

Agriculture Business to Business Website

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Abstract: Agriculture is the backbone of the Indian economy. FICCI in its report says that about 65 percent of the Indian population depends directly on agriculture and it accounts for around 22 percent of India's GDP (FICCI 2007). Electronic commerce (or ecommerce) using Internet technologies helps businesses to cut cost3s and cycle time, raise efficiency and provide more information, choice and value to consumers. During recent years, ecommerce has found its way to the Agribusinesses in India. The internet continues to become more popular among people who deal with agricultural business of any type. While technology availability has increased and its access has become easier, the demographic transition is also characterized by greater willingness to use technology among farming community. Nevertheless, farmers on the other hand, face unprecedented challenges like unpredictable weather, non-availability of good quality seeds and fertilizers and un-reliable avenues to sell their crops after the harvest. This research article explains the scope of online shopping (or e-commerce) to solve these inherent problems and to help agribusinesses in rural India and describes the opportunities and challenges for online shoppers to tape the rural agriculture market in India. It also discusses scope, opportunities, challenges, benefits and adoption of online shopping in Agribusiness in India.

Keywords: Agriculture, Agri-business, E-Commerce, Online Shopping, Internet Technology.

I.INTRODUCTION

Ecommerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming common place. It is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur either as business-to-business, business-to-consumer, consumer to consumer or consumer-to-business. The terms e-commerce and e-business are often used interchangeably.

The main objective of this project is to help farmers ensure greater profitability through direct farmer to farmer,

farmer to customer & farmer to dealer communication. Our project deals with respect to the farmers benefit of getting their products sale at a best price online. Here, the main users of this website are

Farmer, customer, dealer and admin. Farmers will get unique interface where they can perform marketing, get the correct rates of the market, get in touch with SMS or Email and gather knowledge of different schemes and get pay online. It will provide market wise, commodity wise report to the farmer in interactive way. The centralized market committee will control all business activities.

II. IMPLEMENTATION

The system will be having User-name and Password section on the front page, as per the user-name and password the system will know whether user is Buyer/Supplier/Admin.

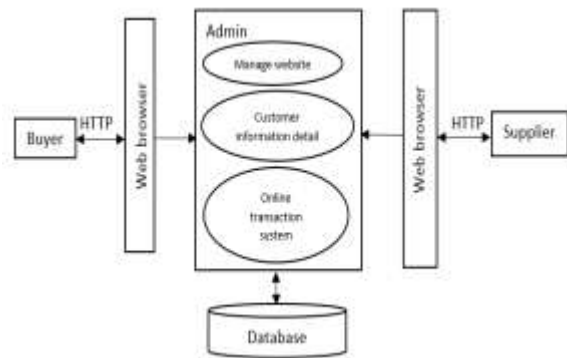


Fig 2 .Architecture diagram

2.1 Scenario of Project

Scenario 2.1.1 Buyer

Buyer can create new account, log-in to their existing accounts which will give them the authority to use the services provided by the system.

Authenticated buyer can sell their product.

The Farmer can check their account on fund transfer.

Scenario 2.1.2 Supplier

Supplier sells the product to other buyer.

Supplier transfers the fund to admin’s account then admin transfers the fund to buyer’s account as per the product sale.

Scenario 2.1.3.Admin

Create and monitor accounts of users.

Maintain the website.

Update the website.

2.2 Software implementation

Proposed application is web application build using PHP and MySql database.

2.2.1 Software Interface

Client on Internet: Web Browser, Operating System (any)

Client on Intranet: Web Browser, Operating System (any)

Web Server: WampServer, Operating System (any)

Data Base Server: MySql, Operating System (any)

2.2.2 Communication Interface

Client (customer) on Internet will be using HTTP/HTTPS protocol.

2.2.3 Hardware implementation

Weighting machine will be attached to the agent machine that will automatically upload the weight of the product in farmer’s invoice. Weighing instrument is attached to the microcontroller which will monitor the activities of machine and provide the relevant data to the agent’s computer.

III. SCREENSHOT



Fig3.1 Home Page



Fig 3.2 To display the Customer requirement

IV. TESTING

4.1 What is web testing?

Web Testing in simple terms is checking your web application for potential bugs before it’s made live or before code is moved into the production environment. During this stage issues such as that of web application security, the functioning of the site, its access to handicapped as well as regular users and its ability to handle traffic is checked.

4.2 How to test web Application

In Software Engineering, the following testing types/technique may be performed depending on your web testing requirements.

4.3 Functionality Testing

This is used to check if your product is as per the specifications you intended for it as well as the functional requirements you charted out for it in your developmental documentation. Web based Testing Activities includes:

Test all links in your web pages are working correctly and make sure there are no broken links. Links to be checked will include –

- Outgoing links
- Internal links
- Anchor Links
- Mail To Links

Tools that can be used: Selenium

4.4 Interface Testing

Three areas to be tested here are - Application, Web and Database Server

- **Application:** Test requests are sent correctly to the Database and output at the client side is displayed correctly. Errors if any must be caught by the application and must be only shown to the administrator and not the end user.
- **Web Server:** Test Web server is handling all application requests without any service denial.
- **Database Server:** Make sure queries sent to the database give expected results.

4.5 Database Testing

Database is one critical component of your web application and stress must be laid to test it thoroughly. Testing activities will include-

- Test if any errors are shown while executing queries
- Data Integrity is maintained while creating, updating or deleting data in database.

- Check response time of queries and fine tune them if necessary.
- Test data retrieved from your database is shown accurately in your web application.

Tools that can be used: Selenium

4.6 Performance Testing

This will ensure your site works under all loads. Software Testing activities will include but not limited to -

- Website application response times at different connection speeds
- Load test your web application to determine its behavior under normal and peak loads
- Stress test your web site to determine its break point when pushed to beyond normal loads at peak time.
- Test if a crash occurs due to peak load, how does the site recover from such an event
- Make sure optimization techniques like gzip compression, browser and server side cache enabled to reduce load times.

Tools that can be used: Selenium

4.7 Security testing

Security Testing is vital for e-commerce website that store sensitive customer information like credit cards. Testing Activities will include-

- Test unauthorized access to secure pages should not be permitted
- Restricted files should not be downloadable without appropriate access
- Check sessions are automatically killed after prolonged user inactivity
- On use of SSL certificates, website should re-direct to encrypted SSL pages.

V. TESTING SCREENSHOT

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9       "name": "login",
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13          "comment": "",
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35            ["xpath=//td/input", "xpath:position"]
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48            ["xpath=//td/input", "xpath:position"]
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61            ["xpath=//tr[2]/td/input", "xpath:position"]
62          ],
63          "value": ""
64        }
65      ],
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67    }, {
68      "id": "321795d7-254c-4283-aa77-36e4ab559917",
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75        ["xpath=//input[@name='username']", "xpath:attributes"],
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77        ["xpath=//td/input", "xpath:position"]
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90        ["xpath=//td/input", "xpath:position"]
91      ],
92      "value": "kalyani97"
93    }, {
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95      "comment": "",
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98      "targets": [
99        ["name=password", "name"],
100       ["css=tr:nth-child(2) .textbox", "css:finder"],
101       ["xpath=//input[@name='password']", "xpath:attributes"],
102       ["xpath=//div[@id='products']/form/table/tbody/tr[2]/td/input", "xpath:idRelative"],
103       ["xpath=//tr[2]/td/input", "xpath:position"]
104     ],
105     "value": ""
106   }
107 ],
108 "name": "login"
109 }
```

```
33   ["xpath=//td/input", "xpath:position"]
34   },
35   "value": ""
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39     "command": "type",
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47     ],
48     "value": "kalyani97"
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51     "comment": "",
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53     "target": "name=password",
54     "targets": [
55       ["name=password", "name"],
56       ["css=tr:nth-child(2) .textbox", "css:finder"],
57       ["xpath=//input[@name='password']", "xpath:attributes"],
58       ["xpath=//div[@id='products']/form/table/tbody/tr[2]/td/input", "xpath:idRelative"],
59       ["xpath=//tr[2]/td/input", "xpath:position"]
60     ],
61     "value": ""
62   }, {
63     "id": "321795d7-254c-4283-aa77-36e4ab559917",
64     "comment": "",
65     "command": "click",
66     "target": "name=username",
67     "targets": [
68       ["name=username", "name"],
69       ["css=tr:nth-child(1) .textbox", "css:finder"],
70       ["xpath=//input[@name='username']", "xpath:attributes"],
71       ["xpath=//div[@id='products']/form/table/tbody/tr/td/input", "xpath:idRelative"],
72       ["xpath=//td/input", "xpath:position"]
73     ],
74     "value": ""
75   }
76 ],
77 "name": "login"
78 }
```

Fig-Login Page Testing Screenshot

VI. FUTURE SCOPE

The future plan of this project is to improved design; implementation and documentation in such a way that anyone can use this project for better perform. I will develop the site more dynamically. In future I will add the few modules for better improvement of the project such as, real-time chat bot option for user and farmer, so that user can directly enquiry theirs problem on any time through the chat bot. Video conversation option for user and farmer and admin and barcode generation for membership card and using online buy and sell product. Online account verification and notification for user for specific job category they searching for jobs. In future I will also add mobile version app of this website.

VII. CONCLUSIONS

E-commerce has an impact on three major stakeholders, namely society, organizations and customers (or consumers). There are a number of advantages, which include cost savings, increased efficiency, customization and global marketplaces. There are also limitations arising from e-commerce which apply to each of the stakeholders

These include information overload, reliability and security issues, cost of access, social divisions and

difficulties in policing the Internet. Successful e-commerce involves understanding the limitations and minimizing the negative impact while at the same time maximizing the benefits.

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