

E-buhonero: A Proposal to Alleviate the Problem of People Selling Goods on the Venezuelan Streets

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ABSTRACT

Buhonero is a Spanish word which refers to a person who sells goods on the streets (i.e. a peddler). In the last years, the number of peddlers has increased in Venezuela causing problems such as traffic jams, frequently assaults and robberies and a lot of garbage leaving on the streets close to peddler stands. In the last months, local governments are trying to solve the problem by prohibiting them to be on some public places. On the other hand, e-commerce provides an option to people sell goods on line. In Venezuela, there are more than a hundred of public communication centers and many others which are private. This situation provides an acceptable scenario to intend to alleviate the problem of people selling goods on Venezuelan streets by developing an e-commerce-based solution, called *e-buhonero*. This paper describes e-buhonero together with the design issues and presents an initial web-based interface.

Categories and Subject Descriptors

J.4 Social and Behavioral Sciences: Economics

General Terms

Design, Economics.

Keywords

E-commerce, peddler, value chain framework of Michael Porter.

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LANC'07, 10-11 October 2007, San José, Costa Rica
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1. INTRODUCTION

Buhonero is a Spanish word which refers to a person who sells goods on the streets (i.e. a peddler). In Venezuela, through the years, more and more peddlers have appropriated of public places to install their stands. So, the number of peddlers has constantly increased in the last years because of the high unemployment rates and the deteriorated economical situation. According to the Center for Divulagation of the Economic Knowledge, there are around 300,000 peddlers only in the capital city, Caracas [7]. This situation has some severe consequents for Venezuelan citizens and in particular for those who live in big cities where there are more peddlers. The main consequents are frequent traffic jams on the streets close to the peddler's stands. Increasing number of assaults and robberies occurs around these places. Peddlers usually generate a lot of garbage which is leaving on the streets.

In the last months, local governments have tried to solve the problem by prohibiting these peoples to be on some public places under promising of located them in small malls. However, this is not an easy problem to solve since there are many peddlers and not places around the areas where they used to be where to build the necessary malls. So far, many peddlers don't have places where to sell goods.

The Internet business model can be used into very wide range of traditional business activities; one of them is the retail business by people on the street. This model is very popular in countries where the rate of unemployment is very high. So, this paper presents a proposal based on e-commerce, called *e-buhonero*, whose main goal is to try of defining a framework to replace the market in the street by a market over Internet with low cost and using free technology. Government could be the main provider and facilitate the use of Internet to peddlers. We also review the options to implement such solution and the advantages and disadvantages of these options and present the initial customer interface.

The chain value of e-buhonero has to be implemented trying to simplify the activities in the Internet, but has to be powerful enough to take advantages from this environment. A potential issue is the level of acknowledgment of the people inside the e-buhonero, because their educations level in some cases could be very poor. Due to this reason, the implementation must be very easy and quick to learn and understand.

This paper is organized as follows. Section 2 reviews some concepts and definitions related to e-commerce and explains briefly the Value Chain of Michael Porter used to describe the design issues of the e-buhonero solution. Section 3 presents the e-buhonero framework. Then, the e-buhonero design issues are described in Section 4. In Section 5, we present the initial e-buhonero customer interface. Finally, Section 6 concludes this paper.

2. ELECTRONIC COMMERCE & VALUE CHAIN FRAMEWORK OF MICHAEL PORTER

Electronic commerce is a term that evolves very quickly according with the technology because the technology doesn't operate in lineal time; the world of the technology compresses the time. On the other hand, the customers, in the living of their homes, want to make their purchases and to enjoy their products immediately, with delay just right now.

The meaning of the term "electronic commerce" has changed over the last 30 years. Originally, "electronic commerce" meant the facilitation of commercial transactions electronically, usually using technology like TV, Telephone and Mail. In a few words, "electronic" refers to any technology/systems and "Commerce" is any traditional business model. Nowadays, with the growth and acceptance of systems of payment like a credit card or debit card (in essential, a small card that mean plastic money), automated teller machine (ATM) and telephone banking, electronic commerce has infinite ways to be implemented.

In the dot-com era, electronic commerce has a new image, the purchases of goods and services are made over the World Wide Web. People and enterprises can navigate on the Internet searching any store and then buying goods and services by a simple click. Electronic Commerce is the complete set of processes that support commercial/business activities on Internet.

With this technology, the traditional model of business is improved and many activities of the value chain created by M.E. Porter in his book, Competitive Advantage [5], could be automated and the effectiveness would be greater.

The value chain, according to M.E. Porter, is a systematic approach to examining the development of competitive advantage. The chain consists of a set of activities that create and build value (see Figure 1). They culminate in the total value delivered by an organization. The organization is split into 'primary activities' and 'support activities', and the goal of these activities is to offer the customer a level of value that exceeds the cost of the activities, thereby resulting in a profit margin.

The primary value chain activities are:

1. **Inbound logistic:** The receiving and warehousing of raw materials and their distribution to manufacturing as they are required.
2. **Operations:** the processes of transforming inputs into finished products and services.
3. **Outbound Logistics:** the warehousing and distribution of finished goods.
4. **Marketing & Sales:** the identification of customer needs and the generations of sales.
5. **Service:** the support of customers after the products and services are sold to them.

These primary activities are supported by:

1. **The infrastructure of the firm:** organizational structure, control systems, company culture, etc.
2. **Human resource management:** employee recruiting, hiring, training, development and compensation.
3. **Technology development:** technologies to support value-creating activities.
4. **Procurement:** purchasing inputs such as materials, supplies and equipment.

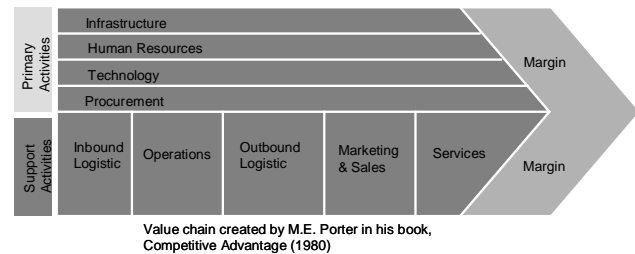


Figure 1: Value Chain Framework of Michael Porter.

The margin or profit depends on its effectiveness in performing these activities efficiently, so that the amount that the customer is willing to pay for the products exceeds the cost of activities in the value chain.

3. E-BUHONERO FRAMEWORK

E-buhonero must be a set of information system with simple relationships, but at the same time, it must be sufficiently strong to support the chain value with profit margin according with this kind of business (see Figure 2).

The e-buhonero would be a virtual mall developed with free software that simulates a street market but without their issues. Any people can be enrolled with a minimum cost because only the basic requirements will be satisfied. This kind of business does not need specialized software with complex functionality, but simple interface that handles retail sales.

The supply chain software has to manage an inventory control systems to know how many goods have been buying to the providers and how many goods have been selling to the customers. A simple piece of paper that is used by the peddler is replaced by a simple software tool. This information system has be the easiest way to implement a complex philosophy of ERP.

The peddler must be able to know when the threshold of their inventory is dangerously low. E-buhonero is not exempt from good business planning and the fundamental laws of supply and demand.

Providing an easy and secure way for customers to effect transactions is very important. E-buhonero is oriented to people with low income, without mattering who makes the sale or the purchase. Most merchants today process credit card transactions on site through arrangement made with commercial bank or credit card companies, but in e-buhonero this statement is not necessarily true because many customers don't have credit cards, they made their transactions with real money or ticket that represent money according to governmental laws. Government has regulated some benefits to cover the basis needs of employees and citizen, enabling businesses and public institutions to meet their social responsibility. Recently this ticket money has been migrated to electronic card with the same functionality, so this card could be the money in e-buhonero. The other way of payment also can be used.

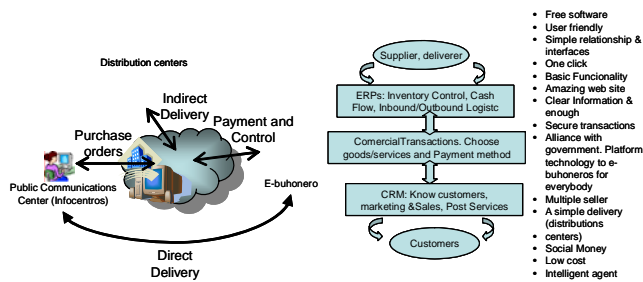


Figure 2: E-buhonero framework.

Technology plays an important role because e-buhonero has to simulate the way how the people made transactions on the flea market. Almost always people bargain the ending price and use real money or social ticket. In the web-site, this way to make a deal has to be simulated with intelligent agents able to negotiate the price with the same seller or different seller.

The outbound logistic is a major issue due to this business is about cheap goods, so the delivery could be more expensive that the good. A simple solution would be having different distribution centers and customers would choose that center closer to their home or work.

The customer relationship management has to be oriented to customer with low income and provides low prices; e-buhonero must know the main needs of its customers and offer goods and services in agreement with them.

The government has to be the main provider of low technology and offer an e-mall with the functionalities described above to become an e-buhonero.

4. DESIGN ISSUES

In this section, we describe the main e-buhonero system design issues. They are described using the Value Chain Framework of Michael Porter (see Section 2) which includes the following primary activities: Inbound Logistics, Operations, Outbound Logistics, Marketing and Sales and Service.

4.1 Inbound Logistics

4.1.1 Store

Currently, a peddler stores goods in places such as car parks, on the streets under the surveillance of a person or in his house. We propose the following options to store vendors' merchandise. Government may allocate one or more buildings to store the merchandise of the peddlers (i.e. *an authorized place*). So, peddlers may have a safe place where to store their goods, probably by free. The main disadvantage is that the government may not want to build or give some places to peddlers to store goods. The other option is to use *traditional storing*. A peddler may choose to store his merchandise as he has usually done (on the streets, at home, etc). The problems of this option are related to the security of the goods and the cost of renting a place.

4.1.2 Inventory Control

Peddlers utilize a rudimentary but simple inventory control system which consists in using a notebook where they register the incoming and outgoing merchandise. The e-buhonero system may provide an electronic inventory control which can be accessed via the Web application, which facilitates the register and control of their products.

4.1.3 Receiving and Transportation Scheduling

At this time, a peddler buys the merchandise and transports it using public transportation or own vehicle. Given the variety of goods which can be sold via e-buhonero, we propose that each peddler handles the receiving and transportation of its products in the traditional way.

4.2 Operations

Peddlers may handle the merchandise before selling it. These activities may include to classify, to assembly, packing or to test the products. For example, you may imagine a person who sells computers on the street. He has to assembly the computer and to test it to see if it works properly before the product is put on sell. Under the e-buhonero platform, peddlers will still be responsible for those activities. However, e-buhonero system may provide a module to facilitate or to support some of those actions.

4.3 Outbound Logistics

As mentioned before, peddlers sell products on the streets in small stands. We propose several options to peddlers get products to the customers. First, the seller and the customer agree a place where to delivery the product (*delivery in an agreed place*). Given, the high rates of robberies and assaults in Venezuela, customers may be afraid to choose this option. However, some Venezuelan e-commerce sites, such as Mercado Libre [4], use this product delivery option. Second, the product may be delivered to the customers in the customer's house, office or some other place chosen by the purchaser (*home delivery*). Finally, a product may be delivered to customer at an authorized e-buhonero shop (*delivery in an authorized e-buhonero place*).

4.4 Marketing and Sales

4.4.1 Advertising and Promotion

Currently, some peddlers advertise their products using signs or using loud hailers. E-buhonero may provide the following marketing and sale options. E-buhonero may be promoted on any communication media (radio, TV, newspaper). Also, e-buhonero vendors can advertise their e-shops on e-buhonero web site or on any communication media.

4.4.2 Selling and Payment

Peddlers sell their products on the street and usually the payment option is by cash. Being e-buhonero an e-commerce system, vendors may sell goods on the Internet. We also propose the following selling options. Buyers may want to get better prices for the goods they want. Buyers usually bargains with peddlers. So, we propose to implement a mechanism to allow electronic bargaining, for example by using a chat tool or email (*bargaining*). Also, peddlers sell some of the stock at reduced prices in occasions such as before the Christmas day or last day of the year. On the E-buhonero web site, stock clearances may be advertised on the “stock clearance” section or the clearance merchandise may be marked as stock clearance as in other E-commerce sites (for example see [1]).

In addition, the following payment options may be easily available on e-buhonero web-system: credit card, pay pal and bank transfer. However, a buyer may also want to pay by cash once the merchandise is delivered in an e-buhonero shop or at any other agreed place.

4.5 Service

Peddlers don't provide or hardly provide any customer service at this time. For example, you may imagine a purchaser who bought a t-shirt to a peddler and once he is at home, he noted it is ripped. He may pray to find the peddler's stand next day and that the seller wants to replace the t-shirt. E-buhonero may provide a customer service which manages the above and similar situations.

4.5.1 Trust

Currently, vendor (peddler) trustworthiness is assessed by means of body language and other traditional environment cues. Trust has different definition in the sociology and social psychology literature. From the e-commerce perspective, trust may be defined as the online consumers' beliefs and expectancies about the trust-related characteristics of the online vendor [3]. The online consumers expect the online vendor to be honest in transactions and not divulgate personal information to anybody and to deliver the ordered goods as promise.

Recently, there have been a number of research publications on the role of trust in the specific context of e-commerce [2][6]. Lumsden et al. [2] have identified a set of trust triggers - that is, website elements that serve as circumstantial cues for consumers during their assessment of vendor trustworthiness [2]. They may be incorporated in the e-buhonero web-site design.

5. INITIAL E-BUHONERO INTERFACE

We have initiated the development of e-buhonero. An initial interface will look as shown in Figure 3. E-buhonero is a

business-to-consumer system, so consumers may use the interface shown on the figure to buy goods. As shown in the figure, e-buhonero web site supports several e-shops (Tiendas). Each e-shop may be assigned to a peddler. Also, goods are classified according to categories (Categorías). As mentioned in Section 4.4.1, some products may be advertised on the web site (e.g see Promoción del día de la madres). Following the mentioned design issues, we have incorporated to the web site a complaint section (Reclamos). Also, a customer may see his shopping list (Mis Compras) and a vendor may see his ordered products (Mis Ventas).

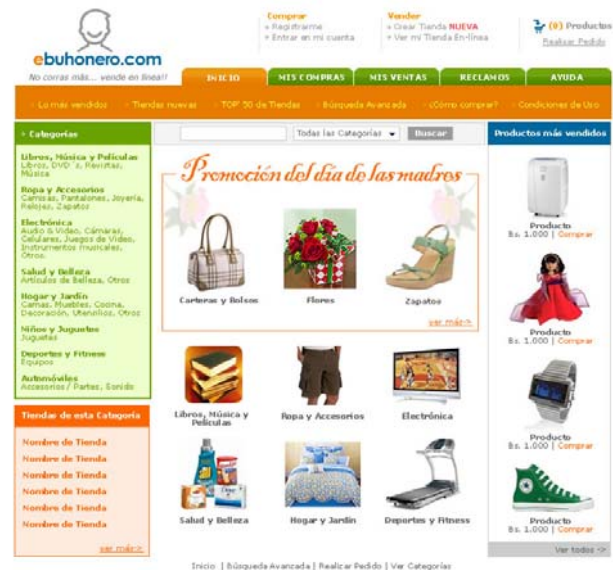


Figure 3: E-buhonero Customer Interface.

6. CONCLUSIONS

Along this paper, we have described a social e-commerce-based solution, e-buhonero, to alleviate the problem of the hundreds of Venezuelan peddlers. We present a framework which includes not only the web site components of the platform but also some other components such as the e-buhonero shops which will support the business activities. Then we describe the e-buhonero design issues with the help of the Value Chain Framework of Michael Porter, which is usually used to analyze the activities through which a firm can create value and competitive advantage. Based on some of these issues, we present an initial customer interface.

The major contribution of this paper is to have identified the activities involved in the e-buhonero business which will help to future developing of the solution. We also have applied successfully the Value Chain Framework of Porter to analyze the requirements of a social business model. Future works include developing the e-buhonero solution and to present the proposal to some local governments.

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