politically impossible in the current context, and would likely lead to an underground economy as well. Even granting its theoretical soundness, it would need to be phased in at the same time a substantial educational campaign was waged to help the public understand its logic and necessity.

Bringing driving prices into line with costs would go far toward facilitating the success of public transportation services, even given the disparate location of residential and occupational trip patterns. One could conclude that pricing changes of this magnitude would alter the configurations of urban land use as well. Personal choice would still be preserved, no longer skewed by the distortions imposed by the subsidies inherent in current transportation finance policies. There would be every inducement to increase fuel efficiencies from the current average passenger car miles per gallon. And these forces would in turn likely work in the opposite direction to reduce the revenues paid from this base—all to the good.

## METHODS OF DETERMINING THE EFFECTIVENESS OF AN ADVERTISING CAMPAIGN

T. Bashuk, PhD student

No matter how large or small a business is, all promotional efforts should be tested in some manner. The two categories of testing of promotions are pretesting and post-testing.

PRETESTING OF PROMOTIONS. The various factors to be pretested are the ability of the ad to stand out from others in the same media, the choice of media, the impact of the message, the copy, the illustrations, the credibility of the spokesperson, budgeting decisions.

POST-TESTING OF PROMOTIONS. Post-testing includes all methods of determining the effectiveness of a single advertisement or an entire campaign. The most popular of these are readership, unaided recall, attitude change, sales increases, and inquiry tests.

Readership (or Aided Recall). Respondents, who are either subscribers or have been given a copy of a magazine or newspaper, are asked questions to determine how effective the ad was. The interviewer turns to an ad and then asks if the respondent

remembered seeing the ad (noted), if they remembered the brand advertised and read at least some part of it (associated), and whether or not they read at least half of the ad's copy (read most). The percentage of respondents for each category is recorded for analysis. Though various cost formulas can be developed for each level of recognition or a combination of the three, it is most commonly completed for the read most category. For example, if 27% of the respondents read most of the ad, the circulation of the publication was 800,000, and the cost of the ad was \$13,000, the CPM or cost per 1000 people in the "read most" category would be \$60.19 (0.27 X 800,000 = 216,000; \$13,000 X 1000 - 216,000 = \$60.19).

Unaided Recall. In this test, only minimal assistance is given to respondents. Like the readership test, the interviewer must determine if the respondent has read the publication. But, since this test is more challenging, the respondent is normally tested in some manner to prove that he/she has in fact read the publication. The respondent is then asked to recall what the ad looked like, what basic message the advertiser was trying to communicate, any particular sales points, and if the ad made the respondent want to either learn more about the product or purchase the product. The three key dimensions of the ad's impression are reported as proved name recognition (the percentage of respondents who recalled seeing the ad and could describe something about it), idea penetration (remembered the message), and conviction (wants to know more about the product advertised or is interested in purchasing it).

Attitude Change. These tests attempt to measure the effectiveness of promotions based on changes in respondents' opinion of the company or its products. These opinions generally concern image, loyalty to the company compared to competitors, and product- and service-related attributes. The questions for the survey could be unstructured or structured.

Sales Increases. Measurement of sales increases are generally tested in two ways, comparison with past sales and field experiments. Essentially, sales during the promotion are compared with sales either during the period immediately before the promotion or for the same period during the past year. A method of calculating a weighted

average is to take the percentage increase or decrease in sales for the period prior to the promotion compared to the same period for the prior. While actual sales increases are generally the key focus, residual sales increases should also be considered.

In *field experiments*, there would be a control group, for whom all current strategies remain the same, and an experimental or test group, who are exposed to a new promotion. The differences in behavior are then determined. This experiment could be implemented by sending a brochure to certain customers and not to others or by placing an advertisement in one regional edition of a magazine (or a commercial in one city) and not another.

Inquiry Tests. These tests are generally used in two different situations—to test the effectiveness of different ads in the same medium and to test the effectiveness of the same ad in different media.

## OBJECT MODELING COMPRESSOR PLANTS WITH SCREW EXECUTIVE MECHANISM

S.O. Temchenko, PhD student

Development of systems of control, which allow you to operate compressor plants, as well as save electric energy, is very important. In creating process of such systems object-oriented methods have recommended themselves very well.

Two classes of compressor, which are intended for compression of gas, are considered in the work; description of several essential advantages of screw compressors in comparison with other types of compressor machines is given.

Object models of super class "Compressor plant" and class "Screw compressor" are presented and described in the work. The composition of a super class "Compressor plant", functions, which are executed by every element, and interrelations are considered in the work. The model of super class "Compressor plant" provides an opportunity to ascertain a composition and nature of constructive-technological signs, which are inherited by classes of lower level, but more exactly, by any one of representatives of each of these classes.