

Market Demand Forecasting Models and their Elements in the Context of Competitive Market

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Models of forecasting of market demand are analysed in the article and the general principles of these models formation in the context of competitive market are presented. Due to fast changing market conditions, intensive competition and necessity to solve relevant business bearing problems the demand of forecasting information connected with general market demand has increased. Mean experience of market demand forecasting in dynamic competitive market determines inaccurate results of the analysis of market demand and invalid decisions connected with companies' activity. So it is considered to be especially relevant to compare present structures of market demand forecasting, and on that ground to form the principles of efficient forecasting of market demand in competitive market.

The article starts with the analysis of conceptions of market demand forecasting and forecast while elaborating the conceptions of forecasting and forecast concretely. Later the analysis of market demand models and their specificity in the context of competitive market is presented. The surveys show that while researching the models of forecasting of market demand different opinions arise: some theorists maintain that the forecast of market demand is a concurrent part of forecasting of demand for a company's products, whereas the others are sure that the exact forecast of market demand is impossible without an assessment of macroenvironment (external environment) or economic forecasting. The models of market demand forecasting, which are described in economic literature, are often intermittent, the consistency of the performance of forecasting is not clear. They also analyze limited number (often depending on the forecasting purpose) of the factors, which influence the competitive aspects of market demand. Sometimes the forecasting of market demand is based only on the choice of forecasting method and the analysis of the use in a concrete situation. The final actions of forecasting and assessment of completed forecasts accuracy is not often supposed. This determines roughness of the models of market demand forecasting and limited practical use in competitive market.

With the reference to surveys of the models of market demand forecasting and their elements found in academic literature and given assessment of them, the model of market demand forecasting is considered to be a many-staged arrangement and relation between parts (elements), which aim to predict and assess the market demand and the tendencies of its alternation in competitive market in future. Not only the aspects of use of forecasting method are

important for efficient market demand forecasting in competitive market but also how market demand is affected by the factor of forecasting frame. Formation of market demand's forecasts based only on potentials of mathematical statistical method does not often take into account the influence of qualitative factors of competitive market demand and economic characteristics of market model.

In pursuance of efficient forecasting of market demand in competitive market, it is recommended to combine an assessment of market demand emphasizing factors of business macroenvironment and the frame of industrial market and forecasting, which is based on quantitative analysis of information; to include into forecasting model such factors as aims and goals, assessment of the frame of market forecasting, selection of the method of market demand forecasting and forecast of market demand making.

Keywords: *forecasting, market demand, forecasting models.*

Introduction

The problem. The techniques presented in theoretical economic models and utilitarian works are mostly oriented to practical surveys of market demander based on forecasting system development at the company's level. If market demand forecast is made only on the ground of mathematical - statistical methods of forecasting influence of the factors of macroenvironment and industrial market frame on market demand is not often taken into account in the context of competitive environment. The principles of assessment of market demand presented in academic literature are often researched with the reference to the models used in surveys of market and emphasizing traditional factors having an influence on the concrete market demand.

That shows that a solid conception of market demand forecasting, which would help to assess thoroughly the external environment, where the market performs, and to make the market demand forecast, has not been formed in economic literature. The connection between an assessment of the external factors having influence on the market demand and forecasting in competitive market based on quantitative analysis of information chain is not clear enough.

Increasing competition, consumers' freedom to make a choice, homogeneity of goods determined academic

researches in the sphere of market demand forecasting. Various aspects of conception of competitive market demand forecasting were researched by Valentine, Dauten (1993), Bails, Peppers (1993), Bolt (1994), Herbig, Milewicz, Golden (1994), Kinnear, Taylor (1996), De Lurgio (1998), Urbanskienė, Vaitkienė and others (1998), Perman, Sconller (1999), Granger (2000), Wolfers, Zitzewitz (2004), Green (2007), Boguslauskas (2007), Pilinkienė (2008a). The analysis of the models of market demand forecasting shows that academic literature presents various models of market demand forecasting emphasizing different factors, which affect the process of forecasting, and the suggested number of the models elements also differs. Such conclusion was made after having analyzed the models of forecasting, suggested by Adams (1986), Cox (1989), Karsten (1990), Hirschey, Pappas (1992), Hanke (1992), Churchill, Ford and others (1993), Pride, Ferre (1993), Kress, Snyder (1994), Shim, Siegel and others (1994), Nall (1994), Clements, Henry (1998), Sloman, Sutcliffe (1998), Makridakis, Wheelwright and others (1998).

The aim of the article is to compare the models of market demand forecasting presented in academic literature and propose the principles of market demand forecasting in the context of competitive market.

The object of the article - the market demand forecasting models.

Research methods. To research and analyze the theoretical models of market demand forecasting the following general scientific investigative methods are used: systemic, comparative and logical analysis.

Scientific novelty. The systemic comparison of the models of market demand forecasting has been made; advantages and disadvantages of the models have been accentuated; the principles of formation of the models of market demand forecasting in the context of competitive market demand have been introduced.

Conceptions of market demand forecast and forecasting

Economic literature usually treats forecasting as prediction of tendencies to change the future status of economic object. Karsten (1990) defines forecasting not as a process but as constantly resuming activity emphasizing apprehension and assessment of general economic tendencies. Boguslauskas (1999) appends the previous conception defining forecasting as establishing of the future course of researched process emphasizing available practical experience and traditional theoretical backgrounds. Granger (2000) suggests a little blinkered treatment of forecasting defining it as getting information about future economic indexes although he does not name the tools or ways to realize this process.

Urbanskienė, Vaitkienė and others (1998) define forecasting as a process of reasoning formation about possible future statuses of the object with the reference to knowing of objective laws of reality. These authors name social-economic character of phenomena as one of the conditions for forecasting realization: not separate objects can be forecasted but general qualities and consistent patterns of economic processes, which have constant cause

and effect relations. Such conception of forecasting does not reflect the possibility of forecasting of new products and markets completely.

The analysis of conception of forecasting from the viewpoint of microeconomics shows that two attitudes dominate in literature: in the opinion of such theorists as Herbig, Mitewicz and other (1994), Sloman, Sutcliffe (1998), Wolfers, Zitzewitz (2004), Pilinkienė (2008a) forecasting should take place in order to predict, project and assess future events or conditions, which are not under company's control, whereas according to Hirschey, Pappas (1992), Perman, Sconller (1999) forecasting must include the tendencies of prediction of concrete future spheres of the company's activity. Bolt (1994) made the last-mentioned opinion more concrete maintaining that from the viewpoint of microeconomics forecasting is actually connected with prediction of demand for the company's products.

Having analyzed the conceptions of forecasting suggested by the aforementioned authors, it is possible to maintain that a common opinion about the use of conceptions of forecasting has failed to be formed although during the process of analyzing the following premises of conception of forecasting formation were identified:

- forecasting is assessed not from a static function but from the position of the process;
- economic index is usually considered to be the object of forecasting;
- it is a concurrent part of every economic subject's activity;
- forecasting tools and aims are named.

The concept of forecast (in Greek "prognosis" means a conclusion about any object's possible future status made on the ground of science) is differently treated in economic literature. In a broad sense forecast is defined as a final result of the process of forecasting.

More concrete concepts of forecast can be found in academic literature. According to De Lurgio forecast is considered to be a stochastic assessment of the value of future economic process. The term "stochastic" accents that it is not a one-2-one result but an interval of certain significances.

The analogous opinions belong to Dave, Fildes and others (1994), who stress a stochastic character of forecasts when forecasts are thought to be only clear stochastic suppositions about economic processes. In other scientists' opinion (Green, 2007) forecasts include all suppositions about a future course of economic process. The last-mentioned conception of forecast is more extensive - it includes stochastic theory of forecasting although it is not so strict and precise. Valentine, Dauten (1993) made the conception of forecast more concrete, name the aim and define it as a possible result of alternatives of economic development and their social-economic effects, which is necessary to make the most rational decision.

According to Bails, Peppers (1993) forecast is considered to be a result or value of prediction of all types of the company's economic activity during a certain period of time. In some literary paternities (Peterson, Lewis, 1999; Neall, Haslam, 1994) forecast has a narrower meaning, i.e. the part of demand for the company's products in the general market demand is emphasized. The other authors

(Bolt, 1994; Kinnear, Taylor, 1996) make the concept of forecast much more concrete and restrict it to quantity or value of the company's future selling.

Nevertheless, the two last-mentioned conceptions of forecast are too laconic because do not take into account the factor of time. Sloman, Sutcliffe (1998) maintain that at least three criteria must define the forecast: (1) the level of product; (2) regional factor; (3) the period of time the forecast is made for.

In academic literature the forecast of market demand is often defined as a result of companies' expenses on market development (Kress, Snyder, 1994; Kinnear, Taylor, 1996). From economic viewpoints such conception is blinkered because due to the emphasized impact of the company on market demand, characteristics of the market and influence of other economic subjects on the forecast of market demand are not assessed.

The survey shows that forecasting of market demand is closely connected with the market potential and the market capacity. These two indexes can disagree. It is absolutely possible that the market's potential will be greater than the market capacity. Cox (1989), Kotler, Armstrong and others (1996) maintain that market demand can be expressed as a function of the market's potential, forecast of market demand and general expenses on market development.

With the reference to the analysis of the conceptions of forecast and forecasting found in academic literature the conceptions of forecast and forecasting of market demand are suggested to form as follows:

Forecasting of market demand is a process, which aims to analyze the present status of market demand and to predict and assess the tendencies of alternations of market demand for a future period of time.

Forecast of market demand is the result of the assessment of objective and valid characteristics of market demand and their alternatives in a certain region for a future period of time.

Market demand forecasting models: competitive aspects

Market demand forecasting models described in academic literature differ in the subject of the quantity of researched factors and their influence on forecast of market demand. Market demand forecasting model in the context of competitive market in a quite narrow sense is defined by Bails, Pepper (1993). In this model (Figure1) the actions connected with identification and assessment of external and internal factors, which influence forecast, information analysis, selection or formation and examination of the method of forecasting are emphasized.

Kress, Snyder (1994) have the analogous opinion about the definition of forecasting model although these authors mostly accent an influence of internal environment. The models presented by Bails, Peppers (1993) as well as by Kress, Snyder (1994) have an intermittent character because of disregard of feedback so if another forecast is necessary, new survey will be needed.

Shim, Siegel, Liew and others (1994) named market demand forecasting as a component of decisions of the company's functional elements and recommend performing

it in the context of forecasting of demand for the company's products emphasizing an assessment of risks and influence of external environment (Figure2). An important matter in this model is included concept of planning when planning is apprehended as prediction of decisions depending on critical conditions and results, which were got during forecasting (Hall, 1994, Pilinkienė, 2008b). Although the process of forecasting also gives certain information about future, it should not be assessed as an alternative.

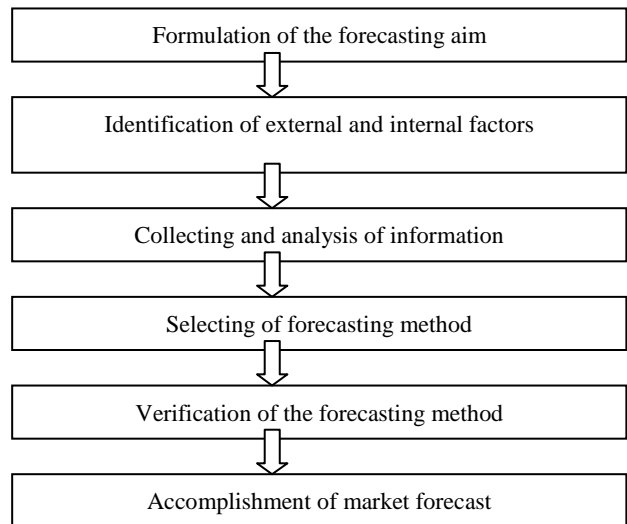


Figure 1. Forecasting model (Bails, Peppers, 1993)

Most authors suppose forecasting to be a component of planning although is more extensive concept because of its nature taking into account not only internal information. While researching the importance of forecasting of market demand for the company's strategic decisions, there were found that some authors (Hirschey, Pappas, 1992; Clements, Henry, 1998; Sloman, Sutcliffe, 1998) supported the idea of integration of processes of planning and forecasting. This makes possible to predict the tendencies of the company's activity with minimal expenses and facilitate procedures of making decisions.

It is important to point out that too intensive focusing of forecasting information through the prism of planning can determine blinkered analysis of the factors of external environment, which influences forecasting of market demand.

Accomplishment of "top-down" and "bottom-up" or so-called segment forecasting (Figure3) includes three main stages (Cox, 1989):

1. Forecast of macroeconomic indexes;
2. Forecast of market demand;
3. Forecast of the demand of the company's products.

While performing "top-down" forecasting the main purpose of forecasting of macroeconomic indexes is to find out the future level of inflation, unemployment, consumers' earning, prices of goods and with the reference to these indexes to predict general consistent patterns of the state economic development or conjuncture of separate branches of economy in competitive market. Later this forecasting information about macroeconomic indexes is treated as a tool of forecast of market demand.

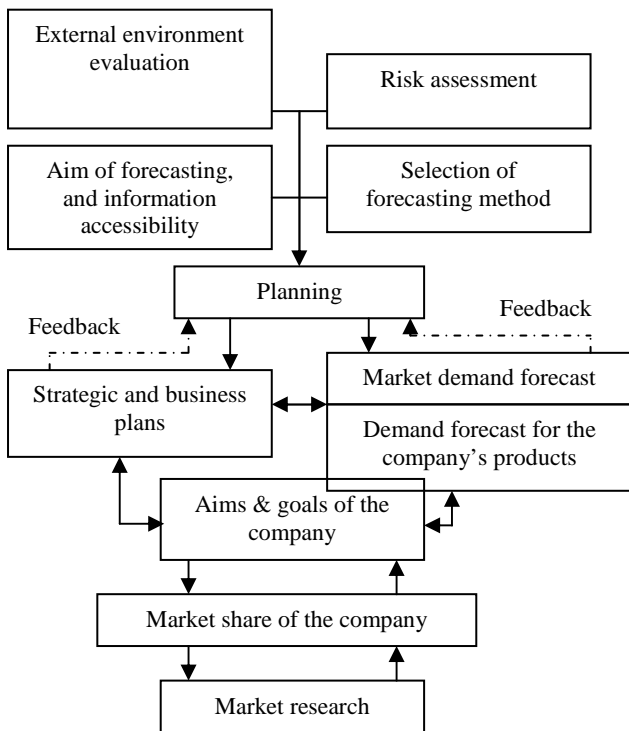


Figure 2. Forecasting model including planning (Shim, Siegel, Liew, 1994)

It is necessary to point that the most scientists support the idea that there is no sense for companies to perform forecasting of macroeconomic indexes but it seems to be more purposefull to apply for the information provided by state institutions and problem-oriented academic institutes.

While performing “bottom- up” type forecasting of market demand includes market demand’s separation according to the main segments, accomplishment of forecasting for every segment. Barnett (1988) maintains that it seems to be purposefully to include analysis of responsiveness of the market into the stage of market demand forecasting and on its ground to predict possible risks of market demand forecasts. Although the analysis of responsiveness requires much specific information and knowledge and its getting can be restricted because of small and single-purpose market.

Forecast of demand for the company’s products is performed assessing macroeconomic indexes and forecasts of market demand (using the “top-down” type) or on the ground of the forecast of market demand made while structuring market demand and performing forecasts of separate segments (using the “bottom-up” type).

It is noted that as too big prominence is given to the factors of external environment and because of elaborating object of demand the models “top-down” and “bottom-up” do not focus enough on feedbacks identification, finding final actions of forecasting and control of forecast of demand. Pride, Ferrel (1993) pay attention to the fact that it is more purposefully to use the mentioned models of forecasting in organizations which hold a great sector of the market or in the companies which perform in oligopolistic or monopolistic markets whereas the companies having no influence in the market should simplify the model.

Hanke (1992) and Kirsten (2000) object to such opinion and maintain that simplifying of market forecasting model can cause the loss of valuable information which is connected with possible alternations of macroeconomic environment or tendencies of development of the branch which influence directly the demand of competitive market.

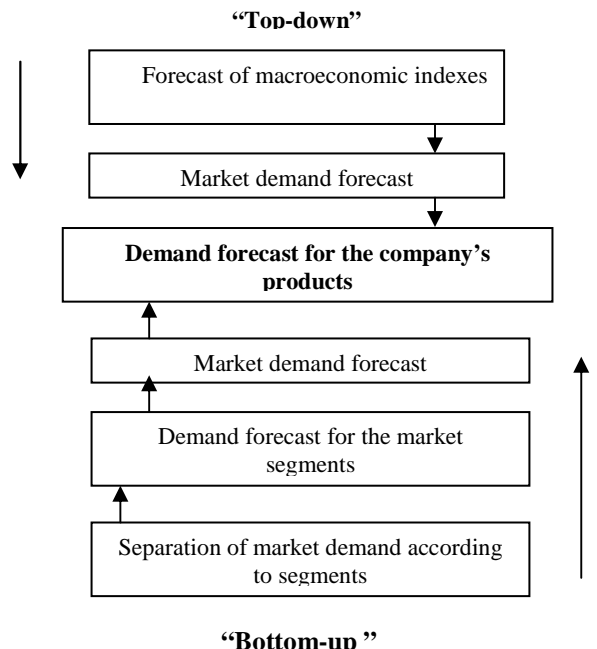


Figure 3. Forecasting model “top-down” and “bottom-up” (Cox, 1989; Karsten, 1990)

In the forecasting model (Figure 4) suggested by Adams (1986) continuous connection of three forecasting levels – demand of the company’s product, market demand and macroenvironment – is stressed.

In the given model an impact of external factors on forecast of any level is emphasized while assessing specific and common factors for the whole model of forecasting. An important point in this model is including a segment of market when its analysis is apprehended as one of the main tools to forecast the demand for the company’s products. On the other side, in the model of forecasting suggested by Adams (1986) analyzing entirely an impact of external environment internal working mechanism of forecasting and its elements are failed to be assessed and the aspects of assessment of accuracy of forecasts are uncertain.

An impact of external environment in the process of forecasting of competitive market demand is in details emphasized by Makridakis, Wheelwright and others (1998).

Compared with the models of forecasting researched by other authors here elements of external environment include such factors as consumers, producers and suppliers defining them by certain economic indexes. It is important to note that due to detailed description of forecasting objects this model of forecasting is mostly oriented to the system of general flows of information which are necessary for making forecast of market demand. Assessing it from the viewpoint of forecasting the lack of consistency of forecasting actions and feedback takes place also limited number of forecasting actions is presented.

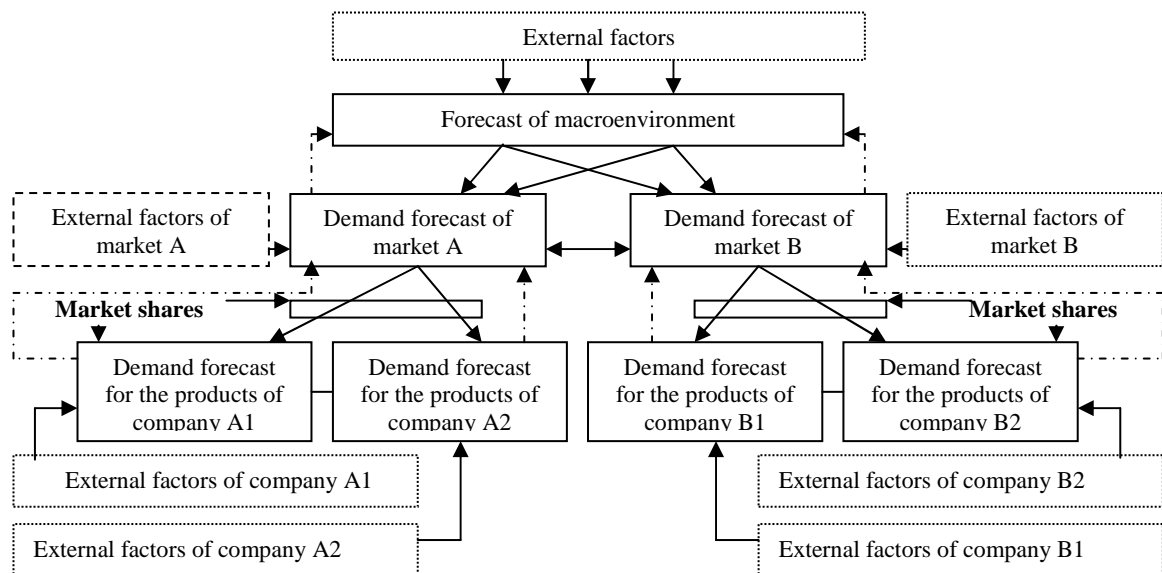


Figure 4. Forecasting model (Adams, 1986)

In the model of forecasting suggested by Churchill, Ford and others (1993) with ingoing-outgoing variables forecasting variables are generally emphasized: factors of influence are ingoing variables which must be taken into account while making forecast and the result of forecasting of demand is an outgoing variable (Figure 5). Although it is a feedback model some uncertainty takes place- there are no clear ways of variables selection. With the reference to accomplished survey the model of forecasting suggested by Churchill, Ford and others (1993) can be defined as simplified and adapted input-output model suggested by V. Leontjevas (1996) which enabled to make complicated survey of development of economy, economic balance and business cycle and founded modern macrostatistics.

The analysis of academic works shows that while researching the models of market demand forecasting various opinions are found: some authors (Shim, Siegel, Liew, 1994; Cox, 1989; Karsten, 1990; Pride, Ferrel, 1993) maintain that forecast of market demand is a concurrent part of forecasting of demand for company's products whereas others (Adams, 1986; Makridakis, Wheelwright, Hyndman, 1998; Churchill, Ford, Walker, 1993) suppose that accurate forecast of market demand is impossible without the assessment of macroenvironment (external environment) or economic forecasting. It is found that in academic literature detailed market demand dependence on various external factors of forecasting frame is researched a little superficially, the lack of integrating attitude towards described factors takes place, too static forecasting models are suggested, different and sometimes not completely valid number of elements of the model is analyzed.

Assessment of the models of the forecasting of market demand from competitive viewpoints

The accomplished survey of the models of forecasting of market demand and their elements, also the assessment of their advantages and disadvantages (Table 1) is motivated by summarizing and emphasizing the general features of analyzed models of forecasting:

- Most of models of forecasting are characterized by their clearly defined elements and forecasting actions although they often have intermittent character, the consistency of performing of forecasting is uncertain.
- The models of forecasting are not informative and detailed enough, limited number of factors having influence on demand, which is often dependent on the purpose of forecasting, is analyzed.
- Suggested by academic models forecasting based only on selecting of forecasting method and analysis of its use in a concrete situation have mostly practical character and are distantly valid academically.
- The final actions of forecasting and assessment of accuracy of completed forecasting are not often provided. This causes roughness of models of forecasting and blinkered practical use of them.

With the reference to the accomplished survey of the models of forecasting of market demand found in academic literature and their elements and to presented assessment of them the model of forecasting of demand is considered to be many-staged arrangement and connection between components (elements) which aims to predict and assess market demand and tendencies of its alternation in competitive market in future.

The analysis of academic works shows that not only aspects of use of forecasting method are important for efficiency of forecasting of market demand in competitive market but also the way market demand is affected by the factors of forecasting frame. If forecast of market demand is made only on the ground of mathematical-statistical methods influence of qualitative factors of competitive market demand and economic characteristics of the model of market are not taken into account.

In academic literature there is a lack of technique combining aspects of assessment of market demand emphasizing influence of macroenvironment and environment of industrial market and at the same time using qualitative and quantitative methods of forecasting which could help to get more reliable forecast of market demand in competitive market than it is possible using the models described in academic literature.

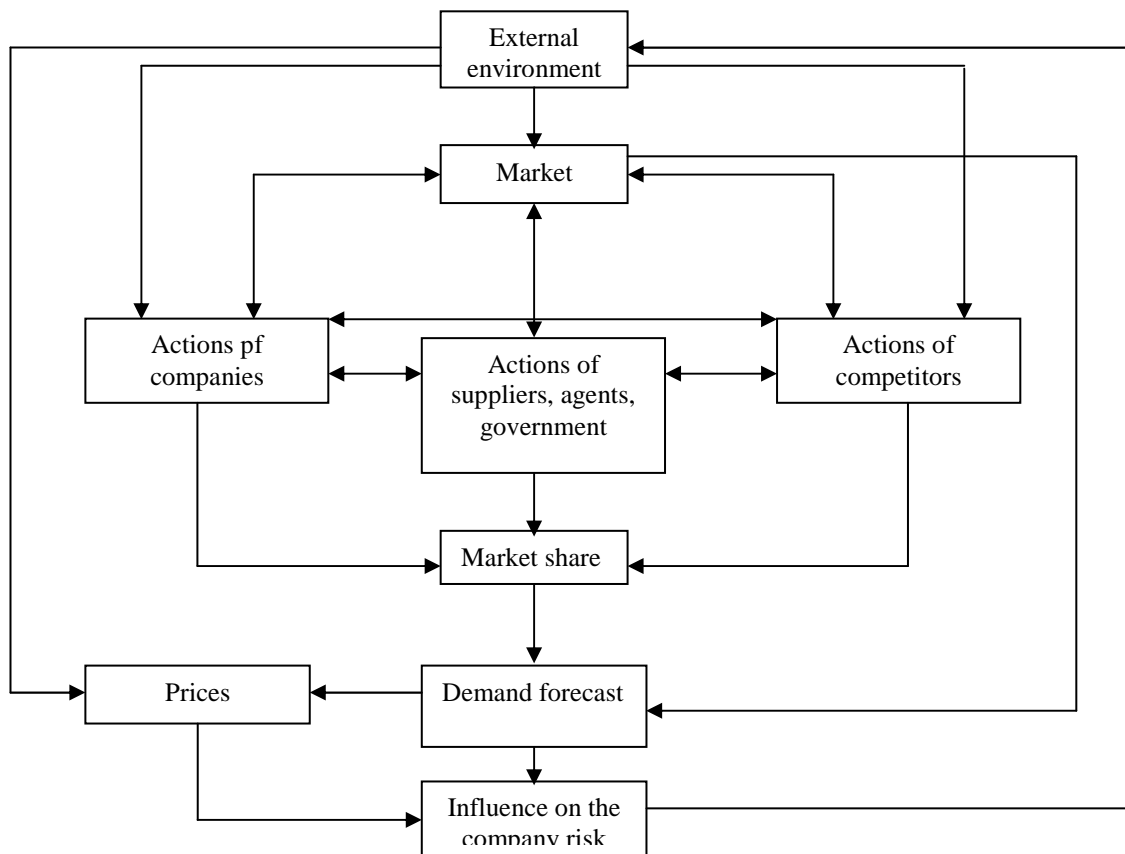


Figure 5. Forecasting model with ingoing-outgoing variables (Churchill, Ford, Walker, 1993)

With the reference to accomplished analysis of literature it is possible to maintain that forecasting of market demand in competitive market for any period of time should be based on following the general principles:

1. To combine assessment of market demand emphasizing factors of macroenvironment and environment of industrial market and forecasting based on quantitative analysis of information.

2. To include the following main stages: aims and goals formulating, assessment of market forecasting frame, selection of method of market demand forecasting and forecast of market demand making.

3. Subject to factors of forecasting frame the stages of the model of market demand forecasting can be detailed and corrected.

Table 1.

Assessment of the models of forecasting of market demand and their elements

Authors	Years	Advantages	Disadvantages
Bails, Peppers, Kress, Snyder	1993 1994	Forecasting actions are defined exactly, the consistency of forecasting elements operating is clear	The model has intermittent character, feedback is disregarded
Shim, Siegel, Liew	1994	The model's elements are clear, the model is not intermittent	Too strong focusing of forecasting information through the prism of planning can limit the number of factors of external environment
Cox, Karsten,	1989 1990	Clear objects of forecasting of demand are emphasized, possibility of making more accurate forecast due to detailed analysis of external factors	Too little attention to feedback, the final actions of forecasting and control of forecasts are not taken into account
Adams	1986	Combining of three forecasting levels makes possible to assess better influence of external factors on forecast, the model has continuous character	Internal mechanism of forecasting and its elements are not assessed, the consistency of assessment of forecasts' accuracy is uncertain
Makridakis, Weelwright, Hyndman	1998	Detailed description of objects of forecasting, the model is not complicated and easy to master	The lack of forecasting actions consistency, the model does not contain feedback, limited number of actions of forecasting is presented
Churchill, Ford, Walker	1993	Clear variables and factors of forecasting, the model has continuous character	Uncertainty of selection of forecasting variables is noted, only ingoing variables are emphasized

Conclusions

1. It is found that two different attitudes towards forecasting of market demand are presented in academic works by foreign and Lithuanian authors: 1) an assessment of market demand is made practicing the models used in market surveys; 2) practicing of statistical-mathematical methods of forecasting of market demand is mostly accented without emphasizing influence of external economic factors.

2. The survey shows that while researching the models of forecasting of market demand certain opposite opinions are found that is mostly caused by aims of forecasting; on one side, the arguments support the idea that forecast of market demand is a concurrent part of forecasting of demand for a company's products; on the other side, it is supposed that accurate forecast of market demand is impossible without assessment of macroenvironment (external environment) or economic forecasting.

3. The analysis of the models of market demand forecasting presented in academic literature shows that they often have intermittent character, the consistency of forecasting performance is uncertain, limited number of the factors having influence on competitive aspects of market demand, which often depends on the purpose of forecasting, is analyzed, sometimes forecasting of market demand is based only on the analysis of the selection of forecasting method and its use in a concrete situation.

4. The final forecasting actions and assessment of accuracy of accomplished forecasts are not often provided. This causes roughness of the models of market demand forecasting and blinkered practical use of them in competitive market.

5. In pursuance of efficient forecasting of market demand in competitive market it is recommended to combine an assessment of market demand emphasizing factors of business macroenvironment and the frame of industrial market and forecasting, which is based on quantitative analysis of information and to include into forecasting model such factors as aims and goals, assessment of the frame of market forecasting, selection of the method of market demand forecasting and forecast of market demand making.

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Rinkos paklausos prognozavimo modeliai ir jų elementai konkurencinėse rinkose

Santrauka

Stripsnyje nagrinėjami rinkos paklausos prognozavimo modeliai ir pateikiami pagrindiniai šių modelių formavimo principai konkurencinėse rinkose kontekste. Sparčiai keičiantis rinkos sąlygoms, intensyviai konkurencijai ir sprendžiant aktualias įmonių verslo orientacijos problemas, ypač išaugo prognozinės informacijos, susijusios su bendra

rinkos paklausa, poreikis. Menka rinkos paklausos prognozavimo patirtis dinamiškoje konkurencinėje rinkoje lemia netikslius rinkos paklausos tyrimo rezultatus ir nepakankamai pagrįstus įmonių veiklos sprendimus. Dėl to ypač aktualu iširti esamas rinkos paklausos prognozavimo struktūras ir jų pagrindu numatyti efektyvaus rinkos paklausos prognozavimo principus konkurencinėje rinkoje.

Didėjanti konkurencija, vartotojų pasirinkimo laisvė, prekių vienuarūšiškumas sąlygoja rinkos paklausos prognozavimo mokslinius tyrimus. Įvairūs konkurencinės rinkos paklausos prognozavimo sampratos aspektai nagrinėti šiuose darbuose: Valentine, Dauten (1993), Bails, Peppers (1993), Bolt (1994), Herbig, Milewicz, Golden (1994), Kinnear, Taylor (1996), DeLurgio (1998), Urbanskienė, Vaitkienė and others (1998), Perman, Sconller (1999), Granger (2000), Wolfers, Zitzewitz (2004), Green (2007), Boguslauskas (2007), Pilinkienė (2008a). Atliktas rinkos paklausos prognozavimo modelių tyrimas parodė, kad moksliniuose darbuose esama įvairių rinkos paklausos prognozavimo modelių, kuriuose akcentuojami skirtingi prognozavimo procesą veikiantys veiksniai, pateikiamas nevienodas modelių elementų skaičius. Ši išvada padaryta, ištyrus Adams (1986), Cox (1989), Karsten (1990), Hirschev, Pappas (1992), Hanke (1992), Churchill, Ford ir kt. (1993), Pride, Ferre (1993), Kress, Snyder (1994), Shim, Siegel ir kt. (1994), Hall (1994), Clements, Henry (1998), Sloman, Sutcliffe (1998), Makridakis, Wheelwright ir kt. (1998) prognozavimo modelius.

Straipsnio tikslas – palyginti ekonominėje literatūroje sutinkamus rinkos paklausos prognozavimo modelius ir pateikti rinkos paklausos prognozavimo principus konkurencinės rinkos kontekste.

Tyrimo objektas – rinkos paklausos prognozavimo modeliai.

Tiriant ir analizuojant teorinius rinkos paklausos prognozavimo modelius, straipsnyje taikomi bendramoksliniai tyrimo metodai: sisteminė, lyginamoji ir loginė analizė.

Atliktas rinkos paklausos prognozavimo modelių sisteminis palyginimas, išskirti jų pranašumai ir trūkumai bei rinkos paklausos prognozavimo modelių formavimo principai konkurencinės rinkos paklausos kontekste.

Straipsnis pradedamas nuo rinkos paklausos prognozavimo ir prognozės sampratų analizės, detalizuojant ir pačias prognozavimo bei prognozės sampratas. Prognozavimo sampratų analizė mikroekonominio lygmeniu parodė, kad literatūroje vyrauja dvi pagrindinės nuostatos: vienu teoretikų nuomone, prognozavimas turėtų būti vykdomas norint numatyti, projektuoti ir įvertinti ateities įvykius ar sąlygas, kurie nepavaldūs įmonės kontrolei; kitų nuomone, prognozavimas turi apimti būtent įmonės veiklos sričių ateities numatymo tendencijas. Išanalizavus minėtų autorių siūlomas prognozavimo sampratas, galima teigti, kad nėra vieningos nuomonės dėl prognozavimo sampratų vartojimo. Tačiau analizės metu išryškėjo, kad prognozavimas vertinimas ne iš statiškos funkcijos, bet iš proceso pozicijų; prognozavimo objektas paprastai yra ekonominis rodiklis, prognozavimas - neatsiejama kiekvieno ekonominio subjekto veiklos dalis: vykdam prognozavimo procesą privalu įvardyti priemones ir tikslus.

Remiantis atlikta mokslinėje literatūroje sutinkamų prognozavimo ir prognozės sampratų analize, rinkos paklausos prognozavimo ir prognozės sampratas konkurencinės rinkos kontekste siūloma formuluoti:

Rinkos paklausos prognozavimas – procesas, kurio tikslas yra išanalizuoti esamą rinkos paklausos būseną ir numatyti bei įvertinti rinkos paklausos kitimo tendencijas būsimo laikotarpiu.

Rinkos paklausos prognozė - objektyvių ir pagrįstų rinkos paklausos charakteristikų bei jų alternatyvų būsimo laikotarpiu tam tikrame regione įvertinimo rezultatas.

Ekonominėje literatūroje aprašyti rinkos paklausos prognozavimo modeliai paprastai skiriasi pagal nagrinėjamų veiksnių kiekį, jų įtaką rinkos paklausos prognozei. Tyrimai parodė, kad nagrinėjant rinkos paklausos prognozavimo modelius sutinkamos skirtingos nuomonės: vieni teoretikai teigia, jog rinkos paklausos prognozė neatsiejama nuo paklausos įmonės produktams prognozavimo dalis; kiti tikina, kad tiksli rinkos paklausos prognozė neįmanoma be makroaplinkos (išorinės aplinkos) įvertinimo arba ekonominio prognozavimo.

Atliktas rinkos paklausos prognozavimo modelių ir jų elementų tyrimas bei pranašumų bei trūkumų vertinimas paskatino apibendrinti ir išskirti pagrindines analizuotų prognozavimo modelių ypatybes: (1) dauguma prognozavimo modelių pasižymi aiškiai apibrėžtais jų elementais ir prognozavimo veiksmis, tačiau dažnai yra nutrukstamojo pobūdžio, neaiškus prognozavimo vykdymo nuoseklumas; (2) prognozavimo modeliai nėra pakankamai detalūs ir informatyvūs, juose analizuojamas ribotas veiksnių, darančių įtaką paklausai, kiekis, dažnai priklausantis nuo prognozavimo tikslo; (3) mokslinėje literatūroje sutinkami prognozavimo modeliai, paremti tik prognozavimo metodo parinkimo ir taikymo analize konkrečioje situacijoje, yra labiau praktinio pobūdžio ir mokliškai silpnai pagrįsti; (4) dažnai nenumatomi baigiamieji prognozavimo veiksmi ir atliktų prognozių tikslumo įvertinimas, o tai sąlygoja prognozavimo modelių neišbaigtumą bei ribotą praktinį panaudojimą. Remiantis atlikta mokslinėje literatūroje sutinkamų rinkos paklausos prognozavimo modelių ir jų elementų tyrimu bei pateiktu jų vertinimu, paklausos prognozavimo modeliu tikslinga laikyti daugiaetapi sudėtinių dalių (elementų) tarpusavio išdėstymą ir ryšį, kurio tikslas numatyti ir įvertinti rinkos paklausą bei jos kitimo tendencijas ateityje konkurencinėje rinkoje.

Mokslinių darbų analizė parodė, kad rinkos paklausos prognozavimo efektyvumui konkurencinėje rinkoje reikšmę turi ne tik prognozavimo metodo taikymo aspektai, bet ir tai, kaip rinkos paklausa veikiama prognozavimo aplinkos veiksnių. Rinkos paklausos prognozių sudarymas, besiremiantis vien tik matematinių statistinių metodų galimybėmis, dažnai neįvertina kokybinių konkurencinės rinkos paklausos veiksnių įtakos ir ekonominių rinkos modelio charakteristikų.

Ekonominėje literatūroje pasigendama metodikos, sujungiančios rinkos paklausos vertinimo aspektus, akcentuojant makroaplinkos ir pramonės rinkos aplinkos įtaką, ir kartu taikančios kiekybinius ir kokybinius prognozavimo metodus. Tai leistų gauti patikimesnes, nei leidžia literatūroje aprašyti modeliai, rinkos paklausos prognozes konkurencinėje rinkoje.

Remiantis atlikta literatūros analize, galima teigti, jog rinkos paklausos prognozavimas konkurencinėje rinkoje bet kuriam laikotarpiui turi remtis šiais pagrindiniais principais:

1. Sujungti rinkos paklausos vertinimą, akcentuojantį makroaplinkos ir pramonės rinkos aplinkos veiksmius bei prognozavimą, pagrįstą kiekybine duomenų sekų analize.

2. Apimti šiuos pagrindinius etapus: tikslų ir uždavinių formulavimą; rinkos prognozavimo aplinkos vertinimą; rinkos paklausos prognozavimo metodo parinkimą ir rinkos paklausos prognozės sudarymą.

3. Atsižvelgiant į prognozavimo aplinkos veiksmius, rinkos paklausos prognozavimo modelio etapai gali būti detalizuojami ir tikslinami.

Raktažodžiai: *prognozavimas, rinkos paklausa, prognozavimo modeliai.*

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