

Optimization of Business Processes Based on the Supply Chain Management in an Accounting Department

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Abstract- Modeling and automation of business processes are key to the successful company's operation. Enterprise prosperity depends on professional modeling of business processes by considering the supply chain management. The urgency of the work consists of the real need to optimize the business process of the accounting department. The chapter describes the following aspects: the methodology for modeling business processes of the accounting department in an enterprise; results of technologies analysis and business processes models; business processes of fixed assets, planning and accounting documents of the enterprise's accounting department. The chapter reflects the methodology for accounting for fixed assets, determines the procedure for working with fixed assets of the enterprise, discloses information on fixed assets in the financial statements of the enterprise, and describes the target model of accounting process for fixed assets, on the base of that further automation of this process is planned. Moreover, the work represents the results of business processes optimization of enterprise's fixed assets accounting, measures to reduce the processing time of accounting information, as well as methods for eliminating bureaucratic procedures in work organization with fixed assets. Optimization of fixed assets accounting involves the introduction of the following target processes in the enterprise.

Keywords- modeling and automation, supply chain management, the methodology of describing business processes, optimization, business processes, optimization methodology.

1. Introduction

The business processes description optimizes the operation of all segments of the enterprise

excluding internal interference and the human factor. The business process (BP) as the main activity of the enterprise needs to be studied and analyzed in order to be able to introduce improvements in the activities of the enterprise. The description of the BP will make it possible to identify the characteristic information. The business process can be demonstrated as a set of one or more related operations or procedures. Business processes can be classified as follows: basic, associated, auxiliary that supports business processes, business management processes, business development processes. The main business processes include processes focused on the production of goods or the provision of certain services that are the target objects of the establishment of the enterprise and ensure the receipt of income. Business Process Modeling is a mapping of business processes oriented by purpose and developed according to a certain system and form of presentation. The goals of business process modeling are focused on documenting business processes of an enterprise. This is important for the following reasons: receiving timely data and representing the actual situation in the organizational unit, moving business processes to other units, regulating work processes and methods through the external management mechanism to fulfill obligations to business partners or the business community (for example, on enterprise certification), satisfying the current legal norms, training staff for introducing the course, avoiding loss of knowledge (for example, when an employee is fired), maintaining quality management and managing

environmental protection [1]. The purpose of the study was to find a solution to optimize business processes of the enterprise accounting department by introducing the target model of fixed assets accounting process of the enterprise. The target model of business processes of the enterprise accounting department optimizes the work of this department.

The urgency of the work consists of the real need to optimize the business process of the accounting department based on the target model introduction.

2. Optimization of business processes on the example of the accounting department

The business process as the main activity of the enterprise needs to be studied and analyzed in order to introduce improvements in the enterprise activities. The description of the BP (business process) will make it possible to identify the characteristic information. The business process is indicated as a set of one or more related operations or procedures. Business process management is the management of activities using resources and the product is the result of activity. The life cycle of process management is made of a mission or strategy; design and description (documentation and analysis of processes); the appointment of the process executor and regulations and roles definition within the process; implementation of the methodology of process management, selection of IT solutions, preparation and implementation of IT-systems; changes and risks management; monitoring and analysis, measurement of process parameters (time, cost, quality).

2.1. The process approach has intention as the representation of the enterprise as interrelated processes

Since the enterprise's task is to bring its products to the market and products are the result of business processes, optimization of business processes is necessary to improve product quality and its payback. The process approach allows you to calculate the cost of a business product. It is the sum of the cost of business process maintaining, the cost of output business products and other resources. In practice, it is needed to describe business processes, show information flows, data flows and workflow interchange between business processes. Processes must be digitized and technologies (tools) are used for calculation by data collection, processing,

and storage. Process management is the most appropriate approach to ensure the flexibility of the company, the stability of results and the continuous improvement of the business. Through regulation of company's business processes is easier to scale or replicate its activities. Optimization of business-process of fixed assets accounting. Any business process must have an input, an output (product), resources for converting an input product into an output and control action. Control action determines the rules of work (for example, internal regulatory documents). The input product is also the result of the previous process. Resources are also business products of other processes. Control action is also a product of the methodological process [2].

The methodology of fixed assets accounting. The method and procedure of fixed assets accounting owned by the company on the right of ownership, their depreciation in accounting is determined in accordance with international financial reporting standards. The following terminology is used in communication with the specified values:

Fixed assets are tangible assets that are

A) Used by the enterprise for goods and services production or delivery, for renting to other companies, or for administrative purposes;

b) intended to be used for more than one reporting period (more than 12 months).

Depreciation is a systematic reduction of the amortized value of an asset during its useful life.

Depreciate cost is the cost of the asset or other amount reflected in the financial statements instead of the cost minus the salvage value.

Useful life:

a) the expected (calculated) period of use of the asset in the enterprise;

b) the number of products that the enterprise incorporates to make the asset used (i.e. the term during which "I" will use the asset, not the term, which is possible at all).

The original value is the amount of cash or money equivalents paid or the fair value of another reimbursement at the time of purchase or construction.

The salvage value is the sum that the company expects to receive for an asset at the end of its useful life minus the expected costs of the retirement.

Fair value is the sum of an asset exchange when a transaction is made between a well-informed people wishing to perform such an operation under the general conditions. The impairment loss is the sum through which the book value of an asset exceeds its recoverable value. Book value is the sum through which an asset is recognized in the balance sheet minus the amount of accumulated depreciation and accumulated impairment loss. Loss from cost reduction is an excess of the book value of an asset over its recoverable amount. The recoverable amount is the largest value, the fair value of the asset minus the cost of its sale or its value of use. The net value of the sale is the sum that can be obtained from the assets sale in the transaction between the independent parties minus the cost of disposal of the asset. An automation of the business process is the reduction of the information treatment time, the processes of interaction with departments of the enterprise are optimized and bureaucratic procedures in the organization of the process are reduced.

The process of fixed assets accounting performs one of the main tasks of accounting: collection and processing of the fixed assets' movement data. Economic operations on the fixed assets' movement are reflected in the accounts of the general ledger with the analytical features' indication necessary for internal users of financial statements: managers, founders, participants and owners of the organization's property, as well as external users: investors, creditors, tax authorities [3-5,6]. Concerning the fixed assets, the enterprise estimates following aspects at each reporting date — on December 31st:

1. The presence of any signs indicating a possible impairment of the asset;
2. The recoverable amount of the asset in a case where any indication of impairment is identified;
3. Reduction of the asset or cash generating unit cost (separate asset group);
4. Restoration of the assets value (if applicable);
5. Disclosure of relevant information in the financial statements.

Step 1. The presence of signs indicating a possible impairment of assets. The enterprise determines external and internal signs of impairment:

a) external signs of impairment are:

- a decrease in the value of the asset during the report

ing period by an amount greater than it would be expected as a result of its normal use during the reporting period;

- the significant changes in technology, economy, legislation and regulatory framework;
- the significant changes in the market that occur or are expected in the near future that have or may have a negative impact on the activities of the company;
- other signs.

B) internal signs of impairment are:

- confirmation of obsolescence or physical damage to the asset;
- significant changes that occurred in the reporting period or expected in the near future, adversely affecting the activities of the enterprise in a part that is related to a certain asset;
- other signs.

Step 2. Determination of the recoverable amount.

Impairment of property, plant and equipment realized if their carrying amount is greater than their estimated recoverable amount.

Impairment loss is recognized when the carrying amount is greater than the net selling price or value from the use of the asset.

In this case, the book value of the asset should not be lower than the highest value from:

- 1) its net selling value;
- 2) its value from use;
- 3) zero.

In the enterprise, an independent cash generating unit is all types of commercial activities, that are applied by an enterprise under the charter. Based on the specifics of the activity, it is considered as one whole MGU (Monetary Generating Unit). Cash flows are determined for the same assets sequentially from period to period. In determining future cash flows, the following elements should be taken into account:

- all cash outflows necessary to generate cash inflows, including any cash payments for preparing the asset for use (buildings, structures under construction);
- all overheads that directly relate to this asset.

In determining future cash flows, the following elements are excluded from the calculation:

- all non-monetary expenses;
- costs of financing the asset;
- tax effect.

Future cash flows are estimated by the enterprise for assets in the current state and do not include evaluated future cash inflows or outflows related to:

- the future restructuring, which has not started yet (as soon as the enterprise starts restructuring, its impact on future cash flows will be taken into account);
- the future capital costs, which will increase the asset's performance.

d) The present value of future cash flows is calculated using the appropriate discount rate.

The discount rate should be a rate that reflects current estimates of the time value of money and the risks specific to that asset.

In the case when the value from the assets use is below the book value of assets, the entity recognizes the impairment loss of assets.

Step 3. Recognition and recording of an impairment loss on an asset. The impairment loss reduces the book value of a cash-generating unit. The impairment loss is recognized for a cash-generating unit if and only if its recoverable amount is less than its book value. The impairment loss is distributed to reduce the book value of the unit's assets in the following order:

- firstly, on good will attributed to the cash-generating unit;
 - then to other assets of the generating unit in proportion to the book value of each asset in the unit.
- Step 4. Reversal of impairment loss

At each reporting date, the entity assesses any indicators demonstrating that the impairment loss recognized for an asset in previous years may no longer exist or has been reduced. If such indicators are available, the recoverable amount of this asset is estimated.

To assess the existence of an indicator that an impairment loss recognized for an asset in previous years may no longer exist or the corporation of internal and external sources of information has decreased.

The procedure of work with the basic means of the enterprise. The common tasks in organization of accounting by the basic means are control and full posting of fixed assets, their safety, observance of norms and norms, depreciation, etc., and also conformity of criteria of fixed assets according to international standards, timely and completed documentation of all operations on the movement of fixed assets

and correct calculation of their actual value. In order to ensure the safety of fixed assets that are on the balance sheet of the enterprise in conjunction with maintaining proper records and timely reporting on fixed assets of the enterprise, the order of the enterprise appoints materially responsible persons in each structural division of the enterprise. They initiate the conclusion of a contract for the purchase of fixed assets, they conclude contracts for full individual liability and to whom the fixed asset belongs.

During acquisition of the fixed assets of an enterprise with a structural unit that initiated the contract conclusion, all necessary documents are provided to the accounting department in accordance with the established procedure with the signature of the materially responsible person who has accepted this fixed asset in an accountability [7-9,10]. Synthetic and analytical accounting of the company's fixed assets is organized with transparency and simplicity in the formation of the necessary disclosures in the financial statements, as well as management of fixed assets' data is ensured. The main tasks of accounting for fixed assets of the enterprise are timely and correct documentation of operations on the movement of fixed assets of the enterprise and monitoring compliance with their condition and period of use.

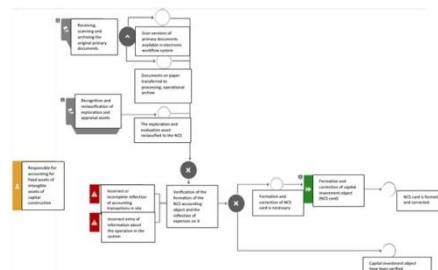


Figure 1. Accounting for fixed assets, other non-current assets and capital construction

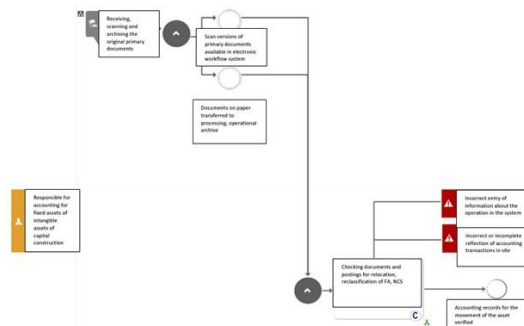


Figure 2. Accounting for fixed assets, other non-current assets and capital construction

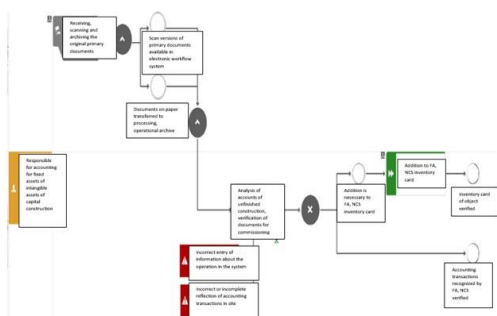


Figure 3. Accounting for fixed assets, other non-current assets and capital construction

All operations on arrival, movement and deduction of fixed assets must be confirmed by vouchers (primary accounting documents). Documenting all economic transactions is the basis of the primary (analytical) accounting at the enterprise, this data is summarized in the registers of accounting. The people formed and signed the primary documents are responsible for their timely and qualitative design, in addition to the reliability of the data contained therein. The documents signed by the authorized people of the enterprise. Primary documents arriving in the accounting department are subject to mandatory verification by form (completeness and correctness of filling in the document, filling in the details) and content (legality of documented transactions, logical linking of individual indicators). In the part of coordination and control, recording of movement and write-off of inventories connected with the activity of structural subdivisions, the commission orders commissions. They include the responsible employees of the interested structural divisions of the enterprise involved in the acquisition, accounting, movements and write-offs of fixed assets. The documents are drawn up by the materially responsible people of the relevant structural units and are controlled by the head of the relevant structural subdivision of the enterprise. In order to reflect the actual state of fixed assets in the financial statements of the enterprise, a meeting of the commission is being held. It addresses the following issues:

- The presence of signs of fixed assets' impairment, obsolescence and technical unfitness, a review of the timing of depreciation;
- Sales plan of fixed assets and issuing opinions on their further use, etc.

The current documents of the enterprise (acceptance and cancellation acts, documents on the transfer and sale of fixed assets) that do not require mandatory consideration at the internal

meeting of the commission may be considered in absentia and agreed by the chairman and members of the commission in working order.

At the expiration of the reporting period (quarter), each materially responsible person analyzes the fixed assets in his account and on his result, if necessary, issues for writing off, selling and transferring fixed assets are submitted to the commission for consideration. Accounting for fixed assets is maintained by the accounting department based on the results of the enterprise's activities in terms of fixed assets types and materially responsible people. The accountant prepares reports on the movement of inventories, fixed assets, intangible fixed assets, construction in progress and fixed assets intended for sale every quarter in the preparation of financial statements.

3. Target model of fixed assets accounting process based on that the further automation of this process is planned.

Accounting for fixed assets, accrual of depreciation of fixed assets of the enterprise is carried out in the software product used by a single method for all.

The initial monthly documents are:

- a statement of analytical accounting of fixed assets in the context of the classification groups indicated for each of the sub accounts of the asset accounting account;
 - a statement of the availability and movement of fixed assets in the context of materially responsible people signed by materially responsible people;
 - a statement of depreciation of fixed assets in the context of the sub accounts of the account and in the context of the classification groups specified in the paragraphs (per month, total wear, consolidated wear);
 - turnover statement for sub accounts of the account in the chart of accounts with the decoding of the corresponding accounts on the debit and on the credit of each of the accounts;
 - turnover statement for sub accounts of the account with the distribution of accrued depreciation according to the cost ciphers determined by a separate regulatory document.
 - Turn over statement for accounts of depreciation of fixed assets.
 - a report on the movement of fixed assets of classification groups at their present value with an indication of depreciation and residual value for each type of fixed asset, namely:
- In terms of income:
- introduction of new fixed assets;
 - commissioning of new construction projects and equipment from installation;

- joining by separation balances;
- internal receipt by branches and representative offices;
- other supply.

In terms of retirement by value for accounting purposes and for tax purposes:

- liquidated;
- implemented;
- transferred to working capital;
- transferred to mining assets;
- other disposals;
- transferred by dividing balances;
- transferred by internal movement;

- transferred free of charge by the decision of the enterprise management. In the software product must be obtained:

— the statement of accrual and distribution of accrued depreciation and impairment for production, shops, and sites;

- decoding by types of received fixed assets for tax accounting with automatic transfer of their value to the value balance of fixed assets accounting for tax purposes by groups and subgroups in accordance with the tax legislation of the Republic of Kazakhstan.

Table1. The target model process map of fixed assets accounting

Main Consist pro-of		Consist of	Consist of	Consist of	Consist of	Consist of	Consist of
cess	Ac-	Com-	Ac-	Ac-	Ac-	Ac-	Ac-
Scen-	countin	mission	countin	countin	countin	countin	countin
nario	g	-	g	g	g	g	g
	for	ing	for the	for the	for	for	for
	capital		internal	retire-	term	term	finance
	con-		move-	ment of	assets	assets	leases
	struction		ment of	fixed		for sale	
	ex-		the	assets,			
	penses		fixed	intangi-			
		Receiv-	assets	ble			
Be-	Receiv-		and	assets	Receiv-	Receiv-	Receiv-
Recep-			intang-	and			
			ible	non-			
			assets	current			
			Receiv-	assets			
			Receiv-	Receiv-			
longs tion	ing,	ing,	ing,	ing,	ing,	ing,	ing,
of							
to pri-	scannin	scannin	scannin	scannin	scannin	scannin	scannin
	g	g	g	g	g	g	g
mary	and	and	and	and	and	and	and
docu-	archiv-	archiv-	archiv-	archiv-	archiv-	archiv-	archiv-
ments	ing the	ing the	ing the	ing the	ing the	ing the	ing the
	original	original	original	original	original	original	original
	primary	primary	primary	primary	primary	primary	primary
	docu-	docu-	docu-	docu-	docu-	docu-	docu-
	ments	ments	ments	ments	ments	ments	ments
Be-	Control	Reflec-	Reflec-	Reflec-	Reflec-	Reflec-	Imple-
Reflec-							
longs tion	of the	tion of	tion of	tion of	tion of	tion of	menta-
in							
to	forma-	commis-	internal	retire-	long-	financia-	tion of
theac-						l	
	tion of	sioning	dis-	ment of	term	lease	the off-
count-	the		place-	fixed	assets		balance
ing							

system	incomplete capital construction of accounting object		ment / reclassification of fixed assets and intangible assets	assets, intangible assets and non-current assets	for sale		sheet
Be- Prepara-	Prepara-	Prepara-	Prepara-	Prepara-	Prepara-	Prepara-	Prepara-
longs ration	tion for	tion for	tion for	tion for	tion for	tion for	tion for
to for	closing	closing	closing	closing	closing	closing	closing
closing	on the	on the	on the	on the	on the	on the	on the
of ac-	section	section	section	section	section	section	section
count-	of ac-	of ac-	of ac-	of ac-	of ac-	of ac-	of ac-
ing site	countin	countin	countin	countin	countin	countin	countin
of the	g	g	g	g	g	g	g
fixed	for non-	for non-	for non-	for non-	for non-	for non-	for non-
assets,	current	current	current	current	current	current	current
untan-	assets	assets	assets	assets	assets	assets	assets
gible	(fixed	(fixed	(fixed	(fixed	(fixed	(fixed	(fixed
assets,	assets,	assets,	assets,	assets,	assets,	assets,	assets,
other	untangi-	untangi-	untangi-	untangi-	untangi-	untangi-	untangi-
non-	ble	ble	ble	ble	ble	ble	ble
	assets,	assets,	assets,	assets,	assets,	assets,	assets,

Optimization of fixed assets (FA) accounting assumes introduction of the following target processes at the enterprise:

1. The implementation of accounting transactions and control on the site of fixed assets accounting by the responsible person. The incoming documentation is a package of primary documents for the accounting of fixed assets at the output of the turnover-balancesheet on the accounts of the FA.
2. Acceptance, scanning and archiving of primary original documents implemented by the person responsible for receiving primary documents by the employee of the structural unit that is the initiator of the transaction under the FA. This process allows you to eliminate the distraction of an accountant for unrelated operations and reduce the time of incoming information in the accounting system.
3. Verification of documents on formal grounds executed by the person responsible for receiving the primary documents by the representative of the business department, where the document is entered in the electronic document management system through a single entry and then this information is displayed in all modules of the accounting system by means of integration with the electronic document management system.
4. The function of the FA accounting object formation control is allocated in separate process. This

process checks the formation of the fixed asset card and the specified rules for calculating and reflecting costs, defines the group and class of the fixed asset, the terms of use (depreciation), the place of origin costs for the proper implementation of controlling functions.

5. The process of preparing to close the FA posting area. This procedure involves all the necessary procedures before closing the period of the FA accounting area, in particular:

- conducting the revaluation procedure (according to other regulations if necessary);
- impairment procedure (according to the regulations if necessary);
- implementing the inventory results;
- accrual of depreciation;
- final checks of primary documents packages completeness and performing accounting transactions.

The person responsible for controlling the accounting of the FA performs this process. The incoming information is:

- Accounting transaction in the accounting system for reflecting FA;
- Accounting transaction in the accounting system for reflecting the input of the FA object;
- Accounting transaction in the accounting system for reflecting internal movement/reclassification of

the FA;

- Accounting transaction in the accounting system to reflect the disposal of non-current assets for the sale of fixed assets;
- Accounting transaction in the accounting system for reflecting the financial lease of the FA;
- Inventory card FA.

The output information is the FA Registry

6. The process of preparing information on the technical state of the FA. Responsible for the technical condition of the FA is a technical expert by the request of the appraiser (with independent evaluation) or according to the regulations (when testing for impairment), prepares information about the technical condition of the FA objects, plans for using FA objects, the planned period of use / commissioning of the FA.

At the same time, the following requirements are imposed on the accounting system:

- possibility to form a report with the results of technical inventory;
- integration with the relevant modules of the system for the purpose of obtaining information (data) about the technical condition of the facilities.

7. The process of assessing the amount of depreciation of the FA.

In conducting the procedure of testing FA objects for impairment the person responsible for calculating the amount of the impairment conducts:

- testing for signs of impairment,
- calculation of the amount of expected compensation (if there are indications of impairment),
- comparison of the book value of assets with the amount of expected compensation,
- determination of the amount of impairment.

Calculation of the amount of impairment and its distribution between assets the responsible specialist agrees in accordance with the current regulations (GNI).

The agreed calculation passes for approval.

8. Audit of the Assessment Report. This process involves checking the comparability of the credentials submitted for evaluation to data in the report as part of the list of FA objects and implemented by the account manager after receiving the Independent Evaluator's Report (for an independent evaluation).

9. The statement of revaluation/depreciation of the FA is approved by the Chief financial officer (CFO).

10. Verification of completeness and correctness

of operations and documents on the site is performed by people responsible for FA accounting. All accounting transactions in the accounting system for the reflection of input, movement, movement, and the write-off of FA objects are checked.

11. A preliminary calculation of FA depreciation. Start of automatic calculation of depreciation by the person responsible for the accounting of the FA according to the rules for closing the period after checking the correctness and completeness of the reflection of all transactions for the accounting of the FA for the period, checking of preliminary accounting entries. To confirm the correctness of depreciation in the context of management analysts, data on the system's funds are sent for verification and coordination in the processes of operational control of costs and revenues (controlling).

12. Carrying out the results of the assessment/impairment of assets. Reflection in the accounting system in the context of the FA objects based on the approved report/calculation of the results of revaluation/depreciation.

All results, including data and amount of revaluation, change of service life are reflected in the FA accounting card.

Final control over the accounting section of the FA. The person responsible for the control of the FA accounting prepares the final control before closing the period on the site:

- Checking the completeness and correctness of accounting operations for long-term assets in the current period;
- Selective verification of the correctness of using correspondent accounts and the analyst in the system;
- Checking the correctness of an accounting entry for information in accordance with the standard correspondence of accounts;
- Timely reflection of credentials in accordance with the received documents;
- Analytical control based on credentials;
- Analysis of the correspondence of accounting entries for the identification of non-routine accounting records.

Communication of the site closure in the system with the employee responsible for closing the period.

The process of commissioning the FA. The scenario determines the procedure for recording operations for commissioning the operating system, recognizing the estimated and explored assets as an FA.

The script assumes passage through the following steps of the main process:

- Preparation of primary documents,

- Instruction in the accounting system,
- Preparation for the closing of the period.

3. Methodology and technology of describing business processes

The BP description is one of the stages of enterprise BP management. For the convenience of using the BP description and for correctly reading the BP description, it is necessary to use generally accepted methods and standards for describing the BP. There are many techniques of BP description. For example, IDEF-notation, which is used to describe the goals of the BP and to describe the workflows of the BP. The disadvantage of IDEF is a high degree of abstraction in the description of activities. This complicates the perception of such models of BP description. The classic DFD and WFD standards contain a set of symbols or designations that describe the business process. These symbols are called the language or methodology for describing the processes. In this case, this language or methodology is classical [11]. *Notation or format of describing a business process* is a collection of graphical objects used in models and rules for modeling.

The following people are working on any project:

- Business analysts who study and modeling business processes of the domain;
- System analysts and architects who design the architecture of solutions, applications, and data;
- Authors of application code;
- Specialists in testing and quality assessment;
- Authors of the documentation;
- Authors of distributions;
- Implementation specialists.

They use following methodologies and standards:

- SADT methodology;
- IDEF standards;
- DFD methodology;
- ARIS methodology;
- UML methodology.

4. Modern methodologies for describing business processes

One of the most famous and widely used methodologies in the field of business process modeling is the IDEF family methodology. The methodology of the description of the activity. IDEF is the methodology of the ICAM (Integrated Computer-Aided Manufacturing) family and it is the methodology of the USAir Force program, which

develops tools, methods, and processes to support the integration of production.

The IDEF methodology is used to solve the problems of modeling complex systems. It displays and analyzes the operation models of a wider range of complex systems in different sections. The breadth and depth of business processes' survey in the system are determined by the developer himself. This helps not to overload the created model with excessive data [12]. IDEF0 (Integration Definition for Function Modeling). Methodology and standard of functional modeling and description of business processes. Via the graphical language IDEF0, the studied system appears as a set of interrelated functional blocks. Modeling of business processes using IDEF0 tools usually is the first stage of studying the system. IDEF3 (Integration Definition for Function Modeling). IDEF3 describes the logic for performing actions. IDEF3 could be used independently and in conjunction with the IDEF0 methodology. Any functional block IDEF0 can be represented as a sequence of processes or operations by means of IDEF3. If IDEF0 describes what is done in the system, then IDEF3 describes how it is done. DFD (Data Flow Diagrams) Diagrams of data flow. Describe data sources and destinations external to the system, logical functions, data streams and data stores to which they are accessed. As practice shows, this is one of the simplest, accessible and obvious standards for describing business processes. UML (Unified Modeling Language) Object oriented graphical language for systems visualization, specification, design and documentation, whereas significant role is assigned to the description of business processes in information systems. UML is a language of a wide profile, it is an open standard that uses graphic symbols to create an abstract model of the system, called the UML model. UML was created to identify, visualize, design, and document mostly part software systems.

Key standards of the BP description include:

- DFD (data flow diagrams) that are used to describe the most global business processes;
- WFD (Construction of workflow diagrams) describe the business processes of the lower level, because the lower level needs details and the presence of a clear algorithm to perform the work executors.

The DFD methodology is a data flow diagram that displays the work or function that is performed during the process, and defines inputs and outputs for each one. The input and output data of the BP are information and material resources.

The WFD methodology is a diagram of workflows. It reflects the time sequence of work, the route of the business process, depending on the value of logical expressions. For this methodology, the distinguishing feature is the ability to set the time sequence. However, the order of execution of works within the business process usually coincides with the direction of threads on the corresponding DFD diagrams. DFD diagrams can be decomposed on both DFD and WFD, and WFD is only on WFD diagrams. The BP description can be represented by an ordered set of DFD and WFD diagrams. These methodologies can also be used to describe both the *tree* and the *network* of business processes of the enterprise[13].

According to the models in the notations IDEF0, IDEF3, it is convenient to analyze the processes of object states transformation and business process entities. In addition, this standard is useful in an analysis of all external influences on the process leading to a particular outcome of the business process [14]. IDEF is a system that provides business process mapping tools and an analyst-specialist interaction methodology along with project creation technology that encompasses all stages of the "life cycle" from the primary analysis to the final project submission form, through the step-by-step process of creating diagrams and versions keeping. The IDEF group standards (IDEF0, IDEF1, etc.) are the actual condition for obtaining status for organizations that meet ISO 9000, ISO 9001 standards. Standard IDEF0 is the concept of analyzing the current processes in the organization. In the classical approach to the implementation of the process management model, it is necessary to create two models: the initial one (AS-IS) and the target one (TO-BE). The description of the original model (in a preselected standard form) is required to identify possible shortcomings in the existing enterprise management system.

5. Business Process Modeling is a mapping of business processes focused on goals, developed according to a specific systematic and presentation form.

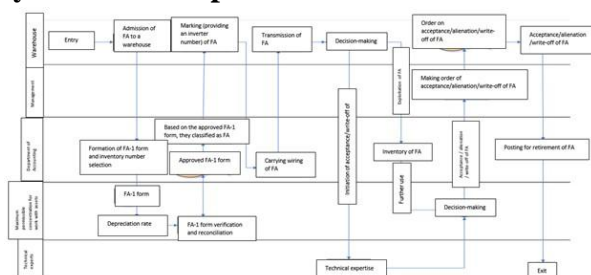


Figure 4. Map of the fixed assets accounting process in the enterprise

The objectives of business process modeling are designed to ensure that the company’s BP can be documented in order to receive data in a timely manner; represent the actual situation in the organizational unit of the enterprise, move business processes to other departments, regulate workflows and methods through the external management mechanism to perform duties before business partners or business community (for example, to certify an enterprise), to comply with applicable legal standards, to train employees or to enter into a course of business, to avoid loss of knowledge (for example, when dismissing an employee), to support quality management and environmental management [15-20].

6. Results and conclusions.

The BP description is one of the stages of the enterprise BP management. For the convenience of using and for correct reading BP description, it is necessary to use generally accepted methods and standards for describing the BP. In implementing the described model of fixed assets accounting, the resulting fact is optimization of the process of fixed assets accounting by following actions: 1) reducing the processing of accounting information in the system; 2) reducing the time for preparing reporting forms for recording fixed assets;

3) the time for entering accounting information into the data system is reduced by entering information once in the accounting system; 4) displaying this information in various modules of the system and obtaining operational information from the system by users and interested people.

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