

Subject: Quality and competitiveness

Workload (2 class hours, 6 self-study hours)

Objective: to analyze the competitiveness of products to improve their quality.

Supervised learning outcomes:

1. Identification of spontaneous repute of the products on a market;	Literature review
2. Listing the attributes of products;	Characteristics review and a questionnaire compiling
3. Significance assessment, that is assessment of attributes for particular brands;	Comparison of characteristics
4. Constructing the polygon of competitiveness;	The polygon of competitiveness
5. Determining the customer satisfaction level;	Consumers inquiry Results of inquiry
6. Working out the guideline to improve the competitiveness of products.	Working out the guideline

1. Generalities

Competitiveness of the product is the level of its economic, technical and working parameters, which allows withstanding competition from other similar brands. In addition, competitiveness is a comparative characteristic of the product with integrated assessment of industrial, commercial, institutional and economic performance relative to the identified market requirements, or properties of other products.

Competitiveness of the product shows its appeal to the real consumer, i.e. preference level of the product on a particular market within a certain period of time.

Competitiveness is determined by three groups of parameters: the consumption, economic, and organizational (commercial).

Consumption parameters characterize the following properties: parameters of intended purpose, characteristics (including the consumer attitude), ergonomic, aesthetic and regulations, a public image of the product, its repute, brand name, etc. Parameters of intended purpose are connected with the range of product use and required fictions. Ergonomic parameters characterize the conformity of products with the abilities of a human body when performing work operations or consuming, that is, they show the level of comfort and convenience. Aesthetic parameters characterize information expressiveness, rationality of the form, perfection of production performance and marketable style stability. Regulations

parameters reflect the product properties regulated by mandatory norms, standards and legislation.

Economic parameters characterize the consumer spending to purchase and use the item throughout the period of its use (consumption). The economic parameters are: the price of an item, transportation costs, installation, operation, repair, maintenance, taxes, insurance premium, etc.

Organizational parameters include: discounts, terms of sale, quality of service, guarantees, etc.

The list of relevant parameters for competitiveness and their importance for different customers may vary even within the same market, so it is necessary to assign the components in each case. The components significance and the consumer attitude to them may vary even for the same product in different periods of time, so development of components for competitiveness is one of the key points for its assessment.

To assess the competitiveness of products, it is therefore essential to estimate how much better/worse it meets the consumer requirements if compared to competing products, and during the examination of factors - how they improve or hinder competitiveness of products since a consumer appreciates the benefits of using the product rather than the product itself.

It is reasonable to solve the identified problem of competitiveness and management effects on the basis of the marketing research which involves the study of the customer's attitude to the product of the company under investigation and its competitors as well as the strengths and weaknesses of the internal environment of the company; opportunities efficiency and avoidance of external environment threats.

Assessment of product competitiveness must be carried out periodically, not only in problem situations. This is due to the fact that taking preventive measures based on potential deterioration in the competitiveness of products is more efficient than an attempt to increase its real low competitiveness.

2. Procedure

Assignment: To analyze competitiveness of products.

Kind of products: domestic cars, cosmetics, bakery products, mobile phones.

To perform the task it is essential:

1. to identify spontaneous reputations of the product on a market;
2. to develop the list of attributes;
3. to assess the significance of attributes for particular brands;
4. to construct the polygon of competitiveness;
5. to determine the customer satisfaction level;
6. to work out the guideline to improve competitiveness of products.

The data collection method is inquiry. The tool for data collection is a questionnaire.

An inquiry may include open-end, close-end and semi-closed questions. For instance, an open-end question may be as follows: which shampoo brands do you know? Possible answers are not suggested. A close-end question limits respondents with a list of answer choices from which they must choose to answer the question. Semi-closed questions combine suggested possible answers and an option to enter your own choice.

Example. Analysis of the shampoo Pantene Provi competitiveness.

Questionnaire compiling

I spontaneous repute in a market

1. Which shampoo brand comes to your mind first?
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II Attributes development

2. Which of the listed attributes are essential for you to choose a shampoo:

- foaming
- fragrance
- viscosity
- package design
- brand repute
- variety of products
- ease of use
- package volume
- a good name for shampoo
- colour of shampoo
- new products
- presence of vitamins
- presence of conditioners
- rinsability
- presence of medicinal herbs
- hypoallergenicity
- affordability
- sale place
- other answers _____

3. A questionnaire to assess the evidence of attributes of particular brands

Dear respondent, the students of Tomsk Polytechnic University conduct a research on the shampoo Pantene Provi competitiveness within Tomsk market.

- a. Grade the characteristics which are essential for you to choose a particular shampoo on a 8-point scale (8 points being the most important and 1 point being the least important). Numbers are not repeated.

Criteria	Priority ranking
Fragrance	
Foaming	

Presence of conditioners	
Presence of vitamins	
Viscosity	
Package volume	
Presence of medicinal herbs	
Package design	

b. Please, grade on a 8-point scale (8 points being the most important and 1 point being the least important) the level of your satisfaction with each of the brands in accordance with the proposed characteristics.

Criteria\ Shampoo brands	Pantene Provi	Timotei	Schamtu	Head&Sholders
Fragrance				
Foaming				
Presence of conditioners				
Presence of vitamins				
Viscosity				
Package volume				
Presence of medicinal herbs				
Package design				

Collected data processing

Table 1 provides generalized results of the inquiry and shows the attitude of consumers to the well-known brands of shampoo.

Table 1

Consumers' attitude to some shampoo brands

Brand attributes	Fragrance	Foaming	Conditioners	Vitamins	Viscosity	Package volume	Medicinal herbs	Package design	Average point
Pantene Provi	6.6	6.2	6.2	6.9	7.2	5.7	4.9	5.4	6.14
Head&Sholders	6,3	6,9	5,8	6,2	6,8	5,8	4,8	5,3	5,99

Timotei	6,8	5,9	5,6	6,2	6,0	5,3	4,8	5,5	5,76
Schamtu	6,5	5,6	5,4	5,9	6,0	5,6	4,8	4,6	5,55

As seen from Table 1, Timotei package design meets the requirements of most of the consumers (5.5), Pantene Provi package design gets 5.4 points, Head&Shoulders gets 5.3 points and Schamtu gets the least 4.6 points.

Head&Shoulders package volume suits most of the consumers (5.8), Pantene Provi gets 5.7 points on a 8-point scale, Schamtu gets 5.6 point and Timotei gets 5.3, respectively.

However, most of the consumers like Timotei fragrance (6.8), Pantene Provi gets 6.6 points, Schamtu gets 6.5 points, and Head&Shoulders gets only 6.3 points.

Concerning presence of medicinal herbs Pantene Provi keeps the leading position (4.9), Timotei, Schamtu and Head&Shoulders have the same points (4.8).

Concerning presence of conditioners, Pantene Provi is the leader (6.2), Head&Shoulders gets 5.8 points, Timotei gets 5.6 points, Schamtu gets 5.4.

Presence of vitamins in Pantene Provi suits most of the consumers (6.9), Head&Shoulders and Timotei have the same points (6.2), Schamtu gets 5.9.

Thus, the most essential attributes to choose a shampoo are: fragrance (0.14), foaming (0.13), presence of vitamins (0.13), viscosity (0.13), presence of conditioners (0.12), package volume (0.12). The least important attributes are: package design (0.11), presence of medicinal herbs (0.1). Fig. 1 clearly presents the results.

Such attributes as viscosity (0.52), foaming (0.48), vitamins (0.37), package design (0.35), and presence of conditioners (0.30) differentiate brands to the largest degree. Package volume (0.19) and fragrance (0.18) differentiate brands to the least degree.



Fig. 1. Analysis of the answers on the attributes priority ranking

Pantene Provi keeps the leading position in total (6.07), Head&Shoulders gets 5.92, Timotei gets 5.7, Schamtu gets 5.5 points.

Pantene Provi is the leader in the consumers' attitude to this particular brand of shampoo. The weakest characteristics of this shampoo are its fragrance and foaming, but these characteristics are the most essential and should not be ignored.

However, presence of vitamins, medicinal herbs and conditioners as well as viscosity of Pantene Provi meet the customer requirements and should be used to effectively promote the shampoo. The polygon of competitiveness is presented in Fig. 2.

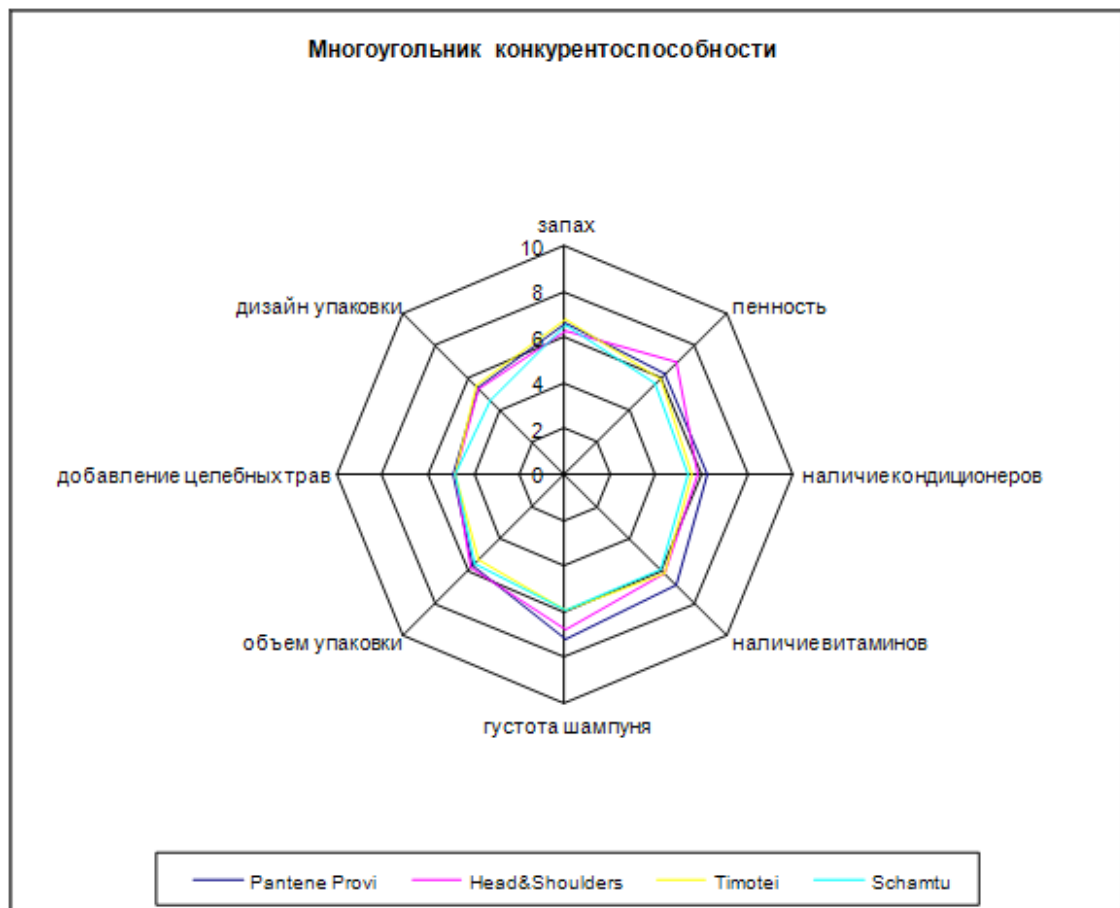


Fig. 2. The polygon of competitiveness

Guideline to improve competitiveness of products

Make a report on the work performed including information describing the manufacturer: its mission, products, achievements, product quality, awards.

Estimation criteria:

	2	3	4	5
Literature review (bibliography cited)	Less than 5	5-6	7-8	Greater than 8
Characteristics review	Less than 7	7-8	8-9	Greater than 9
The polygon of	Black-and-	No symbols	Scale is not	Highly

competitiveness	white colour		suitable	coloured, suitable scale, symbols
Consumers inquiry (a number of respondents)	Less than 10	11-15	16-20	Greater than 20
Inquiry results	Description in text mode	Diagram or diagram	Diagram, table	Diagram, table, comparison of results
Working out the guidelines	No guidelines	No guidelines	Comparison of characteristics is given, no guidelines	Comparison of characteristics is clearly stated, 3 recommendations and more

20-16 points: correctly stated material with conclusions and reasonable suggestions.

15-13 points: competent work with insignificant faults in the content or design.

12-10 points: inconsistently stated material with unfounded conclusions.