B2B Management and Lead Generation

[1]Nilesh Thadani[*], [2]Nikita Kukreja, [3]Nisha Sajnani, [4]Nisha Ramrakhyani, [5]Vidya Zope

[1, 2, 3, 4] Computer Department, VESIT, Mumbai University, Maharashtra, India

[5] Assistant Professor (Mentor) Computer Department, VESIT, Maharashtra, India

Abstract— In this paper, we describe an application of Web services for managing data quality in the B2B information exchange that is typically characterized by large volumes of information from data sources, and frequent information interchanges. The design and implementation of collaborative business processes and the Business-to-Business (B2B) systems that support them is an important issue in order to enable enterprises to set up B2B collaborations. This involves new challenges, mainly regarding the ability to cope with change, decentralized management, peer-to-peer interactions, preservation of enterprise autonomy, and the support for interoperability. Business-to-business (B2B) partnerships bring a need for a B2B platform as a middle-ground solution that enables the information exchange and interaction between operators' and business partners' applications. The classes of information exchanged and managed by the B2B gateway concept includes profile management of organizations, Project/ Event representation, data and system security.

Keywords— B2B, peer-to-peer interactions, profile management, non-government organisations, collaborative growth

I.   INTRODUCTION

In the current global markets, enterprises are applying collaborative business models to manage collaboration with their business partners with the aim of improving their performance and competitiveness. Collaborative models can be realized by implementing Business-to-Business (B2B) collaborations. Furthermore, the design of business processes and systems involved in a B2B collaboration requires models which differ in the viewpoint they are described, the target people dealing with the model, or merely the level of abstraction and the granularity of the models. The project aims on developing a standard application which will be scalable and can be used as the base of further developments. It involves building up a complete B2B model along with lead generation for different NGO's using the 3-tier web architecture. Besides it also involves showing up of advertisements by NGOs, selling their products (if any), and a prototype for making online payments. This portal will be used to improve reach and donations for NGOs as well people can contribute in their area of choice. Revenue collected from the sold products can be used for social cause of that NGO. In this work we propose a methodology for the design and implementation of B2B collaborations that supports the above statements. The proposed methodology provides techniques, languages and methods that exploit the benefits of the Agile Development. Agile methodology is an alternative to traditional project management, typically used in software development. It helps teams respond to unpredictability through incremental, iterative work cadences, known as sprints. Agile methodologies are an alternative to waterfall, or traditional sequential development.

II.   FRAMEWORK

The problem domain refers to the collaboration and identification of different business organizations in order to develop a common platform for publicity, sales, etc.

The problem domain refers to the identification of the business requirements of a B2B collaboration, which derive from the collaborative business model that partners agree to carry out. Such requirements refer to the common goals to be achieved, the partners involved in the collaboration and the roles partners fulfill, as well as the identification of the collaborative business processes to be carried out. This domain does not include details of the design of any solution.

The solution to the above problem would be by developing a platform for the smooth functioning of organisations, we will provide a healthy and clean framework which can be used by businesses in-order to publicize themselves or sell their products online. Multiple similar organizations can register themselves on the portal and collaborate with others. This portal mainly aims on developing such a portal for Non-government Organizations (NGOs). NGOs can open volunteering programmes, seek donation or sell their products online.

The organizations will be able to set up their profile by uploading images, giving their recent updates, latest highlights from the organization. Recent NGO events can also be added and people following the NGO can be informed through emails. Also the organizations can publicize these events on the different social media platforms through this portal. Considering the possibility that the NGO personnel may not be technically able to register the NGO on the portal and so there will be a provision for the portal admin to register the NGO on their behalf.

The figure 1 below gives the architecture of the complete portal by describing the functionalities of each major module. Every NGO here will have a designated webpage which we term as MICRO website. This page would show details about the organization.

Website MICRO
1. Product Display
2. Product Categories
3. Product Management
4. Product Selling

System Admin
1. Website Configuration
2. Configuration of type of company i.e. domain
3. Defining user level
4. Configuration of whole idea.

System B2B Portal

Admin user from organization
1. Configuring images for website
2. Configuring products and services

Normal User
1. Register
2. Login
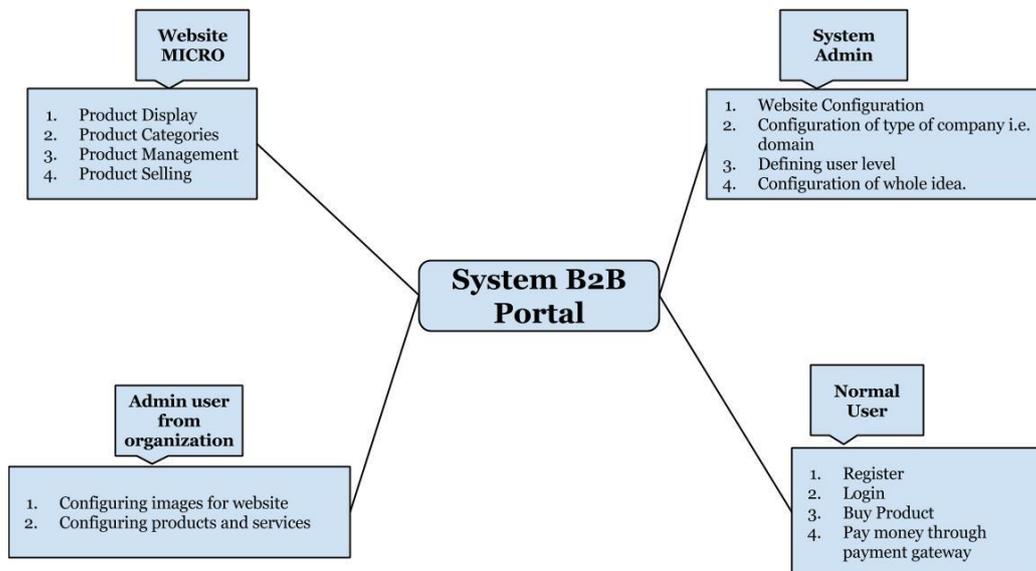3. Buy Product
4. Pay money through payment gateway

Figure 1 System Architecture

A normal user will thereby be able to join volunteering programme if registered to the portal. The user can also donate some amount to the NGO or purchase products from them, however this is considered as the future scope.

III. IMPLEMNTATION TECHNOLOGY

In order to provide a very scalable platform for B2B services and keeping in mind about the NGOs, the project would be build using the open source Laravel5 and Bootstrap v3.1 frameworks. Providing a customized management system for updating account details on the admin side would also be integrated using these frameworks. The frameworks uses Php v5.6 and CSS v3.0 with HTML5. Apart from this, the MySQL database will be used which is again an open source technology. The report generation will be done using the desired algorithms and their representation in the form of pie charts will be done using JavaScript library called Highcharts which is again an open source library. The reason behind using Open source technologies is that they are free of cost and assure community development which enables maintenance of the portal at a very cheap price and also the portal can stay up-to-date with latest industry standards.

As the portal is being developed for NGOs, the development and maintenance cost are the most crucial factors and thus the above mentioned parameters need to be considered and given utmost priority.

It includes the development of three major modules i.e. User, admin, organizational admin. These modules will have a specific set of rights ranging from simple browsing on the website to making payments or joining volunteering programmes.

IV. LITERATURE SURVEY

A number of definitions of B2B e-commerce are available in the literature. Some of the most commonly quoted are-
- World Trade Organizations (WTO) has defined B2B e-commerce as "any transaction carried out between organizations in which at least one of the following activities are conducted by electronic media i.e. production, distribution, marketing, sale or delivery."
- The European Information Technology Observatory (EITO) has defined B2B ecommerce as "the use of Internet technologies to conduct or enhance transactions and business relations either on the back-office side (relations with suppliers), across internal processes, or on the front-office side".

Reference [2] focuses on the importance of trust, the need for inter-organizational trusts, maintaining business relationships under trust as it is the most challenging aspect faced by the B2B model as per the survey. It mainly gives two reasons for the existence of the inter-organisational trust - a) Organizations get encouraged to make necessary investments contributing to improved co-ordination between the organizations and information sharing in integration. b) A firm's probability of behaving in an opportunistic way is reduced drastically. The discussion is further followed by the various types of risks involved, benefits perceived and various trust mechanisms required in B2B management leading to outcomes of its participation. And finally the paper is concluded with the development of the conceptual model of inter-organizational trust in e-commerce participation, leading to a justification of the research propositions derived from the model.

Reference [2] describes the need for a B2B platform as a middle-ground solution which will enable the business partners' applications to interact easily and do the required information exchange. Also, it says that there is a market need to reduce the communication gap between the partners' applications. This paper describes various advantages of a B2B platform like- a) A B2B platform will always have an opportunity to expand. b) Scalability- It will enable any organization to grow and scale easily. c) Efficiency will be improved. d) Sales will be increased drastically. e) Analytics- B2B e-commerce provides the perfect platform for an organization to launch a comprehensive analytics campaign.

The article also discusses on the market need for communication between partners' applications. This need for enabling information exchange and interaction between partners' applications is created due to the B2B partnerships evolved as a result of ever increasing competition between the service providers.

Reference [3] focuses on the data quality management and the various factors that affects data quality. In this paper, the data quality problem in the B2B networked environment is described and a corresponding solution is proposed. The B2B environment is characterized by heterogeneous and distributed platforms. Different partners use proprietary systems and process data independently. These make data quality management in the B2B information exchanges difficult. From technical perspective, the core barrier of data quality management problem in the B2B environment is lack of a standard for managing data quality.

V. CONCLUSIONS

The increasing need for collaboration between business partners brings a need for a B2B Gateway class solution that takes care of reducing the business process complexity by replacing the manual, time-consuming processes with repeatable, automated processes. In our project, there is collaboration of various NGOs. This will help one NGOs to connect to other NGOs on a single platform. Thus the portal will act as a medium between an individual and several NGOs. Individuals can connect to any organisation by volunteering them in their events/ projects or donating some amount and accordingly progress report will be generated which will help organisational admin as well system admin to know about which organisation is most active, which organisation received most of the volunteering, maximum donation. These reports will guide system admin to bifurcate among organisations.

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