Secondary Economic Information of an Enterprise and its Computerized Arrangement

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Economic information plays an important role in the management system of an agricultural enterprise. Many researchers have proved this information to make 60-70% of the information that is necessary for management of an enterprise. This information is the basis for the heads and specialists of an enterprise in constant analysis and control of economic-financial activity of the enterprise, in making management decisions that regulate this activity to obtain positive financial results. Economic information is not monolitic information. Accounting information makes the greatest part (up to 80%) of its structure. According to the stages of formation economic information is classified into primary and secondary information. Primary information is formed where economic processes and financial and enterprise management operations take place. Secondary information is the product (result) of primary information processing. Practically and in theoretical discussions it is called secondary information that is used in making and control of various management decisions. Quality of secondary information (accuracy, reliability and other indices) depends on means and methods to carry operations of initial data measuring, registration, transmission and processing. Possibilities of primary economic information computerization have already been analyzed (Domeika, 2003, et. al). Therefore, this article analyses theoretical aspects of computerized arrangement and use of secondary information (accountting information in particular).

On the basis of research results published by Lithuanian and foreign scientists this article analyses the following issues: processes of enterprise accounting secondary information, as the bigger part of economic information, arrangement; forms of secondary information presentation for the user; reports (printed or shown on screen) content and its form design; methods of computerized data base (CDB) formation and rational use.

Keywords: *economic information, primary information, secondary information, reports design, use of secondary information.*

Introduction

Management of economic and financial activity of an enterprise is always related with use of various kinds of information. For this purpose initial data is collected, registered in certain files, transmited and processed it becomes information, which is stored and provided to users – heads and specialists of the enterprise according to their needs. In the enterprise management information system economic information makes the biggest part as it provides up to 60-70% of the knowledge that is necessary for management (Baranovskij, 1991 et al.). For this reason the issues of this information collection, registration, transmission and processing, storing and retrieval for users are of significant importance in making optimal management decisions, i.e. the decisions that are based not on intuition or experience but objective and reliable information. In the structure of economic information accounting gives about 70-80% of all economic indices (Mackevicius, 2003). Like all economic information accounting information is classified into primary and secondary information. Primary information is formed where economic processes as well as financial and enterprise management operations take place. Secondary information is the product (result) of primary information processing. Practically and in theoretical discussions it is called secondary information. This information is used in making and control of various management decisions. Reliability, accuracy and other qualitative indices of secondary information depend on the degree of automatization of initial data measuring, registration, transmission and processing operations. Possibilities of primary economic information computerization have already been analyzed (Domeika, 2003, et. al). Therefore, this article analyses theoretical problems of computerized formation in files, storing, presentation for users and use of secondary information.

Famous Australian professor A.Barton indicates the importance of accounting information in giving objective evaluation to previous activity of the enterprise and making right decisions for the future. Achievement of this goal requires preparation and systematization of accounting information in such a way that enables all users to employ it (Barton, 1989).

Vilnius University professor J.Mackevicius (2003) has distinguished three types of accounting – operative, financial and management accounting. All these types of accounting are closely interrelated and make up the united system of enterprise accounting information that contributes implementation of profitable activity of the enterprise. Irrespectively of the type the information must meet the following criteria: quality, timely presentation, sufficient amount and suitability for management (Stoner J. et. al., 1999).

Present quality of accounting secondary information especially in agricultural enterprises (agrofirms) is not good enough and should be improved. Manual accounting

technologies are being gradually refused and application of computerized information arrangement and use systems is increasing. In the course of introduction of these systems the accounting secondary information is accumulated and stored in computerized data bases (CDB) and is automatically presented for heads and specialists of the enterprise according to the formed requests, i.e. in the form of reports (printed or shown on the screen). Formation and use of accounting CDB should follow certain requirements that are being analyzed. Discussion takes place in scientific literature on the ways of secondary information arrangement that enable to meet the information needs of users completely and operatively.

Object of investigation – processes of computerized arrangement and automatized use of secondary economic information in agricultural enterprise.

Aim of investigation – to determine peculiarities of computerized arrangement of secondary economic information (accounting in particular) in order to improve effectiveness of CDB use.

Methods of investigation – analysis and synthesis of scientific works published by Lithuanian and foreign authors, graphical, comparison and monographical methods.

Processes of economic information arrangement

Economic information is arranged in order to get knowledge about condition, development tendencies and perspectives of the enterprise or other object. Information technology consists of processes and operations that are sequentially carried out. All processes of economic information arrangement can be expressed in the form of the scheme (Figure).

The scheme shows general (principal) technology of economic information arrangement that starts with collecting of initial data and finishes with use of secondary information for making various management decisions. The presented scheme shows all stages of economic information arrangement and consistency of their implementation. For the purpose of detailed analysis all stages of information arrangement can be relatively divided into two big groups: 1) processes of primary economic information arrangement; 2) processes of secondary economic information arrangement. In these groups each stage of arrangement has certain characteristics that influence the system and useful application of technical means to be used for information arrangement.
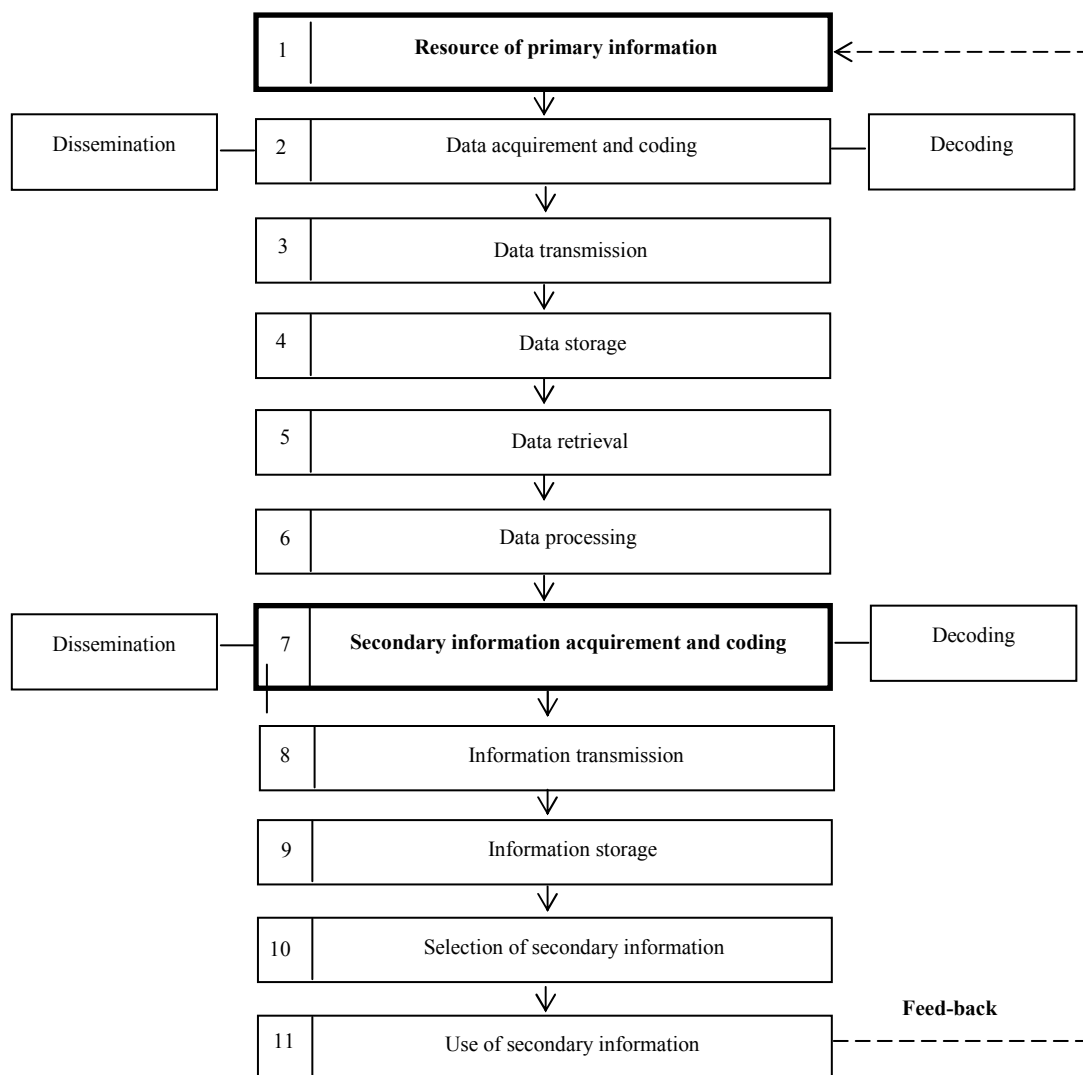

Figure. Scheme of economic information arrangement

Processes of primary economic information arrangement. Primary information is formed in the course of production and other economic and management processes. In order to provide certain primary information operations of two kinds should be carried out: taking of initial data, measuring its volume; collecting of initial data and its registration in certain carriers. In agricultural enterprises (agrofirms) areas of cultivated land are measured, the produced production is weighed (measured), labour and material expenditure is determined, etc. This data is registered in certain primary document or magnetic files – magnetic discs (MD), floppy discs (discettes), microcassettes, etc. Magnetic carriers of information at the same time are information files as they store information both primary and secondary one.

Initial accounting data collecting and registration operations in agricultural enterprises are poorly mechanized. Initial data is acquired (measured) by using primitive technical means. These operations are carried out in the places of production – fields, farms, storehouses, etc. They require big labour expenditure, while accuracy and required reliability of initial data are not achieved. Due to the mentioned reasons the efficiency of information computerization is decreased and quality of secondary information is reduced. Our enterprises lack technical devices for automatization of primary accounting, i.e. for measuring, registration and transmission of initial data. These measures are applied only in the farms (Joint-stock companies), located in Jonava, Kaunas, Sakiai and other regions, where progressive production technologies have been introduced. Economically strong farms and agrofirms in foreign countries (Great Britain, Denmark, Germany, etc.) use various automatic counters for collecting, transmitting of primary information and its entering into PC.

Other stages of information arrangement – transmission and dissemination – are closely related with above mentioned operations. At present information is most often transmitted by transporting documents from the places of production to the farm centre. Documents but also magnetic discs, microcassettes, etc. can be passed on. The important thing is to maintain data reliability, to ensure quick and operative data transmission. In this respect those technical measures of data collecting and registration are advantaged, which automatically transmit data to PC through the devices installed in the working places and, in this way, maintain data reliability and reduce labour expenditure. Means of communication are increasingly used for dissemination of information.

Important and necessary procedures of primary information arrangement are coding and decoding, data storage and retrieval, its arithmetical and logical processing. Economic information is coded (by digits, letters, etc.) in order to decrease labour expenditure for its transmission, storage, processing and retrieval. Use of codes simplifies data registration, its' entering into PC memory, processing, transmission and gives the possibility of automated data retrieval. For the purpose of economic information computerization special sets of codes – information classificators – are prepared and have to be installed in PC memory and used automatically. Decoding is performed by changing material form of information carrier, information is arranged by computers. Arithmetical and logical processing of initial data is automated; secondary information is stored in MD.

Processes of secondary information arrangement. If compared with primary information these processes have analogical operations such as information acquirement, transmission, storage and retrieval, nevertheless, the content, methods of implementation and purpose are significantly different as this information is related with its use in management of economic processes in the enterprise. Information users can receive results of calculations in various forms. When computerized information systems (CIS) are used the secondary information is automatically fixed in PC memory and gradual formation of CDB takes place.

CDB is an integrated information system that meets the following basic requirements (Braga et.al., 2002): decreases data redundancy as duplication of data is avoided; helps to avoid data discrepancy; is used for solving various (general) problems; users feel comfortable to address CDB; information reliability and safety increases; data does not depend on changing external conditions; expenditure for data accumulation, storage and actual condition maintenance decreases; flexible forms of CDB exploitation. Practical implementation of these requirements enables users to achieve high productivity and effectiveness of work with information.

Foreign researchers (James A.Senn, 1990; Raymond McLeod, 1990; Malyhina, 2004) attach great importance to the data base management system (DBMS), which contains software. DBMS is used for creation of database, maintain its content, make it suitable for the one who makes decisions (user) and protects data resources against unauthorized access.

Secondary economic information at the user's request can be printed on paper or shown on the monitor – in the form of tables and graphs. It can be decoded, multiplied (for several recipients) and via computer networks (local and Internet) transferred for further arrangement and use.

Files of secondary information

Secondary information of accounting in an enterprise can be fixed and stored in various files. This depends on the technology applied for information processing. In manual accounting technologies the accounting registers, in which products of accounting work – heterogeneous accounting information about economic activity of the enterprise – are fixed (and stored), are files of secondary information. The various accounting registers used can be grouped according to different characteristics: according to typification they are divided into model (typical) and of free form (individual) ones; according to form – into books, cards, registers, etc.; according to the character of entries – into chronological, systematic, chronological and systematic; according to detailed data – into synthetical, analytical, synthetical and analytical; also they can be classified according to other characteristics (Bruzauskas, 2001). Registers of manual accounting forms are distinguished for the following features: wide variety; regulated form and content; multistage and sequential entries; auxiliary registers for grouping; ineffective formation;

big labour expenditure for finding secondary information and using it for the purposes of operative management. Formation of computerized information systems requires to refuse manual accounting registers and to design improved forms of information presentation for users.

Accounting registers do not lose their importance in computerized accounting technologies. When personal computers (PC) are used for accounting the main accounting registers are magnetic files of computers – magnetic discs, in which chronological and systematic data sets are stored. Here data of economic operations are programically accumulated and grouped according to certain characteristics, i.e. CDB is formed, which if required can provide users of information with various information about the managed object. Secondary information can be given to users in the form of reports (printed on paper) or videographs (shown on monitor). Both reports and videographs have identical content. Vilnius University professor L.Simanauskas (2000) suggests using the concept of "videoslip" that better reflects the essence. Users of information decide which form of secondary information use should be chosen and applied in particular case. This depends on both the content of managerial task to be solved and the aim seeked by information users.

Further in the text the result messages to users are called reports. The peculiarities of their projecting, formation and use are analyzed in following subchapters.

Projecting content and form of reports

The forms of secondary information presentation for users must be in advance projected and stored in PC memory. When forming requests for necessary information the CDB users usually select the desired form of reports from menu list.

Projecting the content and forms of reports should observe the following requirements (Domeika, 1991; Simanauskas, 2000; Argiles, 2001):

- reports should supply the users with necessary information that meets management needs;
- programme and technical possibilities of PC should be exploited in formation of reports;
- analitical data should be given to users operatively, following the formulated request and desired periodicity – each week, decade, month, quarter or year;
- reports should have the indices that do not require additional arithmetical processing, grouping, etc.;
- data redundancy should be avoided;
- the reports should be of simple and picturesque form that is comfortable for the user so that the secondary information could be easily read, controlled and analyzed;
- their content should be easily understood by users of information;
- reports should not duplicate the characteristics of manual accounting registers; at the beginning of computerization there existed an erroneous understanding that forms of reports had to be close to manually formed registers;
- for each section of accounting a complex of interrelated reports should be designed, which en-

ables (when possessing the software) to receive detail information by production (and other) units and on the enterprise scale at any time – daily, monthly, from the beginning of quarter or year.

The following should be performed before projecting of reports: detail investigation of the enterprise information flow and its structure; projecting of the carriers of primary information – primary documents; projecting of the schemes (slips) of initial data input into PC; investigation of the impact of secondary information on the control of economic activity of an enterprise, its analysis and accountability; determining exploitation possibilities and software peculiarities in the newest computers.

Projecting of reports observes the following sequence:

1) the indices that should be received after processing of information in PC are determined; for this purpose accounting registers of an enterprise, accountability documents and included indices are analysed; the material collected in the course of investigation of the computerization object is analysed; if required additional investigations are carried out;

2) having determined the composition of indispensable indices the content of particular (each) report is projected; this is done with respect to accounting data grouping features, terms of information receiving, etc.; the number of forms of reports should not be big, while the forms themselves should not be complex ones, they should significantly differ from manual accounting registers;

3) form of each report is projected; the requisites are distributed (from left to right) in the following sequence:

- information features – stable and variable; some of them are put into the title of reports;
- grouping features – towards decreasing degree of results, i.e. feature of the general result is shown first, then features of intermediate and partial results go;
- quantitative and sum requisites towards increasing degree of results, i.e. partial, intermediate, general and other results.

Each form of reports is drawn on squared paper, filled in with relative numbers so that capacity of columns for text and digital requisites (number of symbols), degrees of results and their interrelation were seen. The projected forms of reports are transmitted for development of PC working programmes and preparation of instructions for user.

Computerized use of secondary information

Use of secondary information includes the processes of analysis, making conclusions and management decisions as well as making influence on the sources of information, i.e. making decisions, decrees and orders that regulate economic and financial activity of an enterprise. The decisions made by leaders and specialists of an enterprise cause new economic operations, i.e the so called

feedback takes place, which influences source of primary information (Fig.) and at the same time improves the results of an enterprise activity. Solving the problems of economic information computerization seeks the secondary information to be received operatively and to ensure its objectivity, reliability and sufficiency.

Wider application of personal computers causes spread of information technologies in enterprises that enable users to take the necessary information from CDB themselves in their working places. Direct communication between user and computer makes influence on the processes of search for answers and formation of results. It is dialogue communication, which is realized by dialogue technologies (Simanauskas, 2000). Dialogue technologies are distinguished by the fact that user of information directly works with computer exchanging instructions (commands) and information. Dialogue is a regulated exchange of messages between person and computer (Bower, 1985). Compatibility of both partners of dialogue based on principles and desired forms of direct communication, objectively oriented dialogue are particularly important..

In the course of operative solving of tasks of production (business) management and economic processes regulation the users of information in their computerized working place (CWP) costantly form requests for receiving secondary information, e.g. about existing material and financial resources on certain date, direct production expenditure, cash flows, financial results of certain activity, etc. (Argiles, 2003; George H. Bodnar, 1993). Requests and received answers are done in automatized way by using classificators of information, reference books and computer software (Drury, 1994). Information messages (reports) are first of all shown on PC monitor; at the user's request they can be printed or stored in computer memory.

Computerized working places (CWP) can function in different levels of enterprise management: in some cases they the perform function of information collection and primary processing measure (e.g. in subdivisions of enterprise), in other cases – they are the main measure of information processing, storing and presenting to users. CWP can function effectively if the following requirements are implemented in the enterprise:

- technical measures for collecting, registration, transmission and processing of initial data have been equiped;
- applied PC software with great possibilities has been prepared and installed for CDB formation and use;
- forms of primary documents and reports (videoslips) are formed automatically;
- possibilities for user of information to access to CDB directly have been implemented;
- an operative system of search and retrieval of secondary information has been developed (Hicks, 1986).

Efficiency of economic information computerization is directly influenced by software possibilities and other factors. Computer software should be prepared to enable CDB user to work in dialogue form, to perform CDB formation and use operations in automatized way. In many cases this determines efficiency of computerized arrangement of secondary information (Jordan, 1989) and quality of enterprise management decisions (Streeter, 1990).

CIS of economic information that have been introduced in Lithuanian agricultural enterprises in recent years do not encompass all kinds of economic information. Their software is most often aimed at facilitating accounting work – to automatize calculations, to form statements of separate sections of accounting, etc. Integrated arrangement is not applied even to the data of different kinds of accounting – agronomical, bookkeeping and zootechnical accounting. Arrangement of data of separate kinds of accounting should be integrated so that having used initial data of separate kinds of accounting and methods of arrangement of each kind of accounting the indices of secondary information that meet needs of various users could be calculated in automatized way. Integrated arrangement of economic information and kinds of accounting, in particular, would enable to improve the control of production and other business operations, while computerized technology would be more useful.

Conclusions

1. Economic information makes the greater part (up to 60-70%) of the information that is necessary for an enterprise management. In the stucture of this information accounting provides about 70-80% of all economic indices. Therefore, organization and use of its CDB is important for the improvement of enterprise management.

2. Secondary economic information is the product of initial data processing process. Its reliability and other indices depend on the automatization degree of initial data measuring, registration, transmission and processing operations.

3. Recently agricultural enteprises have been gradually refusing manual accounting technologies and introduction of computerized technologies has been increasing. Application of the latter enables to form and retrieve the secondary information in automatized way, with help of computer software, classifacators of information and reference books.

4. Secondary information accumulated in accounting CDB is given to enterprise leaders and specialists in the form of reports (videoslips). Content and forms of the latter are projected following certain requirements, which result from the need of information for making management decisions as well as from programme and technical peculiarities of computers.

5. To users the secondary information should be given effectively, according to the requests formed in their CWP and at the required periodicity – per day, week, month, quarter, year, etc.

6. Content and forms of reports (videoslips) should not duplicate characteastics of manual accounting registers. Complex of interrelated reports that enables managers to get the required infor-

mation about activity of an enterprise and its subdivisions should be projected for each section of accounting.

7. Computerized technology of economic information significantly improves quality of secondary information, especially in the cases when CWP, equiped with PC, means of communication and applied programmes are being created in enterprises. Computer software should be prepared to enable users of information to work in dialogue form, to perform CDB formation and use operations in automatized way.

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Povilas Domeika

Įmonės rezultatinė ekonominė informacija ir jos kompiuterizuotas tvarkymas

Santrauka

Įmonės ūkinės ir finansinės veiklos valdymas visada siejasi su informacijos naudojimu. Tuo tikslu renkami pradiniai duomenys, registruojami tam tikrose laikmenose, perduodami per atstumą, apdoroti tampa informacija, kuri saugoma ir išduodama vartotojams – įmonės vadovams ir specialistams pagal jų poreikius. Įmonės valdymo informacijos sistemos didžiąją dalį sudaro ekonominė informacija, teikianti 60-70 proc. visų valdymui reikalingų žinių. Ekonominės informacijos tvarkymo ir išdavimo vartotojams procesai labai aktualūs priimant optimalius valdymo sprendimus, pagrįstus objektyvia ir patikima informacija. Ekonominės informacijos struktūroje apie 70-80 proc. visų ekonominių rodiklių teikia buhalterinė apskaita. Kaip ir visa ekonominė informacija, apskaitinė informacija klasifikuojama į pirminę ir antrinę. Pirminė informacija susidaro ten kur vyksta ūkiniai procesai, finansinės ir įmonės valdymo operacijos. Antrinė informacija yra pradinės informacijos apdorojimo produktas (rezultatas). Praktikoje ir teorinėse diskusijose pastaroji informacija vadinama tiesiog rezultatine informacija. Ji padeda priimti valdymo sprendimus ir juos kontroliuoti. Šiame straipsnyje, naudojant Lietuvos ir užsienio šalių tyrinėtojų paskelbtus tyrimų rezultatus, analizuojama: įmonės apskaitos, kaip didžiosios ekonominės informacijos dalies, rezultatinės informacijos tvarkymo procesai; rezultatinės informacijos išdavimo vartotojui formos; mašinogramų (videokadrų) turinio ir formos projektavimas; kompiuterizuotos duomenų bazės (KDB) formavimo ir racionalaus naudojimo būdai.

Žemės ūkio įmonėse (agrofirmose) palaipsniui atsisakoma rankinės apskaitos technologijų ir vis plačiau pradedama naudotis kompiuterizuotomis informacijos tvarkymo ir naudojimo sistemomis. Diegiant šias sistemas, apskaitos rezultatinė informacija kaupiama bei saugoma KDB ir automatizuotai išduodama įmonės vadovams ir specialistams pagal jų suformuluotas užklausas. Apskaitos KDB turi būti formuojama ir naudojama, laikantis tam tikrų reikalavimų, kuriuos analizuojame.

Tyrimo objektas – žemės ūkio įmonės rezultatinės ekonominės informacijos kompiuterizuoto tvarkymo ir automatizuoto naudojimo procesai.

Tyrimo tikslas – nustatyti rezultatinės ekonominės informacijos (ypač apskaitos) kompiuterizuoto tvarkymo ypatumus, siekiant efektyviau KDB naudoti.

Tyrimo metodai – lietuvių ir užsienio autorių paskelbtų mokslo darbų analizė ir sintezė, grafinis, palyginimo, monografinis.

Žemės ūkio įmonėse atliekamas pirminės apskaitos duomenų paėmimo (surinkimo) ir registravimo operacijos yra menkai mechanizuotos. Pradiniai duomenys paimami (matuojami) primityviomis techninėmis priemonėmis. Joms atlikti prireikia didelių darbo sąnaudų, nepasiekiamas pradinių duomenų tikslumas ir patikimumas. Mūsų įmonėse trūksta techninių priemonių (prietaisų) pirminei apskaitai automatizuoti. Šias priemones taiko tik pažangesnes gamybos technologijas įdiegę ūkiai (akcinės bendrovės) Jonavos, Kauno, Šakių ir kituose rajonuose. Užsienio šalių (Anglijos, Danijos, Vokietijos ir kt.) ekonomiškai stiprūs ūkiai ir agrofirmos pasitelkia įvairius automatinius skaitiklius (daviklius) pradinei informacijai paimti, perduoti ir įvesti į personalinius kompiuterius (PK). Rezultatinės informacijos patikimumas, tikslumas ir kiti jos kokybiniai rodikliai priklauso nuo pradinių duomenų išmatavimo, registravimo, perdavimo ir apdorojimo operacijų automatizavimo laipsnio.

Rezultatinės ekonominės informacijos tvarkymo procesai, palyginti su pradine informacija, nors ir turi analogiškų operacijų, tokių kaip informacijos gavimas, perdavimas, saugojimas, paieška, bet savo turiniu, atlikimo būdais ir paskirtimi gerokai skiriasi, nes ši informacija siejasi su jos naudojimu įmonės ūkiniams procesams valdyti. Eksploatuojant kompiuterizuotas informacijos sistemas (KIS), rezul-

tatinė informacija automatiškai fiksuojama PK atmintyje ir palaipsniui formuojama KDB. Užsienio šalių tyrinėtojai ypatingą reikšmę skiria duomenų bazės valdymo sistemai (DBVS), kurią sudaro programinė įranga. DBVS naudojama duomenų bazei sukurti, palaikyti jos turinį, daro jį tinkamą vartotojui ir apsaugo duomenų išteklius nuo nesankcionuoto priėjimo.

Apskaitos rezultatinė informacija įmonėje gali būti fiksuojama ir saugoma įvairiose laikmenose. Tai priklauso nuo informacijai doroti taikomos technologijos. Rankinės apskaitos technologijose rezultatinės informacijos laikmenos yra apskaitos registrai, kuriuose fiksuojami ir saugomi apskaitos darbo produktai, pasižymi didele įvairove, neoperatyviu sudarymu, didelėmis darbo sąnaudomis rezultatinei informacijai surasti ir kt. Apskaitai naudojant PK, pagrindiniai apskaitos registrai yra kompiuterių magnetiniai diskai, kuriuose saugomi chronologiniai ir sisteminiai duomenų rinkiniai. Rezultatinė informacija vartotojams gali būti išduota mašinogramų (atspausdinta popieriuje) arba videokadrų (parodyta monitoriuje) pavidalu. Pastarųjų formos turi būti iš anksto suprojektuotos ir saugomos PK atmintyje.

Projektuojant mašinogramų turinį ir formas, reikia vadovautis šiais pagrindiniais reikalavimais: jos turi teikti vartotojams būtiniausios informacijos; analitiniai duomenys vartotojams turi būti išduodami operatyviai, pagal jų suformuluotą užklausą ir norimu periodiškumu – per savaitę, dekadą, mėnesį, ketvirtį, metus; mašinogramos turi turėti rodiklius, nereikalaujančius papildomo aritmetinio apdorojimo, grupavimo ir pan.; vengti informacijos pertekliškumo; mašinogramų forma turi būti paprasta, vaizdi ir vartotojui patogi, kad rezultatinę informaciją būtų galima lengvai skaityti, kontroliuoti ir analizuoti; jų turinys turėtų būti lengvai suprantamas informacijos vartotojams; mašinogramos neturi dubliuoti rankinių apskaitos registrų savybių; kiekvienam apskaitos barui reikia suprojektuoti tarpusavyje susijusių mašinogramų kompleksą.

Mašinogramos projektuojamos tokiu nuoseklumu: 1) nustatomi rodikliai, kurie turi būti gauti informaciją apdorojus PK; šiuo tikslu analizuojami įmonės apskaitos registrai, atskaitomybės dokumentai, kompiuterizavimo objekto tyrimo metu surinkta medžiaga; 2) nustačius būtiniausių rodiklių sudėtį, projektuojamas kiekvienos mašinogramos turinys; atsižvelgiama į apskaitos rodiklių grupuojamuosius požymius, informacijos gavimo terminus ir kt.; mašinogramų formų turi būti nedaug ir jos turi būti nesudėtingos, gerokai skirtis nuo rankinių registrų; 3) projektuojama kiekvienos mašinogramos forma; ją montuojant rekvizitai išdėstomi (iš kairės į dešinę) tokia eile: informaciniai požymiai; grupuojamieji požymai – rezultatų laipsnių mažėjimo kryptimi, t.y. iš pradžių rodomas bendrojo rezultato požymis, po to – tarpinio ir dalinio rezultato požymiai; kiekiniai ir suminiai rekvizitai rezultatų laipsnių didėjimo kryptimi.

Rezultatinės informacijos naudojimas apima analizės, išvadų ir valdymo sprendimų priėmimo procesus, taip pat priėmimą poveikio priemonių informacijos šaltinių atžvilgiu, t.y. vyksta vadinamasis grįžtamasis ryšys, veikiantis (reguliuojantis) įmonės veiklos rezultatus. Informacijos vartotojai, operatyviai spręsdami įmonės verslo valdymo ir ūkinių procesų reguliavimo uždavinius, nuolatos savo kompiuterizuotoje darbo vietoje (KDV) formuoja užklausas rezultatinei informacijai gauti, pavyzdžiui, apie tam tikros datos

turimus materialinius ir finansinius išteklius, tiesiogines gamybos sąnaudas, pinigų srautus, finansinius tos ar kitos veiklos rezultatus ir kt. Užklausos ir į jas gauti atsakymai atliekami automatizuotai, pasitelkiant informacijos klasifikatorius, pastoviuosius žinynus ir PK programinę įrangą.

Apibendrinant rezultatinės informacijos kompiuterizuoto formavimo laikmenose, saugojimo, išdavimo vartotojams bei panaudojimo teorines problemas, galima suformuluoti šias išvadas:

1. Ekonominė informacija sudaro didžiąją dalį (iki 60-70 proc.) įmonės valdymui reikalingos informacijos, kurios struktūroje buhalterinė apskaita teikia apie 70-80 proc. visų ekonominių rodiklių. Todėl apskaitos KDB organizavimas ir naudojimas svarbus įmonės valdymui gerinti.

2. Rezultatinė ekonominė informacija yra pradinių duomenų apdorojimo proceso produktas. Jos patikimumas ir kiti rodikliai priklauso nuo pradinių duomenų išmatavimo, registravimo, perdavimo ir apdorojimo operacijų automatizavimo laipsnio.

3. Pastaraisiais metais žemės ūkio įmonės palaipsniui atsisako rankinės apskaitos technologijų ir vis plačiau diegia kompiuterizuotąsias. Jas taikant rezultatinė informacija formuojama ir išduodama vartotojams automatizuotai, pasitelkiant PK programinę įrangą, informacijos klasifikatorius bei pastoviuosius žinynus.

4. Apskaitos KDB sukauptos rezultatinės žinios įmonės vadovams ir specialistams išduodamos mašinogramų (videokadrų) pavidalu. Pastarųjų turinys ir formos projektuojamos laikantis tam tikrų reikalavimų, kuriuos sąlygoja informacijos poreikis valdymo sprendimams priimti ir PK programiniai bei techniniai ypatumai.

5. Rezultatinė informacija vartotojams turi būti išduodama operatyviai, pagal jų KDV suformuluotas užklausas ir norimu periodiškumu – per dieną, savaitę, mėnesį, metų ketvirtį, metus ir pan.

6. Mašinogramų (videokadrų) turinys ir formos neturi dubliuoti rankinės apskaitos registrų savybių. Kiekvienam apskaitos barui reikia suprojektuoti tarpusavyje susijusių mašinogramų kompleksą, leidžiantį (turint programinę įrangą) vadybininkams gauti reikalingą informaciją apie įmonės ir jos padalinių veiklą.

7. Ekonominės informacijos kompiuterizuota technologija labai pagerina rezultatinės informacijos kokybę, ypač tada, kai įmonėse sukuriamos KDV, turinčios PK ir komunikacijos priemones bei taikomąsias programas. PK programinė įranga turi būti parengta taip, kad informacijos vartotojai galėtų dirbti dialogo forma, automatizuotai atlikti KDB formavimo ir naudojimo operacijas.

The article has been reviewed.