

Online business marketing for SMMEs in low-resource communities: A step by step process for setting up an online interactive environment.

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Abstract

The rise of entrepreneurship has led to the development of small businesses. These developments have also been witnessed in low resource areas. As a result, the continuous increase of small business creates stiff competition among businesses. Some entrepreneurs have opted to utilise ICTs to improve their businesses. The use of ICTs has enabled the application of e-business services such as e-commerce, e-marketing and online negotiation. In this paper we used the rural entrepreneurs as the case study. The main challenge that these entrepreneurs face is to reach the customers and sell widely. An online business platform is developed to satisfy the needs of the entrepreneurs. The proposed application offers the following functionalities: shop owners to upload products online, customers to get points for buying online and to negotiate by making offers online. The paper presents a step by step process of setting up an online platform. The paper educates the existing and emerging entrepreneurs on the online marketing technical process and functionalities.

1. Introduction

Small, Medium and Micro Enterprises (SMMEs) have increased in rural communities and thus enabled rural entrepreneurship. As of 1998, Terry Neese in LI Business News found that, about 20 percent of small businesses globally (defined as those having fewer than 500 employees) were located in rural areas (Answers.com, 2009). SMMEs have enabled the sustainability of ICTs in rural areas and the percentage growth has been increasing. As a result, e-Commerce applications are being developed to allow the growth of SMMEs and ICTs in rural communities (Jere et al., 2009; Wertlen, 2007). The growth of e-Commerce in rural communities has led to the development of different ways of selling products. These selling methods have enhanced e-Marketing applications in rural communities. SMMEs are now using innovative ways such as selling online and offering rewards and incentives to customers buying online (Miller, 2008). These marketing strategies have improved the services and products of rural entrepreneurs. Therefore, continuous support of ICTs in rural areas enables the sustainability and expansion of rural businesses. The communities where ICT and e-Commerce projects are implemented need to be fully equipped with skills and resources (Jere *et al.*, 2009). This paper gives the technical requirements of setting up a business online environment.

2. Problem statement

Rural entrepreneurs face problems when selling products on the world market due to a shortage of resources, skills and innovative ideas to expand their markets (Jere *et al.*, 2009; Kimball, 2006; Palmer *et al.*, 2002). The majority of rural people are poor, without enough capital and resources to effectively

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market their products (Dalvit *et al.*, 2007; Palmer *et al.*, 2002). Furthermore, technological illiteracy is another problem. This means that there is no support or maintenance readily available for ICTs. For example, only 2.3% of rural households in South Africa own or have access to a computer, and only 5.4% own or have access to a landline (Herselman, 2003). These figures could have improved to date, but there is still high technological illiteracy among rural entrepreneurs. Rural entrepreneurs are also not sure on whether to invest in ICTs for online business activities. The problems above generally affect most of the rural entrepreneurs. In this paper we have considered these problems and provide the requirements and some of the main features of an online environment. This could assist rural entrepreneurs in understanding what to expect when doing online business.

2.1. Research approach

The case study approach was used. This involved engaging rural entrepreneurs. A prototype of the application was developed. Systems demonstrations and interviews were done in the community. Inputs from the rural entrepreneurs were used to develop and share on the possible features of the online business application. We based the application on rural entrepreneurs who make art and craft products. Of course, the application is flexible to accommodate any other products available for uploading.

3. Overview of ICTs and SMMEs

ICTs assist the growth of Small, Medium and Micro Enterprises (SMMEs) in marginalized areas. ICTs enhance business transactions and, thus, improve e-Commerce platforms in marginalized areas. This chapter describes the ICT projects and e-Commerce platforms developed to explore rural development. It explains the relationship between ICTs and e-Commerce platforms. In addition to this, the chapter highlights the problems affecting rural areas when implementing ICTs and e-Commerce projects. However, several solutions are in place to ensure ICT sustainability in marginalized areas. Some of these solutions are covered in this chapter. The chapter focuses on giving some tangible highlights of ICT projects implemented in marginalized areas.

In a developmental context, older communication technologies such as newspapers, radio and TV offer considerable unrealized potential. The new technologies such as mobile phones and the Internet also have great potential to support the achievement of major development goals (Curtain, 2003; Sirigiridi, 2009).

People in rural areas need to be equipped with the knowledge of new ICTs and technologies. Aitkin (2002) says that, "Women are often the primary drivers of ICT development in their communities and in many cases make up the majority of the sellers of ICT services". It is therefore, critical to ensure that women have full opportunity to gain equal access to ICTs, to learn how to use them effectively, and to share in the social and economic rewards ICTs can generate (Aitkin, 2002). Thus, ICTs can be seen as catalysts in rural development as ICT projects enable the rapid development of rural areas. It is generally accepted that rural development is a multidimensional concept aimed at achieving the following (COFISA, 2008):

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- Poverty alleviation in rural areas;
- Developing local economies in rural areas;
- Achieving basic standards of health, safety and other developmental infrastructure and services in rural areas;

In order to achieve rural development, ICTs have been deployed in these areas. The use of ICTs in significantly enhancing and supporting rural development is highlighted by the emerging importance of information and knowledge as key strategic resources for social and economic development (Pade, 2007). ICTs have continuously grown to enable e-Commerce projects in rural areas. The implementation of ICTs in developing countries requires a lot of resources. “The International Finance Corporation (IFC), a World Bank Institution has mobilized US\$5 billion in private capital over the past ten years in 100 different ICT related projects in developing countries” (Curtain, 2003). Thus, ICTs need commitment and support from different companies and organizations. ICT projects require many resources, from labour to capital and finance. ICTs have been widely deployed in developmental programs and this has led to the creation of a new field – ICT for Development (Wertlen, 2007).

3.1 Selling in marginalized areas

Technological changes and rapid developments in e-Commerce solutions have led to the invention of new methods of selling products (Campanelli, 2001). A lot of methods and techniques are in place for selling products online. SMMEs are coming up with a variety of ways to market and sell products online. Some of the methods are going to be discussed in this section and these cover the most widely used methods in marginalized areas. Some of the marketing techniques and methods commonly used are advertising through the radio, television and the printed media. Posters, online presentations and other traditional methods can also be used to sell or exchange goods and products.

The Internet is seen as the fastest and most efficient way of doing online shopping. It is noteworthy that, “the Internet has successfully generated an ever-expanding cohort of users for all its different functions, including information gathering, communications and transactions” (Shiu *et al.*, 2004). In order to maximize online sales, several strategies have to be implemented. Some of these strategies include, identifying best customers, dividing and reward, and staying up to speed (Krotz, 2003).

To be able to utilize these strategies, there is a need to effectively communicate with the customers. Some of the strategies to communicate with customers are to:

- Send personalized thank-you notes to customers,
- Send reminders to customers,
- Send e-mail offers,
- Send holiday or personal offers,
- Offer steep discounts at off-peak times.

These steps are important for the success of on-line shopping portals deployed in marginalized areas of South Africa. These enable direct communication with customers and create good relationships with

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customers. Constant communication with the customers increases sales and the reputation of rural entrepreneurs as it keeps customers close to the business (Jere *et al.*, 2009).

On-line shopping is reported to be rapidly growing and providing discounts, rewards and good customer care are key factors (Centeghe, 2006; Hakala, 2008). This indicates that shopping online continues to gain more popularity almost every day in all continents including Africa. As indicated by Dandjinou (2000) who says that “while Internet access is now widespread in Africa. Dandjinou (2000) claims that “all countries except Somalia and Eritrea are connected, the number of African Internet users is somewhere between 1.5 to 2 million out of a continental population of 750 million, and most of these (at least 1.5million) are residents in South Africa”.

This certainly means that in South Africa the growth of the Internet is fast, hence the reason why it is available in many rural areas. Knight (2008) says, “The Internet is responsible for changing the way most people do business now”. Having Internet accessibility in rural areas enables the implementation of e-Commerce projects. In trying to offer the best online selling services, Artificial Intelligence applications and expert systems have been developed. Artificial Intelligence (AI) is the area of computer science focusing on creating machines that can engage in behaviors that humans consider intelligent (Simon, 1997). Researchers are creating systems, which can mimic human thought, understand speech, beat the best human Chess player, and countless other feats never before possible (Simon, 1997).

3.2 Challenges affecting e-Commerce platforms

According to Van Aardt *et al* (2008), 23.7% of new businesses in South Africa are dissolved after about two years of establishment, while 51,7% are dissolved after 4 years. The development of e-Commerce projects has created a lot of competition for businesses to sell products (Schneider, 2002). The pressure is greater for businesses in rural areas. The problem is that the majority of the population in rural areas lacks adequate knowledge to fully support their systems (Van Aardt *et al.*, 2008). SMMEs still face problems in marketing their products on the global market. Doing business online is not enough for SMMEs to penetrate global markets hence, there is a need to discover new selling strategies.

According to Khosla (2008), “SMMEs cannot do conventional marketing because of the limitations of resources”. The infrastructure in rural areas is very poor and as a result, communication in these areas is very difficult. Network problems and inaccessibility of Internet in rural areas is part of the problem (Dalvit *et al*, 2007; Palmer *et al.*, 2002). Most of the businesses in rural areas are too small and lack enough capital to offer rewards to improve customer loyalty (Jere *et al.*, 2009). These areas rely on donations and funding, so may find it difficult to have extra products to offer as rewards (Palmer *et al.*, 2002).

Internet infrastructure alone has proven to be inadequate to sustain rural communities. The effective use of infrastructure is essential to creating a meaningful info-structure built on concrete content and effective collaborative practices. “Social engineering strategies engaging citizens in ongoing self-directed online learning are needed to enable rural citizens to determine their own destinies and together build a sustainable future” (Odasz, 2004).

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Many of South Africa's rural areas are still poor and lack the basic requirements because they have no access to basic infrastructure essential for economic growth and development (Wertlen, 2007). The majority of rural people are poor people without enough capital and resources to fully and effectively market their products (Dalvit *et al.*, 2007; Palmer *et al.*, 2002). SMMEs face problems when selling products to the entire world due to the shortage of resources, skills and innovative ideas to expand markets (Kimball, 2006). This is because of high levels of illiteracy in these areas leading to ICT project failure.

Again, sustainability is another problem in rural areas. The main challenges with regard to maintaining the sustainability of e-Commerce platforms are:

- High implementation costs.
- Limited usage – not enough to sustain
- Need to encourage private sector participation
- Need for effective management
- Need for strong community support
- Need for ICT training – wide coverage
- Technology moves fast

The section below provides solutions to improve online business.

3.3 e-Marketing in Marginalized Areas

The growth of e-Commerce in rural communities has led to development of many ways of selling products. e-Marketing is increasing and is slowly becoming a popular strategy. Highposition.net defines Internet marketing, also referred to as online marketing, e-Marketing and web marketing, as essentially the practice of communicating products and services to consumers over the Internet. "SMEs need to search for alternative marketing approaches such as personal contact networks, social networks, e-Commerce tools, Business to Business (B2B) portals, business networks and industry and marketing networks", (Bikky, 2008).

Therefore, SMMEs in marginalized areas need to utilize the advantages of the Internet and come up with better marketing strategies. "The lifeblood of a business is marketing to create a continual stream of new customers, to build the business and maintain the flow of existing customers coming back" (Barbara *et al.*, 2006).

4. Technologies and securing e-Commerce systems

The increase in online transactions has been accompanied by a rise in the number of different attacks that affect the security of online payment systems (Steve, 2006). Some of these attacks have utilized vulnerabilities that have been published in reusable third-party components utilized by websites, such as shopping cart software (Jeremy, 2006). Other attacks have used vulnerabilities that are common in any web application, such as SQL injection or cross-site scripting. Several technologies are available for designing, managing and developing e-Commerce platforms. The use of PHP market share in South Africa is still growing at an average 40% per annum (PHP Statistics, 2007). This programming language has also been chosen for this project.

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4.1 Hyper Text Markup Language (HTML)

Hyper Text Markup Language (HTML) is a simple mark-up language that designates how the web pages look in the browser, but they will simply be text (Michele and Phillips, 2007). HTML is the standard language used to create web pages. It uses tags to display the pages, with each tag having a particular function which each browser understands and interprets. Each tag has an opening and a corresponding closing tag. Each type of browser uses its own set of rules to interpret the HTML and render the page. As each browser uses its rules to interpret the HTML, the same page might appear different when viewed on different browsers.

4.2 Cascading Style Sheets (CSS)

CSS allows the developer to place the chunks of content, such as images, text, tables and forms with pixel perfect exactness (Livingston and Brown, 2002). CSS also allows *padding*. This refers to the space that occurs between the edge of an element and the beginning of its border. CSS is added to PHP and HTML to allow the control of the web page layout. For the online application, the style sheet defines how certain elements such as frames, page contents and links appear.

4.3 JavaScript

JavaScript is used for a client side processing. When a user requests a page, a copy of the HTML file is sent from the web server to the computer of the person who has made the request (Craig, 2001). JavaScript is contained in HTML code. JavaScript code is written and embedded with-in tags in a PHP or HTML document. JavaScript is used to create different layers of the project. It allows the visibility and disappearing of layers, it displays a new layer when the user clicks on a new navigation and hides the previous page (Livingston and Brown, 2002). Therefore, on the rewarding application JavaScript allows the users to be redirected to the web browser. It is also used to send feed -back between the system and the customers during negotiation.

4.4 Dynamic Hyper Text Markup Language (DHTML)

Dynamic Hyper Text Markup Language (DHTML) involves the use of Java scripts to manipulate styles sheets, for example to hide, display, or move layers or to change the font of some text as a user rolls a mouse over it (Livingston and Brown 2002). DHTML is used to make layers appear and disappear and for simple animation. DHTML creates sliding pop-up menus, draggable images and interactive quizzes. DHTML is often just the combined use of Style Sheets and JavaScript. An example of the functionality provided by DHTML using the style sheet was to show an image of an item when the mouse was placed on the item name.

4.5 Apache Web Server

The Apache web server turns browser requests into resulting web pages and knows how to process PHP code (Michele and Phillips, 2007). Therefore, since PHP is only a programming language, it needs the power of a web server like Apache. This allows users to access pages with PHP language code which is used extensively in the world of information systems (PHP statistics, 2007). The Netcraft web server

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survey explains that Apache has been the most popular web server on the internet since April 1996 (Michele and Phillips, 2007).

The open-source web server, Apache, provides a high level of security, higher security than that of proprietary software products such as Microsoft IIS (Michele and Phillips, 2007). Apache 2.0 is a major rewrite (which means that if there is any feature that you want but does not exist in Apache, you can write your own server module) and it supports threading (Weinstein, 2004). Threads allow a single process to manage more than one thing at a time. This increases data processing speed and reduces the resources needed (Michele and Phillips, 2007). One of the great advantages of the Apache web server is its modular architecture. In Apache Web Server, you can add or remove functionality as dictated by the system's requirements. Apache is also extensible, because both the Apache server and API source code are open to the public (Kamthan, 1999).

4.6 MySQL Database Server

MySQL database server is a free full-featured relational database (Michele and Phillips, 2007). MySQL supports several different database engines. These database engines determine how MySQL organises the actual storage and querying of data. The server is best suited to use on systems that are designed to be portable and reliable. The server has an active development team for user support and constantly gains added capabilities that are always available as open source software (Michele and Phillips, 2007). These include triggers, event schedules and stored procedures. The benefits that MySQL has, in its ability to secure data, easy connections and localization, were also considered.

Furthermore, what needs greater consideration for the back-end technologies are the different protocols used to communicate with different individuals who use the application. Some of the important protocols that are considered for this paper are:

- Hypertext Transfer Protocol (HTTP) – to transfer web pages between the users and the rewarding application.
- File Transfer Protocol (FTP) – this tool is utilized to transfer files from one server to another server.
- TELNET – this is for remote login.
- MAILTO – for sending e-mails.

4.7 System back-end technologies

The back-end interface is where all the functions and services that are visible to the front-end are developed. The system administrators have access to the back-end interface and make all the necessary developments in and modifications required of the rewarding application. Operations that are done from the back-end include the management and administration of the database, users, shops and items.

4.7.1 User roles

The common entities in an online environment are system administrator, the shop owners and the customers. Each of these entities performs different roles in the system. The administrator is mainly

involved in performing the back-end services. However, the administrator also plays an important role in ensuring that the front-end services are updated. Through the front-end, the shop owners are able to make changes to the items in the shops. Shop owners have to edit the points on items and determine the products to offer as rewards. Customers are those who access the system through the front-end to buy crafts products. They play an important role as they are the ones targeted for the development of this application.

4.7.2 Administrators' Roles

The administrators have the overall control and rights to monitor the rewarding application. They have access to all the modules of the system. Administrators can add or delete users and items in the shop since they manage the whole system. Their main roles include:

Activate all the modules involved in the rewarding application. These modules include the allocation of points, negotiation and the rewarding module.

Activate the log in credentials of the customers and the shop owners.

Administer the entire rewarding application and perform all the necessary installations needed for the functioning of the application.

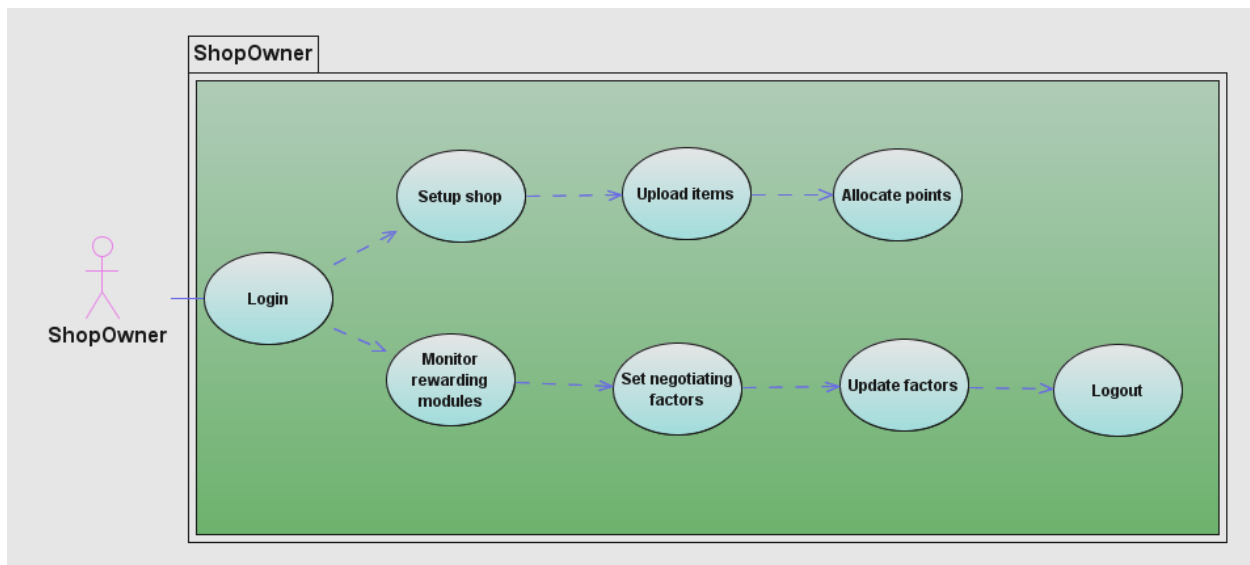


Figure 1 Shop Owners' Roles

The shop owners are the individual entrepreneurs who design the artifacts and products for sale. They are the small entrepreneurs manufacturing the items and selling them for survival. They expect to benefit from the rewarding program as it is likely to increase their sales volumes. They have access to both the back-end and the front-end interfaces. Shop owners can edit product details from any of the interfaces. The shop owners' main roles are to assign points, enable negotiation factors and manage all the modules. The shop owners are regularly trained on basic computer-use and the system using

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computers at the surrounding schools which have computers. Understanding of these roles allows the development of the back-end that is easy to follow and simple to use.

4.7.4 Customers' Roles

Anyone who is purchasing products online is referred to as a customer. The requirements for customers in the system are to allow them to acquire and accumulate points and view their accrued points. Customers should get rewards based on these points. Their roles in relation to the system are to:

Log on to their accounts, register, refer friends and purchase online, and seek points, view points and negotiate for rewards by making offers.

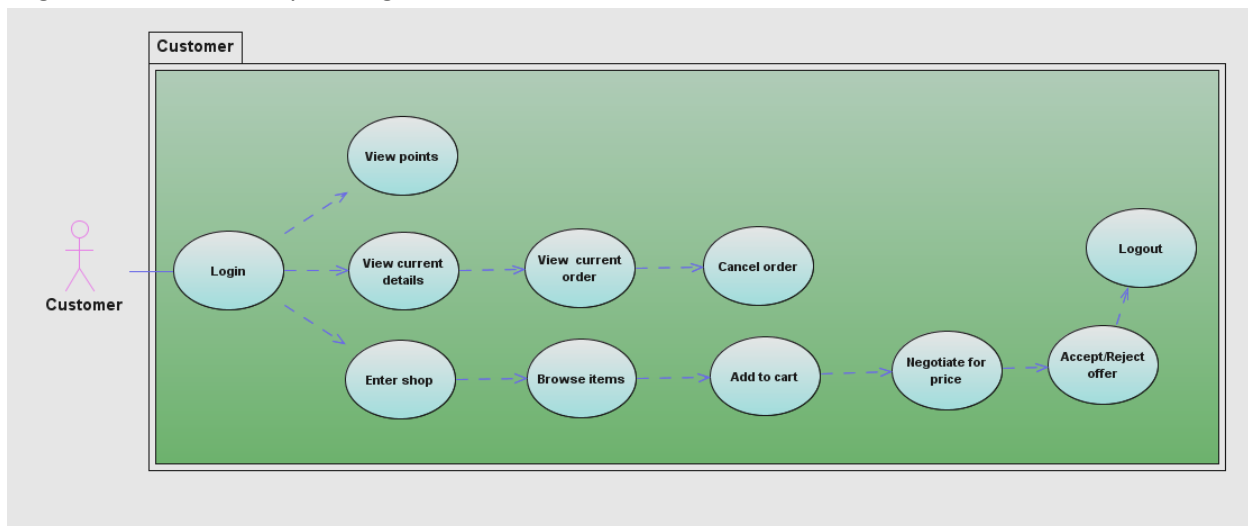


Figure 2 Customers' roles

The main entities of the system are the administrator, the shop owner and the customer. It is clear that all these entities are able to view the points. The customer can only negotiate with the system, referred to as the shop owner in this thesis. The administrator is the only entity who manages the modules. The shop owner does the allocation of points. The shop owners are able to do this through the front-end of the system. However, the administrator can also assign the points.

4.7.5 Customer Sequence of activities

A customer logging on to the system gets authenticated and is allocated a shopping cart. On successful authentication, he/she is presented with the list of stores available. On entering the store he/she is presented with the list of items available at that shop. Figure 8 shows the sequence of events that occurs when a customer gets into the shopping portal to buy any of the items without negotiation. This whole sequence has been captured by following the sequence diagram.

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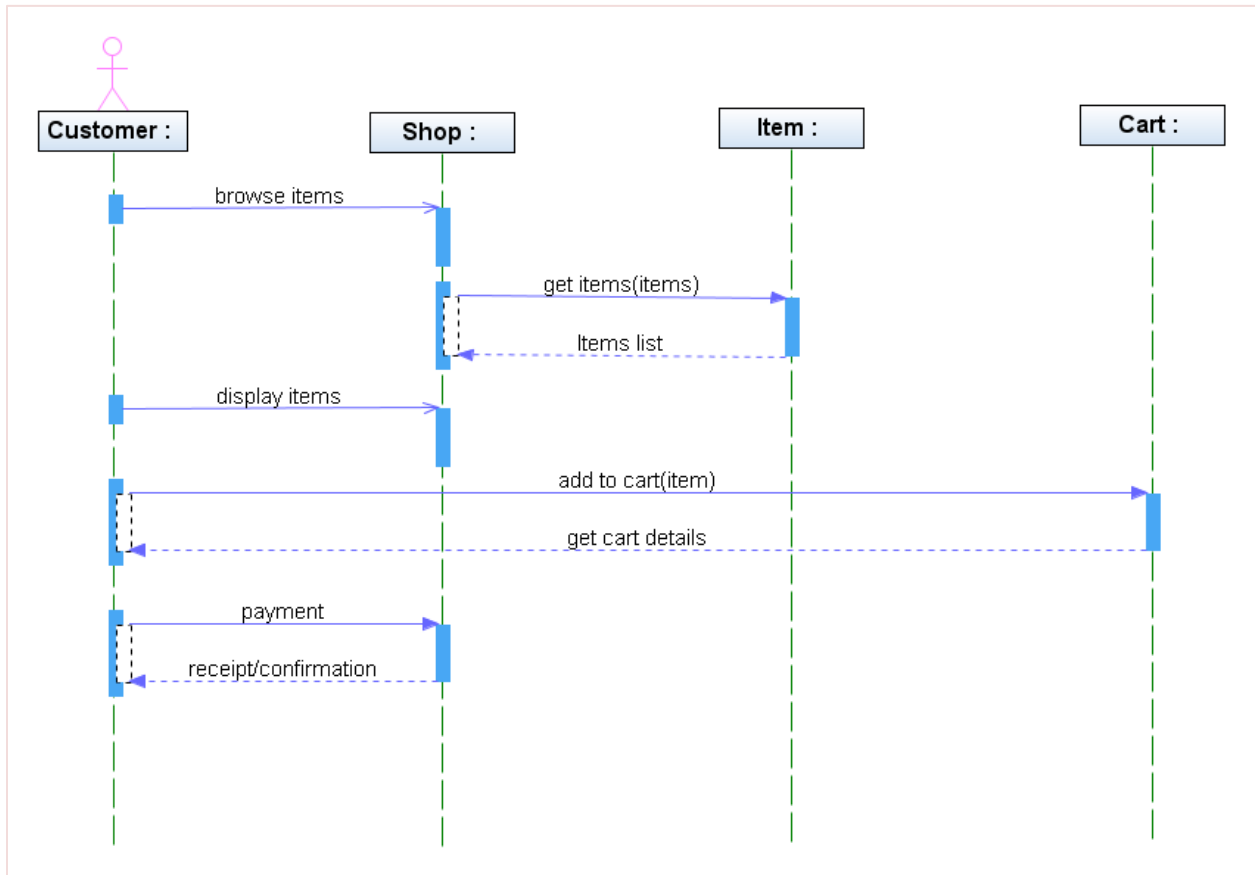


Figure 3 Online ordering process

Figure 3 explains a customer making offers after adding items to his/her cart. There is instant feedback between the customer and the system. After making an offer the system has to validate the offer and sends feedback to the customer. The customer has the final decision on whether to accept or reject the offer, and proceed to make payment or just exit the shopping portal.

Many of the custom designed e-business solutions and applications are developed by using the famous combination of Linux-Apache-MySQL-PHP (LAMP), which is one of the most widely used and popular open source combinations (Open Source Initiative, 2007). This is also the one chosen for the implementation of the reward based negotiation module for an e-Commerce platform in.

PHP is widely used for developing a dynamic, database-driven website. For an e-Commerce system, e-business application, collaborative networking systems, content management system or back-end system for data management, PHP is the website application most commonly used (PHP Statistics, 2007). This language has been chosen for this project. For online payments PayPal, which is owned by eBay, is used in most rural areas in South Africa (PayPal, 2008). It is probably the best-known credit card alternative (eBay, 2008 & PayPal, 2008). The main reason for PayPal is that it makes use of Post Offices, which are available in many rural areas.

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5. Online application database structure

The structure of the database which is important for the back end is given as follows.

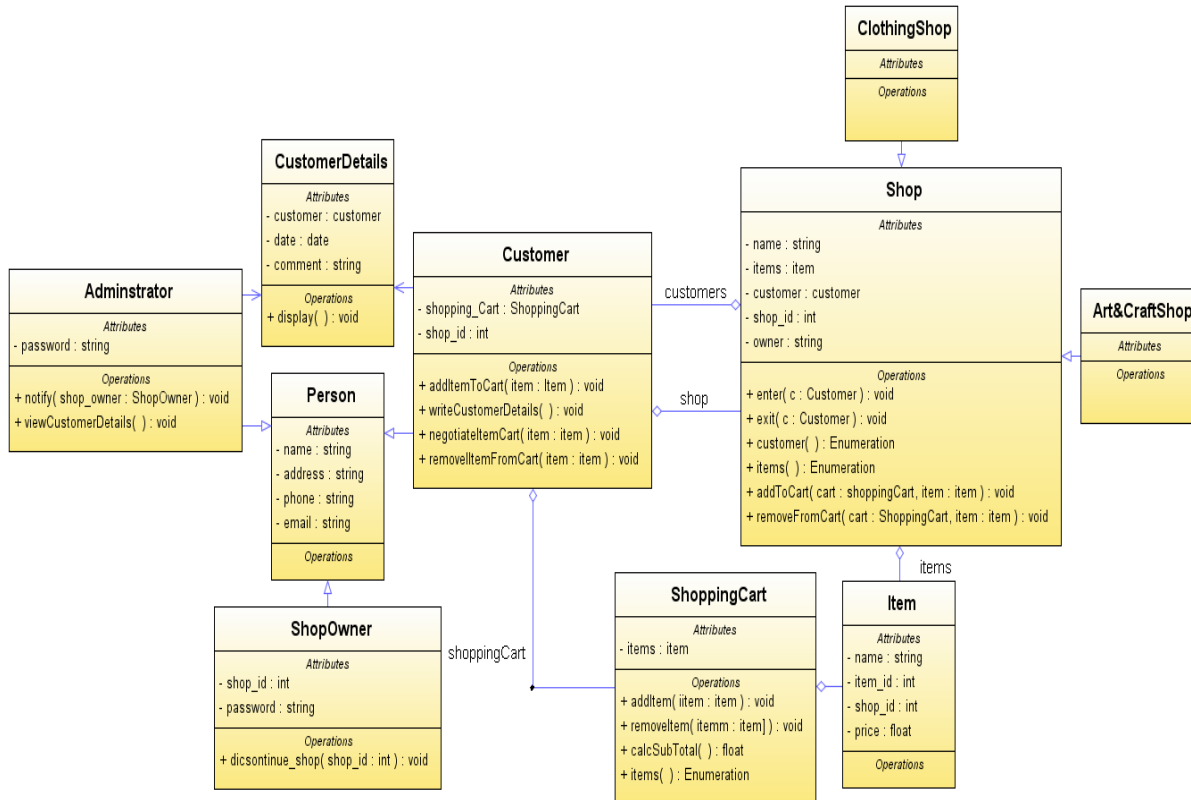


Figure 4 Online shopping database structure

6. Features of the online application

Customers have the option of negotiating with the system for discounts and some rewards. A customer can make an offer on the given prices of the items added to their cart. The system automatically computes and checks on different factors to make a decision on whether the customer offer is acceptable or not. These factors are not fully explained in this paper. Communication is between the system and the customer only. There is no third party or agent involved. The system sends feedback to the customer on whether the suggested or proposed discount is appropriate based on the factors that are activated in the database or else an alternative message is immediately communicated to the customer. Offers and counter-offers are made between the system and the customers, during the negotiation process. Each customer is allowed various discounts or rewards based on the negotiation factors such as transaction history, number of hits on the site, the amount of money spent and the number of points accrued. All these factors should be active at the point of negotiation (Jere et al., 2009). Rewards are given according to the customer's participation on the system (Miller et al., 2008).

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6.1 Allocating points

This marketing strategy is now popular and spreading all over the world. Most business organizations are implementing it. It allows businesses to identify their best customers. Customers get a specific number of points for all the activities which they perform online. According to The Dashboard's Incentive & Loyalty Points Management system (2008), the application allows the creation of points-based incentives, promotions and a loyalty system to reward visitors, customers and members for purchases, promoting the site, engaging in feedback, taking tests, and much more. The products have a certain number of points assigned and for each activity performed a customer will receive points. The main activities that may be carried out are registration, buying online, making positive suggestions about the business and referring friends. Customer points are used for negotiation with the system to evaluate the offers.

6.2 Negotiation Online

Negotiation, which involves a lot of decision-making and tradeoffs between various factors, is one of the key components of e-Commerce systems. According to Chhaya, (2002) most business transactions in e-Commerce involve negotiation to settle on the most suitable price for both parties. However, negotiation is not common in standard e-Business site like Amazon. Thus, as a way of improving the services of e-Marketing, allowing customers to negotiate for discounts and better offers when buying online create a better customer care. Negotiation aims to create a dialogue between the business and the customers.

In e-Commerce systems, where negotiation online is implemented, the customers' power to negotiate is based on the number of points available (Jere *et al.*, 2009). Through negotiating customers increase their chances of getting rewards. As noted by MoneyhighStreet Staff, (2007) one of the best ways of saving money when buying an expensive item or service is through negotiation with the supplier. By taking the trouble to negotiate, one can save large amounts of money, with very little effort. However, in most of the businesses, customers will not be saving money necessarily, but will be negotiating to get a reward rather than to pay less. There are different incentives that customers may be negotiating for.

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6.3 Rewarding and Redemption

The best way to reward for the first time is rewarding for quantity rather than quality. Thus, a small reward such as a chocolate, a piece of fruit or a pen for every idea can be effective, according to Del and Mass (2007). Allowing customers to redeem points for rewards adds value to e-Marketing and improves e-Commerce business in marginalized business.

According to Point Patrol (2006), a list of all the rewards available should be displayed along with the corresponding points and a check box to redeem each award. When a checkbox is selected, the points required are subtracted from the user's points. If the user does not have enough points, a message should be displayed informing the user of how many more points they need. The number of points redeemed and the incentive to be received should be displayed to the customer. e-Marketing, if offering the services mentioned above, attracts many customers when selling products online.

Expected system benefits

After the development of the proposed solutions and having met all the above system functionality, we have also estimated the following benefits from the project.

- To attract more customers and keep the existing ones;
- To develop a real time fast and efficient rewarding system;
- To increase sales and maximize profits for rural entrepreneurs;
- To offer discount in a fair manner;
- Effective Communication between the customer and the system.
- Localized backend interface which allows the use of local languages for entrepreneurs
- Ability to upload items, change prices and set the negotiation factors.

7. Sample screen shots of the online application

The paper provides sample screen shots of the online application. This is meant to give an overview of the interfaces of the online application. The whole application is not fully explained in this paper. The aim is to demonstrate and give rural entrepreneurs what to expect. The following figure, allows customers to add items to cart. Some items may not have an option to negotiate. The menu gives the number of points that the customer have.

Item name	Price	Quantity	Update cart	Negotiate	Remove item	Points
Intsaka	€ 10.00	<input type="text" value="1"/>	<input type="button" value="Update"/>		<input type="button" value="Remove"/>	5
Inqashela	€ 2.50	<input type="text" value="1"/>	<input type="button" value="Update"/>		<input type="button" value="Remove"/>	0
Iganda	€ 20.00	<input type="text" value="1"/>	<input type="button" value="Update"/>	<input type="button" value="Negotiate"/>	<input type="button" value="Remove"/>	10
Vuyakabini	€ 40.00	<input type="text" value="1"/>	<input type="button" value="Update"/>	<input type="button" value="Negotiate"/>	<input type="button" value="Remove"/>	20
Iqhya	€ 25.00	<input type="text" value="1"/>	<input type="button" value="Update"/>	<input type="button" value="Negotiate"/>	<input type="button" value="Remove"/>	12
SUBTOTAL : € 97.5						
Total Points : 47						

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Figure 5 Customer Adding items to cart

After adding to cart, customers may be able to negotiate. During negotiation customers make own offers and the system checks if the offer can be accepted or rejected

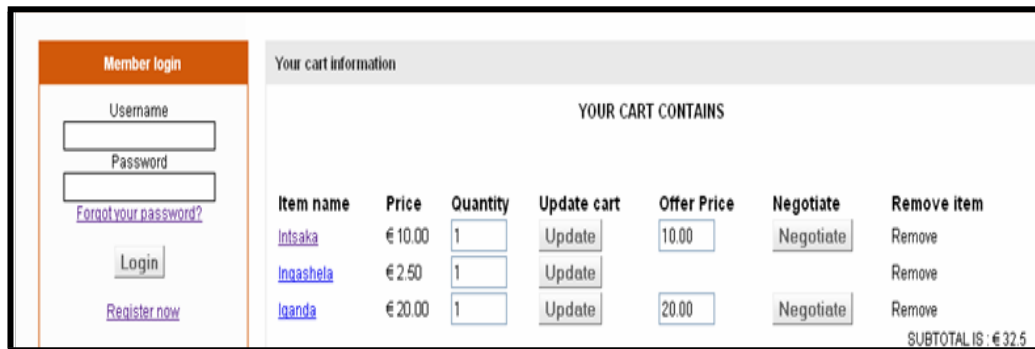


Figure 6 Customers making offers

In cases where the offer is too low, the following message is displayed.



Figure 7 Offer too low message

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If the offer is accepted, the following message is printed



Figure 8 Offer accepted message

In some cases the offer acceptance message could be as follows.

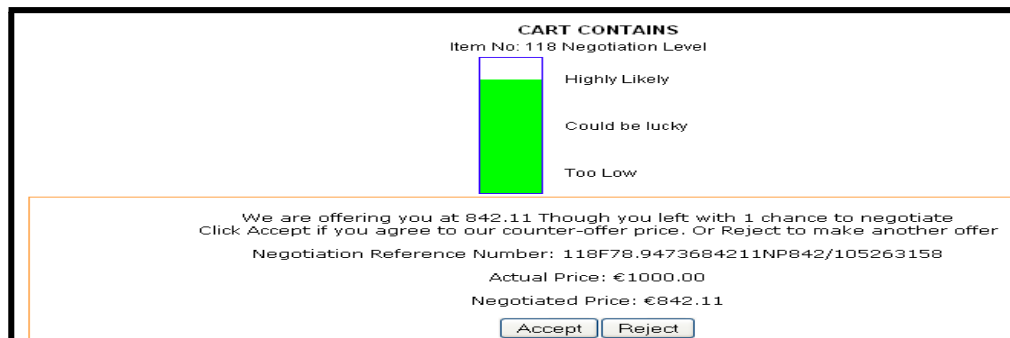


Figure 9 Offer message and new price

On the back end the shop owner and the administrator can upload and add new items on the following form. Any local language could be used to accommodate the rural entrepreneurs. In this case we have used the isiXhosa, since it was the appropriate language for the case community.

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The screenshot shows a web form titled "Upload an item". At the top, there are four navigation buttons: "Upload-Layisha", "View items-Jonga izinto", "Orders- ii-odolo", and "View shops-Jonga iivenkile". Below these is the heading "UPLOAD AN ITEM - LAYISHA INTO". The form fields include: "Category - Uluhlu" with a "Select category" dropdown; "Item Name - Igama lento" with a text input; "Price(R) - Ixabiso, unqafaki R ka Rands (Inani lodwa)" with a text input; "Item Points - Amapoints" with a text input; "Load image - Layisha umfanekiso" with a "Browse..." button; "Weight in grams - Ubungakanani (Inani lodwa)" with a text input; and "Description - Ingcaciso ngesilungu" with a large text area. At the bottom right, there are "Save - Gcina" and "Reset" buttons.

Figure 10 Adding products for sale

The screenshot shows a web form titled "Update factors". At the top, there are four navigation buttons: "Upload-Layisha", "View items-Jonga izinto", "Orders- ii-odolo", and "View shops-Jonga iivenkile". Below these is the heading "UPDATE NEGOTIATION FACTORS". The form fields include: "Select factor" with a "Select Negotiation Factor" dropdown; "Factor Name -" with a text input; "Factor Level" with a "High" dropdown; and two radio buttons for "Active" and "Not Active". At the bottom right, there are "Save" and "Reset" buttons.

Figure 11 Negotiation factors

The above allows the shop owners to set up the negotiation factors and activate or deactivate those required at any point in time.

8. Conclusion

The paper gives an overview of setting up an online marketing platform for SMMEs. As the e-Commerce platforms continue to proliferate and various shopping portals are developed, the provision of better customer services is critical. Online incentive marketing (for example, setting up loyalty programs on the site) is effective when it comes to building relationships with customers (Campanelli, 2001). Rewarding customers and allowing them to negotiate for better prices will increase sales and improve the reputation of the rural entrepreneurs. Rewarding customers and allowing them to negotiate for better prices will increase sales and improve the reputation of the

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rural entrepreneurs. In implementing the application there is unity amongst the community people, improved their computer knowledge as they are able to explore and find new features on the existing shopping portal. The paper provides key features of the online system that are meant to educate rural entrepreneurs on the potential benefits of online business.

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