JOURNAL OF ADVANCED SCIENTIFIC RESEARCH

ISSN: 0976-9595

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 72
https://doi.org/10.5281/zenodo.6547868

Editorial Team

C/O Advanced Scientific Research,
8/21 Thamotharan Street,
Arisipalayam, Salem.

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 73
https://doi.org/10.5281/zenodo.6547868

Improvement of efficiency of the information flow processes in the organization of automated cameral tax control

Zaynidinov Khakimjon Nasiridinovich
Tashkent university of information technologies named after Mukhammad al-Kwarizmi, head of department “Information technologies”, Professor, Doctor technical science
Askaraliyev Odilbek Ulug‘bek o‘g‘li
Tashkent university of information technologies named after Mukhammad al-Kwarizmi, assistant-teacher of department “Information technologies”
oasqaraliyev77@gmail.com

Different types of data flows, their systems are reviewed in this article. There are main features of data flows of organization too. Types of communication in a processing data flows at the different stages of development and problems, communicated with them are also described. There are determinations of data flows, their types, and classifications. More than that, mechanisms of data transfer are represented.

Requirements for data transmission system, and the information itself. There are requirements to the information for transmission over communication channels providing information and analytical support of processes of solutions for optimization of enterprise management and prescribe the sequence of actions in the management system and procedure for collecting this information in tax systems. The movement of the various information flows and their intensity and permanence, the various types of conversion algorithms and information relevant to these conditions at the moment the scheme document. Operation, allowing to quickly and efficiently manage information flow, such as forwarding, changing the volume, the speed limit of information transfer.And also, the role of information and information flows in the organization's decision makingin the cameral tax control systems.

Keywords: data flow, data system, organization communications, organization development stage, tax system, cameral control, improvement of efficiency.

1. Information flows

Information flow is a set of messages circulating in the logistics system, between the logistics system and the external environment, necessary for the management, analysis and control of logistics operations. Information flow can exist in the form of paper and electronic documents (carriers).

The amount of information that arises when managing an enterprise increases with the growth of the organization. Even the smallest enterprises have to process much more information than meets the eye.

In the management process, real difficulties arise, if necessary, monitor changes in information flows. The organization's resources are constantly in flux. At each moment of time there are more or less goods in stock, a certain amount of money, expense and income accounts. When the external conditions bordering on the activities of the enterprise change, if the management does not receive information on time, the consequences can be disastrous.

Logistic information flows have the following characteristics:

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 74
https://doi.org/10.5281/zenodo.6547868

– heterogeneity (information used in logistics systems is qualitatively heterogeneous.);
– multiplicity of subdivisions - information suppliers;
– multiplicity of subdivisions - consumers of information;
– the complexity and difficulty of practical visibility of information routes;
– multiplicity of number of transmissions of units of documentation for each route;
– multivariate optimization of information flows.

2. Requirements for the information flow system

Information flows are the physical movement of information from one employee of the enterprise to another or from one department to another. Any change in information is not considered as information flows. A system of information flows is a collection of all physical movements of information. Such a system makes it possible to carry out a process and implement a solution. The most general system of information flows is the sum of information flows that allows an enterprise to conduct financial and economic activities.

Information flows ensure the normal operation of the organization. The purpose of work with information flows is the maximum optimization of the enterprise. [1].

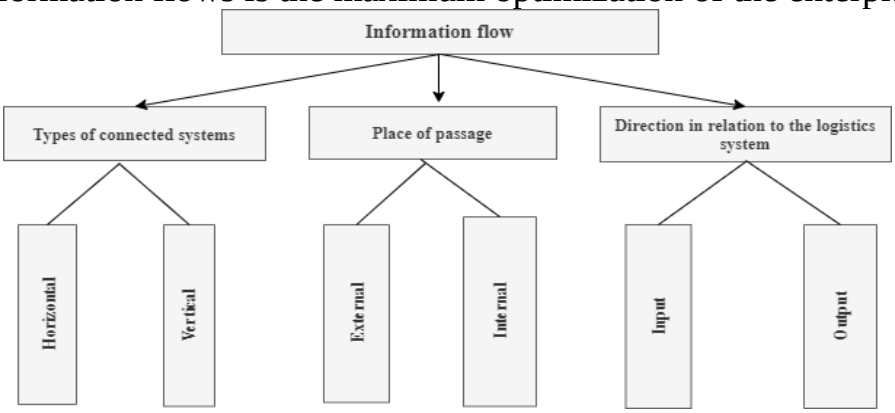

Fig 1. Types of information flows.

The information flow can be controlled as follows:
– changing the direction of the flow;
– limiting the transmission rate to the appropriate reception rate;
– limiting the volume of flow to the value of the throughput of an individual node or section of the route.

Information flow is measured by the amount of processed or transmitted information per unit of time. When using electronic computers, information is measured by bytes, kilobytes and megabytes. In the practice of economic activity, information can also be measured:
– the number of processed or transmitted documents;
– the total number of document lines in the processed or transmitted documents.
– The most important feature of the management process is its informational nature.

The organization of the implementation of the decisions made is carried out through a system of methods of influencing workers using information on the

progress of implementation of the decisions made (feedback). The more accurate and objective the information at the disposal of the control system, the more fully it reflects the actual state and interconnections in the control object, the more justified the goals and real measures aimed at achieving them.

Since the manager in his work relies on information about the state of the object and creates as a result of his activities new command information in order to transfer the controlled object from the actual state to the desired one, the information is conventionally considered the subject and product of managerial work [12].

Information used as an element of control or a subject of managerial work must necessarily provide a qualitative understanding of the tasks and state of the controlled and control systems and ensure the development of ideal models of their desired state.

Thus, information support

This is a part of the management system, which is a set of data on the actual and possible state of production elements and external conditions for the functioning of the production process and on the logic of changes and transformation of production elements. The information collected in the center of the controlling system, which provides information and analytical support for decision processes to optimize enterprise management and prescribes the sequence of actions in the management system, must meet a number of mandatory requirements:

- *Reliability* - the information received must be correct;
- *Relevance* - data should help in decision making;
- Intelligibility;
- *Efficiency* - the effect of obtaining information, should overlap the effort spent on obtaining it;
- *Regularity* - information should be received regularly[2].

The collection of planned, as well as factual information, as a rule, occurs once a month, if it is collected once a week, then the control service will not have time to process the information and summarize all the data on the enterprise. To avoid this problem, it is advisable to automate the work of the controlling system.

When characterizing an information system, as a rule, the movement of various information flows, as well as their intensity and constancy, various types of information transformation algorithms and the document flow scheme corresponding to these conditions are investigated.

Solutions are ideal descriptions of the desired state of an object and how to achieve that state. They are a product of limited use, as they are aimed at a specific object in clearly described conditions.

The quality of the solution as a finished product is manifested, indirectly, in the activity of the object to which this solution is directed[3].

During the creation of information support, one should focus on the averaged and leveled need for special information from managers and specialists. It is worth noting that a special place here is occupied by the type of information associated with

management, which will reflect progressive techniques and methods of organizing management[4].

In the process of organizing information, it is of fundamental importance to divide it into a conditionally constant, which serves as a reference and a variable. Both of these types of information, based on the analysis of classification links, are organized into interrelated blocks (models) that can be descriptive, i.e. characterizing the process in statics or dynamics, components that reflect a certain typical situation. [4] The process of forming information support includes several stages:

– a description of the state of the object, i.e. a physical photograph. This presupposes a set of technical and economic indicators and parameters that characterize the control and controlled systems, with the appropriate classification of these indicators;

– modeling of classification links in information arrays with the allocation of cause-and-effect relationships, i.e., the formation of private static models;

– reflection in information models of the dynamics of individual elements and processes, i.e., substantiation of trends in quantitative and qualitative changes in production. At the same time, a quantitative change presupposes the correction of information, and a qualitative change presupposes its partial or complete restructuring;

– integrated information model of the production process, reflecting the relationship and dynamics of local processes and the entire production. [13].

The order of formation determines the approach to the analysis of the composition of information. The organization of information largely determines the order of its storage, registration, updating, transmission and use. A clear organization of data banks makes it possible to more fully substantiate the directions of movement, the intensity of flows, the patterns of its transformation, the method of requests and receiving [1].

2. Types of information flows

Logistic information flow itself is a rather complex system and is divided into a number of components: props, indicator, document and array.

A props is an elementary unit of a message. The requisite characterizes the quantitative or qualitative component of the information set. For example, the details - the name of the organization, the name of the product, the price of the product, etc. Each attribute can be represented by a set of symbols: digital, alphabetic, special.

Documents used in the management process may include one or more indicators with mandatory certification (signature or seal) of the person responsible for the information contained in the documents. Since obtaining initial data is the sphere of human activity, most documents are created at the stage of collecting and registering data, although a considerable proportion of documents enter the system from external (higher, etc.) organizations. For example, in accounting, an indicator, its basis is the result of counting, weighing, etc. It serves as the basis for obtaining consolidated accounting and statistical data, which in turn will be input information when compiling statistical reports in the context of an organization, industry, region, etc.

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 77
https://doi.org/10.5281/zenodo.6547868

The array is a collection of homogeneous data with a single technological basis and united by a single semantic content. Data (processes, phenomena, facts, etc.) presented in a formalized form suitable for transmission via communication channels and for processing on a computer. The main elements of arrays that determine their content are records.

Records are array elements that users operate when processing information.

Elements of records that have a single semantic meaning are information fields [5].

Data belonging to one array is recorded according to general rules (in accordance with the technology of accumulation, storage and processing of data adopted in the organization). The type of array is determined by its content (for example, an array of material standards, an array of material suppliers), functions in the process of data processing (input, output, intermediate arrays).

An information array provided with a symbolic name that uniquely identifies it in the information system is called a file.

Based on the heterogeneity and multiplicity of suppliers and consumers of logistic information flows, as well as being guided by the main purpose of classification - ordering logistic information flows, the first step in the classification grouping is the division according to a feature that allows you to form information flows that are homogeneous by type of activity (or function)

It is known that information flow is usually expressed in a certain type of documentation (waybills, invoices, orders, etc.).

In accordance with the existing division of documentation by type of activity, logistics information flows can be classified into administrative (orders, orders), organizational (instructions, protocols, regulations), analytical (reviews, summaries, memoranda), reference (information), scientific (articles, abstracts), technical (safety documentation).

The transmission and reception of information streams is carried out using human memory media, documents, magnetic media, oral speech, etc. By the type of information carrier, logistic information flows can be transferred to paper, electronic, mixed.

An information carrier is any material means that records information. Currently, paper and electronic media are used to register information. The information flow can consist of paper and electronic media that duplicate or complement each other [14].

In order for a person to be able to perceive any kind of information, its indication must be carried out. Depending on the indication, information flows are divided into:

digital (digital recording in a document, digital image on a monitor);

alphabetical (verbal recording in a document, on a monitor screen);

symbolic (conventional image in drawings, organizational charts);

subject-visual (television, photography).

The structure of information flows determines their homogeneity and heterogeneity.

Homogeneous information flows are characterized by a single type of media, a single functional accessory, a single type of documentation support. Heterogeneous information streams, respectively, do not meet all of the above requirements.

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 78
https://doi.org/10.5281/zenodo.6547868

In terms of frequency, information flows are divided into regular, corresponding to a timed data transmission, and operational - providing communication at any required time.

According to the degree of interconnection, information flows are divided into interconnected and non-interconnected. The degree of interconnection is characterized by the number of types of information interconnected with this type of information.

In terms of volume, information flows are divided into low-volume, medium-volume and high-volume. The amount of information is measured by the number of characters (alphabetic, numeric and service characters) or bytes.

3. Logistic information system

Information logistics is an integral part of the entire logistics system providing the functional area of logistics management. The object of the study of information logistics is information flows that reflect the movement of material, financial and other flows affecting the production process. The main goal is to provide logistics systems with information at the right time, in the right amount and in the right place.

Information logistics is used to provide information to the entire organization as a whole based on logistic principles [6].

The information flow is generated by the material flow. In information logistics, the information flow is considered only in the logistics system, between the links of the logistics system or between the external environment and the logistics system.

Any logistic system consists of a set of link elements, between which certain functional connections and relationships are established. Directly a working link of an information system can be an automated workstation for management personnel, an information unit of an organization's management system, or a separate group of management personnel united by a commonality of information functions (procedures, operations) performed.

The goal of managing an organization is the effective use of all technical, scientific, economic, organizational and social capabilities to achieve high results of the organization

The goals of creating an information system:

- ensure the viability and efficiency of the firm;
- providing employees with up-to-date information that contributes to a more efficient work process;
- compliance with the targeting of information;
- elimination of confusion in obtaining information and its use;
- expanding the functions of the enterprise in accordance with the requirements of the market [7].

Logistic information system is an interactive structure that includes personnel, equipment and procedures (technologies) that are united by an information flow used by logistics management to plan, regulate, control and analyze the functioning of the logistics system.

Basic principles of building an information system:

– hierarchy (subordination of tasks and use of data sources);

– the principle of data aggregation (accounting for requests at different levels);
– redundancy (construction taking into account not only current, but also future tasks);
– confidentiality;
– adaptability to changing requests;
– consistency and informational unity (determined by the development of a system of indicators, which would exclude the possibility of inconsistent actions and the conclusion of incorrect information);
– openness of the system (for data replenishment).

Information function is a purposeful specialized type of management activity generated by an information system and characterized by the homogeneity of actions with information of any kind.

Information network - a set of computer software and users of information resources, united by a single information channel for the purpose of efficient processing and transmission of information flows [8].

4. Used types of information flows

The main condition of the material flow management process is the processing of information circulating in logistics systems.

The information flow can be ahead of the material flow, follow simultaneously with it or after it. In this case, the information flow can be directed both in one direction with the material, and in the opposite direction.

The path along which the information flow moves, in the general case, may not coincide with the route of the material flow.

The information flow is characterized by the following indicators:
– source of occurrence;
– flow direction;
– transmission and reception speed;
– flow rate, etc.

Moving information flow in the opposite direction contains, as a rule, information about the order. The forward information flow in the forward direction is preliminary messages about the forthcoming arrival of the cargo.

Simultaneously with the material flow, information flows in the forward direction about the quantitative and qualitative parameters of the material flow. Following the material flow in the opposite direction, information on the results of cargo acceptance in terms of quantity, various claims, confirmations can pass.

The formation of information systems is impossible without the study of flows in the context of certain indicators. For example, it is impossible to solve the problem of equipping a certain workplace with computers without knowing the volumes of information passing through this workplace, as well as without determining the required processing speed.

You can quickly and efficiently manage the information flow through the following operations:
– redirecting information flow;

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 80
https://doi.org/10.5281/zenodo.6547868

– limiting the transmission rate to the appropriate reception rate;

– decreasing or increasing the amount of information in certain areas of information passage;

– limiting the volume of flow to the value of the throughput of an individual node or section of the route.

Information systems in logistics can be created for the purpose of managing material flows at the level of an individual enterprise, or they can contribute to the organization of logistics processes on the territory of regions, countries and even a group of countries.

At the level of an individual enterprise, information systems, in turn, are divided into three groups:

1. Planned;
2. Dispositive (or dispatching);
3. Executive (or operational);

Planned information systems are created at the administrative level of management and serve to make long-term strategic decisions. The tasks to be solved may include the following:

– creation and optimization of the links of the logistics chain;
– control is conditionally constant, i.e. low-change data;
– production planning;
– general inventory management;
– management of reserves and other tasks.

Dispositive information systems are created at the level of warehouse or shop management and are used to ensure the smooth operation of logistics systems. The following tasks can be solved here:

– detailed inventory management (storage places);
– management of intra-warehouse (or intra-factory) transport;
– selection of goods according to orders and their completion, accounting of dispatched goods and other tasks [9].

Executive information systems are created at the level of administrative or operational management. Information processing in these systems is carried out at a rate determined by the capabilities of the software. This is the so-called real-time mode of operation, which allows you to receive the necessary information about the movement of goods at the current time and timely issue the appropriate administrative and control actions on the control object. These systems can solve various problems related to material flow control, operational management of production services, motion control, etc. [10].

5. Processing information flows at different stages of the organization's development

Depending on the development cycle of the organization, there are peculiarities and problems of communication when processing incoming information.

Organizational life cycles

The first development cycle is the get-together.

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 81
https://doi.org/10.5281/zenodo.6547868

At the stage of a get-together - the organization can afford the individual work of an employee or unit for the collection, processing and transmission of information. In this case, the main efforts of management are focused on honing professionalism in the communications of partners.

The main tasks that management solves in a not yet selected business process are formulated as follows:

- Ensuring high-quality negotiations;

– Application of methods of interactive communication, incl. questions of face-to-face interactive forms of work (organization of work with groups of different levels, seminars, trainings, training of moderators from among the company's employees);

– Using corporate media tools (newspaper discussions, internet conferences, videoconferences, suggestion boxes);

– Effectiveness of using a combination of direct and indirect communication tools.

To implement these tasks in the field of communications, specialists from the following areas are involved:

– advertising and / or work with personnel, as their professional skills allow solving these issues.

At this stage, the stage of "receiving and transmitting information" is very important, while the owners of information turn into key employees, and the information is concentrated in subdivisions according to their type of activity, i.e. if data on staff turnover is needed, it can only be obtained from the HR department. The management, experiencing information hunger, spends a lot of effort on teaching employees how to transfer information to each other, while employees who have acquired the skills to transfer information begin to use it with "maximum benefit for themselves." The management, realizing the complexity of the situation, when it is essentially a hostage of an employee who can (wants) or cannot (does not want) to provide information is trying to control this process. But control over the transfer, as well as the presence and absence of information, can be very difficult and the current situation forces the management to move to the next stage of development mechanization of storage and processing of information data.

Second cycle of development - mechanization

At the stage of mechanization, the goal of management is to systematize information data. The task of preserving, replenishing and promptly providing information at this stage is designed to provide IT services. To do this, IT specialists are implementing systems: for managing relationships: with customers (CRM) and suppliers (SRM), with personnel (HRM), to streamline information flows, they are introducing electronic document management, etc. At the same time, the information storage is not a separate unit, but business software, which is a working tool for controlling resources, incl. and informational. At the same time, the awareness of the information consumer depends on the setting of "employee access rights" by the IT department specialist.

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 82
https://doi.org/10.5281/zenodo.6547868

A paradoxical situation arises - the process of "information flow" is already allocated, but it still does not have an owner, since the specialists who previously performed individual tasks do not have the full range of knowledge and skills to manage it, and IT services do not want to deal with issues that go beyond their competence. At the same time, any change in communication channels (for example: in the provision of access rights to information), very often sins of lack of efficiency (from the IT specialists) and weak control (from the management). Having solved the issue: control over information and communications, at the level of a key employee, the organization becomes hostage to another service - IT. In addition, the question arises about the professional management of communications, both in the organization and outside it. Experts who previously performed the functionality often pursue a policy focused on solving problems for the implementation of the prescribed functionality, without participating in the implementation of the company's strategic objectives, and at this stage the question of improving the information component of the system arises: to manage marketing communications, financial and material flows, etc...

The third development cycle is internal entrepreneurship or targeted management (MBO).

Upon reaching the third stage of development, the goal is formulated as follows - improving the process of transferring information, while we are talking about managing communications in each separate business process. The organization has a need not only for the collection, storage and speed of transmission (processing) of information, it needs to know who is responsible for the quality of transmission of this or that information. The task of quality within the framework of the dedicated business process is intended to be solved by professionals (they have received specialized education in this area), so specialists in: intracorporate, marketing and PR communications, as well as specialists in work with shareholders and IR, appear in the organization.

For them, information is information that reduces the uncertainty of consumer knowledge about certain objects or processes (for example, business), and as a result, all their efforts are in the implementation of information aspects: creating and maintaining corporate information funds, preparing analytical materials, creating advertising products in their direction. At the same time, very often their actions are not coordinated, for example, an intracorporate communications specialist may simply not be aware of the events that a marketing communications specialist conducts, and a PR specialist does not know about the programs carried out by an IR specialist. These problems often arise from the fact that each of the above-named specialists implements his functionality within the unit in which he works, and the general corporate policy "in the field of information and communications" is absent or known only to the "first person". Control over the work of a specialist in the field of information and communications is carried out by the chief, who manages a specific business process and whose goal is to achieve key performance indicators in his direction. Since the activity of any organization is aimed at optimizing the use of

Journal of Advanced Scientific Research (ISSN: 0976-9595)
Vol.2. Issue 1 page 83
https://doi.org/10.5281/zenodo.6547868
resources, and therefore the management of the company faces the question of information management.

Fourth development cycle - quality management

High-quality use of resources at this stage is achieved through the systemic management of information and communications in the organization, i.e. the question of information management arises.

Information management is a management process, not only by people with information, but also by actions that allow you to identify the chains of business processes, which are adjusted to organizational structures and IT support. At the same time, information management is one of the few processes in an organization that exists within rigidly defined constraints, such as:

The input of the process is an information demand, and the output is a generated information service, which is provided to the customer and the end user.

The process runs independently of the organizational structure and functional business tasks / operations.

The information management process can also proceed in the opposite direction: from the formed service, an analysis of the IT infrastructure takes place and a new need is identified, which was not previously considered or was unclaimed.

This goal is achieved in the process of information management (Information Management Proccess), which begins (at the entrance) with the identification or receipt of the customer's information needs, and at the exit, a list of means and data necessary to achieve the goals is formed. The task in this case is to identify this process, its regulation, reengineering (cardinal restructuring of the process), as well as the creation and support of basic information services. Specialists (managers) for managing information flows are responsible for managing this process, and all this is implemented through the implementation of an information management system (SIM), while it is an integral part of the overall management system.

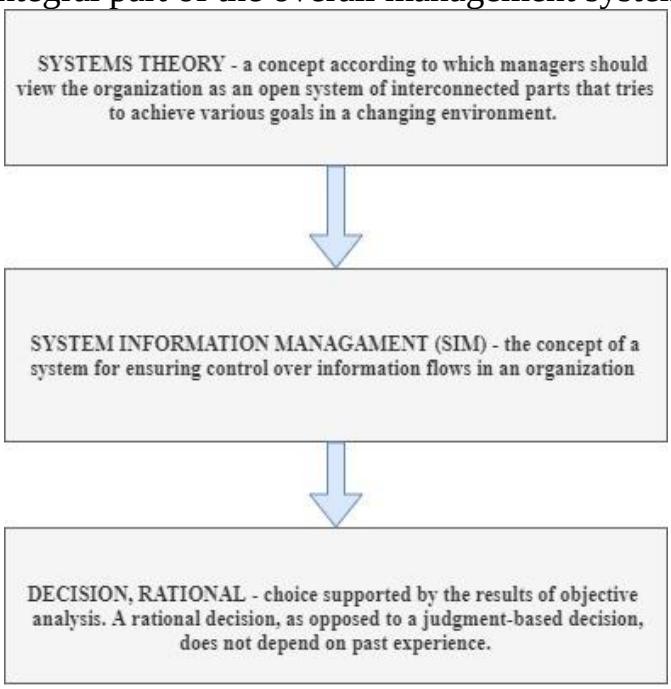

Fig 2. The role of SIM in decision making in an organization

The information management system (SIM) allows an organization to combine previously disparate technologies that were sub-processes in other business processes and form on their basis an independent business process that not only has input and output, but also makes it possible to assess the profit from its operation. We often declare that information is money, but constant control over the use of this resource is possible only with the implementation of an information management system. In practice, the lack of control over information flows is often associated not with the reluctance of management to control this process, but with the lack of information about their management practices. The information management system (SIM) is a very technological management system that obliges the management of an organization to manage information by planning the need for it, providing communication channel (s) for transmitting information, monitoring its saturation and efficiency of its consumption.

Plans in it are formed on the basis of an analysis of the need, and the process of managing the information structure implies managing not only IT support tools (subsystems of technical, software and organizational support), but also through other information distribution channels. At the same time, at the output of the information flow management process, information is received about a complex of well-established subsystems in which control is carried out by comparing it with the prescribed standards. In this case, information flows not only work for the customer, providing satisfaction of information needs, but also allow responsible persons to control the process, i.e. In the process of customer relationship management, the process of improving the system becomes an important sub-process. It is here that comments to the built system are formed in SIM, questions for improvement and technical support are visible, as well as many other activities related to information flows. This principle of management of the innovation management system can be implemented in almost any software environment, since the general output of the information management process is an information service formed and working for the customer. Moreover, the daily work in this system is carried out not only by the owners of the process - specialists in the field of "information management" (they have been trained by the higher school in recent years), but also by all employees of the organization who have to make management decisions. Thus, during the implementation of SIM within any organization, either explicitly or implicitly, there is a process of changing not only the management system, but also the corporate culture through the introduction of information management [11].

References

[1]. Zaynutdinova M.B., Askaraliyev O.U. Qaror qabul qilishni qo‘llab quvvatlovchi ish asosida axborot ishonchliligini baholash.International Scientific-Practical and Spiritual-Educational Conference “INTERNATIONAL CONFERENCE ON IMPORTANCE OFINFORMATION-COMMUNICATION TECHNOLOGIES ININNOVATIVE DEVELOPMENT OF SECTORS OF ECONOMY”.Tashkent -2018. -Б. 833-836

[2]. Askaraliyev O.U., Sharipov Sh.O. Analysis of Information Flow in a Centralized Database of Integrated Management Systems (On the Example of

the Tax Administration) // International Journal of Advanced Research in Science, Engineering and Technology., Vol. 7, Issue 11 , November 2020.2.Askaraliyev O.U., ZaynutdinovaM.B. “Development of the structure of the intelligent data processing system (on the example of the Integrated Management System):, BulletinofTUIT:ManagementandCommunicationTechnologies.2020 year.
[3]. Amiridi Yu.V., Kochanova E.R., Morozova O. A. Information systems in economy. Management of efficiency of banking business. – M.: Knorus, 2009.
[4]. Grishin V. N., Panfilova E.E. Information technologies in professional activity. – M.: Forum, Infra-M, 2009.
[5]. Information systems in economy / Under the editorship of G. A. Titorenko. – M.: Unity Dana, 2008.
[6]. Information systems in economy. Practical work. – M.: Knorus, 2008.
[7]. Encyclopedic dictionary - M, 2001
[8]. Anikin B. A., Tyapukhin A.P. Kommercheskaya logistics: The textbook – M.: Shopping Mall Velbi, Publishing house Prospectus, 2005. – 432 p.
[9]. Gadzhinsky A.M. Logistika: The textbook for the highest and average special institutions. – M.: Dashkov and To, 2004.
[10]. Priests S.M., Perovskaya E.I. Logistic management and drawing up schedules in production systems. http://www.mnogosmenka.ru/
[11]. G. Logistik's priests for business processes. – Desktop magazine of the IT head "Director of IS", 2004, No. 2
[12]. Advisslogistics logistic portal: Information systems. http://www.adviss.ru/
[13]. Business Education Online portal. http://www.bizeducation.ru/heading "Logistics"
[14]. Egorshin, A.P. Management personalom./A.P. of Egorshin-N Novgorod: NIMBUS, 2004.
[15]. Porshnev A.G. Management of the organization: The textbook / Under the editorship of A.G. Porshnev, Z.P. Rumyantseva, N. A. Salomatin. - M.: INFRA-M, 2009.