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"SISTEMA INFORMÁTICO PARA DISTRIBUCIÓN DE PRODUCTOS DE VENTA POR CATÁLOGO"

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"SISTEMA INFORMÁTICO PARA DISTRIBUCIÓN DE PRODUCTOS DE VENTA POR CATÁLOGO"

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Abstract. This Project has been developed to adapt the CRM Apache Ofbiz tool in the distribution of products catalogue sales.

The development of the System Distribution Products catalogue sales consists of five chapters is described the processes were carried out for the development of the CRM tool.

Chapter I: Is Implemented introduction, the project Scope and Objectives.

Chapter II: Described about Free CRM Software, CRM types, description of development tools based on free software.

Chapter III: Is Implemented documentation about the research is carried out with the technical and fuctional characteristics of CRM Apache Ofbiz.

Chapter IV: Is developed the adaptation of Apache Ofbiz for optimum performance in the company Veramoda.

Chapter V: Conclusions and recommendations obtained when the project is finish.

Free Software, Apache Ofbiz, CRM, E-CRM.

1. Introduction

The so-called direct sales in Ecuador has a history of more than two decades and even cosmetics and perfumes were the pioneers in the market, there is now a variety of products such as clothing, footwear, jewelry and appliances. which are traded under this mode, using shipping methods such as fax, mail or freight forwarders, having previewed the buyer products through the catalog, therefore, is a country that has been ruled by the big international companies that market their products through direct sales system, so much so that large international companies like Avon, Tupperware, Yanbal, book club competing in the Ecuadorian market and already have many years to undertake this activity in our country.

So that each day more companies are adopting the system of direct sales as its marketing strategy, whether national or international companies, because they see this marketing strategy the most profitable way to reach the end consumer, often with the advantage that this system has front hanger or cabinet, which is to

Keywords

reduce advertising costs and other costs associated with product sales.

According to Ekos Business Research impact is such that at the World Summit Direct Selling, held in Italy in October 2012, it was determined that this business is conceived as a strategic in certain countries as this system gives people the ease of start their own business, little or no investment in many cases for the seller and the wide range of products that can be offered. To this is added the way how you can do: you doorto-door, by phone, by references or by the traditional catalog sales.

2. Materials and Methods

Currently, the consumer is a more experienced user, with specific, dynamic and versatile preferences, requiring a custom-class treatment, identify how to generate customer value, conveying a sense of security, confidence can achieve differentiation in the market and long maintain sustainability in it. Main features of the CRM:

•Easy to use

- Intuitive Interface
- Easy navigation
- Quick and easy learning
- Easy to customize
- Interactive dashboards based on Roles
- Access from anywhere
- Solution full web: Total web to access from anywhere at any time
- Web access from mobile devices.
- Specific Environment for iPhone; Apple technologies adapted to

• 24-hour access to updated communications, calendar and contacts regardless of the access device

- Ease of customization
- Open architecture for easy customization
- Customization without programming
- Fully customizable work flows.
- Interactive Charts Custom controls
- Integration

• Integration with ERP, Enterprise Resources Plainning.

- Integration with MS Outlook.
- Integration with social networks.
- Web self-service customer portal.

• Ease of integration with third-party applications

• Total and quick deployment

• Full web, for rapid deployment throughout the organization and easy administration.

- Ease of use for rapid adoption by the user.
- Fast return on investment.
- · Low cost of ownership.

2.1 Evaluation

To evaluate and choose a CRM tool according to the type of business you have to take the following into account internal factors:

- Size of the company
- Activity sector

• The specific needs of the sales department customers, and marketing

• Technological factors are also necessary because it will describe the current technological environment, the implementation model and other tools in use.

It is work that involves identifying the specific needs of the company Veramoda as well as possible alternatives to improve the current sales situation with the use of a software.

• a meeting with the Zonal Director of the Company Veramoda is performed to establish the requirements that must be the system for proper operation.

• The procedure to identify the means of communication between the seller and the zonal manager to be taken into account in adapting the system.

• The list of participants to interact with the system is done.

2.2 Stage Analysis and Software Installation

Analysis before installing Apache OFBiz requirements was performed must be running the application server and PostgreSQL database.



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• The installation of Apache OFBiz version 11.04.06 in equine Veramoda designated for operation is performed.

- Installs and configures the application server.
- Functional tests were performed.
- Installs and configures the system

• Business Veramoda tests for operation is performed.

• The procedure to revise the modules you work with Apache OFBiz.

• Analysis of the database that forms Apache OFBiz and identify the main tables.

• Analysis modules are there in Apache OFBiz and define which company will work Veramoda.

For comparison was taken as reference the favorable characteristics that may have the systems analyzed, as well as limitations or restrictions that arise when applying them. The following rating scale was used for evaluation Value (*) Rate

• 1 Pro

• 2 Very Favorable

3. Results

To determine the most suitable tool for the company's comparative three most popular CRM tools are made:

VTIGER

• Marketing: This module vtiger campaigns to manage a company and all efforts and resources and contacts (people), accounts (companies or organizations), pre-contact, and possible planning and communication via webmail.

• Commercial: Allows management and monitoring of sales from the first contact with the potential client to after-sales service. You can control the opportunities, quotes, orders, invoices, products, tariffs; and link it to all accounts and contacts already established.

• Customer service: It takes everything related to customer relationship after the business or sale is completed. It is a system for reporting incidents, and also to ask for help and support in a simple way. It can create a system of FAQ's (Frequently Asked Questions) always accessible to users.

• Failure and / or significant shortcomings: The way that field is always looking for a list using mouse, not providing for the application of hotkey combinations, nor be able to fill with registration codes, as they are used to that many users such tools.

• Another aspect is safety, because even if the access is restricted by username and password, the application is available to anyone with the URL.

APACHE OFBIZ

Accounting: Manage assets, transactions, bank accounts, tax approvals, and everything related to the internal accounts of the company and its fiscal situation.

• Catalogue: Control the products offered by the company, including in catalogs that can be managed and even arranged hierarchically, such as managing inventory, offers and promotions, all with distinction between different stores, plus shipping and handling subscriptions.

• Content Manager web content, mainly the online store, but includes others such as forums, polls, blogs also opens the possibility of having other websites that can serve as points of discussion about the products offered by the company.

• Storage: You can manage the stock, monitor shipments and inventory details, this differentiating stores should be more than one. It also specifies the physical address of the company.

• Human Resources: It is feasible to put the name of your company (ERP 10/10 best ever - FSF). Management departments, teams, employees (skills, training them, payment history), contracts, abstracts, performance review and management of casualties.

• Production Management: Allows managed materials necessary for the production of items.

• Marketing: Make marketing campaigns, collect data for analysis, market segmentation

and tracking of online campaigns (ads on other websites).

• Order: You can see the products that have sold best, manage orders placed from the page displayed to the public, manage budgets, returns and display statistics.

• Participants: User Management application monitoring and the roles that can be assigned, security settings (permissions for each user) and invitations.

• Sales Force Automation: Files stages in a sales process by tracking a sale at all stages, to learn and not repeat steps already taken.

The comparison is performed by analyzing the module and found that the most favorable to be implanted in the business of catalog sales CRM tool is Apache OFBiz because it has extensive functionality also has the CRM and e-commerce.

In addition, the Apache OFBiz tool was chosen because it is a free software tool most commonly used today by SMEs worldwide, as it not only can be used for free, but also is a complete business solution.

SUGARCRM

Marketing: Enables the coordination of marketing campaigns, email campaigns, calculating return on investment, and finally automatically enter the CRM contacts.

• Customer Support: Incident Management, receiving incoming email, bug tracking software, customer self-service portal.

• Collaboration: Manage email, calendar events, meetings, calls, etc. Manages projects, provides forums for discussion between users.

• Reports: Performs analysis of marketing, sales trends, opportunities, case reports, customer profiles and dashboard.

Faults and / or major shortcomings: Performance Tool is deficient in running reports, difficulties in importing / exporting data (from csv files) or requires training to be used (not as intuitive as other applications) It does not automatically detect that an activity was already done, so it remains as pending until it is changed manually, shows visually striking as most urgent alerts pending activities or tasks delegated by another user

4. Conclusions

Apache OFBiz is a framework for developing applications in small and medium enterprises, using java technology. All applications are built on the same MVC and SOAP architecture, its components are designed in three layers.

The Apache OFBiz application comes with default Derby database. database to PostgreSQL which is a complete free software bringing greater reliability and safety is achieved in the data management database was used for this project.

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To configure and customize Apache OFBiz is required to have previous knowledge about the business logic for proper operation.

The process of customizing Apache OFBiz in the company Veramoda was complex and lengthy as several modules had to eliminate options that were not needed in the business, taking care not to affect the operation of the system.



The modules that Veramoda requires no work at the moment, were deactivated but not deleted because as time passes the company grows and the future will be activated for use.

Apache OFBiz to adapt to a catalog sales company high skills required in the file structure to change the names of the labels and / or text and default ones.

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6. References

1. Gros Salvat, B. (2011). Evolución y retos de la educación virtual: construyendo el e-learning del siglo XXI. España: Primera Edición, Editorial UOC.

2. León, M. (2014). La venta directa el canal del emprendimiento. La venta directa en el ecuador y en el mundo, 76.

3. Mifsuf Talón, E. (2012). Apache. España: Primera Edición, Editorial Ministerio de Educación, 2012 - 303 páginas.

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