The influence of sensitivity analysis on the process of price decision making and pricing of the company

ANNA KUBJATKOVA, ANNA KRIZANOVA

Sensitivity analysis

- with the help of sensitivity analysis, it is possible to find out how an individual value affects the change of the final monitored value, according to which the decision is made. Factors that affect the final value can be divided into significant - in which the sensitivity of the final factor to these factors is significant, and insignificant - not so important ones. It is through sensitivity analysis that it is possible to reveal which factors are significant and which are insignificant with respect to a given pricing decision.

- pricing decisions must be made by the company very carefully and their selection is not easy. Sensitivity analysis helps companies choose the best options and steps in the price decision making, which will ultimately affect the process of pricing.

Purpose of the article

- to point out the importance of sensitivity analysis as a tool for simplifying price decision making and to perform this analysis on a model example of a company.

Methods

- methods of analysis and research of the issue, induction and deduction methods.

Variables:

- **the final factor** - companies need to determine the final factor that will be involved in the decision-making process itself. Price decisions mainly concern the amount of the company's gross profit, but there are cases where the decisions also concern the net present value, the amount of costs, sales price, amount of investment and others.
- **key variables** - in order to perform a sensitivity analysis, the input data, ie the most probable values of the risk factors, are necessary, and these are their most accurate estimates.

Results

- company X tries to find out how the amount of its gross profit (GP) will change, the criteria being as follows: 10% reduction in variable costs, increase in the number of products placed on the market by 200 pieces, reduction of fixed costs by 5%, increase of the selling price per piece by 15%.
- **key variables:** the company manufactures certain products and supplies them to the market in quantities of (Q) 3000 pieces, which represents a market share (MS) of 20%. The selling price (P) of these products is 150 € per piece. Variable costs (VC) per piece are 40 € and fixed costs (FC) for the entire production volume are 18,000 €.

Results

	Original values	10% reduction in variable costs	Increase the number of products placed on the market by 200 pieces	Reduction of fixed costs by 5%	Increase the selling price per piece by 15%
Q (in pieces)	3 000	3 000	3 200	3 000	3 000
MS (%)	20	20	22	20	20
P (€/piece)	150	150	150	150	173
Sales (€)	450 000	450 000	480 000	450 000	519 000
VC (€/piece)	40	36	40	40	40
FC (€)	18 000	18 000	18 000	17 100	18 000
C (€)	138 000	126 000	138 000	137 100	138 000
GP (€)	312 000	324 000	342 000	312 900	381 000

Table: Impact of key variables on gross profit.

the biggest impact on the amount of the company's gross profit has an increase in the selling price of the product by 15%, which is an increase of up to 69,000 €

Conclusion

- the result of this work is, in addition to a general overview of the sensitivity analysis in price decision making, also the specific procedure and the results of the sensitivity analysis and recommendations for the company resulting from these results. Based on the created instructions, companies can make clear pricing decisions that will be of the greatest benefit to them.