

ELECTRONIC COMMERCE: ONLINE PLATFORM FOR MANAGING STRUCTURES AND ISSUES

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Abstract

MERN is live platform where people with different abilities would be providing their skills or products on same platform. It is a powerful tool that can be used to find and discover the talents and skills in specific individuals and to showcase their skills to the world. At initial stage there is a hybrid application with a future release of web application. Our platform will be user friendly and will easily be understood by the people of rural areas and underdeveloped city. The main aim, as discussed above is customizable services that could individuals modify to their liking all the while sellers from all walks of life would earn from those skills. Specifically, after the outbreak of global pandemic, the need for online services and skills has increased tremendously. This could also prove to be another source of economy strengthening all the while acknowledging a rebirth of our cultural heritage. Academic research in the eCommerce industry has gained impetus because of the increased adoption of online shopping. This paper focuses on considerable and traditional search issues, however, ecommerce textual query and multi model matching documents and ranking optimization for two-sided marketplaces. Addition to this, this paper also critical analysis the knowledge of customer behavior, and increasing the engagement, and increasing product discoverability and conversion.

Keywords: customer feedback; sentiment analysis; performance analysis.

1 Introduction

The challenge & mission for Khudi is to show how the world works together in one platform. Our project is the place where people with different skills & talents could come together and sell their services. The main purpose here is to not only nourish talents in specific individuals and provide them with a B2C platform to earn from their

skills all the while sustaining their dexterity. But also preserve, grow, and encourage the cultural heritage of the country.

The real incentive behind this project is to provide employment to those underserved community that are highly rich with talents but often get ignored because of their poor background, namely villagers and hand to mouth workers in far rural areas. To serve this community KHUDI would comprise of a mobile application as well as a web portal for admins to update and keep track of all the queries. Khudi is an online platform where people with different adroitness could come together and offer their services to the patron. Specially people in the far rural areas, who have skills but not the means to earn from their abilities. This is to not only nourish talents in specific individuals and provide them with a B2C platform to earn from their skills all the while sustaining their dexterity. But also preserve, grow, and encourage the cultural heritage of the country. From backed goods to handywork, we aim to provide a single platform for the sellers and buyers to interact. Buyers will be able to shop according to their preference and can sort out the sellers according to their ratings or the price.

KHUDI is a project designed to target, though not specific to, the unprivileged and underdeveloped areas. Where people with good skills and talents are found though not entertained. The main subject of the project is to provide financial sustainability to those people, all the while providing real world solutions for the public looking for more specified and customized products to their liking. Within this project we will discussing the tool, techniques, requirements, and environment to build this solution. The KHUDI mobile app would be accessible to all the public and both the sellers and buyers for the usage. While the web application would only be specific to selected users alone that would have the admin right to alter the data as the pleased. The project within this scope has been developed using the MERN [1] stack application though the idea could further be extended by applying face authentication system, Urdu based chat bot and recommendation system for future enhancement.

As previously said, the major goal is to provide customized services that individuals may customize to their liking while also allowing vendors from various walks of life to profit from their skills. Following the emergence of the global pandemic, the demand for internet services and abilities has skyrocketed. This could also serve as a source of economic growth while simultaneously honoring the resurgence of our cultural legacy.

2 Literature Review

Only one component of this project involves the technical hurdles of creating and developing an e-Business web page. The project's main goal is to gain the necessary knowledge, abilities, and experience to construct an e-business website based on the investigation and analysis of user and market requirements. [1-5] The fundamental concept is to develop a specialized website that would give job services to people in rural areas, based on a simple seeker-provider paradigm. This website will provide everyone with access to a dedicated website that will connect disadvantaged people looking for work with employers who can provide them. [5-9] The site will maintain a database of job openings and allow users to conduct searches to link job seekers with employers. According to Porter and Millar (1985) information gives competitive

advantage to a company in three different ways: By starting new firms, even within an existing company's operations [9-14]. Information Technology is of strategic importance. achieved for businesses by influencing the value chain and, as a result, the technological and economic activities that a company engages in the corporation performs to conduct business. [15] It not only changes the value chain, but it also changes the product. Alternatively, the company's service. In addition, there are five methods for successfully integrating information technology into corporate operations. This can be accomplished by: 1) determining the degree of information intensity 2) determining the role of information technology in the future structure of the industry. 3)comprehending how it can help their businesses gain a competitive advantage.4) looking into the possibility of starting a new business. 5) creating a strategy plan for utilizing information technology [15-20]. Equal Opportunity for All: Information technology and e-business create equal opportunity in the work market for everyone. We should analyze whether digital divide is a factor that could influence the approval of the final product before choosing in favor of developing an e-Business for IT employment. It is critical that everyone has the same access to the website and its services. The digital divide should not be regarded a major factor in the development of e-Business in this project. [20-25] The key reason is because the website that will be built will be an employment e-Business for IT graduates and IT employers. This means that all the Regardless of ethnicity, nationality, or social background, all stakeholders have frequent access to Internet services. [25-29] We may also assume that, due to their educational background, they will be able to take use of all the chances that web-based services provide [30]-[32].

Website-building methodologies: An inventive and revolutionary idea can serve as the foundation for a successful e-business. The profit potential of an e-Business can be increased by using the suitable business model and creating a specific strategy. [12] Technology, particularly computer-based technologies, plays an important role not only in the success of an e-Business, but also in its very survival [13], [33]-[38].

3 Proposed Methodology

The 'Functional and Data Description component would come up with relationships allying main data objects and its essential parts that flow in our system. Data is basically all about related to digital media posted by users of our application; moreover, profile information of buyers, sellers, and admin too. The figure 1 showed the process and System architecture of Khudi and it would be described in this portion in the form of context level model. Basically, the synopsis of Khudi platform would be explained here and details in sub sections of this area. Our platform is basically a multivendor application so it is quite different from large number of E-commerce applications available, its complete architecture with system visual representation would be described in the following sections. In architectural model each subsystem in our Khudi project would be described here. Following are the five main system modules in our whole system: WEB BROWSER: Web browser is one of the main system modules because the goal of web browser e.g., Chrome is to retrieve data and information from the web. Then displays this information on the device. When user hits uniform resource locator for example [https:// www.Khudi.com](https://www.Khudi.com) then the browser would be retrieving them and presents on user's devices. In our website communication

between server and browsers would be encrypted for security purposes as https arrange. WEB SERVER: HTTP component creates http server which would be listening to ports and give response back to client. “Create Server () method” is used to create an HTTP server. In sense of hardware components web server would be storing web server software and module files of website like images, html documents & JS files). It is connected to the Internet and supports physical data interchange with other devices connected to the web. And web server would be sending an HTTP response: not found page error if web page not found which was requested or if user has entered incorrect URL. USERS: Users of our website Khudi are the people that may reach any page of the website. So as our website would be working perfectly and would have compatible & responsive design so they would easily enter the request for the web pages and find their desired results. WEB FRAMEWORK: Web framework gives us standard direction for building and deploying web applications with awesome user interfaces & it's a software framework for the support the developing of web apps which include website APIs & website resources. MONGODB: MongoDB as NoSQL, database so it would be storing data in JSON format. All the data that is needed to be stored would be stored in MongoDB database management system. For example, all the information of registered users, for the validation, complete information of products/skills present on Khudi platform moreover what products have been purchased so they would easily be removed and what new products/skills have been added & vendors information that would be selling their skills through the website etc.

EXPRESS.JS Express.js is a backend web framework for Node.js. It is an open-source software i.e., it is 100% free. The design for express framework is basically to develop robust websites and APIs. It has fast speed and less code. NODEJS Node JS is basically a cross platform and open-source platform that access JS code but outside the browser. Node JS is used for traditional websites, web applications and back-end services. It is not a programming language but a runtime environment that runs JavaScript code.



Figure 1. System Architecture

4 Result and Discussion

Throughout this research, we've been trying to figure out what considerations should be considered when molding a user's first impression of an e-commerce website's main page. We acquired a full view of both what was valued to consider from a user standpoint as well as an understanding of how their eyes tend to move when establishing their first impression by conducting an experiment with a complementing questionnaire.

However, based on current trends, people will become accustomed to online consumption as the Internet becomes more prevalent in the country and e-commerce becomes more prominent. There are also numerous B2B2C e-commerce websites. The main issue that needs to be addressed in website design is how to assist customers in swiftly locating their desired products and completing the shopping experience in a clear and concise manner. As a result, showed in table 1-3, it's critical to improve the application of the user experience idea, match user needs, enhance user volume, and produce a positive brand impression. According to previous research studies on e-commerce and Web assurance services, some consumers have absolutely no concerns about doing business on the Internet, while others have various levels of concern. A survey was employed to acquire information about e-commerce experiences and perspectives for this study. A total of 50 people took part in the survey. Most of the people have previously made an internet purchase. According to a Nielsen global poll, more than half of Internet users had completed at least one online transaction in the previous month (RTO 2008).

The distribution structures for goods and services are undergoing significant changes because of e-commerce. The shift isn't limited to electronic contract processing and account settlement; digital material lends itself to online distribution, and as a result, an international distribution industry is growing.

This is claimed to be the e-commerce sector with the quickest growth rate. Within a few years, the B2B model is expected to become the industry's largest value sector. The B2B model entails computerized interactions between households for ordering, purchasing, and other administrative chores. It covers commercial subscriptions, professional services, manufacturing, and wholesale dealings, among other things. In the B2B paradigm, commerce can sometimes be conducted between virtual organizations that do not have a physical presence. In such instances, only the Internet is used to conduct business. The B2B model's key two advantages are that it can efficiently maintain the supply chain's movement, as well as manufacturing and procuring operations, and that it can automate corporate procedures to offer the proper products and services swiftly and cost-effectively.

Transactions between businesses and consumers are part of the B2C concept. It is applicable to any company that offers its products or services to customers over the Internet. These websites create an online catalogue and keep product information in a database. Online banking, travel services, and health information are all part of the B2C business. Because individual consumers send their credit card and personal information to a commercial organization's Website, the B2C model of e-commerce is more vulnerable to security concerns. Furthermore, the customer may have concerns about the security and effective use of his personal information by the business. This is the primary reason for the B2C model's lack of popularity. As a result, it is critical for business organizations to establish security methods that ensure a consumer's business information is secure.

Table 1. Comparative feature analysis

FEATURES/ SITES	Buyer rating	Seller rating	package tracking	Private communication before order	Private Message after order	Words block	anonymous interaction
fiverr	yes	yes	yes	yes	yes	yes	no
daraz.pk	yes	no	yes	yes	no	yes	no
e-bay	yes	yes	yes	yes	yes	yes	yes
OLX	no	no	no	no	no	no	no
Upwork	no	yes	yes	yes	yes	no	no
amazon	no	yes	yes	yes	no	yes	no
Myntra	no	no	no	no	no	no	no

Table 2. Comparative feature analysis

SITES/FEATURES	Seller Stats	Analytics for seller	Same seller/buyer account	Web FAQs/Help
fiverr	✓	✓	✓	✓
daraz.pk	✓	✓	×	✓
e-bay	✓	✓	✓	✓
ali-express	✓	✓	×	
OLX	×	×	✓	✓
Upwork	✓	?	✓	✓
flip-kart	×	✓	✓	✓
Myntra	✓	✓	×	✓
amazon	✓	✓	same or separate	✓

Table 3. Comparative feature analysis

SITES/FEATURES	cash on delivery	chatbot	Post request	product FAQs
fiverr	×	×	✓	×
daraz.pk	✓	×	×	✓
e-bay	✓	×		×
ali-express		×	×	
OLX	✓	×	×	×
Upwork	×	×	✓	×
flip-kart	✓	×	✓	×
Myntra	✓	×	✓	✓
amazon	✓	✓	×	✓

Attached are the pictures of the application view of our project KHUDI. To make it easy for the users we have designed the layout of the project to make it understandable for the users.

Users can register through application. There would be option for the user's weather they signup as a buyer or seller. They can easily navigate through pages. Seller can see their orders in the dashboard where seller can easily chat with buyer. Seller can

see the sale of the month in the orders section. Moreover, they can also see the total orders and sells of the month or year. Buyer can approach to the buyer and negotiate about the price with sellers through chatbot. Buyer is typically a name given to an individual that offers required payment to a seller, in exchange of goods or services that the individual is interested in buying. There are multiple languages in the chatbot so that both the parties can easily communicate with each. Admin can handle both seller and buyers account and, they have the authority to make any changes in the project. Our platform is based on website and application and as compatible for both iOS and android as it is hybrid application it can be considered as a social platform. There would be following complete description for our system behavior. Buyers and seller would be the two main characters in our platform they simply would be communicating to each other to get services and earning benefits respectively. For getting more details of the product buyers can send personal messages to sellers but the condition is that no contact information of both buyers and sellers should be shared, in case of any information would be shared they can be blocked, or any action can be taken against them. As it can be considered as social platform so if the buyer wants work from the specific seller or desires any specific free-lancing service or any other service, he can simply write down it in search bar and can get the results. Also, if buyer for example desires any crafting service in the range of 5000 so he has the option to tick mark the range or need any specific color for products, all this can be easily filtered out for our platform. The system's initial event is the login event, which occurs on the home page shortly after the user arrives on the website. Both the seller and the bidder must attend this event. The sellers must use the login event to be sent to their portfolio, where they can promote their work and use the other features of the website. To utilize the platform's features, buyers must use the login event. Both users can access their accounts by logging in with their email addresses and passwords as shown in figure 2. Behavioral changes in the system would occur through the following mentioned system: 1) When the user first time visits our page, they must have to sign up to purchase or to sell their services. The form would be simpler as much as possible to make system user friendly. Users would provide their little bit information in our form and can enter but photo of the seller or buyer would be uploaded.2) User can easily sign in once the sign-up process has been completed now the users can place the order, can maintain their profiles can search any specific seller or buyer or also can send messages to other sellers or buyers also the like and comment option would be available only for the registered users.3) When the user would be signed out the user must have to enter sign in details in order to connect again.4) Messages can be sent from buyers to sellers or sellers to buyers there would be an event occurred to send the messages from personal account of registered buyer or seller.5) Notification from the buyer if he places order or notification from the seller if he completes order and admin can also send notifications to buyer and sellers.6) Profiles can be maintained on daily basis for example person earned 1k dollars after few days he earned 2k dollars total so in the filtration option if buyer searches for sellers who earned more than 2k dollars can easily find that person.

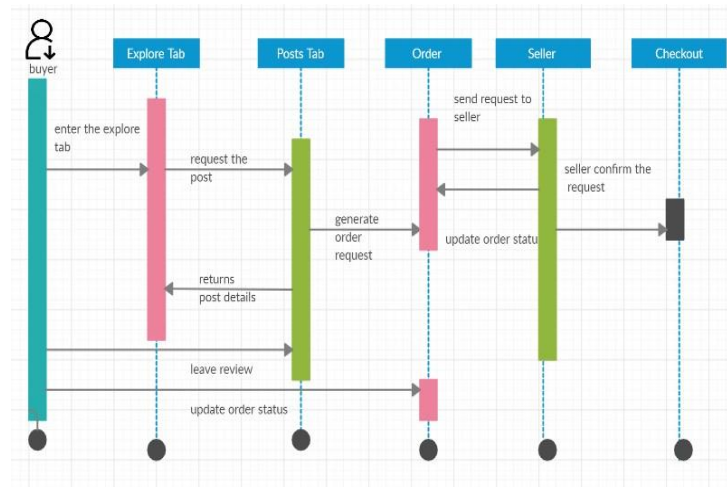


Figure 2. Buyer request process

5 Conclusion

MERN technology and hybrid application are under development technologies. These great technologies are totally new technologies unlike php and c++ programming languages. Moreover, using these amazing technologies, we have made a great platform for the people live in village and have very low education and knowledge, for the women who have no earning resources and have some skills like embroidery on clothes, for students who are taking education and need heavy fees for their education and this platform for rich and high educated persons. This is the great earning source for users and customers of the platform users if they have skill and they earn online from it so this would resolve many problems from student's life who cannot earn money at this stage Moreover, poor women will earn lots of money and can start their own business by saving money earned from our amazing and unique platform. Moreover, this platform would also the great source of revenue when we would bring it into the real-world scenarios. Throughout the period of constructing our final year project we have faced many new and exciting challenges as this is completely new technology we faced many difficulties but we learned a lot of things from this amazing platform, we learned that the project should not be on ad-hoc basis but the great websites and applications are made through proper software cycle development methods for example agile method or waterfall models , we also learned how to manage team management and moreover we learned very new and exciting technologies through this amazing final year project.

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