a product's competitiveness. The primary function of packaging is to protect and

TABLE 10. Action Planned to Be Taken by Company in Response to Directive

Action planned to be taken by Company	Frequency of respondents planning to take this action	Percentage of respondents planning to take this action
Waiting to see how directive develops	35	17.9
No action is planned yet	32	16.3
Will comply with the requirements of Directive when required	20	10.2
No action will be taken	6	3.1
No comment	51	26.0

Figures add to greater than 100% due to multiple responses.

contain the product. Of less relevance, but obviously important, is the ability of the package to attract customer attention to the product and reinforce a product's image.

In the wake of environmental legislation and consumer demand for more environmentally friendly packaging, many companies will be forced into a position of redesigning their packages. When it comes to this redesign, or developing a new package altogether, it is likely that the Marketing function within the company will have the most influence in the decision. This is logical since the functions of the package are primarily marketing related.

Awareness of the EU Packaging Directive is high, especially amongst medium and large-sized companies. However many companies perceive the directive as creating more threats than opportunities. In particular, the directive is seen as being yet another piece of EU bureaucracy which only brings costs to the companies the directive is imposed upon and benefits a small number of external opportunists. Most companies had taken, or planned to take, some form of action in relation to addressing the requirements of the directive. This action mainly looked at package reduction, reuse or recycling. Despite this, a lot remains to be done. The directive will need to be more thoroughly explained, and more positively positioned, by the EU Council if it is to gain support from industry. Regulation, however, is only one variable in the equation which encourages firms to adopt an environmentally friendly approach to their activities. If marketers are to see the environmental movement, be it in the packaging area or elsewhere,

as an opportunity, not a threat, it will be necessary to convince marketers that their response will not result in a trade-off with marketing objectives, and it will be consistent with the needs of consumers and marketing intermediaries. In other words, in making packaging changes the firm must respond to a number of stakeholders and the extent to which a directive is resisted by firms will depend on what benefits and costs the directive imposes on these various stakeholders.

In general it seems that industry is somewhat unsure of what the packaging directive is meant to achieve and who will be responsible for carrying out its requirements. It would therefore be unwise at this stage for firms to make significant spending decisions in relation to the directive until it has been finally adopted, since the directive as it currently stands raises more questions than it answers. However, in order to succeed in Europe businesses need at least to be aware of the ever changing European legislation. To ensure they are in a position to respond at the right time, therefore, firms should be collecting information relating to current and proposed EU environmental directives, and the attitudes of other firms and member states to such proposals. According to Scott Barrett (quoted in Jones, 1991):

Businesses which can pre-empt regulation and develop the right product or manufacturing process can enjoy a real cost advantage over slower rivals when whole industries are forced to change.

In conclusion, the environment is an increasingly important issue for marketers in all areas of business. Consumer demand for more environmentally friendly packaging is growing, as is pressure from the EU for companies to rethink their approach to packaging. However, change will not come without resistance, especially when considering the EU Packaging Directive. In fact, complying with all aspects of the EU Packaging Directive may prove difficult, if not financially impossible, for some companies. Following on from this work, this article has highlighted a number of areas where further research is warranted:

- first, in specific relation to the EU Packaging Directive, research is required which examines who should, and who *would*, bear the cost of a packaging recovery system: the government, consumers or industry?
- there is a need for research which measures industry members' perceptions of the manner in which EU directives in general are developed and implemented.
- the success of any package recovery system is based on the assumption that communities will support such endeavors. How do commu-

nities view these systems and will they be willing to cooperate in order to ensure their success?

Such research would provide insights into how EU directives could best progress in the future. However, the problems of the environment come back to consumer values and attitudes. Historically, consumers have demanded more choice. Marketers have responded by offering a variety of choices for each product. How do marketers see the sovereignty of consumer choice in an age of scarce resources? In addition, how can one develop ways of living which are based on ecological wisdom and social responsibility? These are longer-term issues which remain to be addressed.

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## APPENDIX I

## SAMPLE CHARACTERISTICS

The sample involved 200 companies in each of the three company sizes. The skew in response from large companies (33% of sample but 44% of response) indicates a potential bias in the aggregate results in favour of big company response (Table 11).

Ten responses (Table 12) fell into the "other" category. These related to children's toys and pet's products.

TABLE 11. Response According to Company Size

Company Size	Response Frequency	Percentage of Sample
Small (less than 200 employees)	54	27.6
Medium (201 to 500 employees)	56	28.6
Large (more than 500 employees)	86	43.9
<b>TOTAL</b>	<b>196</b>	<b>100</b>

TABLE 12. Line of Products Which the Executive Was Most Directly Involved with

Line of Products	Frequency	Percentage of Sample
Food Products	125	64.4
Beverage Products	31	16.0
Toiletries (soaps, cosmetics, etc.)	7	3.6
Cleaning products (detergents, clothing washes, polishes, etc.)	6	3.1
Pharmaceutical Products	15	7.7
Other	10	5.2
Missing	2	--
<b>TOTAL</b>	<b>196</b>	<b>100</b>