Summary

Competitive analysis in marketing: theory, techniques and applications

Introduction

In the fast-growth economy of the 1960's, companies paid less attention than today to their competitors. The economic pie was growing fast enough for everyone to succeed. However, in the seventies and the eighties competition has increased enormously. One reason for this is the decline in the growth in many markets. Other reasons are rapid technological developments, stronger international competition and, as a result of these developments, shorter product life cycles. Thus it has become more important for companies to perform a competitive analysis in their strategic planning process.

Research questions

This study deals with competitive analysis within the field of marketing. The purpose of the study is twofold. The first objective is to improve the "theory" of competitive analysis. To this end, the several stages of a competitive analysis and the corresponding research techniques are described, in chapter 2.

The second objective of this study deals with the use of econometric models in competitive analysis. In the literature on econometric modelling and forecasting often strong assumptions are made with respect to the marketing behavior of competitors, such as:
- accounting for competition in modelling brand sales will provide better forecasts of sales than models without variables which account for competition;
- competitive marketing behavior in the forecasting period is known;
- it is known who the competitors are; the market can be defined;
- in the forecasting period there will be no new entrants.

These assumptions facilitate the use of econometric models.

In chapters 3 through 6 respectively we elaborate on these four specific assumptions on competition. We investigate empirically for some markets whether these assumptions can be maintained, what problems arise and which solutions can be found if these assumptions are relaxed.

The theory of competitive analysis

Competitive analysis covers a wide variety of research questions which are examined in several disciplines such as micro-economics, industrial organization economics and marketing. Examples of these questions are: what are the boundaries of a market, how intense is the competition in a market, what are the future strategies of "our" main competitors? Many firms do not have a structured framework for performing the competitive analysis, because competitive analysis covers such a broad area. In chapter 2 of this study we present such a framework.

In the strategic planning process a competitive analysis is part of the external analysis. In order to better understand the meaning of "competitive analysis" a distinction is made between
- an industry analysis and
- a competitor analysis.
A central assumption in the industry-(organization)analysis is that the attractiveness of an industry is determined by the intensity of competition. A firm that is able to resist the factors which determine industry competition better than its competitors will have a competitive advantage and thus a relatively good performance. In the industry analysis, competition is analyzed at an aggregated (market) level and the conduct of individual competitors is ignored.

An industry analysis consists of two stages:
1. the identification of the competitors;
2. the assessment of the industry attractiveness.

Several research methods can be used in identifying the competitors. A distinction can be made between customer-oriented methods (methods using data on the demand side of the market) and competitor-oriented methods (methods using data on the supply side of the market). Examples of customer-oriented methods are the use of brand-switching data, the estimation of cross-sales elasticities, the use of product-deletion data and positioning studies. These methods mainly provide information at the brand-level. Competitor-oriented methods in identifying the competitors are the estimation of reaction-elasticities and the concept of strategic groups.

The industry attractiveness is investigated by examining:
* environmental variables, such as political and economic factors;
* aggregated market factors, such as (future) market growth;
* the structural variables which determine the level of competitive intensity within an industry.

Marketing researchers are more concerned with the performance of products and firms than with the performance of entire industries. Because of this orientation, a firm should also perform a competitor analysis, which deals with the behavior of individual competitors. A competitor analysis can be viewed as the disaggregated part of the competitive analysis.

The goal of the competitor analysis is to provide insight into the strengths and weaknesses and the future behavior of the (main) competitors. The following stages should be followed:
1. selection of the target competitors;
2. assessing the competitors’ current objectives;
3. assessing the competitors’ current strategies;
4. assessing competitors’ capabilities;
5. predicting competitors’ future strategies.

The results of stages 2 through 4 are the input for stage 5.

Both in industry analysis and in competitor-analysis econometric models may be a useful tool. The use of these models has been stimulated recently by the growing availability of market research data.

**Competition and econometric modelling**

In chapter 3 we investigate whether accounting for competition in modelling brand sales provides better predictions of brand sales. Using bimonthly data on three brands in a market of fast-moving consumer goods, we find that for two of the three brands the models with variables which account for competition do not provide better sales forecasts than models without variables which account for competition. This rather surprising result called attention in the market.

The predictive power of econometric models has attracted attention in the market, and there is also interest in the question of how to predict model forecasts that are outside the training data. In chapter 4 we assume that a firm can use models in the industry analysis for predictions that are outside the training data. The predictions are calibrated for market share predictions.

In chapter 5 we examine whether accounting for competition in forecasting period sales, long forecasting horizon is expected to enhance the accuracy of predictions that are outside the training data. In chapter 6 we examine whether accounting for competition in forecasting period sales, long forecasting horizon is expected to enhance the accuracy of predictions that are outside the training data.
The importance of the attractiveness of products and firms will have a significant impact on the industry analysis of individual brands. This rather surprising result can be explained by the specific positioning of the brands in the chosen market.

The predictive power of market share models is a subject that has received considerable attention in the marketing literature. However, hardly any attention has been paid to the question of how the values of the marketing instruments of competitors can be predicted. This is remarkable since these values constitute the input variables for a market share model.

In chapter 4 we investigate the sensitivity of predicted market shares to different assumptions with respect to competitive behavior. Calibrating a number of models and predicting competitive behavior and market shares for nine brands from three markets of fast-moving consumer goods using bimonthly data leads to four conclusions:

1. market share predictions are not very sensitive to the assumptions that are made with respect to future competitive marketing behavior;
2. sophisticated predictions of competitive behavior are not consistently more accurate than naive predictions;
3. using predicted values of competitive behavior may provide better market share predictions than using observed values of competitive behavior;
4. sophisticated predictions of market shares are not systematically better than naive market share predictions.

The marketing literature on econometric modelling is focused primarily on market share models. In modelling market shares, it is often assumed that the competitors can be identified. Mostly it is assumed that all brands in a market are (potential) competitors. However, when some brands do not actually vie for the same customers in the market, variables in market share models are misspecified, because of the "wrong" market definition.

In chapter 5 we examine this problem for the Dutch advertising market and we describe a way of modelling sales which is less sensitive to market definition, namely modelling (absolute) unit sales. The empirical problem deals with an investigation of whether television advertising in the Netherlands competes with advertising in daily newspapers and in magazines. Television advertising in the Netherlands was introduced in 1967, and in the periods 1968-1972 and 1985-1989 the limited air-time available for television advertising was extended.

Calibrating absolute sales models ("sales" is advertising expenditures) using annual data on advertising expenditures in the different media, leads to the conclusion that in the first years after its introduction the extensions of television advertising have reduced advertising expenditures in print media. However, the recent extensions hardly affect advertising expenditures in daily newspapers and magazines.

In the marketing literature on forecasting brand sales it is often assumed that in the forecasting period no new competitor will enter the market. Especially if a relatively long forecasting horizon is used, this may be an unrealistic assumption. If a new entrant is expected to enter the market, the ability of an econometric approach to accurately predict future sales becomes questionable.

In chapter 6 we examine this problem for the same market as in chapter 5 (the Dutch advertising market) and we describe an alternative method for forecasting "sales" (advertising expenditures). The applied method is an intention survey. The method is...
used to forecast the impact of the introduction of private broadcasting in the Netherlands (which took place in October 1989) on advertising expenditures of other media.

Based on an intention survey with respect to the advertising plans of advertisers and their advertising agencies, it is predicted that the introduction of private broadcasting would lead to a strong substitution with advertising on the public broadcasting channels. From a comparison of the predictions and the realized figures we conclude that the intentions have provided acceptable predictions. A problem which is quite often inherent to the use of intention surveys is the low response. We have been confronted with this problem because the willingness of the firms to provide information on their advertising plans is limited in our study.