ENHANCEMENT OF E-COMMERCE WITH INTEGRATION OF POSTAL SERVICES AND E-WALLET SERVICES, ALBANIA CASE STUDY

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Abstract

The purpose of this paper is to provide a general overview of the use of e-commerce in Albania. The article emphasizes the conditions of e-commerce implementation by SME-s, the problems that are faced with the e-commerce solution that has been available in the Albanian market by the IT companies, the lack of integration of e-commerce with other services like online payments used in Albania, shipping of articles with an acceptable cost by companies that operate in the local market and the quality of service that has been introduced to the market. Pre-covid usage of e-commerce in Albania has been moderate. Before covid-19, the businesses that have implemented an e-commerce solution were the ones founded by the young generation. During the pandemic, e-commerce took a significant development. The demand to have e-commerce increased significantly in the market. SMEs saw the implementation of an e-commerce solution as a channel that would help them survive during the pandemic.

In this paper, we are proposing a solution that resolved the problems faced with the e-commerce service in Albania. The most suitable solution that was seen in the provision of e-commerce service is through the Albanian Post. The Albania Post is specialized in banking, financial, and transport services. Institutions like State Posts that offer the above mention services are the institutions that could truly support SME-s by offering the e-commerce solution based on the software as a service architecture, integrated with all the above services. The SME-s receive a complete e-commerce solution with integrated services for shipping and payments with low costs, and the Albanian Post gains fees from the transactions that are generated by the e-commerce platform.

Keywords: *e-commerce, e-wallet, shipping, payments, covid-19*

1. INTRODUCTION

The emergence of e-commerce is a global phenomenon across developing countries. Nevertheless, the expectations in its development have not been completely met, as significant differences still exist between online and offline purchases related to e-commerce[1].

The Word Bank report highlights that the COVID-19 pandemic has further accelerated the use of online shopping. 54 percent of Albanian survey respondents indicate that they have increased their use of online shopping during the crisis (WB-6 average: 62 percent). Out of these, 74 percent believe that they will continue to shop online more frequently once the pandemic is overcome (WB-6 average: 85 percent). Out of those Albanian survey participants that have not yet used e-commerce, 69.3 percent indicate that they expect to try it in the near future (WB-6 average: 68 percent)[2].

Besides the benefits that e-commerce introduced during the covid-19, Albanian companies operated in a market with incomplete e-commerce solutions. Faced with this situation, they were forced to make quick decisions on the selection of the solution that they will adopt in order to start as quick as possible an e-commerce platform, having in mind that their physical shops have been closed based on the regulation posed by covid rules, which resulted in various problems regarding the quality of service provided to the customer, the transportation of items and the payments done for the products purchased online.

Implementing an e-commerce solution based on the above circumstances, introduced a lack of quality of service, offered to the customer, since the implemented e-commerce in most of the cases was not integrated with the companies warehouse systems or companies ERP systems. By not integrating their

system with the e-commerce solutions, they constantly accepted orders even when the products were missing from their warehouse. This caused dissatisfaction among customers as they were later informed by the providers via telephone that the goods they had ordered did not exist.

The second problem is related to the shipping of goods, and the most significant issue is related to the quality of shipping service and the costs of shipping. The cost of shipping for the goods bought in e-commerce had relatively high costs. The local market is eager for a solution that has a low cost of shipment for the goods.

The third problem faced after implementing e-commerce that has been introduced by the IT companies and has short time implementation was related to online payments.

Since credit cards and PayPal have relatively high costs in Albania, the local business was in need to find cheaper alternatives to make online payments for the purchase of products and in the same time integrate those payment methods with their e-commerce solutions. The cash-on-delivery method of payment was the most used method for goods purchased online. The problems with this payment method are as follows:

1. The postman is in charge to receive the payment by forcing them to conduct also a financial process that is more complex than the current functionalities that they normally do.

2. The transport company and the companies offering e-commerce services had many situations of non-reconciliation of the payments between the amount of money that has been collected by the postal service and the amount of money that the e-commerce company expected to receive from the postal service through the cash on delivery process.

3. Transport companies or other companies did not have the relevant IT Infrastructure in place to carry out this financial process with transparency towards their clients and with the required quality.

Based on the above challenges, we are proposing the following solution that resolved the problems faced with the e-commerce service.

After evaluating some solutions offered in the region, the most effective one that had a solution for the current situation was the model followed by the Turkish post. Turkish post in collaboration with IT companies has introduced a service that resolves the above problems.

Based on the above, the most suitable solution was seen in the provision of e-commerce service through the Albanian Post. The Albania Post is specialized in banking, financial, and transport services.

It is the ideal institution to support SME-s by offering the e-commerce solution based on the software as a service architecture. The proposed solution is a win-win situation for the SME-s and Albania Post. The SME-s receive a complete e-commerce solution with integrated services for shipping and payments with low costs, and the Albanian Post gains fees from the services that are generated by the e-commerce platform.

2. PROPOSED BUSINESS SOLUTION AND SYSTEM ARCHITECTURE

The proposed solution has been implemented by the Albanian Post and consists of the following:

Albanian Post developed a platform where businesses could create their own online e-commerce shops. In addition to the e-commerce shops offered to the SME-s, the platform, in addition, offers the payment service through an e-wallet and the shipping service integrated with the Albanian Post shipping services.

The process of cash on delivery was also automated using the e-wallet integration platform and the integration of the payment methods in the Postman application to facilitate the process and reconcile with all the actors participating in the transaction in real-time.

Below is a general description of the solution for each of the problems mentioned in this paper.

In figure 1 we will demonstrate a complete purchase process in the e-commerce platform and all the interaction that is done with the payment and shipping systems of the Albanian Post which also

explain the integration with the warehouse modules. It explains the workflow and the interactions between the e-commerce, payment, shipping, and warehouse systems.

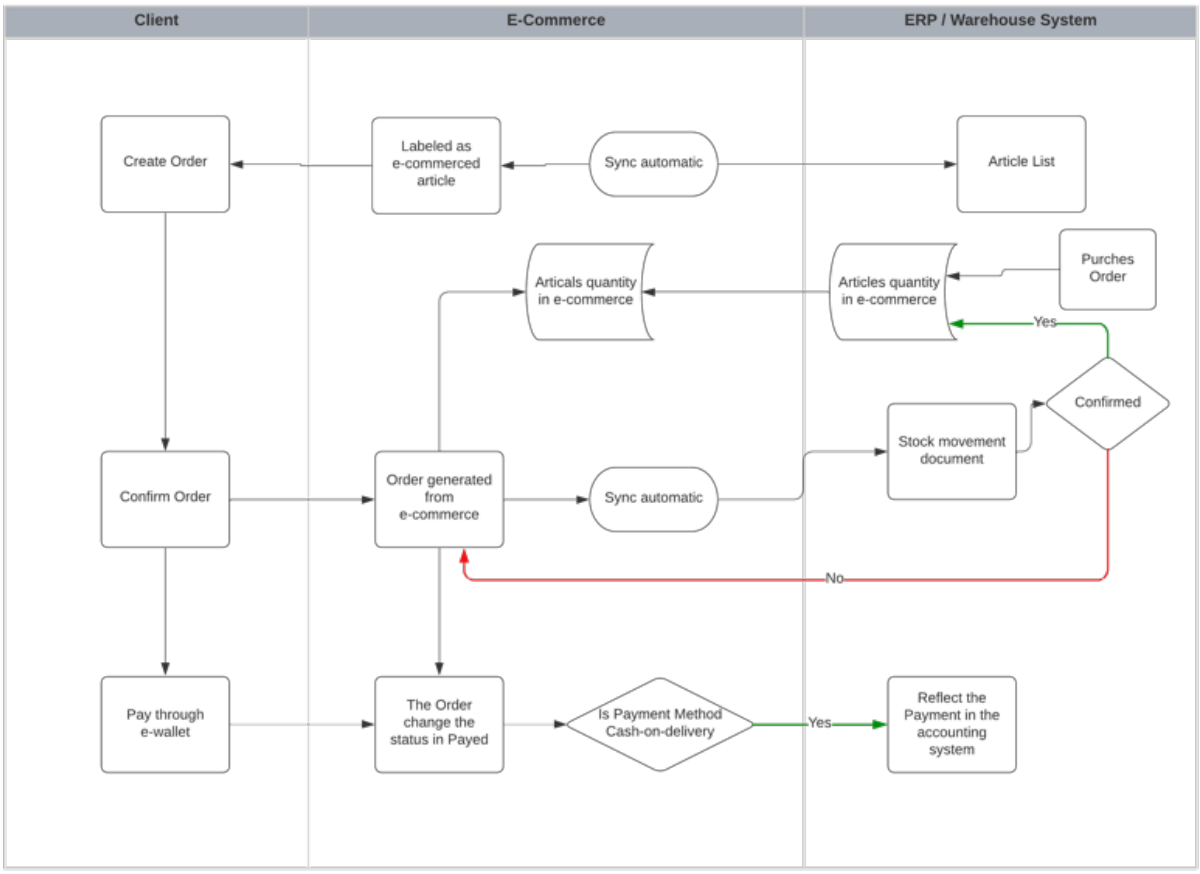


Fig. 1. Integration of the e-commerce with ERP / Warehouse system. Source: Author, March 2021

In this solution, the user can create an article for sale in an e-commerce or ERP system. Based on the interfaces created between the systems, the articles are synchronized between them to have the same articles in both systems.

For example, if we create an article in the warehouse module of the ERP, the article is created automatically even in the e-commerce platform. There is no need for the user to do the creation of the same article in e-commerce. Also, if we register a purchase invoice in the ERP and the quantity of this product is added by 20 units, the same quantity is shown even in the e-commerce module. Based on the interfaces created between the systems, the quantity of articles is the same in both systems. Having the synchronization in place, we do not have the risk that one customer can submit a purchase order and the warehouse be out of stock.

Regarding the problem related to the payment, in the proposed solution a new payment method is introduced. The client has the possibility to pay online by using the e-wallet introduced by Post of Albania

The client logs into the e-commerce system as a regular customer and after they have created a basket with the items, they can choose the payment through the e-wallet method. By clicking on the e-wallet payment option, the client is redirected to the e-wallet platform as displayed in figure 2.

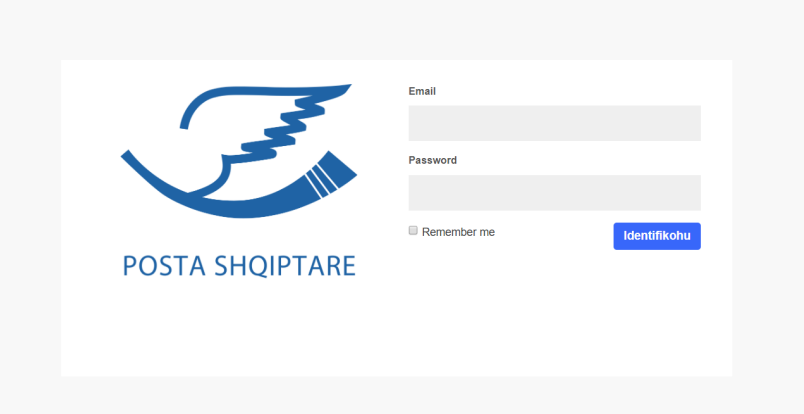


Fig. 2. E-Wallet Log-in screen. Source: Author, March 2021

It is the same logic when you buy something on e-bay and you chose to do the payment through PayPal. After the customer log-in to the e-wallet system, it is displayed automatically the value that has to pay as shown in figure 3

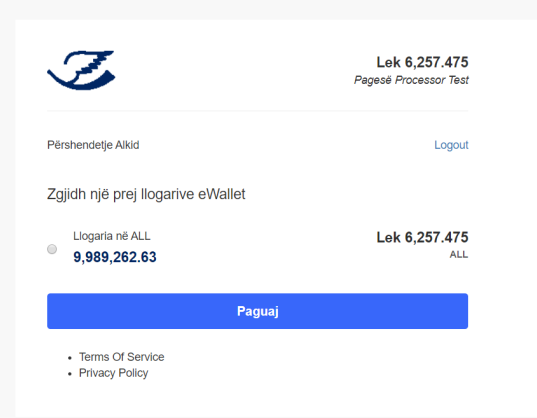


Fig. 3. Payment of the transaction. Source: Author, March 2021

For security reasons, a notification is sent to the mobile of the client, where the e-wallet application is installed. To finalize the payment, the client should authorize the payment from their mobile device. This security measure is done in order to protect the e-wallet of the clients from any unauthorized transaction.

Other benefits of using e-wallet are to send and receive payments anywhere in the world, unlimited transfers, easy recurring payments and transfer, manage accounts from our mobile phone, better security, users are in complete control, email or SMS notifications after transactions, access commissions faster, pull money into e-wallet from any bank account, receive wired funds/transfers directly into e-wallet, transfer money from e-wallet to e-wallet without sharing personal account numbers[3]

E-wallet in Albania could be used even for the payment of the fiscal invoices through mobile applications and by processing the financial transactions in real-time. The business solution, with its respective system architecture design, is concepted by keeping in mind mobility and interoperability[4].

E wallets are loaded with money using debit cards or net banking. One has to select the amount needed in in the wallet and follow the instruction to load money through savings bank account or through credit card[5]. Also the e-wallet in our case can be loaded with cash deposits in Albanian Post offices.

The system integrations and processes are organized in configurable steps through the WorkFlow module that offers improvement in the management of business processes, reduction of the time of manual execution of procedures, as well as the triggering of events, depending on the activities of the clients or automatically by fulfilling the prerequisites. Figure 4 is a visual representation of the scheme built into the workflow module for the purchase process at e-commerce.

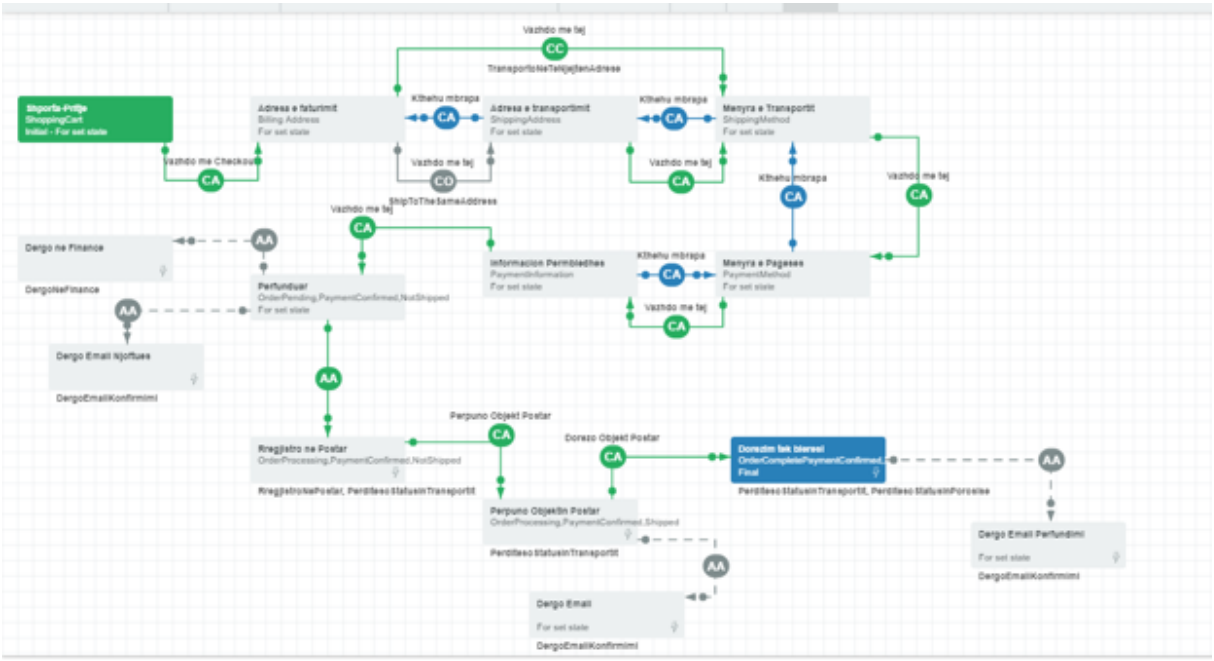


Fig. 4. Workflow. Source: Author, March 2021

In this scheme, every activity that occurs within the systems during the purchase process is defined and starts with the initiation of the purchase by the client, the creation of the order, the transfer of the order data to the Postal Service of the Albanian Post, the registration of the object (postal objects) for this order, and following the entire process of transporting the order to the customer until the delivery of the products. At the same time, transitions or various events that are carried out during this process are also defined in this schema, such as email notifications, or communications between the e-commerce system and the ERP or Postal service systems.

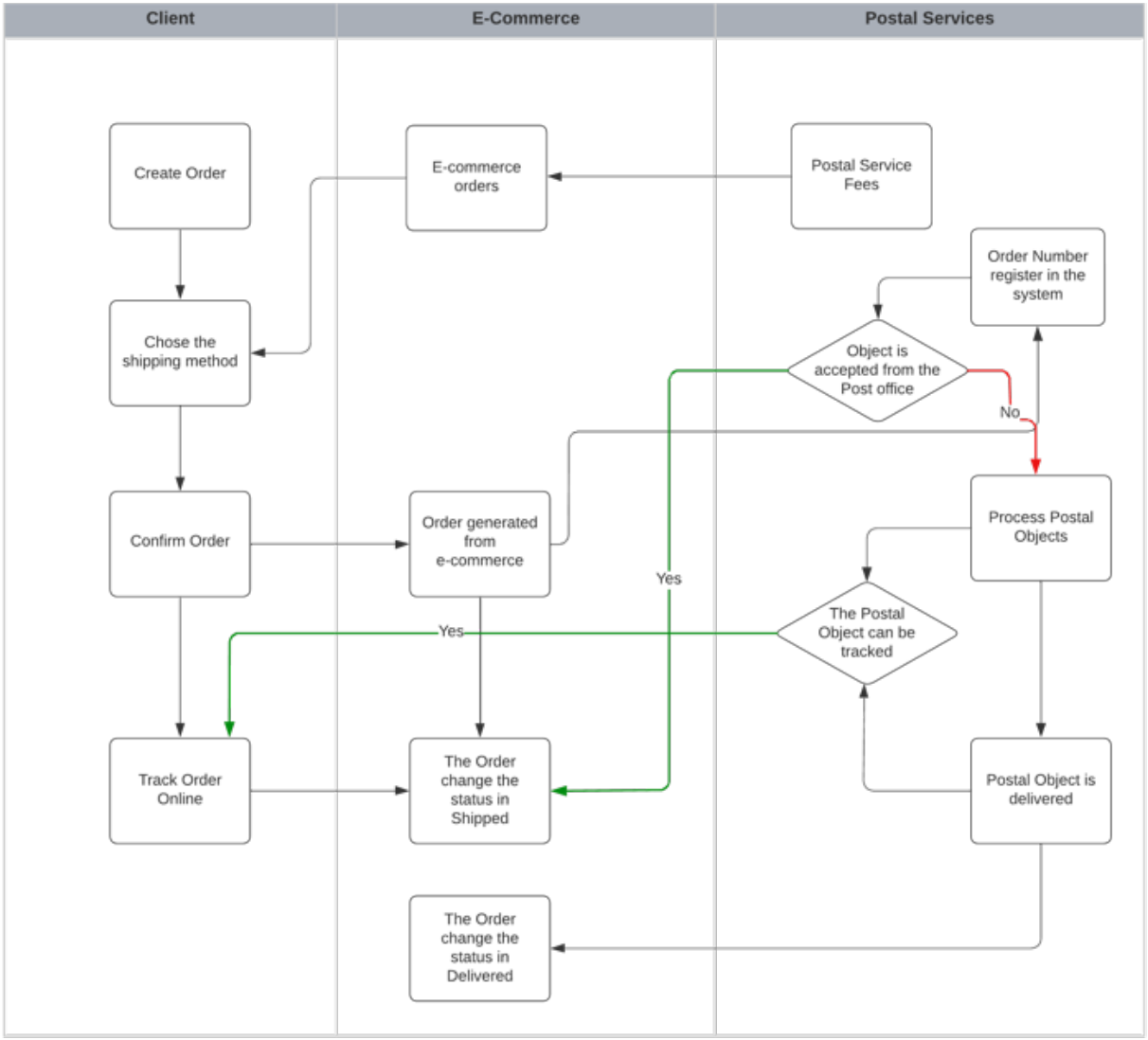


Fig. 5. Integration of e-commerce with Postal Service. Source: Author, March 2021

In the clarification given about the purchase process, it is clear that part of the purchase process implemented in the workflow are the activities that are carried out in the e-wallet payments system, which starts with the registration of the postal object and continues with the processing of this object until the delivery of the postal object is completed.

In the Postal service system, the necessary changes have been made to accommodate the Workflow implemented in the e-commerce system, and every event received by the postal facility in this system automatically changes the status of the order, moving the order to the statuses "not shipped", " shipped" and "delivered to the customer".

Figure 5 explains how e-commerce system interacts with the postal system in several links, mainly related to the tariff plans for the delivery of the products ordered by the clients as well as the processing and follow-up of this order from the moment of receipt to the moment of delivery.

CONCLUSIONS

This article provides a general overview of the usage of e-commerce in Albania. It emphasizes the conditions of e-commerce implementation by SME-s, the problems that are faced with the e-commerce solution that has been available in the Albanian market by the IT companies, the lack of integration of e-commerce with other services like online payments used in Albania, shipping of articles with an acceptable cost by companies that operate in the local market and the quality of service that has been introduced to the market.

The article has proposed a system solution that resolves the above problems by integrating e-commerce with the other services that are offered by Post of Albania, institutions that is specialized in banking services, financial services, and transport services.

It is the ideal institution to support SME-s by offering the e-commerce solution based on the software as a service architecture. The above-proposed solution is a win-win situation for the SME-ss and Albania Post. The SME-s receive a complete e-commerce solution with integrated services for shipping and payments with low costs, and the Albanian Post gains fees from the services that are generated by the e-commerce platform.

When customers perform purchases online, e-commerce businesses should invest in ERP or warehouse systems that synchronize the information between the purchase orders that are performed in the e-commerce and the warehouse or ERP system that manage the quantity of the articles. The example given in this article demonstrates a total integration and total automatization of the processes in order to increase the quality of services offered to the clients.

For solving the online payment problem with low commission, in the proposed solution a new payment method is explained. The client has the possibility to pay online by using the e-wallet introduced by Post of Albania with zero commission.

Transport companies or other companies did not have the relevant IT Infrastructure in place to carry out financial and shipping processes required by the e-commerce with transparency towards their clients. The integration of the e-commerce system with the Albanian Post Postal Services that has been proposed offers high-quality services and at the same time offers low-cost shipment.

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