Journal of Advanced Zoology

ISSN: 0253-7214
*Volume **44** Issue **S-6 Year 2023** Page **1431:1437***

Electronic Tranding Platform and Data Flow

Latipova Nodira[1], Marisheva Larisa[2]

[1,2] TUIT

**Corresponding author's: Latipova Nodira*

Article History

Received: 06 June 2023
Revised: 05 Sept 2023
Accepted: 06 Dec 2023

Abstract

This article discusses the features and trends of process of development and creation of a multi-functional electronic trading platform is aimed at efficient and profitable interaction of suppliers and buyers. Interaction takes place through electronic communication systems, so it is always operative and relevant. Electronic trading platform is a complex of information and modern technical solutions. There are several types of electronic trading platforms - for commercial customers, for placing government orders. The sites on which electronic transactions are performed by commercial customers are divided into specialized and multi-profile. Users, participants of the sites, held auctions and trades themselves can decide on which of the sites it is more convenient and profitable to work with. In addition, on a multiprofile resource the customer can act as a supplier, the seller - this is dependent on the scope of his activities, on the possibilities.

Keywords: *Multi-Functional Electronic Trading Platform, Information Flow, Data Flow, Information Flow Objects, Users, Customers, Suppliers.*

1. Introduction

The definition of the main functions of the system is an important step in the preparation of project documentation. Functional requirements indicate what the system should do. Functions can be of several types: hidden and obvious. The evidence of a function is determined by the obviousness of the performance of this function by the system from the user's point of view. Diagram 3 shows an example of the function description.

An association is a relationship between classes, reflecting some significant and useful connections between them. An association is indicated by a line drawn between the classes, with which a specific name is associated, starting with a capital letter.

An additional arrow next to the name of the association indicates in which direction to read its name. If there is no such arrow, the names of the associations should be read using generally accepted agreements, namely, from left to right and from top to bottom.

Each end of the association is called a role. The role may additionally have the following characteristics: multiplicity, name and direction of communication, scheme 2.

Functionality and efficiency of the information system is one of the main requirements in the qualification work being developed.

Functionality implies the fulfillment of the main function of developing video lessons, in this case, this requirement refers to accessibility to perception and compliance with the rules for the distribution of topics by content. A domain model is a visual representation of conceptual classes or objects of the real world in terms of the domain. Such models are also called conceptual models.

Modeling the temporal ordering of the control flow is as follows, Scheme 4.

The projected electronic trading platform will allow individual modeling of business processes, possessing qualities that ensure its leading position in the market of procurement management systems: self-sustaining information system; flexibility and high speed of adaptation to changes in legislation; cross-platform integration; storing the main body of data and performing key calculations in the "cloud" (IT solution infrastructure); high readiness for operational expansion, development and connection of additional modules; conducting procurement procedures in accordance with the legislation of the

Republic of Uzbekistan; automatic posting of information on ongoing procurement procedures on the website of the Chamber of Commerce of Uzbekistan; Intelligent, customizable monitoring, analytics and reporting.

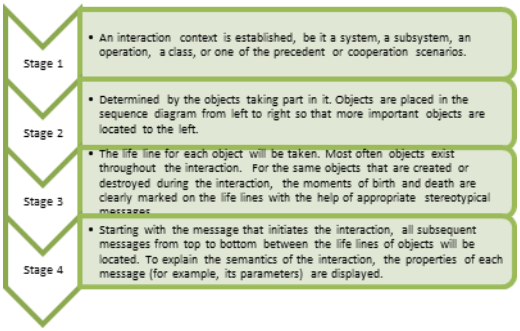
Proposed Methodology

Online sales are part of e-commerce. All trading systems via the Internet can be classified as web showcases, online stores, online trading systems, electronic trading platforms. An electronic marketplace is a combination of a catalog, navigation system and ordering (with subsequent transfer to the manager for further processing), i.e. With the help of electronic trading platform organized trade on order. Online stores and electronic trading platforms can carry out a full sales cycle online, but electronic trading platforms are additionally fully integrated into the company's internal document management system [1].

The transition from the simplest sales systems via the Internet to full-featured online stores and electronic trading platforms is connected with the need to solve the fundamental problem of integrating an online store and existing Internet payment systems. The module of automated payment acceptance for goods is a distinctive feature of a modern electronic trading platform.

Imagine the concept of information flow in the operation of an electronic trading platform with physical delivery of goods associated with the service and registration of incoming orders. Consider the general algorithm for the work of order managers, which in fact does not depend on the form in which information data is collected and processed. The block diagram of the algorithm is shown in Figure 2 [2].

Scheme 1. Modeling the temporal ordering of control flow



A sequence diagram is one of the interaction diagrams. The sequence diagram illustrates events initiated by the system by artists, Figure 1.

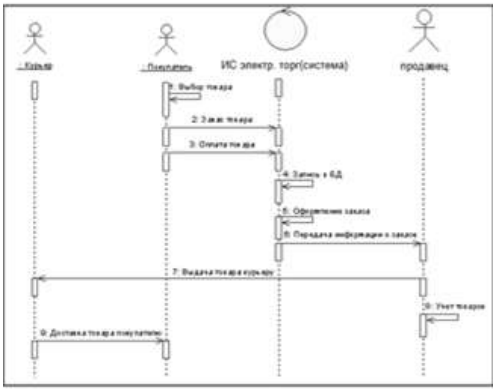


Fig.1. Online order use case diagram.

Thus, this article defines the processes, describes the cases, shows the diagrams of cases, describes the typical course of events, describes the conceptual model, describes the functions of the system, shows the sequence diagram and interaction of actors with the system.

For clarity, we present a customer service scheme in an electronic trading platform with physical delivery of goods in IDEF0 notifications. An important role in organizing sales through an electronic trading platform is played by the ability to accept payments from customers for selected sets of goods in real time using modern Internet payment -systems The payment system on the Internet is a system for conducting settlements between financial, commercial organizations and users in the process of buying / selling goods and services via the Internet. It is the payment system that allows you to turn an order processing service or an electronic storefront into a full-fledged store with all the standard

attributes: by choosing a product or service on the seller's website, the buyer can make a payment without leaving the computer.

Fig. 2. The scheme of customer interaction with the online store sales system

One of the most modern principles of organizing an electronic trading platform is the use of so-called electronic money for organizing settlements. Electronic money fully simulates real money. At the same time, the issuing organization - the issuer - releases their electronic counterparts, which are called differently in different systems. Further, they are bought by users who pay for their purchases with their help, and then the seller repays them from the issuer. During issue, each currency unit is certified by an electronic signature, which is verified by the issuing structure before redemption. The main difference between e-money and real money is that the former provide, in fact, e-money obligations of the issuer, but cannot be real money from a legal point of view. The term "money", which is used, shows that electronic money largely inherits the properties of real cash, the most important of which is anonymity, that is, they do not indicate who used it. Some systems, by analogy, allow the buyer to receive electronic cash so that it is impossible to determine the relationship between it and money. This is done using the blind signature method. It is worth noting that with the use of electronic money there is no need for authentication, since the system is based on putting money into circulation [3].

The scheme of payments using electronic money includes the following steps:

1. The buyer exchanges real money for electronic money in advance.

2. The buyer transfers the electronic money to the seller's server for the purchase.

3. Money is presented to the issuer, who verifies their authenticity.

4. In the case of authenticity of electronic bills, the seller's account is increased by the amount of the purchase, and the buyer's account is reduced by the same amount and the goods are shipped or a service is provided.

Electronic cash can not only provide the necessary level of confidentiality and anonymity, but do not require contact with the center to confirm payment. In this regard, the transaction cost is reduced to a minimum, and such systems can be effectively used to provide micropayments - payments of less than $ 1, where traditional credit card-based systems are economically unprofitable. According to general opinion, it is micropayments that are able to provide the main sales turnover of information on the Internet [4].

Emit electronic cash can both banks and non-bank organizations. In Uzbekistan, the most popular electronic money system, providing up to 70% of payments in the electronic commerce system, is the WebMoney system.

WebMoney allows many different merchants to operate simultaneously in one electronic payment system, interacting on the basis of universal monetary units accepted by any of these merchants. In addition to sellers, there are ordinary users in the system. Users can be legal entities and individuals or software products representing them, for example, online stores. From the point of view of the seller, all users of the system are fully equal.

In the WebMoney system, it is in principle impossible to accidentally or deliberately deceive any member of the payment system by the seller or other participant due to the fact that each operation is necessarily accompanied by electronic digital signatures of all its participants. Special software - "Wallet" - actually stores (along with electronic money itself) purchase and sale agreements signed by electronic digital signatures of participants in the operation. The funds of the user (the buyer or the seller) can be on the account in the bank of WebMoney system or directly on the user's computer in the "Wallet". The WebMoney system account can only be managed via the Internet using the "Wallet" with which it was opened - the bank itself cannot manage this account. The owner of the "Wallet" is subject to full responsibility for its safety as a means of managing the account and making transactions using

electronic money. Bank interest may accrue on the funds in the account, for example, as deposit accounts [4].

Electronic money directly in the WebMoney system appears at the time of transferring money from the system account to the payment book in the user's Wallet. The use of the blind signature procedure allows the users of the payment system to receive electronic money obligations that cannot be recognized by the bank.

A special procedure allows you to use these liabilities in parts as needed. The client can repeatedly replenish the payment book in the bank and make payments for any amount within the funds on it without worrying about the need for their exchange. Any changes in the status of the payment book are made only at the initiative of the owner and must be confirmed by the bank. Unconfirmed changes by the bank after a certain time or at the initiative of the user are canceled, and the previous amount is restored on the payment book.

It should be noted that any operation in the WebMoney system is necessarily confirmed by electronic digital signatures of its participants. In addition to the electronic money itself, the “Wallet” transfers information on the basis of which one or another operation is performed.

Let us consider in more detail how the participants of the system interact with each other, as well as with the system itself [4]:

1. The buyer transfers the money to the bank of the system, installs the electronic “Wallet” software on his computer and receives digital certificates issued by the bank.

2. The buyer selects the product in the electronic store and sends him the order.

3. The seller’s “wallet” sends the buyer’s “wallet” a payment request containing the contract text signed with an electronic signature.

4. The “purse” of the buyer presents the text of the contract to its owner. If the buyer agrees to pay (with enough money from him), the buyer’s “Wallet” sends electronic money to the seller’s “Wallet” and an agreement signed by the buyer’s digital signature.

5. The bank, having received electronic money from it, conducts their authorization.

6. In case of a positive result of authorization, the bank transfers the corresponding amount of money to the merchant's account in the WebMoney system. This message is transmitted to the seller’s “wallet” along with an electronic check for the buyer.

7. After receiving a response from the bank, Wallet sends the authorization data to the store and a message about the successful transfer of money to the seller’s account. The electronic check from the bank is sent to the “wallet” of the buyer.

When making a purchase transaction using the WebMoney system, together with electronic money, the purchase and sale agreement between the parties to the transaction is also transmitted. In the process of payment, this agreement is automatically signed by electronic digital signatures of the owners of the “Wallets”, who receive and transfer money according to this agreement. Thus, the buyer in the “Wallet” remains a copy of the electronic document confirming the seller’s commodity obligations, with his electronic digital signature.

An analysis of the quality management of the electronic trading platform has been carried out, which shows that all practical tasks that are solved in this case are multicriteria, i.e. to select the optimal alternative by weighing all permissible alternatives, one quality criterion is not enough to get an adequate assessment of their comparison. At the same time, unfortunately, for the problem of multi-criteria comparison of alternatives, there are virtually no effective methods of choice.

Competition, as you know, is a powerful incentive and decisive factor in the development of an innovative economy, innovative entrepreneurship and the “main factor susceptibility of an enterprise to technical innovations,” it stimulates production, etc. The incentive to attract foreign investment in developing countries is trade promotion. Ever since the Great Silk Road and long before it, goods found their markets and their customers, new sales markets were mastered, new countries with their rich culture, traditions, way of life, social and economic system. A good quality product is always attractive to the consumer. Over time, development has reached such a level that now you can purchase goods without leaving your place. Fantastic. Technologies of the 21st century are amazing and surprising. And in our country, electronic commerce is developing, websites and online trading platforms are being created. The ICT sector has become one of the most promising and self-sufficient, both in our country and in the world [1].

Proposed Methodology

The growth in world trade, according to preliminary estimates by experts of the currency fund, increased in 2017 by 4.2% compared to 2.4% a year earlier.

At the same time today, we need to improve our success and gain a foothold in the market of IT-technology. The national electronic trading platform will allow creating a single information and trading space for all its participants with the necessary integration of international payment systems.

This will maximally simplify the search for consumers for manufactured goods, both for the local consumer and for the international one, which causes transparency and accessibility in the choice of products and goods. The use of advanced information technologies, the presentation of national producers will effectively demonstrate and attract potential buyers of domestic products.

Today, e-commerce is developing exponentially in emerging economies. According to expert data http://profi-site.info/e-commerce.html., The turnover of the e-commerce market in 2015 in the world is 1.8 trillion US dollars.

There were also articles with forecasts for 2017, it will be 2.4 trillion US dollars. The subject of e-commerce appears at all international events and venues, such as ASEAN (Association of Southeast Asian Nations), APEC Forum (Asia-Pacific Economic Cooperation), WTO (World Trade Organization) G20, OECD, BRICS, etc.

The growth of world trade according to preliminary estimates by experts of the monetary fund, the volume of trade in the world showed a growth rate in 2017 by 4.2% compared to 2015 from 2.4%.In developed countries in the field of online sales (retail), for several years in a row, the People's Republic of China has been the leader with total revenue for 2017 totaled $ 600 billion. After China, the next country is the United States with an income of 475 billion dollars, Japan is in third place with 105 billion dollars, followed by Great Britain 103 billion dollars, and Germany closes in the fourth place with a sum of 57 billion dollars. Despite the undeniable advantages of the emerging e-commerce markets, the turnover of retail e-commerce is increasing in Asia. According to the forecasts of the European analytical service Statista, "the average annual growth of B2C turnover in the future will be among the leaders (23.7%), slightly ahead of India (23%) and Indonesia (20.7%), the Philippines (18.3%) and China (17.4%). " The most active online audiences are residents of the countries of China and South Korea, where, as a percentage, the share of the population actively purchasing goods and services through online purchases is 83%, only 1 percent more than the UK, then Germany 81%, Indonesia 79%, India and the US each with 77% [2].

A large selection of payment systems divides users according to their preferences, for example, payments made by VISA MASTERCARD credit cards (42%), payment systems mainly PayPal (39%), debit cards (28%), payment on delivery (23%), bank transfers (20 %), promotional codes and gift cards (15%), payment from a mobile account (14%), cryptocurrency (3%). Every day, PayPal is increasingly capturing the market, for example, in 2012, 111.7 million people used, and in 2017 their number exceeded 218 million.

In Armenia, the Ministry of Finance pays special attention to the introduction of online payments and online commerce. The Ministry of Finance has introduced a mechanism for customs accounting of international postal and courier items to simplify the procedure for issuing postal items. The pursued goal is the implementation of door-to-door delivery. Based on the protocol on the organization of the preliminary exchange of information on goods transported between the Republic of Armenia and the Russian Federation, work is underway to introduce an information system for the preliminary exchange of information.

Already in 2007, the Customs Service introduced a mechanism for automating customs procedures, which consists of the following subsystems: filing and processing of electronic documents; accounting and making customs payments online; electronic graduates; risk management; reporting; tariff and non-tariff regulation; local transit.

The Republic of Armenia joined the EAEU in 2015 in connection with this, a procedure was developed for optimizing information systems and introducing new information systems of the customs authorities of the Republic of Armenia, certified by a decision of the Government of the Republic [3].

One of the most important is the stage of introduction of new generation control cash registers. These devices are connected via Internet to the servers of the Tax Service of the Ministry of Finance. In online mode, all transaction data is transferred directly to the Tax Service, which in turn makes it possible to

carry out online monitoring of the taxpayer. In the future, these devices will provide for an inter-agency storage of information about the exact number of goods and services sold.

By the decision of the Government of the Republic of Armenia dated September 19, 2013, the e-commerce development program was approved.

Together with foreign and local experts, the Ministry of Economy has developed a package of draft laws aimed at changing and supplementing the provisions of the Civil Code of the Republic of Armenia, the laws of the Republic of Armenia on Consumer Rights Protection, On the Use of Cash Registers, On Trade and Services and "On electronic document and digital signature".

All this led to an active growth in the share of on-line trade turnover by about 30%, much ahead of the indicators of other CIS countries.

Another relevant and popular direction in promoting e-commerce is the use of mobile access to the Internet to make purchases [4].

According to experts, the market volume by 2018 will amount to 617 billion dollars. US and 448 million users.

It should be noted that 65% of tablet users and 34% of smartphone users make purchases through mobile devices.

In the Russian Federation over the past five years, the online trading market has grown at an average of 42.2 per year.

According to experts, in 2018, online trading will increase by an average of 20.2 per year. If negative trends in the economy intensify, then the growth of online trading indicators will be about 5-7. Already today, the share of online trading in the Russian Federation is 3 of the volume of offline retail trade, it can reach 10 by 2020. This increase is associated with an increase in the number of online - buyers in the regions, the development of international logistics and cross-border trade, the indicators of which in EC at the end of 2014 amounted to 30-35

In Tajikistan, the implementation of a new online trading service contributes to an increase in non-cash payments, reducing the costs of enterprises, in particular small and medium businesses.

In the market of electronic banking there are 1 644 Internet merchants connected to the online banking service.

All this leads to the development of non-cash and online payment systems that is non-essential electronic commerce.

According to a study on the use of Visa cards for online purchases, residents of Tajikistan mainly make online purchases abroad — in Russia, Ukraine, the United Kingdom, Germany, Ireland, Latvia, the Netherlands, the United States, Turkey, France, because so far the Internet There was no commerce on Visa cards in the republic.

To date, I would like to note the positive dynamics of the development of local payment systems, which greatly simplify mutual settlements online and increase the level of integration of information technologies in e-commerce. Over the past year and a half, the volume of online payments in the Republic of Uzbekistan has grown and exceeded 6 billion sums, all this testifies to the development of online business in the country.

It is worth noting that the electronic markets in Uzbekistan are at the beginning of the development path, and this requires a departure from the standard cliché and continue to study foreign experience and learn from their experience as well as refine with local features.

Currently, we see local integration processes of e-commerce in the form of online payment systems, such as PAYME, CLICK, Union Pay and others, which are designed to facilitate the acceptance of payment for services provided by business and the state [].

By addressing many of the issues and challenges posed by the President of the Republic of Uzbekistan, in particular, by Decree of the President of the Republic of Uzbekistan No. PP-3724 "On Measures for Accelerated Development of E-Commerce" of 14.05.2018, which approved a program for the development of e-commerce in Uzbekistan for 2018-2021 and it provides for the creation of a national registry, as well as the integration of the banking system with international payment systems, which in turn represents the basis for the implementation of a national trading platform with integration between payment systems such as merchants of VISA, MASTERCARD, PayPal, SKRIL, 2CHECKOUT, QIWI and Yandex Money and others. Thus, all this will allow to carry out financial calculations in

international currencies without special difficulties when purchasing goods on the national electronic trading platform.

The Government takes a number of actions expressed in regulatory documents, as well as specifically in banking and other areas, which greatly simplifies and accelerates the process of integration and implementation of the system.

b. Algorithm

Today, we are witnessing a progressive increase in production in the Republic of Uzbekistan, such as food, pharmaceutical, auto, construction and so on. Fewer goods need to be imported from abroad, as they are replaced by local production. All this also represents Uzbekistan as a major exporter of its production to the countries of near and far abroad. Unfortunately, the ways of presenting domestic products are not quite diverse, the lack of a single trading platform with the provision of access to domestic products on the international market, difficulties in organizing payment acceptance from around the world by popular payment aggregators. All this contributes to stagnation and deprives significant profits of local producers, which will allow creating a single information and trading space for all its participants via the Internet.

The platform is designed to serve as a marketplace for the presentation of domestic products in the international e-commerce market via Internet access [7].

4. Conclusion

In order to simplify logistics and export of goods produced in the Republic of Uzbekistan, through the online trading platform, logistics of goods delivery will be built on the basis of Uzbek mail. Access to the electronic national trading platform will be available to small and medium-sized businesses, individual entrepreneurs, as well as large manufacturers. Placing manufactured goods through the Unified National Trading Platform, manufacturers will receive competitive advantages in pricing when presenting their goods abroad due to the format of the client-manufacturer.

References:

1.Ибрагимова Ш. Т. О преподавании иностранных языков взрослым //Молодой ученый. – 2017. – №. 1. – С. 454-456.

2.Ibragimova S. Interactive education is a guarantee of education quality //ACADEMICIA: An International Multidisciplinary Research Journal. – 2021. – Т. 11. – №. 6. – С. 52-56.

3.Shahnoza I., Dilafruz S. Communication And Information Technology Is A Way Of Changing Education //2019 International Conference on Information Science and Communications Technologies (ICISCT). – IEEE, 2019. – С. 1-4.

4.Tashpolatovna S. M., Turgunovna I. S. It Related Vocabulary Development and Some Obstacles in Teaching Foreign Language in Technical Universities //Texas Journal of Philology, Culture and History. – 2021. – Т. 1. – С. 1-8.