The Research& Development Based on Service and Intellectual/Knowledge Trading E-Bussiness Model

Xian Wu , Ai-hua Ren

Department of Insurance Hebei Finance University, Baoding, China

Abstract

Traditional e-business focuses on physical products trading, while in offline market, services & intellectual works forms an important part in all commercial fields. By reconstructing the concept of intangible product in e-business context, this paper gives a full description on service & intellectual/knowledge e-business model, and based on the low cost three layered open source J2EE architecture, implements a full functional service trading platform. Currently the System has entered it's beta testing phase, and will be soon entering the released phase.

Keywords: e-business model; intangible product; service trading; intellectual &knowledge product; software architecture

1. Introduction

Traditional e-commerce focused on physical commodities trading, partly covered platform virtual goods category is limited to digital products, information products, game cards, etc., while the purchaser to meet the specific needs of transaction services and intellectual support even less. Since the condensation of services and intellectual equally undifferentiated human labor, has value connotation, belongs merchandise category, and well into the normal line of commodity circulation and, therefore, should enter the field of electronic commerce circulation. Based on the "service is a commodity," "intellectual commodity" awareness, this article reconstructs in e-commerce concept of intangible goods, and proposed three open source B / S structure of e-commerce transaction services and intellectual model, and accordingly services and intellectual-based trading platform, "PW Network", so that services and intellectual as measurable, can participate in online commodities trading commodity circulation.

2. Business Model

Intangible goods e-commerce model can learn from traditional B2B, B2C mode, it can be divided into four categories: the traditional sales model, auction model, bidding and purchasing patterns, the expert / HR mode.

2.1. Traditional sales model

In the traditional sales model, the product providers offer their goods listed and marked price, and then wait for a potential deal, the same as a traditional market. However, the traditional "physical commodity" trading is different, intangible goods successful completion of the transaction will take some time, and only in the buyer confirm their satisfaction with goods purchased, the transac-

tion is completed. Transaction process is as follows:

Seller: Any certified sellers are available through e-commerce platform to release goods (services or intellectually, such as experience or skills, technology, labor, wisdom, resources) while giving commodity price, thus forming an online service with the Chilean knowledge supermarket buyers according to their specific needs. Choose the actual product. Sellers to sell their goods, can be sold separately, can also be bundled for sale.

Buyer: Any one registered buyers can browse and search through e-commerce platform for commodities, commodities they need ordering, payment to a third party after the goods needed to be confirmed, third party payments to the seller, the transaction is completed. Buyers enough to buy goods, a commodity can be purchased separately, or you can buy a range of associated packaged merchandise. The process is shown in Figure 1.
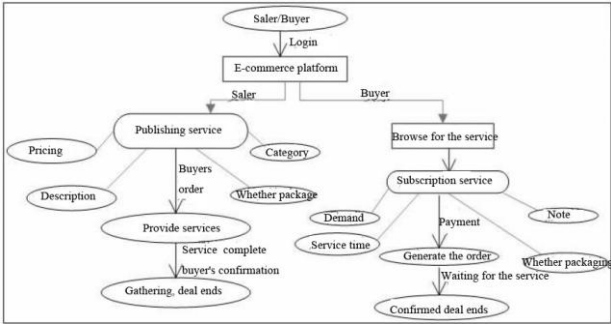

Fig. 1: Traditional sales model flow chart of the seller

Trading Platform: Buy mutual transactions in the process of e-commerce platform as a service supermarket, offering both sides trading venue.

2.2. Auction Mode

Sellers can through e-commerce platform to auction model to sell their services or intellectual, specifically, the seller can give their own services or intellectual set a reserve price, within the stipulated deadline, which is the highest bid

buyers and sellers transactions for the buyer to the auction process, the trading platform will adopt a series of security mechanisms to constrain the parties to ensure the smooth progress of the auction. The auction process shown in Figure 2.

2.3. Bidding mode

When a buyer is not found on the e-commerce platform, the goods they need, or are not satisfied with the existing product, you can post your own bidding and purchasing patterns of demand, thus to meet the needs of purchase satisfaction with the goods. The process is shown in Figure 3.

2.4. Expert / HR mode

Compared with the traditional mode, which first of all for the people, then the service, the equivalent of social employment market, headhunters, meet certain conditions, the seller can enter e-commerce platform of talent, the seller (such as lawyers, psychologists, etc.) through this business platform for special groups of buyers to provide timely services, such as online expert advisory system, is to use this mode. The process is shown in Figure 4.
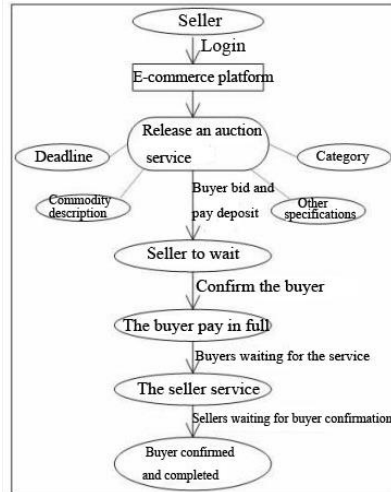

Fig. 2: The auction model flow chart of the seller
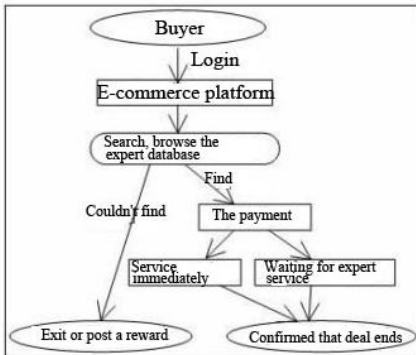
Fig.3. The flow chart of public bidding mode

Fig.4. Experts/human resources model flow chart

3. Technical Architecture

During architecture design, refer to the following design ideas:

(1) View and the operational phase separation ideas.

(2) Application Architecture and design patterns.

(3) The idea of separation of platform and database.

Based on the above reference to the idea of the project platform uses three B / S architecture: presentation layer, business layer, physical layer. Three-tier architecture of the biggest advantages is the user interface, application logic and data management separately, so the system can cope with various transformations flexible and convenient application developed and maintained so that programmers can focus on developing business in the middle layer logic without considering compatibility with the client, and the back-end database system data structure changes or changes will not affect the client.

In this three-tier architecture, each layer requires developers to consider its design and implementation techniques. Using a special deal with such issues specific framework for the development, is a viable solution. Now there are many frames available for use, to select the appropriate system, to achieve the best performance of the framework is an important decision. Good framework generally targeted deal with a class of problems for e-commerce transaction platform, respectively, using the following framework: presentation layer using STRUTS framework, business logic using SPRING framework, persistence layer using HIBERNATE framework. Its frame shown in Figure 5.
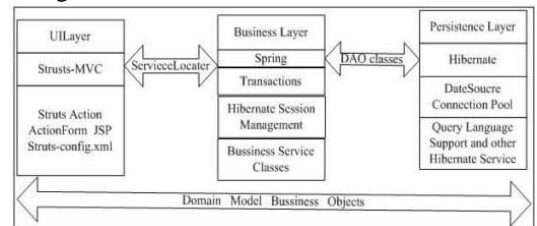

Fig.5. The overview of frame construction by Struts, Spring and Hibernate

4. Key Mechanisms

In order to ensure that the e-commerce platform for buyers and sellers through a smooth transaction, such as the e-commerce model uses a real-name authentication, a series of complaints and arbitration mechanisms to right to buy

Sellers constrain the specific mechanism as described below.

4.1. Real-name authentication mechanism

Buyers and sellers all require real-name authentication, special industry also need to be healthy verify the authenticity of the transaction between the parties warranty, reliability and security, in order to establish credibility, high -quality service trading community. No certified resulting from transactions between buyers and sellers of a dispute, the e-commerce platform is not liable.

4.2. Complaint arbitration mechanism

Both parties in the transaction process is a dispute, either party may file a complaint, in this process, e-commerce platforms play a regulating role of parties to the transaction through a full refund, discounts and other ways to make a series of buyers and sellers to reach a consensus. If the complaint mechanism can not reach an agreement that both parties can apply for arbitration to resolve disputes in the process of e-commerce transaction problem.

If after the appointed time of the transaction or the transaction is completed within three days, the e-commerce platform has not received complaints from buyers or sellers, will pay the seller turnover completion of the transaction.

4.3. Security mechanism

In the payment process, using the method of payment through a third party, and fully guarantee the safety of transactions in the same time, buyers and sellers play a role in binding.

5. Conclusion

Based on e-commerce transaction services and intellectual model, on the basis of traditional business models, expanding the scope of e-commerce transactions of products, so that the intangible products (services, intellectual) to participate in the network business platform circulation. Based on this model, the use of three open source B / S architecture, the integrated use of J2EE, MD5, Ajax, databases (transactions, views, triggers, etc.) and other technologies, the successful development of e-commerce transaction platform, PW net. Currently the platform has entered the testing phase and will soon be released into the operational phase.

6. References

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