Comparative Testing of Product Quality and its Practical Potentiality in Lithuania

Juozas Ruževičius¹, Justinas Adomaitis²

¹ Vilniaus universitetas
Saulėtekio al. 9, LT-10222, Vilnius,

² UAB „Business Grain Baltic“
Bukčių g. 9-4, LT-04127, Vilnius

The main purpose of this article has been to prove the importance of comparative testing of consumer products as a means of consumer information and consultation, to analyse its methodology and impact on market structures as well as on the behaviour of companies and consumers, and to determine possibilities for the practical application of comparative testing in Lithuania.

The key research objectives have been to analyse the framework of Lithuanian consumer organisations and their capabilities to perform product testing. In addition to this, the peculiarities of the consumer market as well as the need for product information, which are both important factors for product testing, have been overviewed.

Utilising comparative product testing methodology and research on how test results could be applied, it can be said that the formation of an independent, well-informed consumer base that is able to make calculated decisions requires planned and concentrated government efforts. Comparative product testing is one of the tools available for consumer education and information, its significance and effectiveness in creating a society such as this cannot be denied.

When creating a comparative product testing system in Lithuania we need to take into account the experience of other Western countries in this field, as well as the potentiality of Lithuanian institutions to prepare and conduct testing of certain products. Research shows that at present in Lithuania these are food products which lend themselves most readily to product testing – services fare worst. From a technological and economic viewpoint, cooperation between the Baltic States and any prior specialisation in this area would be useful when conducting product quality comparative testing.

Keywords: comparative testing, quality, market, marketing, eco-labelling.

Introduction

The rapid growth of Lithuania’s economy has increased the extent of consumerism in this country, the number of retail-chains as well as the supply of end consumer products. Intense competition has forced businesses to look for different ways of surviving in the market. Aside from other management strategies, businesses are investing in product development, their distribution and marketing. A result of all of this a marked growth in the range of products available and a large amount of varied information about products in the market. The consumer is faced with problems when it comes to deciding which product will best be able to meet their needs. It is often the marketing strategy behind a product which is the main factor influencing consumer choices, that is why businesses take part in these advertising wars. However, are these the best conditions for effective consumer decision-making and advancements in production?

The first state-funded organisations which started providing consumers with unbiased information about products on the market and helped resolve consumer-related issues appeared in Western countries in the middle of the 20th century. They achieved their aims using methods of product research and testing which helped these organisations present consumers with realistic and objective accounts of the quality of products available on the market. This became quite an important and effective way of informing consumers and significantly influenced not only consumer behaviour, but also business decisions. This has encouraged research in test methodology, test use and publication of test results. The nature of this research is as technical as it is social, which is why the results depend on the particular market being studied.

Only lately attention has been given to consumer education and information, as consumer rights remain a priority. It was only as recently as 2003 that consumer education and information programs began when the Lithuanian National Consumer Education Program was approved. The European Commission’s communiqué “EU Consumer policy strategy” pays particular attention to the education and process of informing consumers (Consumer …, 2002). The European consumer is seen as an informed individual who is able to select goods and services objectively, and is concerned with their quality of life (Guidelines…, 2000; Consumer…, 2002).

The Preliminary Program of the European Economic Community for Consumer protection and Information policy clearly accentuates the need to support organised comparative testing, it emphasises the need for financing as well as the specifications of such organisations (Preliminary…, 1975).

Scientific problem. Comparative testing of product quality is the part of quality management subsystems (Ruževičius et al., 2004, Ruževičius, 2005). The theoreti-
cational and methodological aspects of comparative testing are not presented in scientific publications in Lithuania. **Subject of study** – comparative testing. Lithuanians institutions of consumer policies. The **main purpose** of this research is to summarise the typology of the testing of product quality, its impact to the market and to determine the possibilities for the practical application of comparative testing in Lithuania. **Methodology** – this article was written using scientific, normative and legal literature and a logical analysis of economic activity and generalisations encompassing theoretical and methodological propositions and the systematisation of business practices. The authors surveyed Lithuanian government institutions and public organisations which are responsible for the formulation and implementation of consumer policies in the nation, as well as other experts. The results of the research were processed using statistical methods.

When drafting a system for comparative testing in Lithuania it is important to assess the experiences of other countries and to use their current knowledge. Equally relevant is the prediction of possible market variation, the actions of market participants, potential dangers and new directions or opportunities for the business concerned. It is important to evaluate the potentiality of a comparative testing system as a tool of consumer education policy.

The introduction of a system for the comparative testing of products would be beneficial from a political perspective as it would be a means of regulating supply and demand when introducing and defending consumer’s rights. This is all the more crucial in an age when consumer competency, resistance to manipulation by product labels, misleading information and other sales practices are being noticed the world over (Pittle, 2000; Consumers..., 2000; Ruzevicius, 2004; Ruzevicius, 2005).

**Research results**

**Test types and their development**

A classical approach to this situation involves what are commonly known as “product tests”. These tests, as an integral part of consumer information, help to foster understanding about the products on offer and consequently help the consumer make a rational decision. Consumers usually place great value on reports from neutral institutions when selecting a particular product. The product quality indicators tested by a third party are often very different to those used in advertising, which is why consumers trust these more than they do the information supplied by the manufacturer. A positive test result is the best type of advertising a product can hope for (Ruzevicius, 1993). Manufacturers and traders alike can expect the demand for these products to rise, at the same time, the image of unsatisfactorily evaluated products will fall, as will their sales figures. Firstly, when tests are conducted attention is given not only to the product or service on its own, but also to maintenance and other issues related to production, eg. whether update packages are offered for software, or the promise of warranties and guaranteed repairs on other products.

When carrying out tests and publicising results market participants are comprehensively and honestly informed of the product quality indicators under comparison (Gersbach, 2001).

**Test types** (Silberer, 1984; Research..., 1999; Andresen, 2003). **Comparative testing of products**. Comparative testing involves the selection and the qualitative comparison of certain products that have similar characteristics. When testing these products it is not necessary to examine what may essentially be the same product but from a competing manufacturer. The product can be compared with certain alternatives. The same can be applied to systems testing. In this case the consumer is shown how one or another system, which may be technically different, can be utilised as an alternative.

These tests are often the fundamental part of testing, but they may also be carried out as an independent test. For example, the cost efficiency of car, bus and train travel, **Single product tests**. These tests check the quality indicators of a particular product, eg. a car model. Although, even in these cases where the main features are often standardised to a certain degree, a comparative element may still arise, but perhaps not as part of the same test. **Contingent and pseudo-tests**. When a product is selected by accident, the results may be subjective and not comprehensive, using random non-essential criteria. The results of these pseudo-tests may come from consumer surveys, testing or quite simply an individual’s opinion. Other examples are café reviews in city guides or questionnaires. In these cases the assessment is totally subjective and variable yet sometimes these results may be publicised as official tests and thus give rise to conflicting opinions (Gersbach, 2001; Andresen, 2003).

The publication of the results of product comparative testing in many countries began only when the economy had developed to a certain stage, when product supply had grown and there was an abundance of information on consumer products. The first round of comparative testing was conducted in the United States in 1929 by “Consumers’ Research, Inc.”. Following the example set by the Americans, the first tests to be conducted in Europe were after the Second World War: Great Britain and Holland in 1957, Sweden in 1958, Norway and Germany in 1959, and Denmark, Belgium, France and Austria in 1960 (Silberer, 1977; Sektorkoncept, 1994; Andresen, 2003). Product testing in other West European countries began in the late 1970s, whereas in some of these and the majority of Central and East European countries’ testing does not occur to this day. The German “Stiftung Warentest” Fund, and its publication of the same title, has in its 40 years of existence gained the most experience and produced the most effective product testing in its field.

**How tests affect the market**

Research conducted overseas shows that tests have a significant effect on industry and trade, and in this way increase market transparency and the mobility of demand. The tests also affect supply in the market Consumer surveys confirmed that tests conducted by “Stiftung Warentest” are very widespread and have considerable significance when consumers make product selections. Up to 41 per cent of consumers relied on their test results when purchasing one or another product (Andresen, 2003; Silberer, 1984).
According to findings by the magazine Öko-test, in 2001 in Germany, a total of about 44.6 million people, or about 70 per cent of the population, showed interest in these tests (Öko-test, 2003). This illustrates the huge prevalence and popularity these tests have reached in the last 25 to 40 years since they first appeared. From the figures in Table we can see that the tests have great implications for market transparency and fluctuation of demand, which is one of the aims of comparative testing.

As can be seen in Table, the figures for those who use tests are markedly different from those who do not. The research also distinguished between short-term use products (eg. Food, household cleaning product) and long-term use products (eg. Televisions, stereos). Thus, we come to the conclusion that the greater the number of consumers who are interested in test results, the greater the degree of market transparency and fluctuation of demand: consumers are not as attached to certain brands, they are aware of the alternatives on offer and tend to select products based on objective quality indicators more often.

### Table

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<th>II.</th>
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<td><strong>MARKET TRANSPARENCY</strong></td>
<td><strong>MOBILITY OF DEMAND</strong></td>
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<tr>
<td>1. Knowledge of product alternatives prior to purchasing (rating 1 to 4: 1 = no knowledge, 4 = very good knowledge)</td>
<td>1. Percentage of consumers who are loyal to certain brands LTP – STP</td>
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<tr>
<td>Test users</td>
<td>No use of tests</td>
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<td>3,6</td>
<td>2,9</td>
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<td>3,0 – 2,6 – 3,0 – 2,9</td>
<td>37 % – 65 %</td>
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<td>b) Short-term use products (STP): – quality – differences in quality – cost – differences in cost</td>
<td>2,7 – 2,3 – 2,9 – 2,6</td>
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<td>3,0 – 2,7 – 3,0 – 2,8</td>
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The organisations that conduct these tests have a direct influence on the afore mentioned processes, as the many forms of media available today allow consumers to more effectively and more rapidly access the results of comparative testing as well as other information. The test market in Western Europe is close to reaching saturation point, as almost all available modes of information distribution have been utilised and new forms, such as the Internet, are being drawn in too. Meanwhile, in Lithuania, where comparative testing is not systematically conducted, and where the test results from Western countries are not easily accessible for ordinary consumers, it is mainly the actions of manufacturers, distributors and marketing teams that form customer opinions and build product loyalty. This results in low market transparency and fluctuation of demand. We come to the conclusion that the more familiar the consumer is with the market, and the more mobile demand is, the less meaning costly marketing campaigns have. In this case, businesses can direct more attention and more funding to improving the quality of their goods, and, from a public viewpoint, spend less on clearly unproductive advertising. This conclusion can be discussed further using consumer behaviour theory (Hoyer, 2001). There are two types of consumer groups, those who are interested in certain products, and those who, at a particular moment in time, are not interested in certain products or services. The marketing strategies businesses use on these two groups differ accordingly. Here, we are more concerned with the interested group, or involved consumers, who intend to purchase a certain product. These consumers are most interested in hearing objective arguments when choosing one or another product. It is also hoped that they require independent information, such as that offered by comparative product testing. However, advertising campaigns orientated towards these Involved consumers, that do not feature a product’s technical indicators, often rely on emotive tactics, which have a tendency to grow out of proportion. We can note that the money spent on this type of advertising does not offer good returns, that is, the advertising is unproductive and tests are much better at providing objective information. So, a company operating in a market where there is great influence from tests should be more interested in improving its product quality and service than in advertising. Research has shown that tests influence not only consumer behaviour, but also affect actions taken by manufacturers and traders, where depending on test results they alter their range in stock accordingly. Research results showed that 57 per cent of retailers surveyed were inclined to add positively evaluated goods to their stock lists, and 50 per cent were unlikely to re-order goods that had been negatively evaluated in product testing (Andresen, 2003; Silberer, 1984). Research conducted over a five year period, from 1976 to 1981, based on results from Test magazine (published for six years) showed that products from foreign companies were on average appraised worse than products from local competitors. In addition, foreign manufacturers found that their increase in turnover from positive test results was not as great as the fall in turnover resulting from negative evaluations. From this we can draw a conclusion that foreign companies only face additional barriers to entering a market when participating in tests, and can experience greater losses than local producers in terms of test results influencing their turnover (Piepenbrock, 1986).

### Research on the potentiality of establishing a testing system in Lithuania

Many factors affect levels of general consumer satisfaction with products and services. In addition to product quality, information and cost there is also service quality,
contract and guarantee conditions, and others. Consumer satisfaction indicators in Lithuania are a little higher on the scale than those in the European Union and six percentage points higher than Germany (Vartotojų ..., 2003; Consumer’s ..., 2002). This can be explained by the fact that Lithuanian consumers are less critical and less informed when it comes to product quality and other indicators.

In order to evaluate the potentiality of Lithuanian institutions’ ability to create and implement a system for comparative product testing 26 experts from various Lithuanian state institutions and public organisations responsible for the formation and implementation of consumer policies were surveyed. Representatives from the National Consumer Rights Protection Board, the State Food and Veterinary Service, the State Non-food Products Inspectorate, specialists from accredited experimental laboratories and public consumer organisations took part in the research. The survey consisted of 24 questions pertaining to the peculiarities of Lithuanian consumers’ behaviour, specifications of the products and services markets, levels of consumer information, the possibilities of testing products from different categories as well as whether state institutions were prepared to implement a system of product comparative testing. Survey results were supplemented with other references and findings from other countries to make generalisations and proposals for product testing. Research results were processed using statistical methods.

Research revealed which products Lithuanian consumers are least informed about (Fig. 1) This assessment was made using the following product parameters – quality, safety, conditions for service and maintenance, terms of use and cost. We should emphasise that a total of 73 per cent of experts surveyed agree that consumers need more information about products. Experts found that consumers are least informed about household chemical products and small household appliances and electrical goods (Fig. 1), or 54 and 50 per cent respectively. Around a third of experts nominated personal and commercial means of transport and its maintenance, computer and telecommunications technology, medicines, large household appliances and toys as categories needing the most information.

One of the authors of this article conducted research and found that Lithuanian consumers are also particularly ill-informed about a product’s environmental quality (Ruževičius, 2003). The results of this investigation confirmed, that it is necessary to develop eco-education in our country – only every tenth consumer pays attention to eco-friendliness, and eco-labels are recognized by only 2 per cent of the respondents; only 7 per cent of people questioned said they would set priority to the eco-friendly product, which would be 1 per cent more expensive.

Most experts agree that fruits and vegetables have the least information about them available (58 per cent). Around a third of experts nominated ready-to-cook and canned food as well as meat and meat products (31 and 27 per cent respectively). Somewhat fewer selected fish and fish products (23 per cent). Judging by the remainder of results, it was found that there is enough information about the other categories (groceries, dairy products, beverages, bread products).

Two thirds of experts surveyed stated that consumers are least aware of product quality, safety and after-sales service. 35 per cent nominated terms of use as the parameter consumers were least informed about, and a little less than a quarter said cost. According to these experts’ findings, when informing consumers most attention needs to be directed to product quality and safety, as well as to issues concerning product use.

A consumer’s quality requirements, as was mentioned earlier, depend on the scope, clarity and objectivity of the information available about a product. It is when a consumer receives this detailed and objective information that they can best make an informed decision which would then also encourage businesses to try harder to improve their quality standards. Growth in demands for quality would help justify the prices we as consumers must pay, based on the premise that consumer satisfaction as such would not change. It would however benefit society as a whole, especially in the areas of efficient resource use, environmental protection and the competitive ability of businesses. When analysing the prerequisites for creating a system for comparative testing we did an expert assessment of the potentiality of testing specific product groups (Fig. 2) They were asked about the possibilities of testing various product types. Testing is understood to focus predominantly on quality, which is why it is important to evaluate not only the technical aspects of product testing, but also the ability to select and rate various product parameters. In Lithuania furniture is currently the product type most open to product testing. Several experts indicated that institutions were ready to commence testing of computer and telecommunications technology, recreational and sports goods, small household appliances, personal and commercial means of transport and its maintenance. Medicines, clothing and footwear and larger household appliances were found to require the most attention before testing could commence.

On the whole, when evaluating non-food products, on average 33 per cent of experts stated that this category of products was ready for testing, 56 per cent said that more preparation was needed, and 11 per cent thought that institutions were not prepared at all. 73 per cent of experts nominated that specialists were best prepared to commence testing bread products, meat, groceries and dairy products (Fig. 5). More preparation was needed before testing of fruits and vegetables, beverages and ready-to-cook products could begin.

The potentiality of testing food products was found to be much more likely than that of testing non-food products. On average, 67 per cent of experts agreed that institutions were prepared to commence testing of food products, 27 per cent said that more preparation was required, and only 7 per cent thought that these institutions were not at all ready. The potentiality of testing services however, was evaluated worst of all – a total of 80 per cent of experts were sceptical of the potential for testing services in Lithuania.

When creating a system for the comparative testing of products in Lithuania the experience of Western countries should be taken into account, as should the potenti-
ality of Lithuanian institutions’ ability to prepare for and conduct testing of certain products. From a technological and economic viewpoint, co-operation between all three Baltic States and any prior specialisation in this area would be useful when conducting product quality comparative testing.

Figure 1. Degree of lack of information about non-food products (Percentage of experts who nominated a particular product category)

Figure 2. Assessment of the potentiality of testing non-food products

Conclusions
1. Consumers are the market’s strongest driving force, they have enormous economic power. The purpose of consumer organisations is to provide information and consult consumers so that they may utilise that power effectively. Only testing that is beyond reproach, whose results cannot be contested by manufacturers or traders, will have enough influence over consumers and will therefore secure business succession.
2. Test results have a marked influence on the marketing strategies of businesses. They can be used to make comparisons because they are a convenient way of collecting information about competitors’ production. Even those companies whose goods have not undergone testing observe the market and take test results into account when im-
proving their own products. So, testing ensures that there is a stream information to the market encouraging businesses to be adaptable and flexible and raise their production quality standards.

3. Lithuanian consumers feel a distinct lack of information about products. This desire for information is felt most strongly by young, educated people receiving comparatively high salaries. It is this social and economic demographic in particular which, in Germany, makes up the majority of test users (customers, subscribers). A well-informed consumer is more demanding in terms of product quality and is more inclined to pay a higher price for a better quality product or service. This is why when educating consumers we can influence their perception of quality.

4. Experts found that Lithuanian consumers are least informed about product quality, safety and additional conditions, while the product parameters that rate lowest are price legitimacy, product quality and after-sales service. Comparing these results we can state that the degree of consumer information affects the evaluation of a product’s quality parameters.

5. When creating a system for the comparative testing of products in Lithuania the experience of Western countries needs to be taken into account, as does the potentiality of Lithuanian institutions’ readiness and ability to conduct testing of certain products. The research showed that at present food products are the most open to testing, where services fared worst. Co-operation and the specialisation of the Baltic States would be most useful from a technical and economic perspective when conducting product quality comparative testing.

6. Utilising comparative product testing methodology and research on how test results could be applied, it can be said that the formation of an independent, well-informed consumer base that is able to make calculated decisions requires planned and concentrated government efforts. Comparative product testing is one of the tools available for consumer education and information, its significance and effectiveness in creating a knowledge society such as this cannot be denied.

References

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Produktų kokybės ligišniamieji testai ir jų panaudojimo galimybės Lietuvoje

Santrauka


