Abstract

Retail executives were interviewed to determine their problems and attitudes about energy conservation. They had little conservation information and reported few conservation efforts. The executives were concerned about potential sales declines caused by energy saving measures.

Promotional strategies for conservation can originate from the public sector. The strategies must feature specific, cost effective techniques. They must also be targeted to particular types of retail establishments.

Introduction

The energy crisis is a matter of grave concern today. Business, government and individuals now recognize that supplies of energy are limited. No sector of our society is immune from rising energy costs or the possibility of rationed supplies of energy. The businessmen, therefore, is very concerned about energy and governmental policy related to energy. To aid businesses, the Federal government has established a number of guidelines for energy consuming activities. In the retail sector explored in this paper, the guidelines concern temperature and lighting levels.

Energy conservation in the commercial/retail sector is important because the sector consumes 14.4 percent of all energy utilized in the United States (Public Technology, Inc., 1975:48). Further, the commercial sector evidenced the largest increase in consumption between 1968 and 1973 and is projected to increase consumption by 43 percent in the next ten years (Federal Energy Office, 1976:22). This compares with a 40 percent projected increase in the industrial sector, and a 30 percent projected increase in the governmental sector for the same period (Federal Energy Office, 1976:22-23).

In addition, there appears to be considerable potential energy savings in the commercial sector. The Federal Energy Office estimates that savings in the commercial sector can approach 25 percent by utilizing techniques that require no capital outlay (Federal Energy Administration 1975:12). The National Bureau of Standards projects a 30 percent energy savings in the sector by using simple conservation techniques. Most of this must come from changes in environmental conditions or environmental technology since the major proportion of retail energy consumption is for environmental conditioning.

A survey of the literature concerning energy conservation in the commercial sector reveals considerable technical or engineering information about suggested temperature, lighting, and comfort levels. However, a literature review revealed only two empirical or descriptive studies about retail energy conservation.

A Rand Corporation study evaluated the results of energy restrictions imposed on merchants in the Los Angeles area during the 1973-1974 oil embargo (Federal Energy Administration, 1975). The city of Los Angeles, facing severe shortages of imported oil, mandated cutbacks on commercial energy usage. Although the embargo was lifted shortly before the penalties went into effect, merchants decreased consumption by 28 percent with reportedly minimal discomfort or sales decline. The Rand study generally describes the retail conditions during a three-month period of 1973-1974 and does not evaluate alternative means of encouraging conservation. Neither does it evaluate executives’ attitudes about energy and energy conservation.

A 1975 study of lighting and heating conditions by the Massachusetts Public Interest Research Group, Inc. reported that stores in the Boston area were well in excess of Federal heating and lighting guidelines (Massachusetts Public Interest Research Group, Inc., 1975). The study did not explore executive attitudes and was clearly biased in analysis. It suffered severely from that deficiency. Thus, the literature offers little, if any, information about retail environmental levels and no information about one key factor, executive attitudes toward conservation.

Given the present energy shortage, the growth rate predicted for the commercial sector, the estimated potential savings, and the apparent lack of information, retail energy conservation appears ripe for study. The key element for conservation is the attitudes of the retail managers about energy conservation. Their benefits and propensities will determine the success of conservation programs in the retail sector. Therefore, the purpose of this study was to explore the attitudes and beliefs of retail executives about energy, energy conservation, and energy conservation programs.

Methodology

The survey instrument was developed in a structured interview format. It contained 53 questions with a total of 77 responses and it required approximately 45 minutes to complete. The broad areas addressed in the questionnaire included managers’ attitudes regarding: 1) the voluntary adoption of energy conserving techniques; 2) the avenues of information dissemination both past and potential; 3) the effect of energy conserving techniques on sales; 4) the specific energy conserving techniques appropriate to them; 5) the perceived severity of the energy crisis; and 6) their present and most appropriate temperature and lighting levels.

Project interviewers were given approximately 15 hours of training in interviewing skills which included familiarization with the questionnaire, video taped simulations, and role playing. In order to avoid confrontations with security forces and to enhance face validity, each interviewer was issued an identifying name tag and a letter of support from each Chamber of Commerce in the targeted cities.

Establishments in the six largest metropolitan areas in Florida were randomly selected from six retail categories utilizing the telephone directory "yellow pages." The six categories were groceries, department
stores, discount stores, restaurants, pharmacies, and shopping malls. The categories of retail establishments were selected based upon high visibility and size of diverse operations. Two hundred retail managers or assistant managers were targeted, and 159 interviews were completed. The field research took place during May through July of 1977 with the six interviewers spending one week in each location. The respondents were fairly evenly divided by city and the distribution by activities was as follows: grocery stores 17 percent, discount stores 18 percent, department stores 16 percent, pharmacies 19 percent, restaurants 14 percent, and malls 14 percent.

Results

Descriptive statistics were generated from the interview data including frequency counts and percentages for each questionnaire item. The interview data were also analyzed by location, by establishment category, and by establishment size. These results varied little from the aggregate data analysis.

General Attitudes

Approximately one-third of the respondents believe the energy problem is very serious. Over one-half of the respondents believe it is a serious problem and the remaining one-sixth believe the problem is minor and does not exist. A wait and see attitude was frequently encountered during the six weeks of interviewing. Managers often explained that the energy crisis (for them) was not close at hand. Most managers, although convinced of a genuinely serious national energy problem, believed that the problem was in the northern areas of the country.

Almost as frequent as the wait and see attitude was the belief that technology will soon provide additional energy. A majority of businessmen felt that economical adaptations of solar energy and other technologies are just a year or two away.

About three-fourths of the respondents indicated that their headquarters’ policy on energy conservation would be highly supportive of increasing (cooling) temperatures for energy conservation. A few respondents did not know or felt that headquarters would not be supportive of the change. Approximately two-thirds of the sample reported that their headquarters would support the idea of reducing light levels for energy conservation, while approximately one-third did not know or felt that their company would be only slightly supportive.

Although 70 percent of those interviewed stated that they had made some changes in environmental levels to conserve energy, only one-third of the respondents were aware of Federal energy guidelines. Approximately 60 percent of the respondents were in favor of governmental consultants for assistance in implementing voluntary conservation programs. Approximately 90 percent of the respondents were in favor of receiving mailed information concerning energy conservation and over 85 percent of the respondents were in favor of local energy conservation seminars. Approximately 90 percent of the managers surveyed were in favor of visits from power company consultants, but only 25 percent were interested in hiring a private energy consultant. Over three-fourths of the respondents were in favor of Federal or state tax credits for energy conservation programs.

Surprisingly, one-third of the managers were in favor of legislatively required cutbacks of energy consumption with penalties for excess consumption. The same proportion were in favor of mandated cooling and lighting levels. The remaining two-thirds of those surveyed believe that the only function of government should be a publicity campaign to convince the public of the importance of energy conservation. Almost 85 percent of the respondents reported that they would voluntarily reduce lighting and cooling levels if they knew the levels exceeded those recommended by the Federal Energy Administration.

The managers definitely believe that the general public should receive more information and become better informed about the energy problem. They also believe that private residences consume large quantities of energy and that conservation efforts in that area should be emphasized. In addition, high positive correlations were found among those executives who had received energy information, those who think the energy problem is serious, and those who had implemented conservation techniques.

Energy Saving Techniques

The executives were asked a series of questions to determine their present use and potential use of a number of energy conservation techniques. These data are presented in Table II.

Table I

Managers’ Attitudes Toward Energy Saving Techniques

<table>
<thead>
<tr>
<th>Technique</th>
<th>Manager’s Responses*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Already Implemented</td>
</tr>
<tr>
<td>Remove Lights from Fixtures</td>
<td>30% 35% 35%</td>
</tr>
<tr>
<td>Extinguish Exterior Lights/Displays at Additional Times</td>
<td>60% 30% 10%</td>
</tr>
<tr>
<td>Extinguish Interior Lights at Additional Times</td>
<td>70% 20% 10%</td>
</tr>
<tr>
<td>Change Air Conditioner</td>
<td>55% 25% 15%</td>
</tr>
<tr>
<td>Increase Temperature</td>
<td>30% 40% 20%</td>
</tr>
<tr>
<td>Apply Reflective Material to Windows</td>
<td>20% 43% 26%</td>
</tr>
<tr>
<td>Curtail Hours of Service</td>
<td>6% 35% 55%</td>
</tr>
<tr>
<td>Decrease Lighting in Non-Display Areas</td>
<td>50% 30% 15%</td>
</tr>
<tr>
<td>Install Interior Reflective Material</td>
<td>15% 30% 38%</td>
</tr>
<tr>
<td>Install Additional Insulation</td>
<td>10% 54% 25%</td>
</tr>
</tbody>
</table>

*All possible responses are not included.

Table I indicates that the different conservation techniques have been attempted by varying proportions of the managers. Decreasing lighting is the most common energy reduction technique utilized to date. There is strong opposition to curtailing hours of service. Surprisingly, few executives report increasing temperature (30 percent) or additional insulation (10 percent), but a large proportion do indicate a willingness to consider this (40 percent and 54 percent respectively).