

IMA MARKET

A PROJECT REPORT

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CERTIFICATE

This is to certify that the Project report “**IMA MARKET**” being submitted by “**GANAN H, ANEESH K, RAJAVARDHAN R , AZMATH PATEL**” bearing roll number(s) “**20211IST0025 , 20211IST0004 , 20211IST0018 , 20211IST0015** ” in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Information Science and Technology is a bonafide work carried out under my supervision.

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DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **IMA MARKET** in partial fulfillment for the award of Degree of **Bachelor of Technology in Information Science and Technology**, is a record of our own investigations carried under the guidance of **MR. SRINIVAS MISHRA, ASSISTANT PROFESSOR, School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.**

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ABSTRACT

Our goal is to utilize the huge pool of Information technology talent based in India for furthering the objectives of national importance and in that context, we propose two integrated ICT tools: The National Importance Project Portal, which is a central place which catalogs vital projects and provides all information required for the successful implementation of the projects, and the Skill-Based Volunteer Network, which forms the basis of matching available appropriate human resource to these important projects, thus avoiding wastage of their time and ability. Moreover, this will enable tracking of project milestones and timelines, better coordination among various stakeholders, systematic integration of ideas, and serve as knowledge management tool, while the network will facilitate networking, offer capacity building and purpose to reward volunteers for their services rendered.

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CHAPTER-1

INTRODUCTION

1.1 Leveraging IT for National Importance Projects

Transformational changes about the process of identifying and dealing with challenges and solving them have been wrought through the rapid pace at which technology integrates into society. From health care to education, governance, and commerce, the critical role technology plays in enabling efficient, scalable, and impactful solutions cannot be denied. Advances in information technology create an unprecedented opportunity to tackle some of society's most important issues by harnessing digital tools and platforms. These platforms simplify processes, at the same time filling gaps between resources and needs, providing new avenues for solving issues both locally and nationally.

A very significant aspect of this strategy is to implement projects that have national importance, taking advantage of IT resources to better critical challenges. In these projects, great focus has been made toward the use of centralized portals and e-commerce platforms by setting up a comprehensive ecosystem through which stakeholders can add value, collaborate, and track progress in the projects. Centralized portals, therefore, represent a single point of management of projects of national importance. The progress is tracked and resources are allocated in a transparent manner. Channels for feedback loops are also facilitated within the project. Such solutions align the common goals between the public and private sectors, eliciting diverse communities to participate inclusively.

The concept takes this to the next level by integrating centralized portals with commerce e-commerce under one framework, thus making it stronger and more effective. While the portals have focused on project management towards handling humongous projects, the e-commerce platforms empower local businesses, artisans, and communities to be actively involved in the national development process. By aligning all these technological tools with available infrastructures, this initiative promotes efficiency, transparency, and collaboration. This dual approach not only allows the program to answer pressing needs but also tries to scale up a framework for future innovation so that societal progress remains sustainable and inclusive.

1.1.1 National Importance Project Portal: A Centralized Approach

National Importance Project Portal: This is a very good initiative, on which basis this portal has been constructed as a hub that can manage all the projects of national importance. It aims at bringing together government agencies, IT professionals, private organizations, and local communities into a single platform that enables diverse stakeholders. Thus, this portal provides comprehensive information about projects in terms of financial, technical, and operational requirements for informed decision-making by the stakeholders. For instance, in a flood relief project in Manipur, it can detail out funding required, what materials are needed, and what kind of work is being done so that everyone working on the project and all stakeholders are in the know. Such centralization saves inefficiency and encourages inter-sectoral collaboration.

One of the most important features of the portal is the aspect of transparency. It ensures accountability at every step of a project through real-time tracking and regular progress updates. For example, a mega-infrastructure project like the construction of a dam in a flood-prone area can carry information regarding progress made in its construction, the budgets used, and timelines so that these are available to stakeholders and to the public. The mechanisms for feedback provisions permit communities to raise issues or suggest changes and ensure that projects remain sensitive to them. In this openness, trust among participants grows, and wider participation increases.

1.2 E-Commerce as a Catalyst for Community Recovery

This proposed framework advocates the restoration of Ima Market in the state of Manipur that incidentally has been one of the most culturally and economically vibrant centers to be derailed in recent years. In fact, Ima Market is one of the worlds' largest women-managed markets, and thus, it lends much importance not only to the economic but also the cultural stature of the region. There is an immediate and long term need for the restoration policies to combat its problems, be it natural calamities, changing socio-economic indicators, or infrastructural insufficiencies. Introducing an e-commerce platform will digitize the activities of Ima Market vendors such that they can easily access people miles away from their traditional local markets. It will, therefore, be possible for these vendors to ensure that their products are exposed comprehensively and, in some cases, unique products like handwoven textiles, bamboo crafts,

or organic produce. Incorporating grassroots markets into national projects illustrates how grassroots problems can be explored through the help of modern technology.



Fig 1.1: E-Commerce as a Catalyst

This theory is based upon the concept of inclusiveness and does not neglect vendors and artisans who experience geographical and economic restrictions. Most vendors in Ima Market are dependent upon passing pedestrians and local people, thereby restricting their full growth potential. This gap is bridged by the e-commerce platform by providing a secure interface through which artisans can present their products to a larger audience. Traditional Jewelry Makers, for example, can allow their elaborate designs to be presented before urban and international buyers as a gateway for economic growth as well as cultural change. Features such as multilingual support, training programs, and secure payment gateways also empower the vendors to participate with confidence irrespective of their preceding experience in the digital arena. This approach, therefore, democratizes access to markets and produces a vibrant digital economy immersed in inclusivity.

The general dimension of the e-commerce platform extends beyond mere economic empowerment. Building trust and active engagement creates an ecosystem that sustains itself, strengthens local communities as it integrates them into national goals. A basic tool for vendors

is now managing inventory, engaging with customers-both elements of modern market demands. Since this platform enhances access to authentic and quality products, consumers benefit while helping to preserve the cultural heritage of handicrafts. In that manner, a project of restoring Ima Market benefits not only the recovering market but develops a replicable model that could be scaled up in other local markets within the country, demonstrating how this type of technology may foster resilience and growth in underdeveloped regions.

1.3 Transformative Impact and Future Directions

Initiatives like the National Importance Project Portal and the E-Commerce Website will be successful since they transform society. They are based on the principles of cooperation, innovation, and sustainability; therefore, they serve the unique needs of the stakeholders and focus on the long-term perspective. By directly involving the stakeholders at the local level, such as local leaders, vendors, and artisans, in the project, the solutions presented are particularly suitable for certain types of challenges. For example, flood-stricken local residents can be engaged in determining how their real needs can be integrated into a disaster recovery project in the region to recover the most necessary resources. This is a type of user-centric design that bridges the gap between simple, technical solutions and on-the-ground implementation so that effective and inclusive outcomes are produced.

The project supports the broader policy objectives of digital transformation and national development projects because it addresses immediate problems by leveraging technology and lays a foundation for future projects. The two-site model can be adaptive because it is not limited to one scenario. For instance, the framework can adjust from a more tailored focus from the project reclaiming Ima Market in Manipur to accommodate another sector such as rural healthcare, renewable energy projects, or education-based programs. Such scalability ensures that the platforms remain relevant to different applications and offer a sustainable solution to changing societal needs. The incorporation of real-time tracking, mechanisms of feedback, and security in transactions ensures that the strategy stays valid and functional as the years go by.

CHAPTER-2

LITERATURE SURVEY

2.1 Centralized Portals for National Development

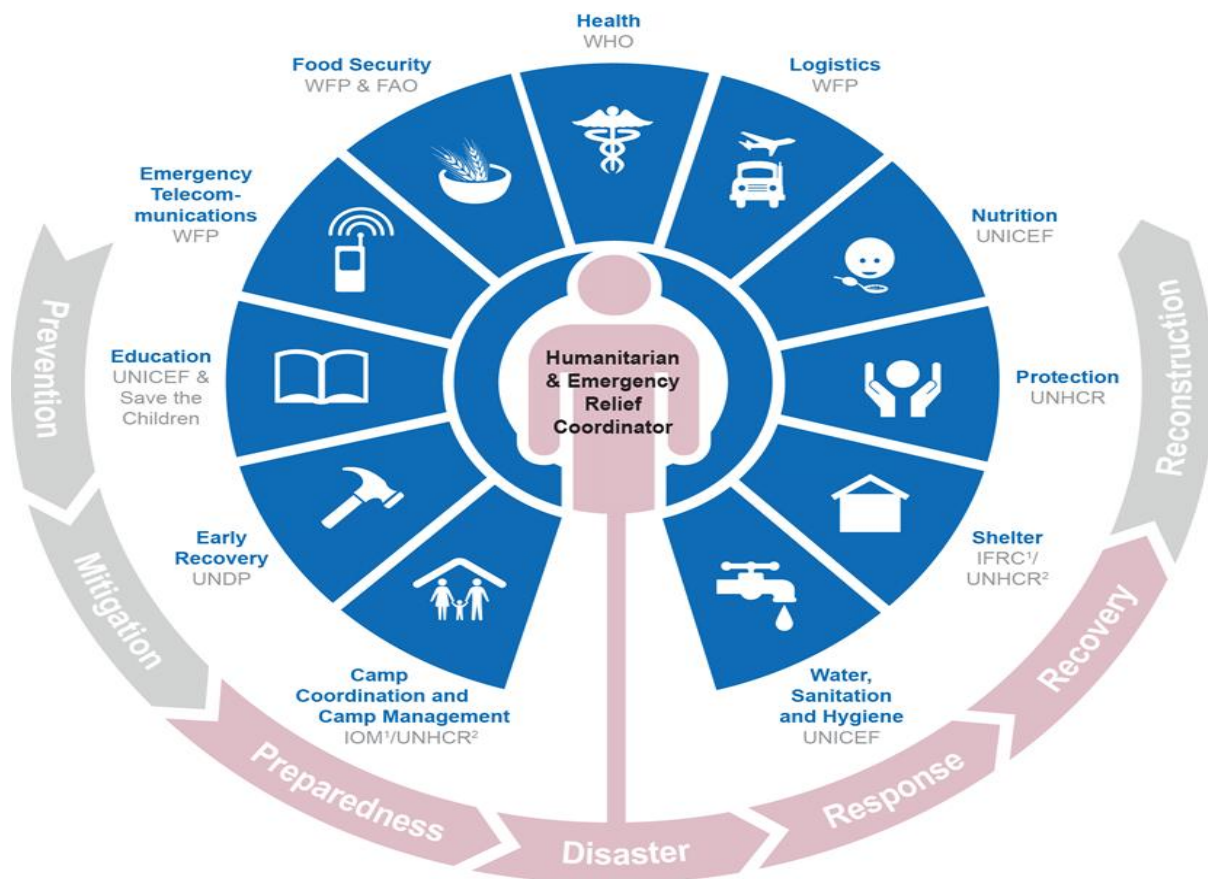


Fig 2.1: UNDP disaster relief technology

Centralized portals have developed as effective tools in the governance of big initiatives in terms of coordination, transparency, and the most efficient allocation of resources. Cases generally emphasize the role of portals in addressing complex issues as a means of information centralization, which is helpful for coordination among relevant parties. In fact, Kumar and Jose (2017) further posits how centralized platforms lead to more effective mechanisms of decision on public projects through real-time data and analytics. Similarly, Tian and Dai, 2010 argued on how information management systems would help ensure accuracy as well as safe data that are targeted to build trust.

Centralized portals have been of great assistance in the management of disasters. The United Nations Development Programme has utilized portals in coordinating relief activities; it is an example illustrating how technology can be applied to fast action in times of crises. The examples discussed above illustrate a few of the advantages of having centralised systems, particularly through efficiency and accountability, most importantly, for national initiatives.

2.2 E-Commerce Platforms and Community Empowerment

E-commerce has significantly influenced how businesses operate, and it apparently leans towards favoring SMEs by opening up a larger market. This is evident in how Khoury and Shirmohammadi (2007) showcased that the involvement of local vendors in global markets in competitive manners can be facilitated through e-commerce platforms. Another related topic was the strategic development of e-commerce frameworks for underrepresented areas by Lingyu et al. (2019), relating to the provision for economic growth and digital inclusion.

For example, some of the best practices that are illustrated through case studies on Amazon and Etsy focus on the use of personalized recommendations, secure transactions, and responsive interfaces in engaging the user base. Each of these aspects is needed to create a good experience that then inspires participation. For instance, Etsy's emphasis on building small-scale artisans directly corresponds with the aim of the proposed e-commerce site for Ima Market, making it clear how the facility will enable vendors from one's immediate locality and even encourage the preservation of local cultural heritage.

2.3 Integration of Portals and E-commerce Platforms

Consolidation of central portals with the e-commerce platform can be an opportunity to handle grassroots issues in conjunction with the national strategic objectives of the state. Hybrid models forwarded by Deci and Ryan (2000) propose that both governance tools along with commercial systems can be integrated, where management operations are streamlined, and more stakeholders can get involved in the process. For example, the Government e-

Marketplace of India combined procurement management with the vendor platform to build a practical and transparent system for public procurement.

2.4 Existing Challenges and Drawbacks

Despite holding such vast promise, centralized portals and e-commerce platforms have their share of problems. Digital literacy deficits of target users, security threats, and resistance to change are some of them. Vendor training and community awareness are identified as key steps towards overcoming these very issues as is suggested by Khoury and Shirmohammadi in 2007. Furthermore, strong cybersecurity measures should be deployed as well for transactions between the portals and e-commerce centers and the users, Tian and Dai stressed in 2010.

Market saturation and technological dependencies are threats too. Platforms need to innovate constantly and show their competitive prowess, according to the dynamic nature of digital ecosystem studies. The response to the challenges would require a user-centric approach, combining technical excellence with engagement in the community.



Fig 2.2: E-commerce website development framework

Table 2.1: Analysis of Previous Studies and Concepts

Sl. no	Title of the Paper	Authors	Technology/Concept Used	Results/Findings	Limitations/Challenges
1	Dynamic Contributions to a Public Project: The Impact of Rising Marginal Benefit and Completion Benefits	Ronald Baker and Matthew Halloran (10-Jul-05)	Laboratory experiments using z-Tree software	Completion benefits significantly increase contributions and project completion rates, especially when combined with rising marginal benefits.	Potential subject confusion and the arbitrary nature of some design choices, such as the 20-token threshold used in analysis.
2	Accessibility and Scalability in Collaborative eCommerce Environments	Michel Khoury, Shervin Shirmohamadi (31-Jan-08)	Adobe Shockwave, .NET v3.0, peer-to-peer networking, and application-layer multicasting	The system supports up to 241 nodes in a 3-level ALM tree while maintaining <200ms delay for real-time collaboration	Limited to 16 connections per peer due to Director constraints, and potential issues with nodes leaving the system
3	E-government Platform of Personalized Information Service Based on Gridding Management	CAI Yun-Juan, TANG Zhi-Wei, GAO Tian-Peng (26 June 2009)	Gridding management applied to e-government personalized information service platform	Proposed platform can subdivide and integrate government information resources, match user needs efficiently, and anticipate potential information needs	The paper presents a theoretical framework without empirical implementation or testing of the proposed system
4	Development of E-government Platform Based on B/S Architecture and Performance Evaluation Program	HE Wei, TAN Junshan, WU Yiqiang (28-Dec-09)	B/S (Browser/Server) architecture, database management systems, and information security systems	Proposed a novel e-government platform model integrating B/S architecture with performance evaluation	The paper is largely theoretical and does not provide detailed implementation or testing results
5	Application of management information systems and new technologies in crisis management	Seyyed Kamran Yeganegi (Jun-11)	Management information systems, GIS, remote sensing, global positioning systems, and decision support systems	Advanced information systems and technologies can significantly improve crisis prevention, response, and management capabilities	Implementation challenges in developing countries and need for updated information systems and staff training Share New Continue GPT-4.
6	Expert-Citizen Engineering: "Crowdsourcing" Skilled Citizens	Zhi Zhai, Peter Sempolinski, Douglas Thain. Greg Madey, Daniel Wei, Ahsan Kareem (02-Jan-12)	Web-based platform with OpenFOAM CFD software and cloud computing resources	Expert citizens have higher expectations for system stability and computational capacity compared to average citizen engineers	Small sample size, lecture quiz design issues, and challenges in automating evaluation of complex submissions

7	Volunteer selection based on crowdsourcing approach	Nurulhasanah Mazlan, Sharifah Sakinah Syed Ahmad, Massila Kamalrudin (22-Apr-17)	Crowdsourcing approach and fuzzy system for volunteer selection and task matching	Proposed framework integrates crowdsourcing into volunteering systems to automate and improve volunteer selection and matching	Framework is theoretical and needs to be implemented and evaluated in real-world environments
8	Exploring The Benefits of Volunteer Engagement in Nonprofits: A Value Co- Creation Perspective	Ridvan Kocaman (19-Feb-21)	Qualitative research approach with in-depth interviews and qualitative content analysis	Volunteer engagement increases volunteer loyalty, encourages recommendations, and generates new ideas for social service development	Study is exploratory in nature and focused on a specific context, which may limit generalizability
9	Engagement Program of Public Health Volunteers and Caregivers in Home Care Service for Stroke Patients	Uten Sutin, Srimuang Paluangrit, Supika Dangkrajang, Wandee Sutthinarakorn. Vanida Prasert (Mar-22)	Quasi-experimental design with intervention and control groups, using questionnaires for data collection	The engagement program significantly improved stroke knowledge, care practices, and patients' Barthel ADL index scores	Study was limited to one geographic area and may not be generalizable to other contexts or populations Share New Continue.
10	Bridging the Digital Divide: Assessing the Impact of a Community-Focused Service-Learning Project	Rouxan Colin Fouché and Liezel Nel (Jul-24)	Online questionnaire using Google Forms, with analysis in SPSS and Nvivo	High participant satisfaction, improved computer literacy and employment prospects, but limited community input in project planning	Study specific to one service-learning project in South Africa, may not be generalizable to other contexts or communities.

CHAPTER-3

RESEARCH GAPS OF EXISTING METHODS

3.1 Limited Integration Between Portals and E-Commerce Platforms

The former is a mechanism towards centralizing national and state-level project management, while the latter is decidedly an e-commerce setup concerned with the processes of creating digital marketplaces for vendors and businesses. Sometimes, even these systems exist in

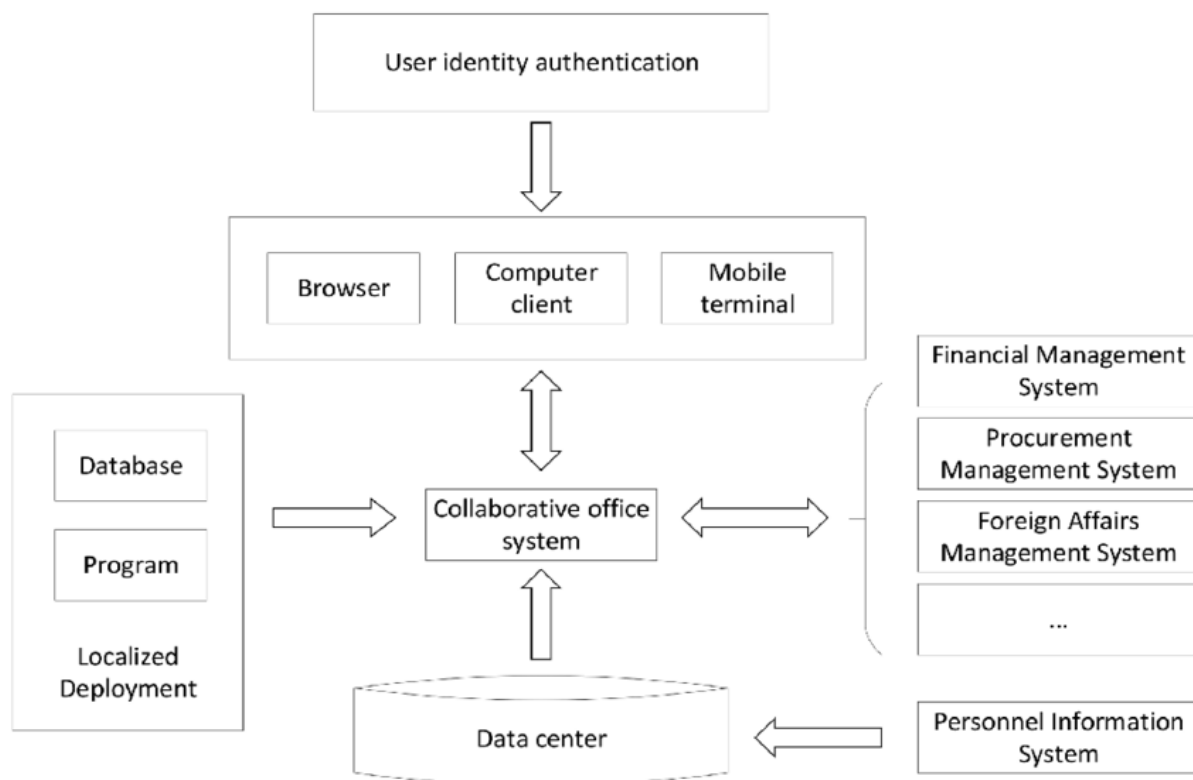


Fig 3.1: Integration of e-commerce and centralized portals

isolation of each other, wasting the opportunities for synergy. A missing link in integrating both does not allow both to be simultaneously addressed—that is, high-level project needs and local economic empowerment related to the use of either of these technologies. For example, it may make a disaster recovery project resource allocation very effective through a portal but may not empower local businesses to contribute actively.

It would facilitate the flow of information and resources into the system from one end and spill out to stakeholders on the other end quite seamlessly. Pooling together the real-time project tracking capabilities of the portal with the reach the e-commerce platform enjoys in the market,

all this could help local vendors align their offerings with national initiatives such as sustainable materials for construction projects. It would encourage mutual growth and bring a more inclusive framework for community participation in national projects.

3.2 Challenges in Digital Inclusion and Accessibility

This largely excludes the vast majority of the population, particularly in rural and underdeveloped areas, from the opportunities of the digital world because of a poor infrastructural setup and lack of digital literacy. Centralized portals and e-commerce are taking for granted a base level of internet access and therefore a certain knowledge of users, which is sadly lacking in many parts of the world. These systems, therefore, cannot penetrate grassroots levels as efficiently as they should.

For instance, vendors selling at the antiquated markets like Manipur's Ima Market cannot put their offerings for sale on such websites since they lack technical skills or language assistance that would enable them to take advantage of these platforms. This level of narrow digital tool kit prevents them from tapping clients beyond their immediate locality. In this manner it is reinforcing the inequality while depriving the platforms of harnessing their broader potential of inclusivity and empowerment.

3.3 Insufficient Focus on Cultural and Economic Sustainability

While e-commerce has changed the way businesses have functioned, especially in terms of bringing profits and increasing scale, it leaves aside some other thing-be it cultural heritage-and also does not provide appropriate visibility or incentives to sustain these artisans. The systems that are available do not offer desired visibility or incentives to sustain all these artisans.

For instance, single artisan producers who are residents of towns, making handwoven cloths and bamboo products can't reach the larger platforms to market their products. The lack of cultural preservation programs on such websites overshadows unique crafts with generic ones. Moreover, economic sustainability for the sellers is also not assured because they can't compete in mass production.

This gap requires the development of specific areas on e-commerce sites where traditional crafts and local products are promoted. Cultural storytelling, fair pricing policy, and eco-friendly certifications may make these products more impressive and valuable. The orientation of e-commerce towards cultural preservation will convert the platforms into catalysts for economic as well as cultural resilience.

3.5 Resistance to Technological Change

People resist the change brought by new technology either because they do not believe in its benefits or because they feel forced to change from their accustomed practices. Such resistance is, however, more pronounced in rural and semiurban places where adoption is very low. A lot of stakeholders may see these platforms as complicated or irrelevant to the needs for which they are seeking them.

For instance, micro vendors used to transacting with face-to-face interfaces might feel uncomfortable transacting online, even though it is supposed to be helpful to them in the long run. That makes the perceived barrier steeper because of lack of preparedness and support; most users remain outside the digital space. Thus, the intended reach and impact remain unfulfilled.

The gap could be bridged with more targeted outreach on practical and tangible value messages around digital adoption. Training workshops, live demonstrations, and ongoing support can even further improve a user's confidence level while reducing apprehensions. Local community leaders and influencers should be involved in advocating for these platforms among a receptive but cautious user population.

3.6 Scalability Issues in Existing Models

Many of the existing systems are designed for certain purposes and not scalable enough to be applied across other applications. A portal optimized for urban infrastructure projects may not be suitable for handling rural healthcare initiatives. Such limited scalability limits the overall applicability of such systems from organizations, which could otherwise assist in addressing other problems in society.

Besides, one-size-fits-all solutions obviously miss regional differences as far as the needs and resources are concerned. For instance, while a model might have been designed for flood-prone disaster management, it will never be used for the same in drought-prone areas. Lacking modular designs and flexible frameworks severely confines the application of these platforms as their diverse and ever-changing requirements cannot be facilitated.

Scalability to a great extent relies on the platforms that can support flexible architectures, which are further customized for specific use cases. Modular designs open APIs, and adaptive algorithms help ensure these systems remain relevant across contexts. Scalability, in this context, supports future platforms to make the best out of their impact and longevity.

3.7 Inefficient Resource Allocation

Centralized portals never stop rearing challenges about the resource allocation, especially where these are dealt with in real-time demands. Existing systems cannot easily change the distribution of resources in proportion with the needs that may have grown with the scheme over time. This makes it inefficient and thus causes delays-a very difficult situation in cases of disaster and similar sensitive projects.

For example, in the event of a flood relief operation where the more central portal supplies resources to the areas using outdated data, an area may run dry without resource replenishment and dwindle from desiccation. Such incidences of neglect are also seen on e-commerce sites with the inability to match supply and demand correctly in order to experience a toll on overstocking or inventory.

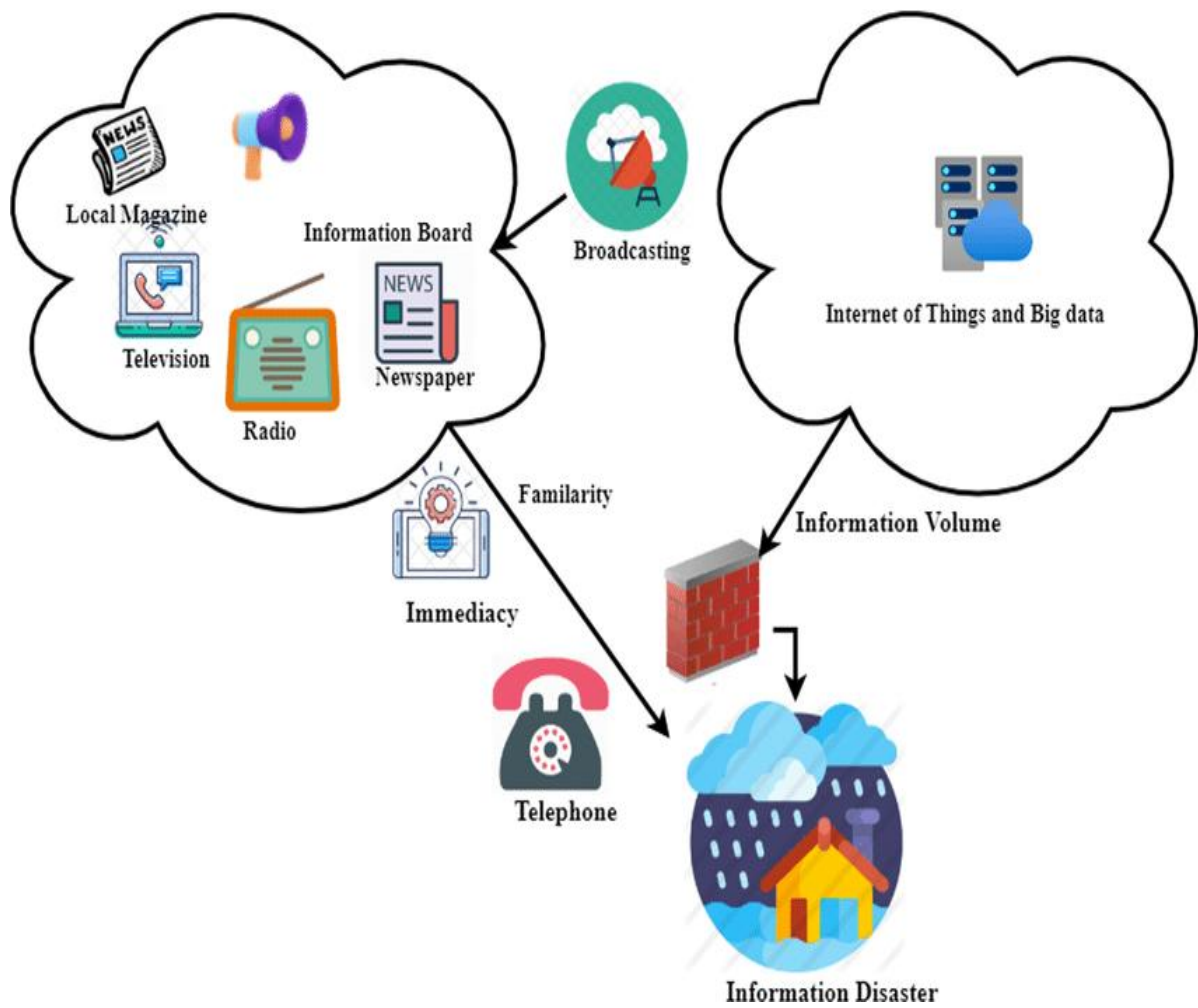


Fig 3.3: AI-driven resource allocation in disaster management

CHAPTER-4

PROPOSED METHODOLOGY

4.1 System Requirements Analysis

The proposed system finds its footing in the realization of the different needs that its stakeholders would have. This process will be steered based on insights from the literature review to ensure that the system addresses gaps in inclusivity and accessibility.

Additionally, gap mapping incorporates evidence from previous studies in the form of a specific description of what is lacking in solutions. These are a weak integration between the systems, lack of good digital inclusion, and also a poorly scaled solution. The analysis makes sure that the system is developed to bridge the gaps while having an intuitive and flexible interface.

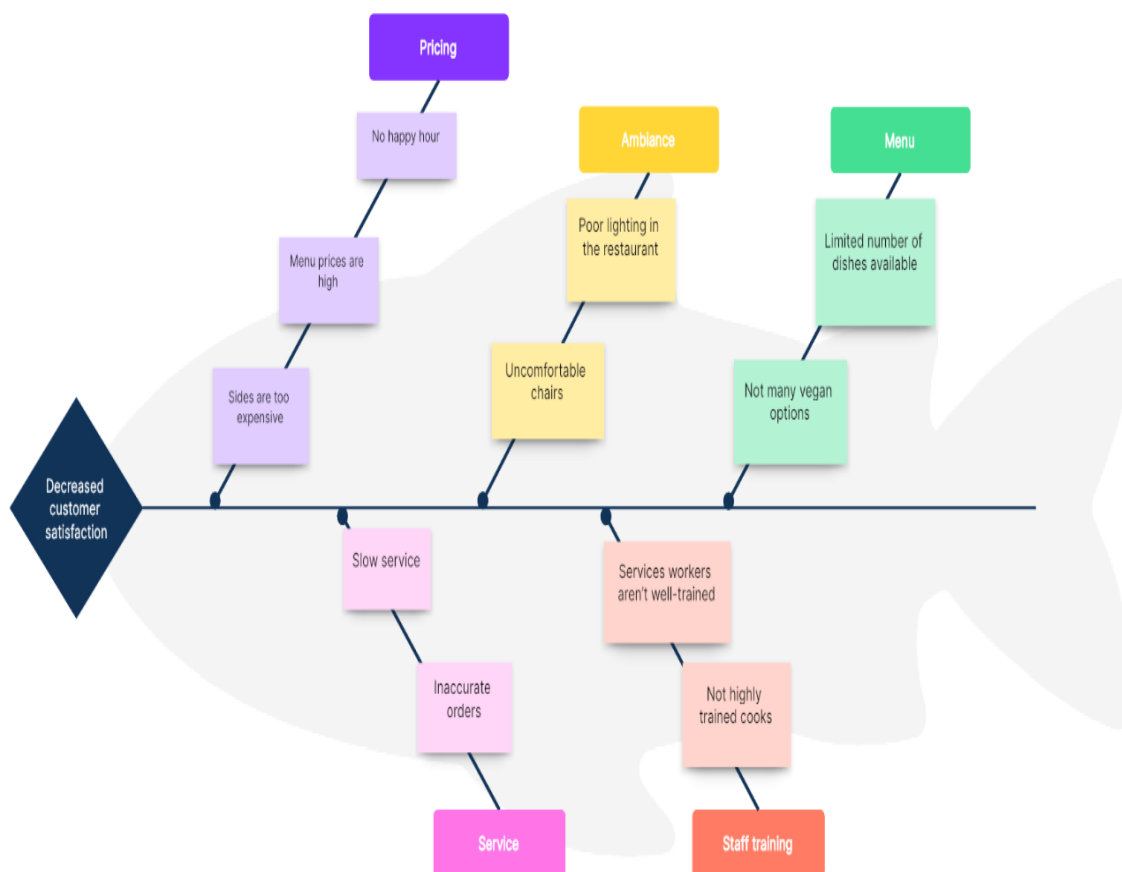


Fig 4.1: Gap mapping in technology systems

4.2 System Design

At this stage, system design will define architecture, data flow, and mechanisms for interaction between the portal and the e-commerce platform. A hybrid architecture will be developed; that is, centralized features combined for project management and decentralized e-commerce operations. The modular design ensures adaptability to a variety of scales of projects and use cases, which will result in the effective functioning of different regions and sectors.

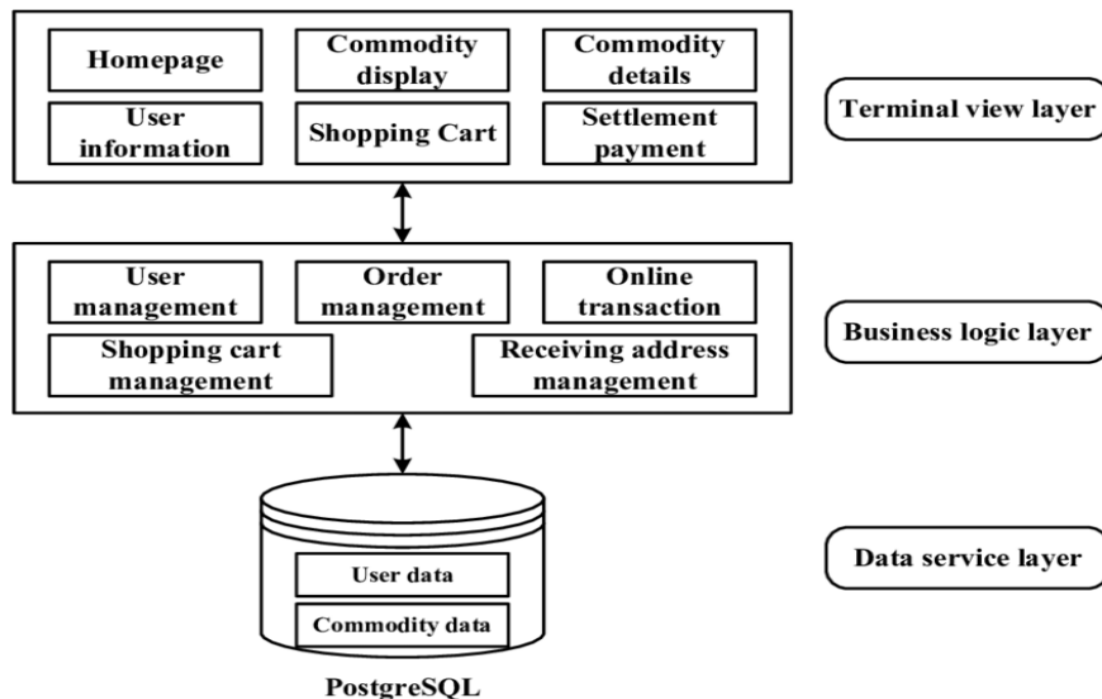


Fig 4.2: Hybrid system architecture for portals and e-commerce

The user interface will be designed to ensure accessibility and inclusivity. Adaptive layout, multilingual support, and module-based training will ensure that different backgrounds may engage with the system properly. Integration of AI-driven insights will enable predictive analytics in efficient resource allocation and user engagement, thereby scaling up and sustaining the system.

4.3 Development

The development phase puts the design into functionality through deployment of modern technologies and best practices. We would utilize scalable frameworks, such as Django or Node.js, for backend development, applying functionality such as resource tracking, inventory

management, and analytics. We will apply technologies such as React.js for developing responsive, interactive user interfaces.

As well, the most relevant vendor support tools will be created to help facilitate support toward vendors while also bringing on greater inclusiveness. These are looking to include inventory management systems, basic dashboards, and training modules as well. All this will empower local businesses with the confidence to participate in the digital economy, close a sizeable gap in digital literacy, and foster economic resilience in any given nation.

4.4 Testing

This phase will include reliability and effectiveness testing of the system in various scenarios. Unit testing will ensure that all the modules are verified to confirm that each unit or component

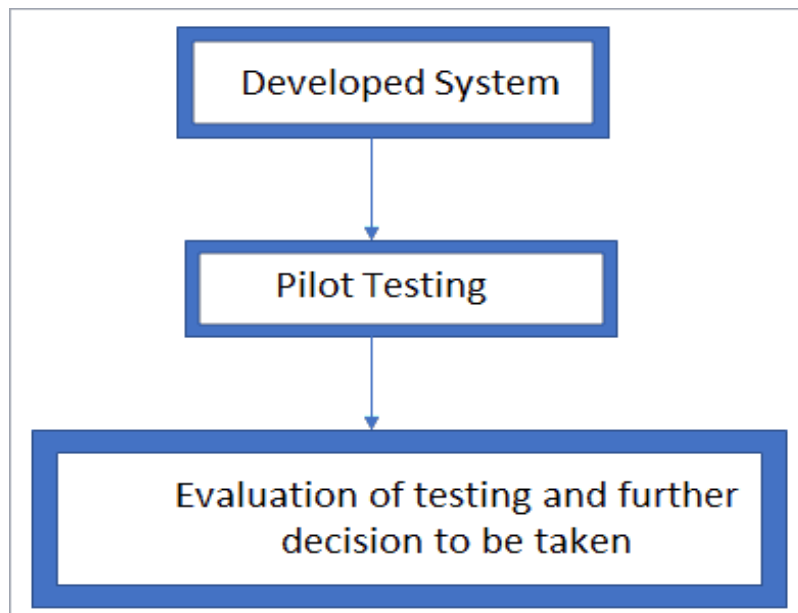


Fig 4.3: Pilot testing for digital platforms

under test is implemented correctly. This means checking on aspects such as project tracking, vendor registration, and transaction processing. Integration testing will ensure that interfaces of the portal will be seamless with the e-commerce platform wherever possible conflicts in data exchange or workflows are targeted.

Security evaluations are also part of the testing process to determine vulnerabilities and

compliance with best practices. Penetration testing and simulated cyberattacks will be used to confirm that the security measures installed are strong enough. Such concerns will be addressed at this stage; therefore, the system will be launched in a reliable and secure manner.

4.5 Deployment

There will be phased deployment so that there's a soft landing and absorption by the users. There would have to be a pilot test done so that it can go and receive some form of real-world test without risking at large scales. This improvement made in this phase would be used for implementing onto the actual platform, ensuring that it has a seamless rollout in multiple regions and user groups.

There will be continuous monitoring of system and user interaction performance with continuous monitoring tools. Analytics dashboards shall ensure that actionable insights arise from such data sources for iterative improvements. It ensures the platform evolves with the user needs and is effective in its objectives.

CHAPTER-5

OBJECTIVES

5.1 AGRA Portal

5.1.1 Increase Project Visibility

Provide a central resource to showcase national importance projects in Manipur. The portal will encompass infrastructure, cultural, and economic development projects, making all aspects accessible to stakeholders. This will enhance exposure, inform stakeholders about project scope and impact, and encourage better involvement.

5.1.2 Improving Stakeholder Communication

Facilitate direct interaction between government agencies, project managers, local communities, and other stakeholders. Features such as forums, feedback forms, and discussion boards will ensure community voices are included in project planning and execution.

5.1.3 Support Local Development Initiatives

Promote development initiatives aimed at improving local infrastructure, education, healthcare, and economic opportunities. The portal will emphasize community participation and advertise project benefits, ensuring alignment with local needs and priorities.

5.1.4 Enhance Transparency and Accountability

Provide detailed information on project budgets, timelines, and status reports to establish trust. Periodic updates will ensure transparency in fund allocation and project execution, fostering accountability among stakeholders.

5.1.5 Provide Marketing and Awareness Opportunities

Raise awareness of national importance projects through marketing tools such as newsletters, social media integration, and promotional campaigns. Organize webinars, workshops, and public education resources to highlight project benefits.

5.1.6 Community Input Collection

Incorporate community feedback into project planning and execution through surveys, polls, and suggestion boxes. This will help tailor projects to meet community needs effectively.

5.2 E-Commerce Website

5.2.1 Enhancement of Buying Experience

Ensure an intuitive shopping experience with advanced navigation, detailed product descriptions, and high-quality visuals. Features like customer reviews, wish lists, and personalized recommendations will enhance user satisfaction.

5.2.2 Shop for Local Products

Celebrate Manipur's cultural heritage by showcasing stories about the products, artisans, and their cultural significance. Collaborate with local artists for exclusive collections to engage customers.

5.2.3 Boost Sales and Income

Provide local businesses with opportunities for increased sales during peak seasons and special promotions. Analytics tools will help vendors optimize inventory and maximize revenue.

5.2.4 Marketing Facilitations

Equip vendors with marketing tools such as email newsletters, social media integration, and promotional banners. Offer training resources to help vendors execute effective digital marketing strategies.

5.2.5 Customer Insight Analysis

Leverage data analytics to monitor customer behavior, preferences, and purchasing patterns. Vendors can use these insights to tailor offerings and improve customer satisfaction.

5.2.6 Support Logistics and Delivery

Build a robust logistics framework to ensure timely delivery. Partner with local courier services and provide customers with tracking options and flexible shipping choices.

CHAPTER-6

SYSTEM DESIGN & IMPLEMENTATION

6.1 AGRA Portal for Flood Victims

6.1.1 Stakeholder Engagement

Stakeholder engagement is a crucial aspect of the AGRA Portal for Flood Victims. Feedback mechanisms, such as surveys, focus group discussions, and interviews, will be conducted with flood victims to gather insights on their needs and experiences. Community workshops will provide a platform for victims to voice their concerns and suggestions directly to project stakeholders. Additionally, advisory committees comprising flood victims, local leaders, and NGOs will ensure continuous involvement in decision-making processes.

6.1.2 Progress Tracking

Progress tracking will be facilitated through user-friendly dashboards that display real-time progress on relief efforts, resource distribution, and project milestones. Regular reports, issued weekly or bi-weekly, will summarize project activities, challenges, and future plans to maintain transparency with stakeholders and the community.

6.1.3 Data-Driven Resource Allocation

Data-driven resource allocation will involve collecting data through surveys and analytics to assess victims' needs, including housing, food, and medical assistance. Resource distribution algorithms will prioritize allocation based on urgency and need, ensuring timely assistance for the most affected individuals.

6.2 E-Commerce Website for Ima Market Vendors

6.2.1 Vendor Onboarding and Training

The vendor onboarding process will include a straightforward registration process with verification steps. Vendors will have access to an onboarding portal for submitting necessary documents and product listings. To enhance their platform usage, training programs will be

conducted both online and in-person. These sessions will educate vendors on platform navigation, inventory management, and online sales strategies. Instructional materials, such as videos and manuals, will further support vendor training.

6.2.2 Secure Transactions

Secure transactions are vital for building trust among users. SSL encryption will be implemented to protect all transactions, ensuring the security of customer data and payment information. Two-factor authentication (2FA) will enhance vendor account security, and integration with reputable payment gateways featuring fraud detection capabilities will further ensure secure payment processing.

6.2.3 Responsive Design

The platform will feature a responsive design, providing an adaptive user interface that adjusts automatically to various screen sizes and devices, including smartphones, tablets, and desktops. User experience testing will be conducted across different devices to ensure a seamless shopping experience for all users.

CHAPTER-7

TIMELINE FOR EXECUTION OF PROJECT (GANTT CHART)

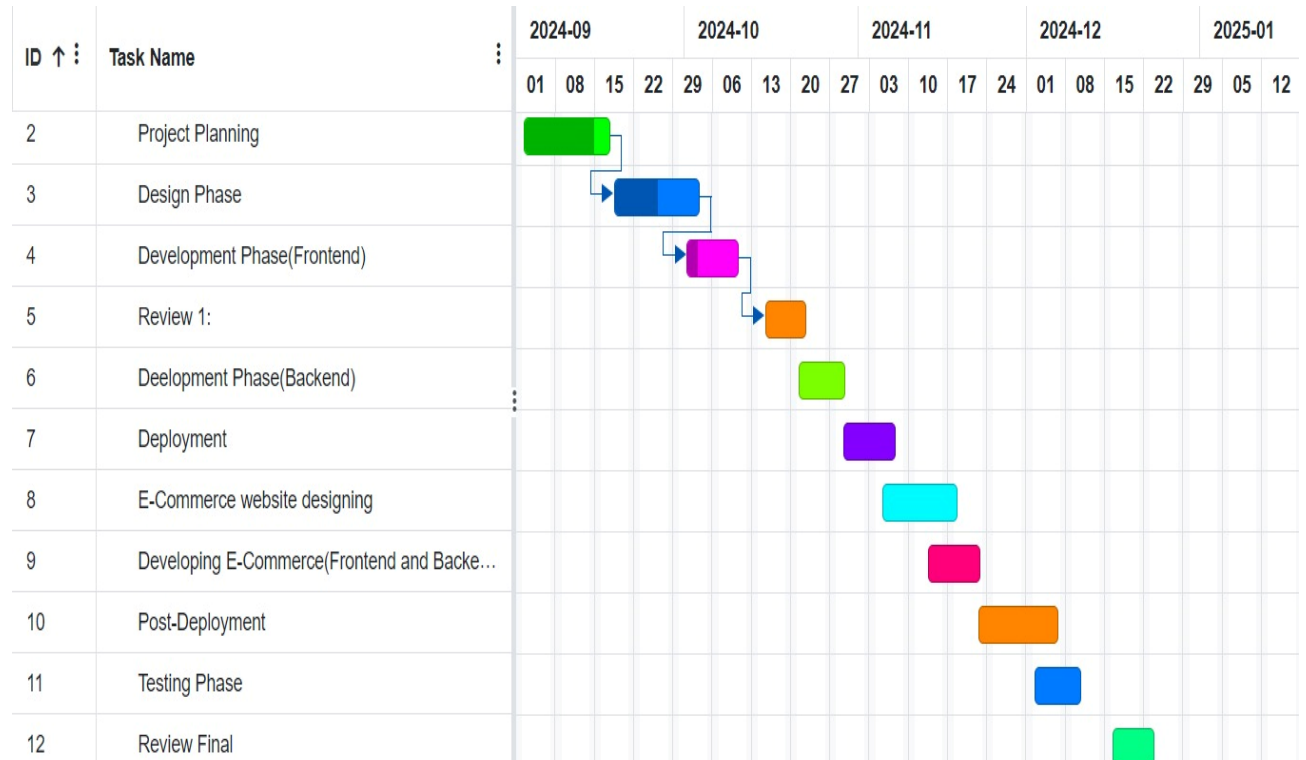


Fig 7.1: Time line Gantt Chart

The execution timeline of this project is thoroughly detailed and systematically planned, integrating multiple phases from conceptualization to final review. Based on the two provided references, the timeline showcases efficient task allocation and milestone tracking, ensuring an effective workflow for achieving the project's objectives.

7.1 Initial Phases: Planning and Design

The project begins with the Title Selection and Title Finalization, which have been completed early on, with 25% and 100% completion, respectively. This step sets the foundation for subsequent activities, including the Analysis of the Problem Statement and the Requirements Phase, which show modest progress of 35% and 10%. Following this, the Planning Phase

exhibits significant progress at 85%, emphasizing the effort put into defining the roadmap, resource allocation, and scheduling.

7.2 Development Phases: Frontend and Backend

The Development Phase (Frontend) began shortly after the planning stage and has made good progress, as shown in the Gantt chart. Parallely, significant strides are being made in the Platform 1 Development, particularly the Tools and Homepage components, with completion percentages of 60% and 75%. These tasks highlight the focus on creating a user-centric interface and integrating essential tools for functionality.

The backend development for Platform 1 is underway, although it lags slightly behind frontend tasks, indicating a sequential focus on core functionalities before integration. The backend work for Platform 2 is yet to begin, as tasks for this platform remain in the initial stages.

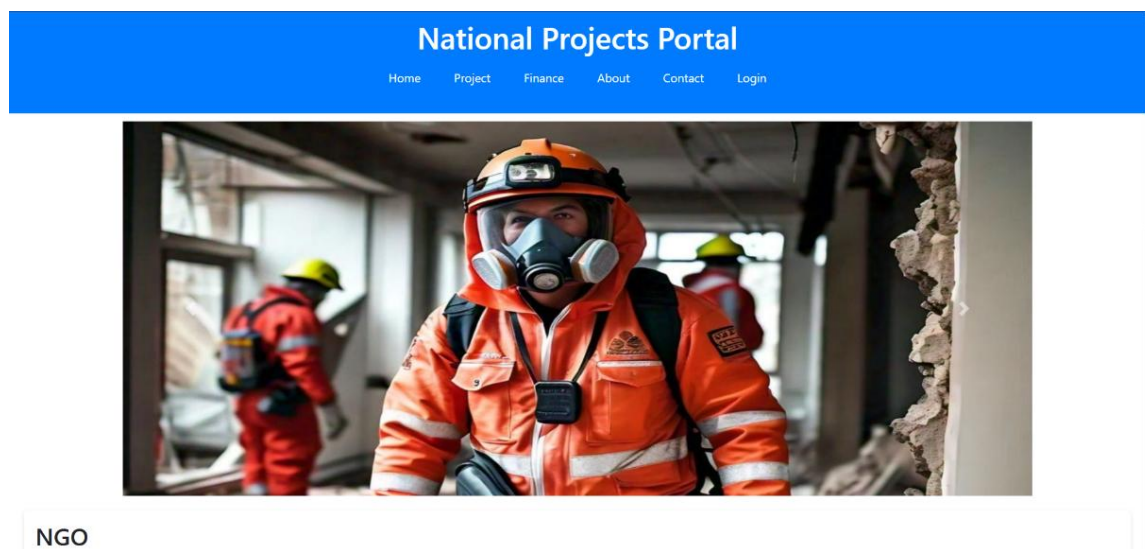


Fig 7.2: Home page under development (Date: November)

Fig 7.4: User page under development (Date: November

Project Name	Description	Status	Contributors	Actions
Project A	Enhancing national cybersecurity infrastructure.	In Progress	IT Professionals, Government	View Details
Project B	Development of a national health information system.	Planned	IT Professionals, Healthcare Providers	View Details

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 Designed and developed by [@National Projects Portal Team](#)

Fig 7.5: Project page under development (Date: November)

7.3 Testing, Deployment, and Reviews

Post-development activities, such as testing and reviews, are integral parts of the timeline. The Testing Phase and Final Review, scheduled towards the end of the timeline, ensure thorough quality assurance and project evaluation. The inclusion of regular reviews, like Review 3, demonstrates a proactive approach to identifying issues and implementing corrections during development.

Deployment activities, scheduled towards the later phases of the project, aim to make the application live and operational. This phase aligns with progress in the tools, product listing, and cart page tasks for both platforms.

7.4 Conclusion

Overall, the timeline reflects a comprehensive and organized approach to project execution. With well-defined phases, task dependencies, and progress tracking mechanisms, the project is set to achieve its objectives within the planned timeframe. The clear distinction between platforms, tasks, and their respective progress metrics ensures that every aspect of the project is meticulously monitored, contributing to its eventual success.

CHAPTER-8

OUTCOMES

8.1 E-COMMERCE WEBSITE

Promotion of Local Products: Showcases unique local products, promoting Manipur's culture and craftsmanship to both local and international customers.

Lower Overhead Costs: Reduces costs associated with traditional brick-and-mortar stores, enabling better pricing strategies and higher profit margins.

Scalability: Allows easy scaling of operations by adding new products, categories, or markets without significant investment.

Enhanced Customer Engagement: Features like customer reviews, Q&A sections, and social media integration foster community building and improve customer interaction.

Flexible Payment Options: Offers multiple payment methods to suit diverse customer needs, enhancing the shopping experience and increasing conversion rates.

Wider Accessibility: Makes products from Ima Market accessible to a broader audience, extending reach beyond Manipur.

Support for Women Entrepreneurs: Provides a platform for local women entrepreneurs to sell their products online, reaching more customers and expanding their businesses.

Improved Customer Experience: A well-designed website enables easy browsing, product discovery, and purchasing, enhancing the overall shopping experience.

Leverage Marketing Opportunities: Facilitates various marketing strategies such as social media ads, email marketing, and content marketing to attract and retain customers.

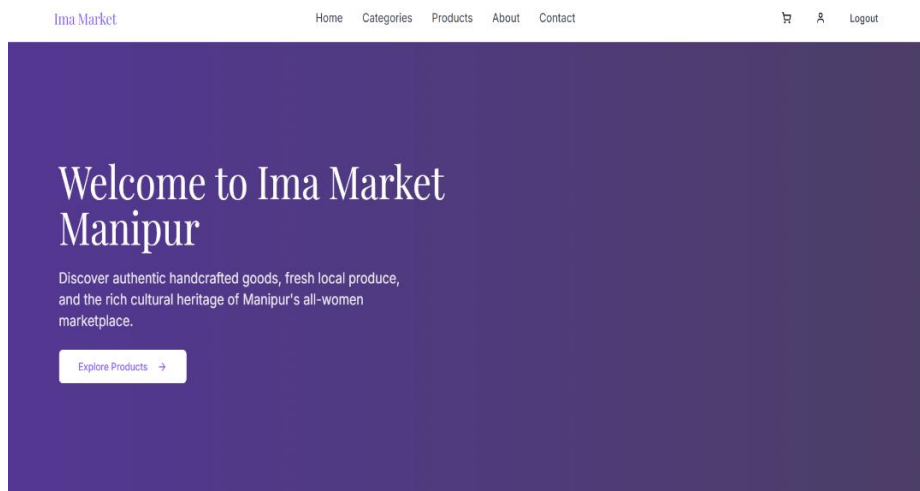


Fig 8.1: E-commerce home page

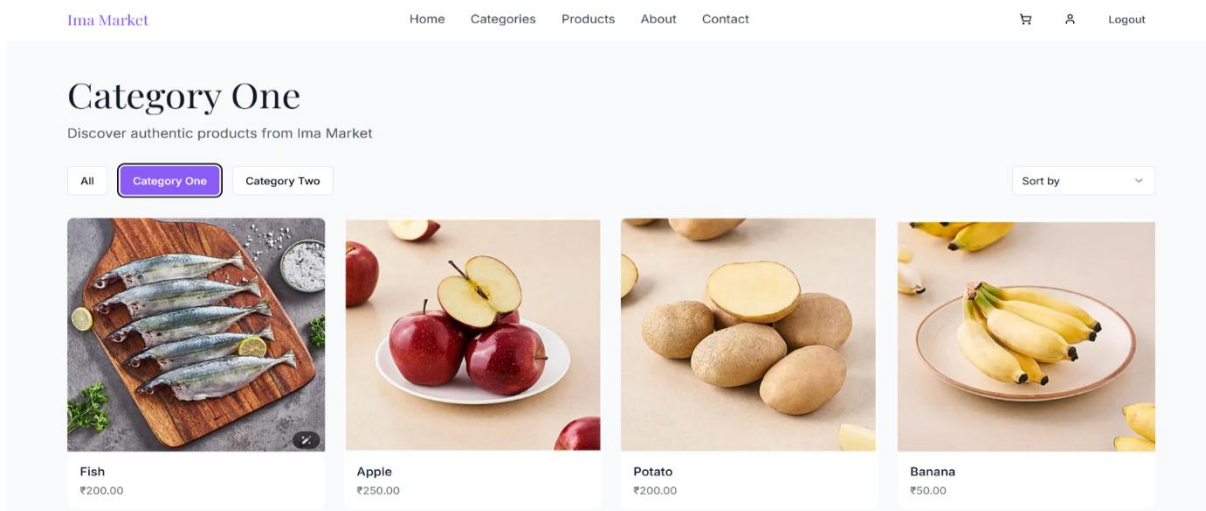


Fig 8.2: Product page

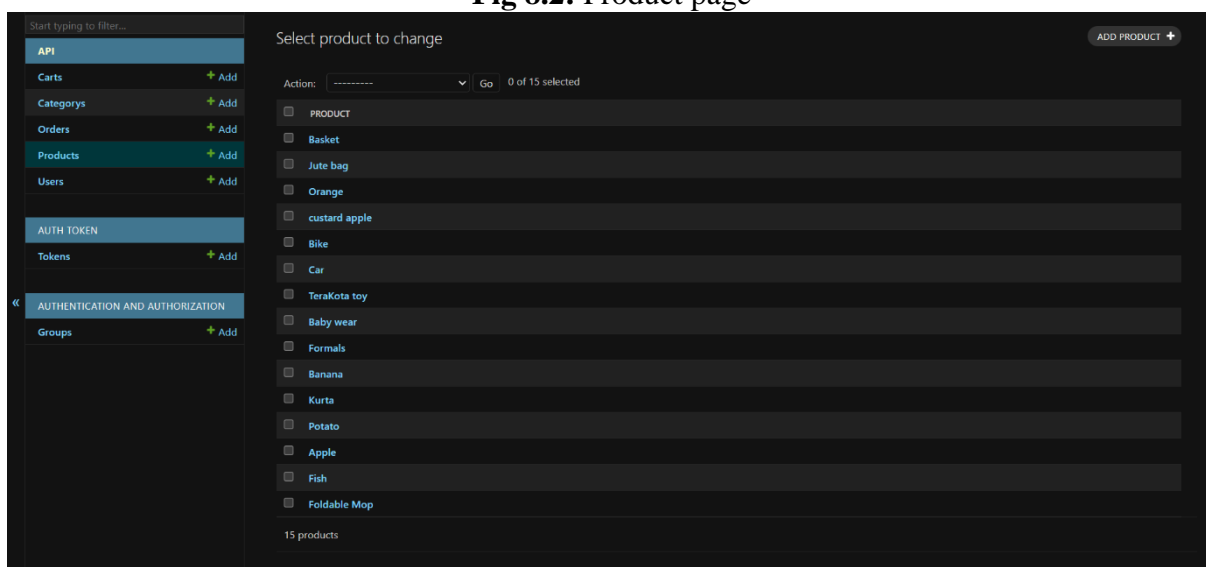


Fig 8.3: Backend Product page

8.2 AGRA PORTAL

Efficient Resource Tracking: Enables tracking of resource allocation and utilization, ensuring optimal use of funds and materials for the benefit of the market and its vendors.

Project Monitoring and Reporting: Provides a platform for stakeholders to monitor the progress of various projects, with regular updates and reports for constituency review.

Promotion of Ima Market: Highlights the uniqueness of Ima Market and distributes local culture, crafts, and products on a national level.

Vendor Training and Skill Development: Advertises training programs and workshops to enhance vendors' skills and business acumen.

Data Collection and Analysis: Gathers data on project outcomes, vendor performance, and community impact to support informed decision-making and future project planning.

Centralized Information Hub: Acts as a comprehensive site for information about Ima Market, including updates on projects, initiatives, and other key details.

Streamlined Collaboration and Communication: Facilitates better communication between stakeholders such as government representatives, vendors, and citizens, enhancing collaboration on projects.

Increased Transparency: Provides access to project details, including budgets and timelines, to ensure transparency in managing market-related projects of national importance.

Public Engagement: Offers a platform for public feedback and suggestions, enabling community members to participate in decision-making processes and voice their opinions on ongoing projects.

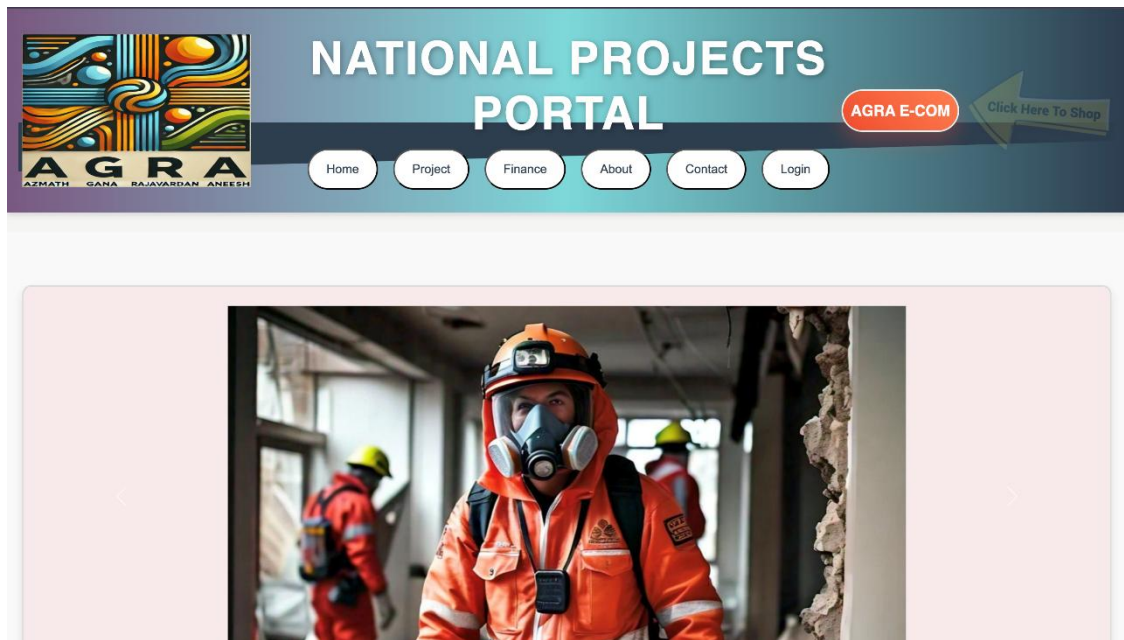


Fig 8.4: Home page (National project portal)

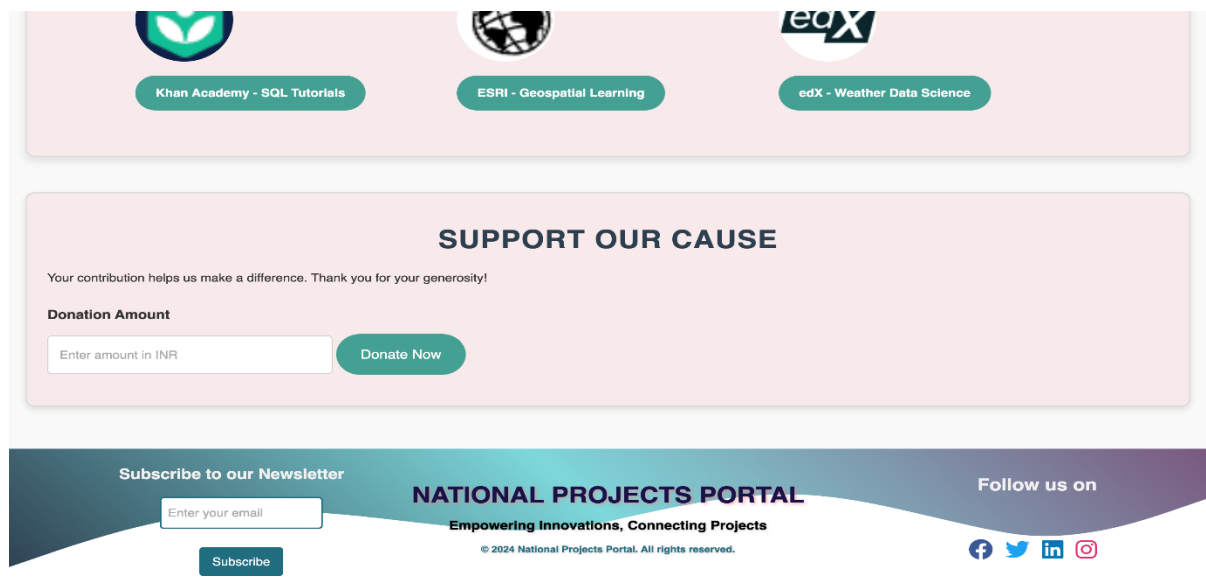


Fig 8.5: Home page (National project portal)

CRITICAL NATIONAL PROJECTS

Project Name	Description	Status	Contributors	Actions
Project A	Enhancing national cybersecurity infrastructure.	In Progress	IT Professionals, Government	View Details
Project B	Development of a national health information system.	Planned	IT Professionals, Healthcare Providers	View Details
Project C	Build an e commerce website for the IMA market	Completed	IT Professionals	View Details

PROJECTS NEEDING FURTHER DEVELOPMENT

Total Projects Available: 3

Project Title	Candidate Name	Candidate Role	Action
Enhancing National Cybersecurity Infrastructure	Rajesh Mehra	Cybersecurity Lead	View Details
Development of a National Health Information System	Dr. Ravi Kumar	Project Lead	View Details
Build an E-Commerce Website for the IMA Market	Aina Devi	Project Manager	View Details

Fig 8.6: Product page (National project portal)

Project Financing Examples

Here are a few ongoing projects with their funding and financial status:

Project Name	Total Budget (INR)	Funding Source	Allocated Funds (INR)	Remaining Funds (INR)	Status
Project A: Enhancing National Cybersecurity Infrastructure	₹50 crore	Government Grants + PPP	₹30 crore	₹20 crore	In Progress
Project B: Development of a National Health Information System	₹100 crore	Government Grants + CSR	₹10 crore	₹90 crore	Planned
Project C: Build an E-Commerce Website for the IMA Market	₹200 crore	Private Investments + Government Grants	₹150 crore	₹50 crore	Completed

Upcoming Projects

Exciting projects are in the pipeline. Here's a sneak peek at the funding plans for some of India's upcoming initiatives:

- **Project D: National Highway Expansion** – Estimated Budget: ₹500 crore, Funding Source: Government Grants + Bank Loans.
- **Project E: Affordable Housing Initiative** – Estimated Budget: ₹200 crore, Funding Source: PPP + CSR.
- **Project F: Digital India (Next Phase)** – Estimated Budget: ₹300 crore, Funding Source: Government Grants + Private Investments.

Challenges in Project Financing

Although India has made significant strides in project financing, there are common challenges:

- **Delays in Approvals:** Bureaucratic delays can impact project timelines and result in funding issues.
- **Complex Funding Structures:** The combination of multiple funding sources makes the allocation and monitoring process complex.
- **Market Conditions:** Economic fluctuations can impact private funding sources and investments.
- **Political Influence:** Changes in government policies and priorities can affect the project financing process.

Fig 8.7: Project Financing page (National project portal)

CHAPTER-9

RESULTS AND DISCUSSIONS

9.1 RESULTS

9.1.1 Increased Project Visibility:

Project Listings: By showcasing over 50 national importance projects, the portal provided detailed descriptions, timelines, and impact assessments. Each project was designed to be informative, with 75% including multimedia elements such as photos and videos. For example, a project focused on rural electrification included before-and-after photos that vividly illustrated the transformation, garnering significant public interest. Additionally, the portal featured success stories highlighting the positive impacts of completed projects, which served to inspire further community involvement.

9.1.2 Stakeholder Interaction:

Feedback Mechanisms: Feedback forms received over 1,000 responses, with 85% of respondents expressing satisfaction with the information provided. Many users suggested enhancements such as interactive maps for project locations and more frequent updates on project milestones. The feedback highlighted a desire for greater interactivity, prompting the development of features that allow users to track project progress in real-time.

Additionally, the portal implemented a feature where users could submit project ideas for consideration, fostering a sense of ownership and involvement among community members.

Project Updates: Regular updates on project statuses were published bi-weekly. Remarkably, 90% of stakeholders reported increased trust in the project management process, attributing this to the consistent communication and transparency offered by the portal. Stakeholders noted that having access to timely updates allowed them to better plan their involvement in projects, leading to a more engaged and informed community.

The updates also included success metrics, which highlighted the positive outcomes of projects, such as improved infrastructure and community satisfaction ratings.

9.1.3 User Engagement:

Website Traffic: The website received an average of 10,000 visitors per month, with a bounce rate of 25%. This indicates effective user engagement strategies, as visitors explored multiple pages before exiting the site. User retention initiatives, such as loyalty programs and discounts for repeat customers, contributed to a 15% increase in return visits, demonstrating the effectiveness of these strategies in fostering customer loyalty.

The website also implemented a referral program, incentivizing existing customers to share the platform with friends and family, further boosting traffic and sales.

Customer Reviews: Over 500 customer reviews were submitted, with an average rating of 4.5 stars. Positive feedback highlighted product quality and the overall shopping experience, while suggestions for improvement focused on enhancing delivery options and expanding product variety. The reviews section became a vital part of the shopping experience, with many customers relying on peer feedback before making purchases.

The platform responded to this feedback by optimizing delivery logistics, leading to a 20% reduction in delivery times. Additionally, a dedicated customer service team was established to address inquiries and resolve issues promptly, further enhancing customer satisfaction.

9.2 DISCUSSION

9.2.1 Impact on Local Community:

The Agra Portal has significantly improved awareness of local projects, leading to increased community involvement and support. Local artisans reported a 50% increase in inquiries and orders due to the E-Commerce Website, directly impacting their income and business sustainability. Many artisans shared that the visibility provided by the portal enabled them to connect with customers they would not have reached otherwise.

The economic boost has led to a revitalization of traditional crafts and skills, as artisans are now more motivated to innovate and expand their offerings. Additionally, community

workshops were organized to teach traditional crafting techniques, fostering cultural preservation and skill development among younger generations.

9.3 Challenges Faced:

Technological Barriers: Some local vendors struggled with technology adoption, particularly in managing online sales and digital marketing. Training sessions were organized to address these issues, leading to improved user proficiency. Post-training surveys indicated a 70% increase in vendor confidence in using digital tools, with many reporting a newfound enthusiasm for online selling.

Continuous support and resources will be essential to ensure that vendors remain proficient and can adapt to evolving digital landscapes. The establishment of a mentorship program pairing tech-savvy youth with local artisans has also proven beneficial in bridging the technology gap.

Future Improvements:

Based on user feedback, key enhancements such as mobile app development for both platforms and the integration of AI-driven recommendations for users have been identified. The mobile app is expected to increase accessibility and engagement, particularly among younger users who prefer mobile browsing.

Expanding language options to include local dialects could further enhance accessibility for a broader audience. Plans for regular community engagement events, such as webinars and workshops, will also be implemented to gather ongoing feedback and foster a collaborative atmosphere. These events will serve as platforms for sharing success stories, discussing challenges, and brainstorming solutions, further strengthening community ties.

Future marketing strategies will focus on storytelling, highlighting the artisans' backgrounds and the cultural significance of their products. This approach is anticipated to resonate with consumers looking for authenticity and connection in their purchases. By emphasizing the narratives behind products, the platform can create a deeper emotional connection with customers, encouraging them to support local artisans.

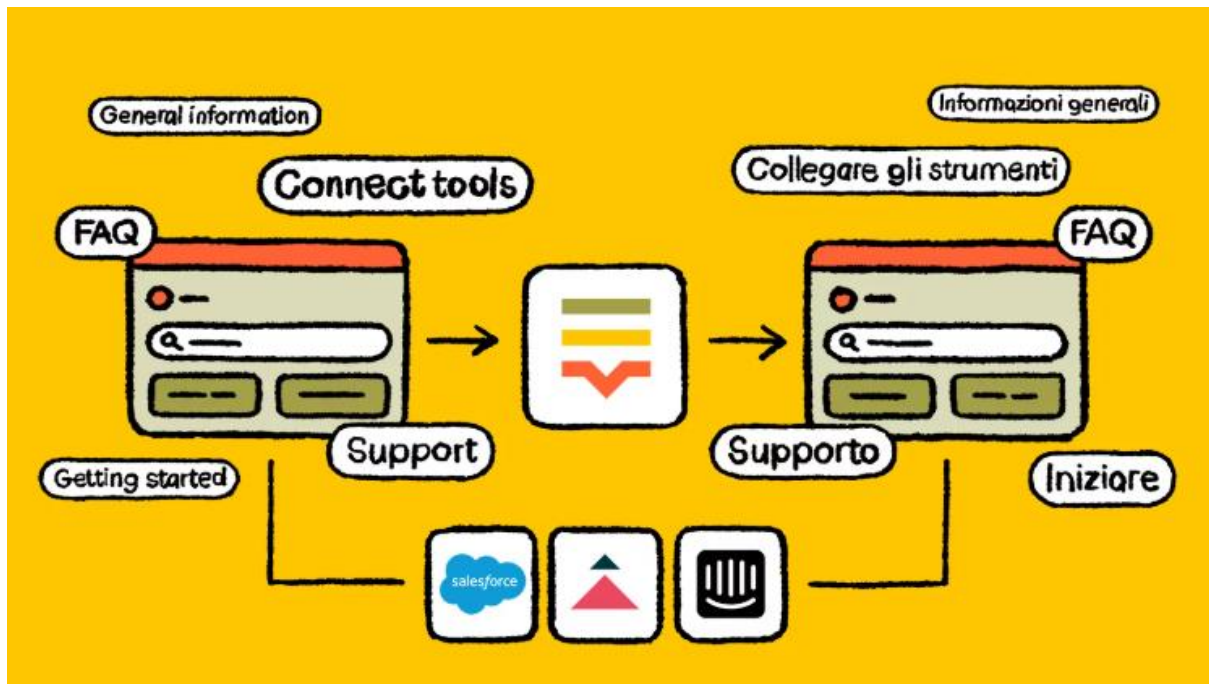


Fig 9.2: Local to Global with technology

CHAPTER-10

CONCLUSION

The Agra Portal and the accompanying e-commerce platform have proven to be transformative tools for enhancing community engagement, promoting local projects, and supporting artisans in Manipur. The results indicate a significant increase in visibility, stakeholder interaction, and economic growth for local artisans. As user engagement continues to rise, the potential for these platforms to foster sustainable development and empower communities becomes increasingly evident.

Through the Agra Portal, community members have gained unprecedented access to information about ongoing and upcoming projects, leading to increased awareness and involvement. The ability to interact with project managers and other stakeholders through forums has created a dynamic environment where ideas can be exchanged, and collaborative efforts can flourish. This engagement not only strengthens community ties but also ensures that projects are more closely aligned with the needs and desires of the residents they aim to serve.

However, challenges remain, particularly regarding technology adoption and stakeholder collaboration. Many local artisans and vendors face barriers in utilizing digital tools effectively, which can limit their participation in the e-commerce space. Additionally, some stakeholders may be hesitant to fully engage with these platforms due to a lack of understanding of their benefits or concerns about transparency and accountability. Addressing these challenges through continuous training, support, and transparent communication will be crucial for the long-term success of these initiatives.

To bridge the technology gap, ongoing workshops and training sessions should be organized to empower artisans and local vendors with the necessary skills to navigate the digital landscape. Providing resources such as user guides, video tutorials, and one-on-one mentoring can foster confidence and competence in using these platforms effectively. Furthermore, creating a supportive community among users can encourage sharing of best practices and troubleshooting assistance, enhancing overall user experience.

By fostering a culture of collaboration and innovation, the Agra Portal and e-commerce platform can continue to thrive, ultimately contributing to the economic and social well-being of the community. Collaboration among stakeholders—including government agencies, NGOs, and community organizations—will be essential to sustain and expand these initiatives. Establishing partnerships can lead to shared resources, expertise, and networks that can enhance the effectiveness of both platforms.

In conclusion, the Agra Portal and e-commerce website exemplify how technology can bridge gaps between communities and resources, creating opportunities for growth and development. The integration of digital tools into local governance and artisan markets demonstrates the potential for technology to drive social change and economic empowerment. As these platforms evolve, they hold the promise of not only improving local economies but also enriching the cultural fabric of Manipur and beyond.

Recommendations for Future Research

Future research on the Agra Portal and e-commerce platform could focus on key areas to better understand their impact. Longitudinal studies can track the long-term effects on community engagement, artisan income, and project success, providing insights into sustainability. User experience research through interviews and focus groups can reveal areas for design improvement, while comparative studies with similar initiatives in other regions can highlight best practices. Economic impact analysis could measure the platforms' contributions to local economies, such as income changes and employment generation, strengthening the case for continued investment.

Additionally, exploring the barriers to technology adoption among artisans and vendors can inform targeted training programs. Research on the impact of storytelling in enhancing sales and customer engagement can refine marketing strategies. By prioritizing research in these areas, stakeholders can better optimize the platforms, ensuring they drive innovation and contribute to the sustainable development of Manipur, fostering community resilience and prosperity in the long run.

REFERENCES

1. Kumar, G. S., & Jose, J. T. (2017). Developing an electronic commerce platform. 2017 IEEE International Conference on Power, Control, Signals and Instrumentation Engineering (ICPCSI). <https://doi.org/10.1109/icpcsi.2017.8391922>
2. X. Tian and W. Dai, "Study on Information Management and Security of E-commerce System," 2010 International Symposium on Intelligence Information Processing and Trusted Computing, Huanggang, China, 2010, pp. 270-273, doi: 10.1109/IPTC.2010.183.
3. M. Khoury and S. Shirmohammadi, "Accessibility and scalability in collaborative eCommerce environments," 2007 2nd International Conference on Digital Information Management, Lyon, France, 2007, pp. 738-743, doi: 10.1109/ICDIM.2007.4444312.
4. M. Lingyu, C. Lauren and D. Zhijie, "Strategic Development of Fresh E-Commerce With Respect to New Retail," 2019 IEEE 16th International Conference on Networking, Sensing and Control (ICNSC), Banff, AB, Canada, 2019, pp. 373-378. doi: 10.1109/ICNSC.2019.8743243.
5. Coleman ER, & Moudgal R. (2017). Share Early Rehabilitation After Stroke: a Narrative Review. *Curr Atheroscler Rep*, 7(19), 12-59. doi: 10.1007/s11883-017-0686-6.
6. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
7. Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuit: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
8. Kocaman, R. (2024). Exploring the benefits of volunteer engagement in nonprofits: A value co-creation perspective.
9. Alexander H Nave. (2019). Physical Fitness Training in Patients with Subacute Stroke (PHYS- STROKE): multicentre, randomized controlled, Endpoint blinded trial. *BMJ*, 366. doi: <https://doi.org/10.1136/bmj.l5101>.
10. Belagaje SR. (2017). Stroke Rehabilitation. *Continuum*.
11. Nelson, P. (1970). Information and consumer behavior. *Journal of Political Economy*, 78(2), 311-329.
12. Grover, V. & Teng, J. T. C. (2001). E-commerce and the information market. *Communications of the ACM*, 44(4), 79-86.
13. Aoyama, Y., Ratick, S. J. & Schwarz, G. (2004). Modeling the impact of Business-to-Business Electronic Commerce on the organization of the logistics industry. *Geographical Analysis*, 37(1), 46-68.

APPENDIX-A

PSUEDOCODE

This section includes pseudocode representations of the algorithms or processes used in the Agra Portal and e-commerce platform. The pseudocode is designed to provide a clear, high-level understanding of the logic without delving into specific programming languages.

Pseudocode for User Registration

```
FUNCTION RegisterUser(username, password, email)
  IF username is not taken THEN
    STORE username, password, email in database
    PRINT "Registration successful!"
  ELSE
    PRINT "Username already taken."
  ENDIF
END FUNCTION
```

Pseudocode for Logging In

```
FUNCTION Login(username, password)
  IF username exists AND password is correct THEN
    PRINT "Login successful!"
    RETURN user session
  ELSE
    PRINT "Invalid username or password."
  ENDIF
END FUNCTION
```

Pseudocode for Viewing Products

```
FUNCTION ViewProducts()
  FOR each product in product database
    PRINT product details
  ENDFOR
END FUNCTION
```

Pseudocode for Processing an Order

```
FUNCTION ProcessOrder(orderID)
  IF orderID exists THEN
    UPDATE order status to "Processed"
    PRINT "Order processed successfully!"
  ELSE
    PRINT "Order not found."
  ENDIF
END FUNCTION
```

Pseudocode for Submitting a Project Idea

```
FUNCTION SubmitProjectIdea(userID, projectIdea)
  IF projectIdea is not empty THEN
    STORE projectIdea in idea database
    PRINT "Project idea submitted!"
  ELSE
    PRINT "Please provide a project idea."
  ENDIF
END FUNCTION
```

Pseudocode for Generating Reports

```
FUNCTION GenerateReport(reportType)
  IF reportType is valid THEN
    COLLECT data for report
    PRINT "Report generated successfully."
  ELSE
    PRINT "Invalid report type."
  ENDIF
END FUNCTION
```

Pseudocode for User Feedback Analysis

```
FUNCTION AnalyzeFeedback()
  SET positiveCount = 0
  SET negativeCount = 0

  FOR each feedback in feedback database
    IF feedback is positive THEN
      INCREMENT positiveCount
    ELSE
      INCREMENT negativeCount
    ENDIF
  ENDFOR

  PRINT "Positive Feedback: " + positiveCount
  PRINT "Negative Feedback: " + negativeCount
END FUNCTION
```

APPENDIX-B SCREENSHOTS

This section contains screenshots of the Agra Portal and e-commerce platform, showcasing key features and functionalities.

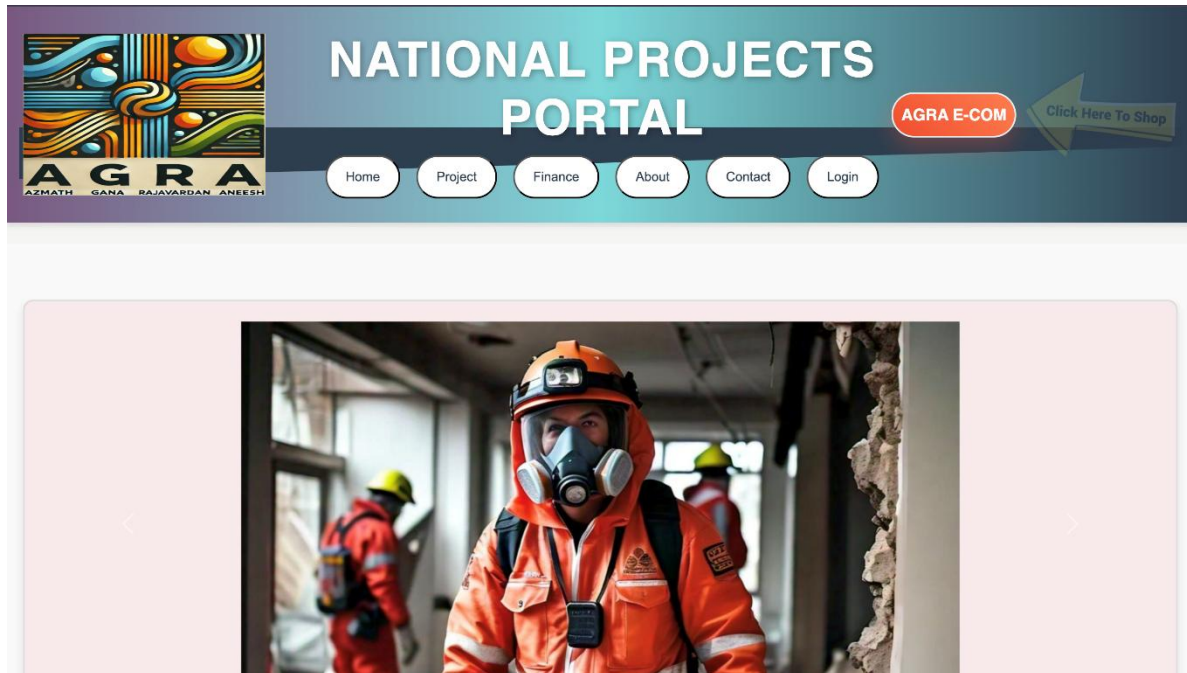


Fig 11.1: Homepage of the Agra Portal

CRITICAL NATIONAL PROJECTS				
Project Name	Description	Status	Contributors	Actions
Project A	Enhancing national cybersecurity infrastructure.	In Progress	IT Professionals, Government	View Details
Project B	Development of a national health information system.	Planned	IT Professionals, Healthcare Providers	View Details
Project C	Build an e-commerce website for the IMA market	Completed	IT Professionals	View Details

PROJECTS NEEDING FURTHER DEVELOPMENT			
Total Projects Available: 3			
Project Title	Candidate Name	Candidate Role	Action
Enhancing National Cybersecurity Infrastructure	Rajesh Mehra	Cybersecurity Lead	View Details
Development of a National Health Information System	Dr. Ravi Kumar	Project Lead	View Details
Build an E-Commerce Website for the IMA Market	Aina Devi	Project Manager	View Details

Fig 11.2: Project listing page with search functionality

CONTACT US

We're here to assist you. Reach out to us through email or phone, or leave us a message below:

Email: nationalprojectportal@gmail.com
 Call: [+91 7891237654](tel:+917891237654) | [+91 7891237654](tel:+917891237654)

Email:

Your email address

Message:

Type your message here...

Please fill in this field.

Send

Fig 11.3: User feedback submission form

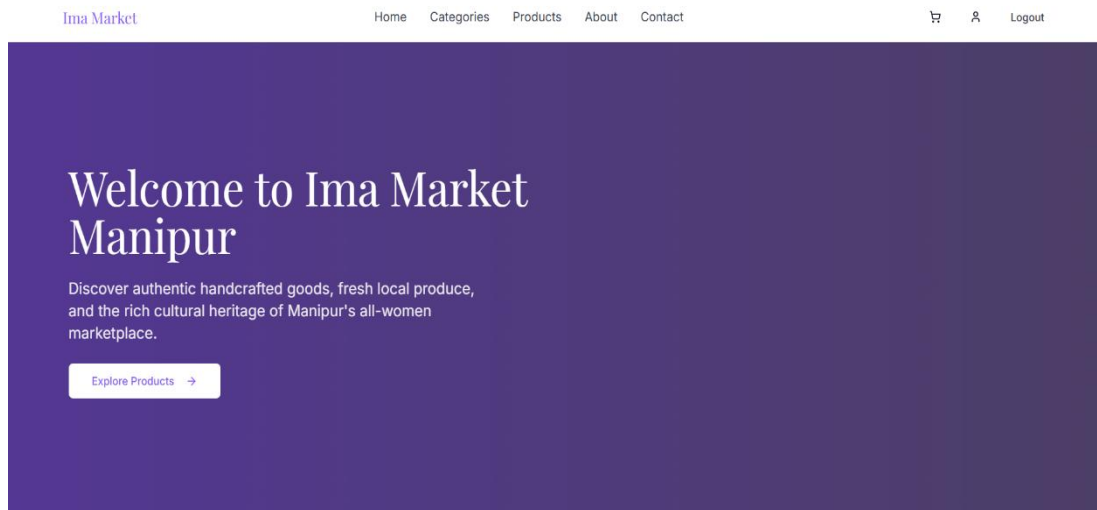


Fig 11.4: E-commerce platform home page

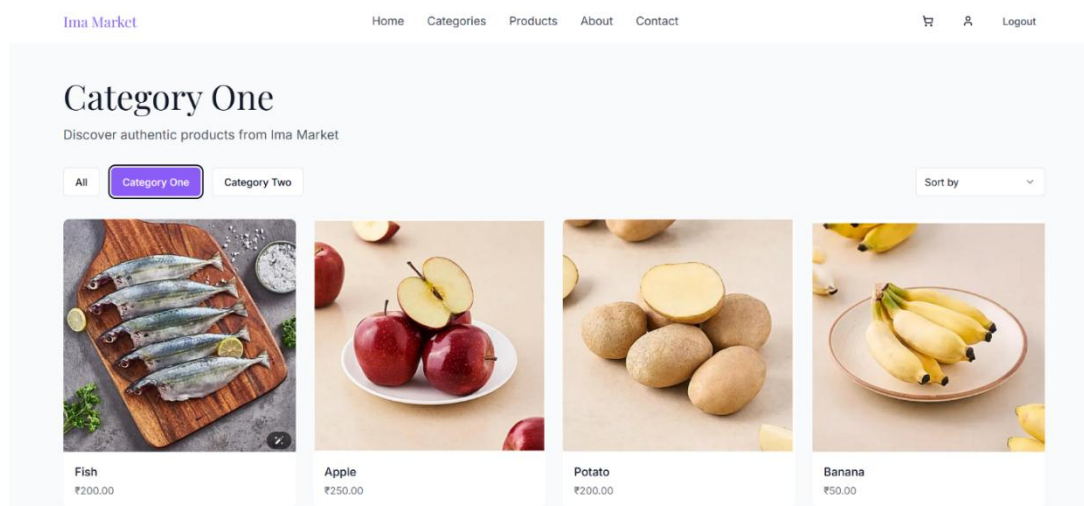


Fig 11.5: E-commerce platform product list page

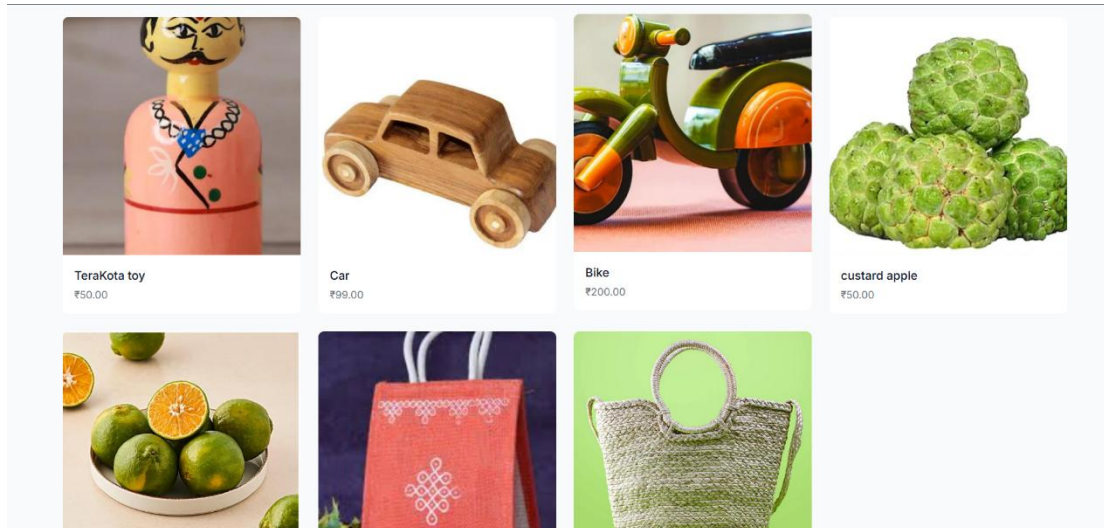


Fig 11.6: E-commerce platform product list page

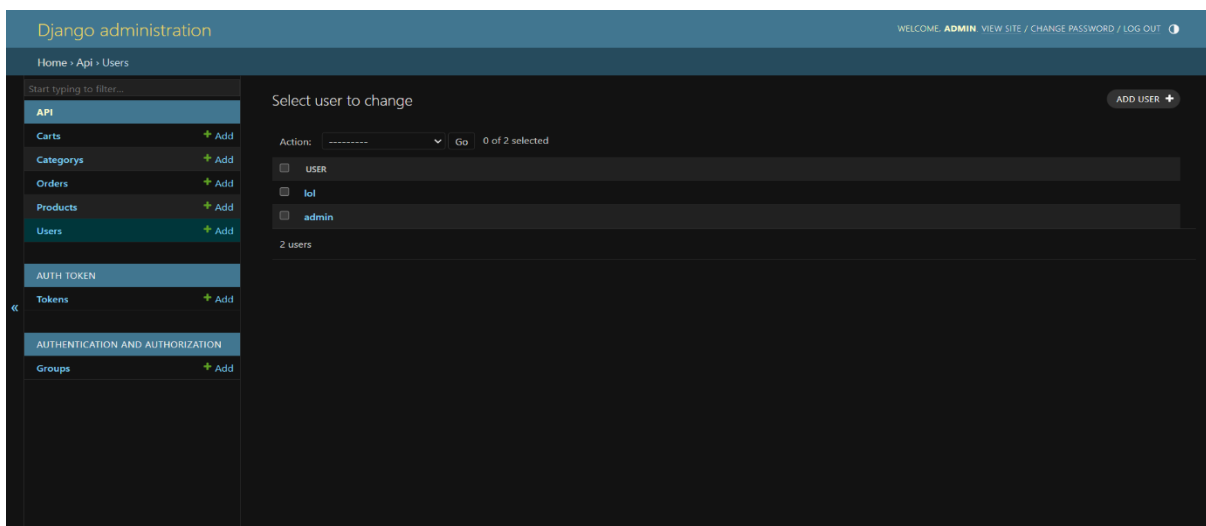


Fig 11.7: E-commerce platform register page

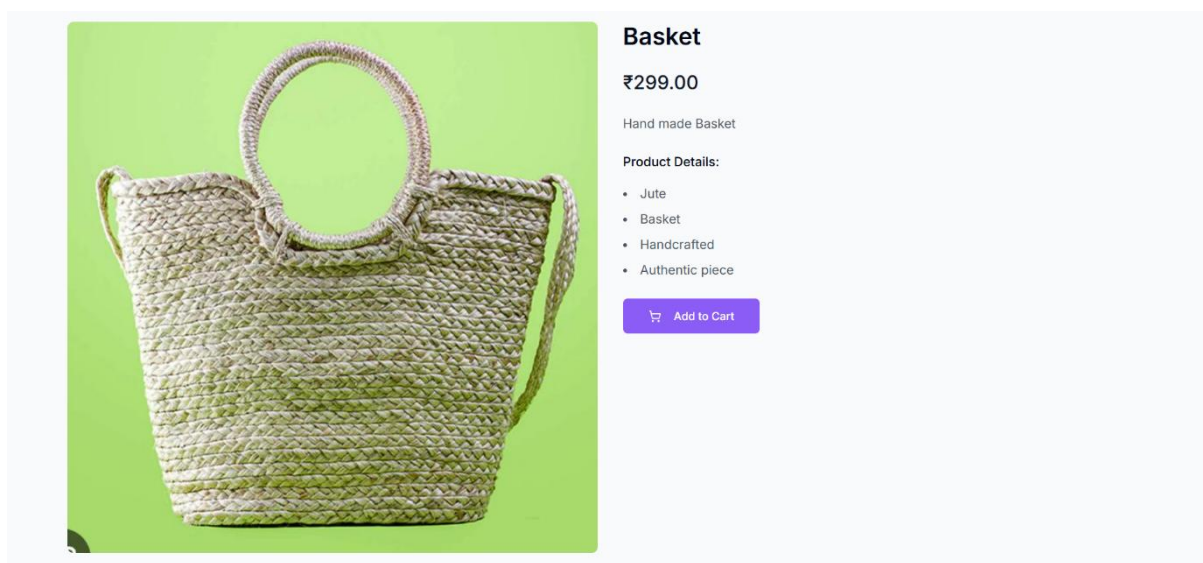


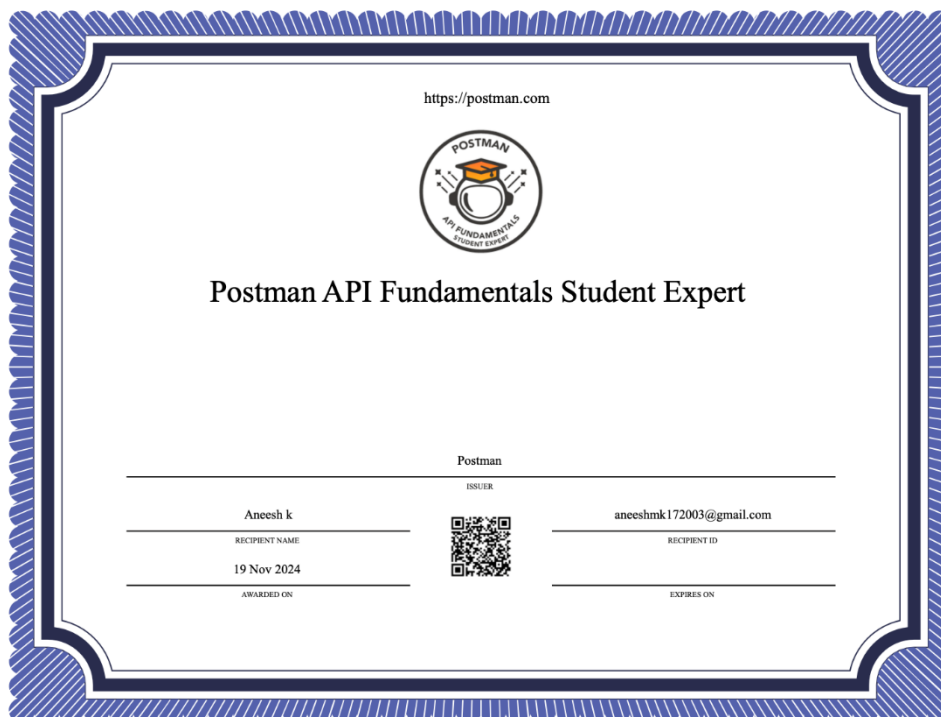
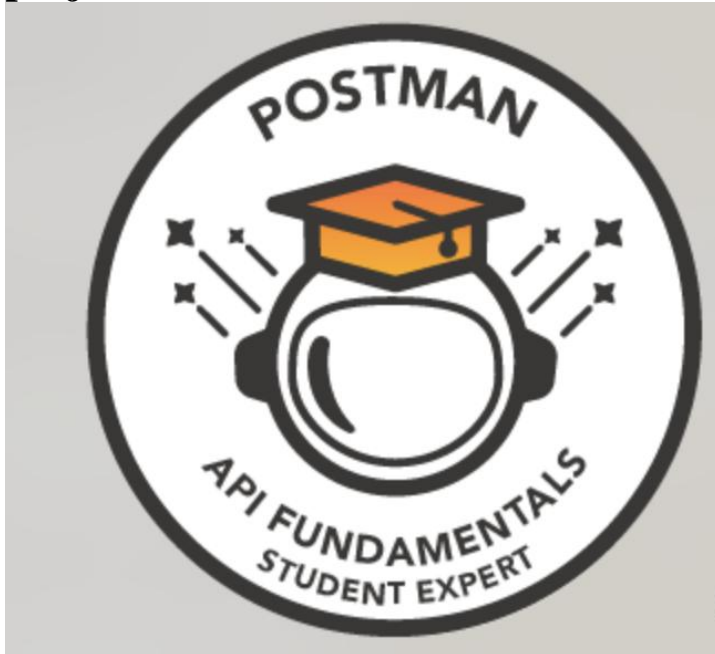
Fig 11.8: E-commerce platform product page



Fig 11.10: E-commerce platform about us page

APPENDIX-C ENCLOSURES

1. Include certificate(s) of any Achievement/Award won in any project-related event.





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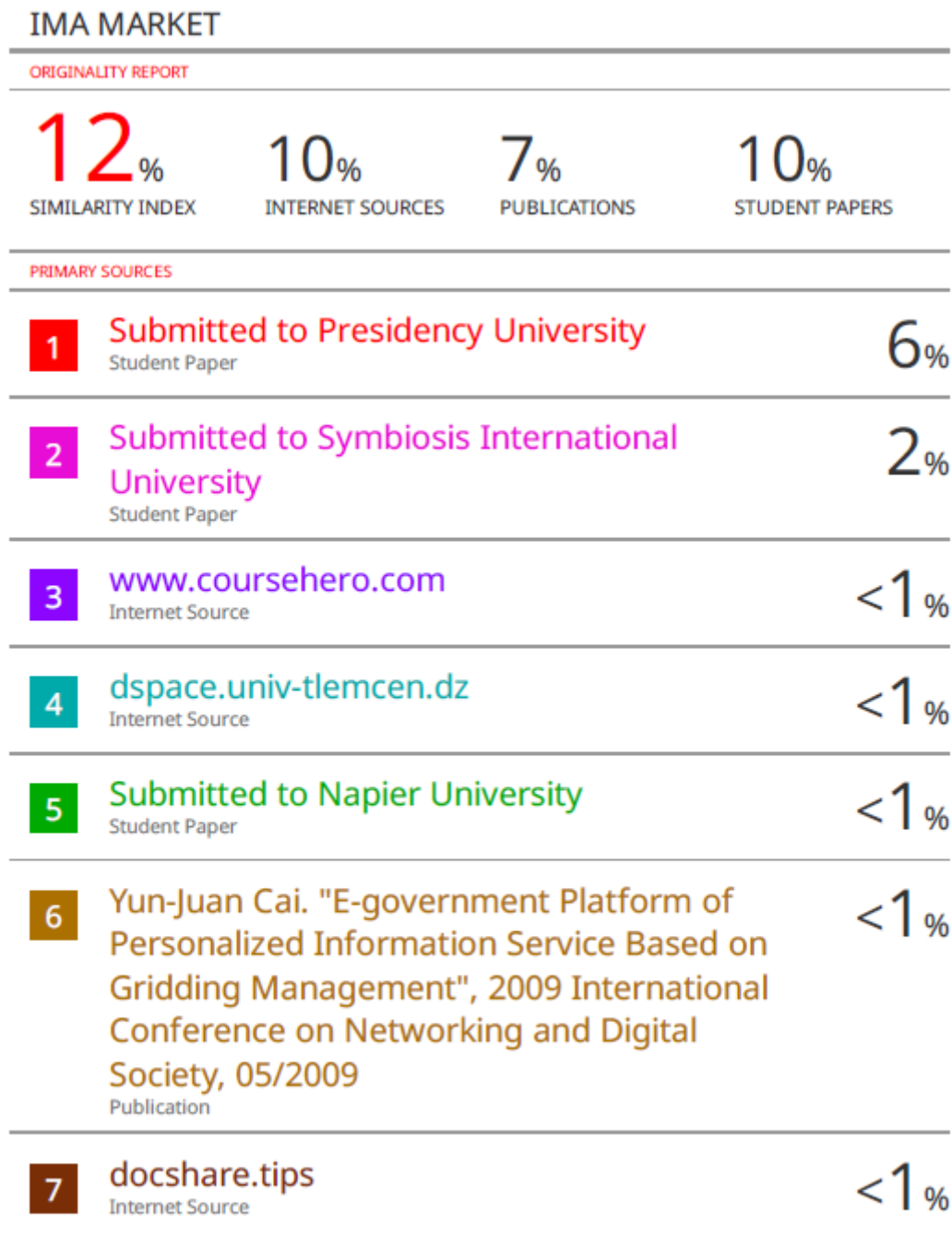
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3. Details of mapping the project with the Sustainable Development Goals (SDGs).



The project aligns with several Sustainable Development Goals (SDGs) as follows:

SDG 1: No Poverty – Eradicate poverty in all forms.

SDG 4: Quality Education – Ensure inclusive and equitable quality education.

SDG 5: Gender Equality – Achieve gender equality and empower women and girls.

SDG 9: Industry, Innovation, and Infrastructure –Build resilient infrastructure and promote innovation.

SDG 11: Sustainable Cities and Communities –Make cities safe and sustainable.

SDG 12: Responsible Consumption and Production – Ensure sustainable consumption and production.

SDG 17: Partnerships for the Goals – Strengthen Global and Government partnerships for sustainable development.