Rural Management
RIT1- E Commerce

First Edition

MoE | Government of India
Ministry of Education

About the Book

The world e-commerce has gained momentum all over the world and is increasingly gaining acceptance in the world driven by Internet technology.Therefore the queries like What is Commerce? What is precisely modern in e-commerce? What is the potential of e-commerce?Or talk of the town. These are habitually asked questions which have been answered in this book. It could be a handle buying and selling items and services over the web from any place to anywhere without geographical restrictions, time zone, etc. As a modern business accompanied with the framework of electronic transaction payments, e-commerce buying and selling products through the internet. E-commerce could be a set of coordinates program components that give arrangements for different businesses through the e-commerce accounts, front store, shopping carts and the e-wallet system.

Web-based business incorporates online advancement, web-based demand, and e-purchasing and digital deposit of money-related exchanges for the business is directed electronically. Electronic commerce is a conventional name for a variety of advances that allow for the simplest and most important business data. This book is mostly aimed at students to understand e-business (online business) in rural India.

This book is an effort to bring out and disseminate the knowledge of electronic commerce in rural areas. The book is organized into Chapters. The first chapter provides an introduction on E-commerce and Benefits of e-commerce, Limitations of e-commerce, business model of e-commerce and electronic catalogues, Growth of e-commerce in India. The second chapter introduces information about the Introduction of Electronic payment system, electronic wallets, electronic fund transfer and security for electronic transactions and Challenges related to electronic payments in rural areas.The third chapter deals with Introduction to information about the application of E-commerce, e-commerce in consumer goods mobile commerce. In the fourth chapter on role of Rural business, online shopping and key trends of E-commerce in Public Sector. Management at national, state and district levels has been presented. It also has scientific inputs and support from Institutions like ICAR, ISRO, CSIR and Institutes for Rural Development. The fifth chapter is presented with case studies. The book provides theoretical knowledge, practical exposure and field visits through activities, so that the students can link their theoretical knowledge with the real-life experience of engaging with communities at grass root level.

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Chapter 1- Introduction to E-Commerce

Introduction

In the emerging global economy, electronic commerce has become a necessary part of business strategy and a powerful catalyst for economic development. The use of ICT companies has improved productivity, encouraged greater customer participation, and enabled mass personalization, in addition to reducing costs.

The term 'digital divide' is often used in reference to the "disparities between groups and societies in the adoption and diffusion of electronic information and communications technologies (ICTs) and E-business practice" (Genus and Nor 2005). Developing countries face the digital divide primarily because they lack the requisite intellectual human capital. Mass illiteracy and the use of the English language are visible barriers. Hence, the most important measure which needs to be taken is to engage in capacity building in E-Commerce skills. Training and education can be imparted via various means using the internet itself. This training can be imparted via distance learning and specialized links with universities.

The government has a very strong role to play as state policy significantly affects the adoption and growth of E-Commerce. One of the most important measures which will counter multiple barriers to E-Commerce growth is the development of a supportive regulatory and legal environment. E-commerce strategies will be successfully owned only when consumers and businesses trust the concept and its premise and are sure of its security and reliability (Zaied 2008). E-Business, regulations on consumer protection, E-Transactions, and cybercrime are essential.

 E-commerce was originally perceived to explain the procedure of showing E-commerce dealings automatically with the support of Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). Technologies announced in late 1970 allowed the interchange of information and implementing automated transactions among business, usually in the procedure of electronic purchase orders and invoices Electronic Data Interchange (EDI), and Electronic Funds Transfer (EFT)

The word ' digital divide ' is also used to refer to "the gaps in the adoption and application of information technology (ICTs) and e-business exercises between groups and societies" (Genus and Nor 2005).regarding the adoption and growth of e-commerce, the gap between developed and developing countries is decreasing gradually.

However, one of the key aspects of E-Commerce's success is training and education. Developing countries face the digital divide primarily because they have the commercial value of accessing personal information. A great deal of illiteracy and extensive use of the English language gives E-Commerce an exercise without value. Consequently, the most important step that has to be taken is to make a professional commitment to E-Commerce skills. Application of E-commerce in areas of electronic data interchanges (EDI), electronic mail (e-mail), and World Wide Web (WWW) and web applications gave approaches to trade data among individuals, companies, and nations and significantly amongst all, between computers. Essentially, e-commerce is the development of organizations onto the overall web. They have separated this development into two primary areas comprising business to business and business to consumer. E-business alludes to showcasing, selling, and business over the internet. The accessible online business data on the web is immense and as yet developing further.

E-commerce is one such idea that is used to apply a business rationale and to underwrite the potential worldwide market through the internet. E-commerce is usually a combination of new technologies with components of traditional stores and direct mail models. E-commerce used to apply business logic and global market potential. Small scale industry uses different strategies for producing business with the support of NET and in this way having a global nearness. The development of information technology is speedily moving the way people collaborate with each other. The Internet, specifically, is quickly extending opportunities for business development and the advancement of new pursuing new broadcast communications innovations. The internet brings a global market reach of even the smallest organizations. However, to benefit from business opportunities needs to be prepared and willing to create and adopt new electronic strategies to work together regularly requiring a significant change in traditional procedures. More the organizations present key changes, the better their chances of working together on the World Wide Web. The rate and extent of adoption of electronic strategic approaches differ from industry to industry.

India has approximately 6, 00, 000 plus villages, classified according to various parameters such as levels of education, access, and income. India's markets are growing twice as fast as urban markets. India's rural areas are experiencing increasing use of purchasing power, increased access to information and communication technologies, and improved infrastructure. The government has implemented rural development programs that offer employment opportunities for the poorest. Infrastructure needs to be developed in rural areas. Roads connecting villages and neighbouring towns are under construction.

Objectives

- To learn the concept and importance of E-Commerce
- To familiarise with business models addressing the rural e-commerce opportunity
- To explore Online opportunities for Rural business
- To provide insights on online auction system
- To explain enablers of growth for online rural business

Chapter Structure

> 1.1 Impact of E-Commerce

> 1.2 Business Models Addressing the Rural E-commerce Opportunity

> 1.3 Online Retail Opportunity For Rural Business

> 1.4 Online Auction System

> 1.5 Enablers of Growth for Online Rural Business
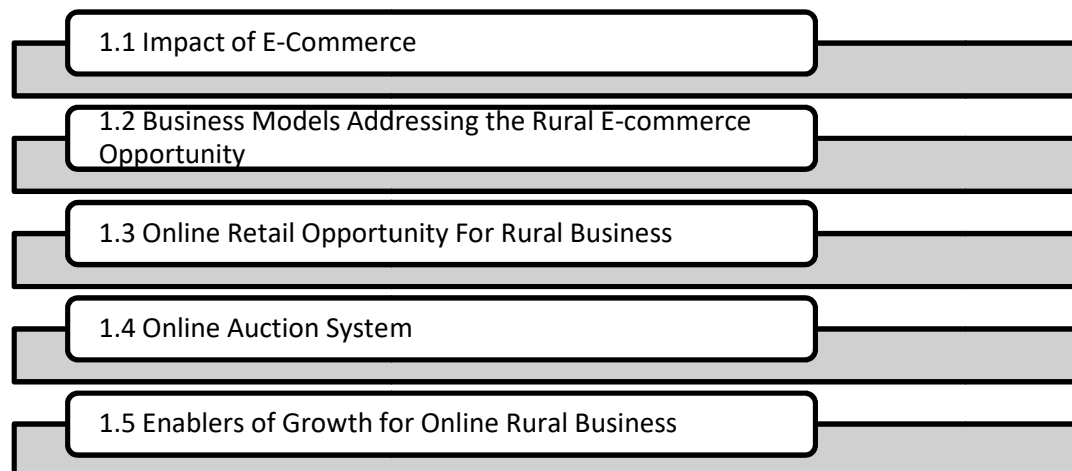
1.1 Impact of E-Commerce

E-commerce business is influencing the everyday existence of various Indians. Internet network knows no geological boundaries. E-commerce has made impressive market open doors for Indian organizations. E-commerce is discovering a new front-line in rural E-business in India. In rural areas people are aware of online products are cheaper than the traditional market; also they can get various options with discounts to pick an item and cash on delivery choices (COD) to them. E-commerce provides pointers to e-business processes and interacts with door-to-door customers with the support of online selling and advertising conjointly. E-commerce can reduce product prices by interacting with a wide selection of suppliers and commerce partners. Therefore, the smart phones, maximum villagers are using various applications of smart phones to order their goods like accessories, automotive, and electronic things. Online business adventures getting substantial incomes from different appealing requests from rural territories in that minimum opportunity to return, discount, and trade of items since villagers request just required products. This is saving the expense on logistics for the organizations, as they are less contributing for taking the conveyer products back. Advantages of online business are with money transfer, ticket bookings, online shopping, e-bill payments, insurance, and so on. Setting up such physical stores in rural areas is highly worthwhile as the speculation required is low and the hardware required is exceptionally insignificant. Using E-commerce farmer can know a lot of relevant information.
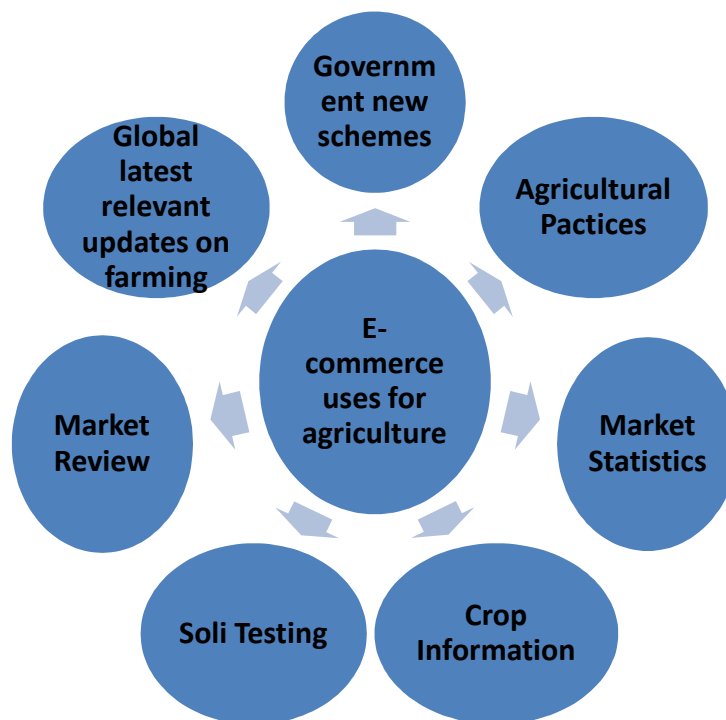
Figure1.1 E-commerce uses for Agriculture

E-commerce can be a viable and cost-effective way to enter the trade market .E-commerce offers shoppers a wide run of unused openings to coordinate shopping and managing an account using the convenience of communication devices. Consumers will also benefit in terms of lower final prices due to lower transaction costs. E-commerce consumers will have wider and direct access to producers of goods and services without intermediaries.

E-commerce business exercises, such as the circulation of product catalogues and newsletters, are effectively converted over the electronic structure made available via the internet. Electronic distribution and Electronics production can likewise be accomplished with traditional techniques. Until the Internet gets to gets inclusive or possibly far-reaching businesses will need to deliver and disseminate data by customary methods. An additional advantage of electronic data is that it is refreshed consistently with ease (Product catalogue).

Comfort: Shopping on the web can be much more helpful than taking off to a strip mall to discover what you need. Rather, you can basically sit at home with access to the web and request away.

Efficient: As compared to going to the nearest shop, ordering an item online via a web-based business webpage takes substantially less time.

Data accessibility and value examination: The web is loaded up with data and with the utilization of web indexes like Google nearly anything can be discovered rather rapidly. When you combine these features with web-based shopping, you will certainly find the best price for the item you're looking for without having to leave the store. Google Shopping is an example of an object web crawler that discovers the best price at the sale site.

Occupations: To have an online presence and trade online, you'll need a platform that's suitable for selling your goods or services and offers convenient payment options. Smaller businesses will most likely hire an outside firm with expertise in setting up similar systems, while larger businesses will most likely hire their own web designers, advertising consultants, and search engine optimization experts.

24/7: Online sites are constantly available at inconvenient times, assuming there are no specialized problems. This is a fantastic bit of flexibility for people who leave work late and don't have time to go down to their nearest outlet to find the item they want so they can simply make a request on the internet.

Greater Choice: When you go shopping, you only have access to the items that are available. As compared to traditional marketing, shopping, this is a major difference. To start with**,** you can check for the item you need in a variety of places. When you buy from a block and snaps organization, it's possible that the item you're looking for isn't available in your local store and should be delivered from a different location.

Pre-orders: Most high requested items online today will have the alternative to be pre-requested. This is a procedure that includes you paying for the item before they discharge it, yet consequently having it conveyed to your entryway on the discharge day. This is an exceptionally famous procedure with most amusement items, for example, PC games.

Promoting Online: The web today is an extremely well-known spot, and this makes it perfect for publicizing. Organizations that run their very own web-based business website frequently publicizes other non-contenders while creating extra income and building an association with that business which could do the two organizations an extraordinary of good.

Security issues and Customer trust: It is critical to give a protected and secure online shop for a client when they are attempting to purchase items for you. This builds a stronger customer relationship by assuring them that they can submit a request without worry, allowing you to do more business with

them in the future. When the customer makes the payment, the company should ensure that a secure passage is available and that the data is verified.

Return and complaints: If an item malfunction, the client may need a replacement or discount, assuming that it was not their fault. If an item arrives damaged, for example, it might be difficult for the client to sort through an arrival or a discount with an online-only company since they cannot simply walk into their nearest contrasting shop. This can likewise make a terrible encounter for the client, and it is likely they won't be returning to your shop henceforth.

Conveyance: At the point when you request an item or administration online, you need to hang tight for the item to arrive. Usually, these web-based business locales offer various alternatives for the conveyance which will go from quicker conveyance times at a more significant expense to more slow conveyance times at a lower cost or free. Once in a while, the item can take a decent term to come because of many issues, and this can cause issues if the item or administration you requested is for an occasion that is coming up, similar to a birthday or Christmas present.

Definition of E-commerce

Electronic commerce, also known as Web-based business, refers to a broad range of online business activities for services and goods. It also refers to a business exchange in which social affairs are conducted electronically rather than by physical trades or direct physical interaction. The term "e-business" has no universally accepted definition. We use the word barely as a point of insight when buying and selling on the Internet in some cases. In certain situations, we use it to integrate any kind of business interaction directed by the use of an electronic communication channel in a more encompassing way. It defines e-business as "any procedure that a business association leads over a PC integrated system" and web as "any procedure that a business association leads over a PC integrated system."

E-commerce is a new technology that is being used in rural areas. Technology satisfies market demand, allowing retailers and customers to save money while improving the quality of their products and the speed at which they are delivered. Various electronic processes, ranging from the development of a website to supply chain management, may be used to implement e-commerce:

Customer buying and selling orders. E.g. exchanging goods, services, and information.
Invoicing. E.g. Sales order, Sales quotation.
Fund transfers. E.g. Online transactions (Google pay, money transfer).
Inventory control E.g. Online store.
Customer service E.g. Cash on delivery.
Market information research.E.g. Global market review.
- ✓ **Types of Transaction**
  E-commerce refers to any exchange that happens on the web. The purchasing and selling of various items, services, and electronic products through the Internet all fall under the umbrella that is e-business. These trades spread a vast swath of business types, industry verticals, and item offerings. The primary online exchange happened decades prior, yet the manner by which purchasers shop has advanced colossally from that point forward. A wide scope of sorts, of electronic business and trades exists in the domain of online business today. Understanding these options and selecting the one that most represents your business will assist you in the development of your site and choosing an e-commerce CMS to e-commerce with. Generally, most

people consider e-commerce purchasing products or services with the help of the internet. However, refer to various types of online transactions. Therefore, various types of e-commerce models are discussed below

- Business-to-Business (B2B)
- Business-to-Consumer (B2C)
- Consumer-to-Consumer (C2C)
- Consumer-to-Business (C2B)
- Business-to-Administration (B2A)
- Consumer-to-Administration (C2A)

Business to Business (B2B)

- ✓ Survey catalogues
- ✓ Identify details.
- ✓ Define necessity.
- ✓ Proposal request (REP).
- ✓ Review seller's reputation.
- ✓ Select merchant.
- ✓ Fill out buy orders (PO).
- ✓ Send by request to merchant.
- ✓ Prepare receipt.
- ✓ Make instalment.
- ✓ Arrange shipment.
- ✓ Product investigation and gathering

For Example Farmer supply grains to Wholesalers and Wholesalers supply grains to retailers.
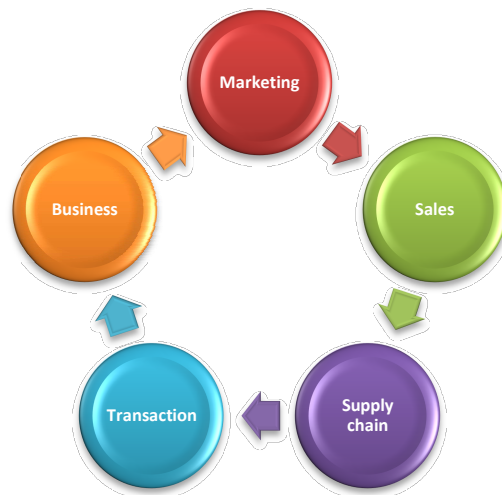
Figure1.2: Business to Business types of commerce

The door locking system, electronics, batteries, and Tires, for example, are usually manufactured by various enterprises and retailed directly to the automotive sector.

Business to Consumer (B2C)

B2C e-commerce deals with electronic business relationships between businesses and customers. B2C e-commerce deals with electronic business relationships between the businesses and customers.

- ✓ Visiting the virtual shopping centre.
- ✓ The customer recognizes a need.

- ✓ Looks for the item or administrations to fulfil the need.
- ✓ Selects a merchant and arranges a cost.
- ✓ Receives the item or administration.
- ✓ Makes instalment.
- ✓ Gets help and guarantee claims.
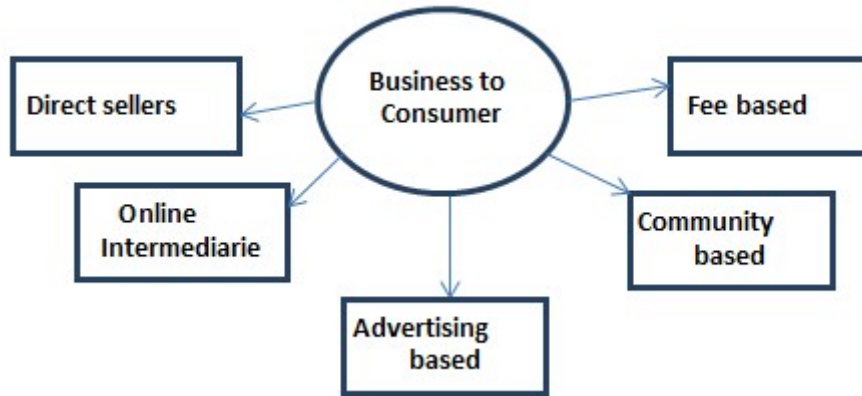
Figure 1.3 Example of Business to consumer types of transaction.

The company will offer their products and or administrations straightforwardly to the buyer. The customer can browse their websites and see at items, pictures, and read the reviews. Once the order is received from the customer, the company ships the merchandise specifically to them. Well-known examples are Snap deal, Amazon and Flipkart. People appreciate this opportunity of e-commerce because it permits them to compare various products, prices and shop based on the best price available. This option wouldn't otherwise be available in the retail business. This e-commerce type also supports businesses to progress a new personalized affiliation with their consumers.

Figure 1.4 Business to Business types of commerce

For Example- Sell product or services directly to consumers (amazon.com).

Consumer To Consumer (C2C)

Consumer-to-consumer (C2C) e-commerce involves entirely electronic communications between customers. These communications are typically carried out via online channels (such as eBay), but they are often frequently carried out by the use of social networking networks (such as Face book) and websites. Consumer to consumer e-commerce is a simple concept to grasp and a popular mode of business for many businesses. Consumer to Consumer e-commerce, as the name implies, is a type of business in which a company is solely responsible for offering a platform for various people to

communicate with one another for mutual benefit. The commercial transaction is between two people, none of which is a corporation. Two individuals or two parties use a stage to lock in with each other in order to facilitate exchange.
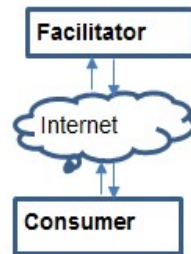
Figure 1.5 Consumer to Consumer Types of Transaction.
Consumers sell directly to other consumers. (ebay.com)

Consumer to Business (C2B)
Consumer to Business e-commerce is while a consumer makes their services or goods offered for companies to buy. The Consumer to Business strategy totally transposes the conventional business, to consumer (B2C) show, where a trade produces services and items for shopper consumption. An example: Graphic designer customizing a company logo or a photographer taking photos for an e-commerce website.
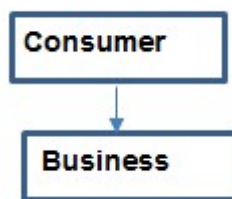
Figure 1.6 Consumer to Business Types of Transaction
Consumers fix prices on their own, which business accept or decline.

Business to Administration (B2A)
Business with an Administration e-commerce group mentions transactions among companies and public organization. This is apart that includes various services, mostly in parts of social security VAT returns, income tax, services, patent registration and legal papers. All come within this classification, and applications for B2A could bring much more organizations in the world of electronic exchange. Business-to-Management (B2A) is a web-based business that includes every single exchange that is perfectly managed online between consumer and people. For example, we have E-Governments under Business-to-Government.
For Example: -Planning, Public health, Asset management.
Consumer to Administration (C2A)
Consumer to Administration e-commerce type, C2A e-commerce includes all electronic transactions between individuals and public organizations. Examples of this include the filing of tax returns and health insurance services (Online appointment), dissemination of information and distance learning.
For Example: Education -online distance learning.
Social Security- Distribution of information.

Health Services- Online payment of health services.

Benefits of E-commerce

E-commerce have encouraged rural areas to have access to facilities and products that are otherwise not accessible in rural areas. E-commerce encourages the government to deliver public services, such as social services, education, and healthcare, at a reduced cost and in an improved manner. E-commerce may apply Niche vertical marketplace, Horizontal marketplace, and Service aggregation marketplace.

Complete Control to Admin: Admin deals with merchants, orders, commissions, items, and significantly more. Also gains commission on each order without contributing in stock.

Freedom to Vendors: Provide complete freedom and transparency to vendors so they can register easily and start selling in no time.

Vast Item Options for Customers: Customers get various items catalogues and competitive pricing by choosing items advertised by vendors within the same cart.

Overcome Geographical Limits: In rural areas, people can buy and sell products with the help of E-Commerce.

E-commerce has allowed rural areas the right to use various types of services and products, which are else not obtainable to them. Increase new clients with the support of Search Engine Visibility.

People can **be made** aware global marketplace at Lower Costs.
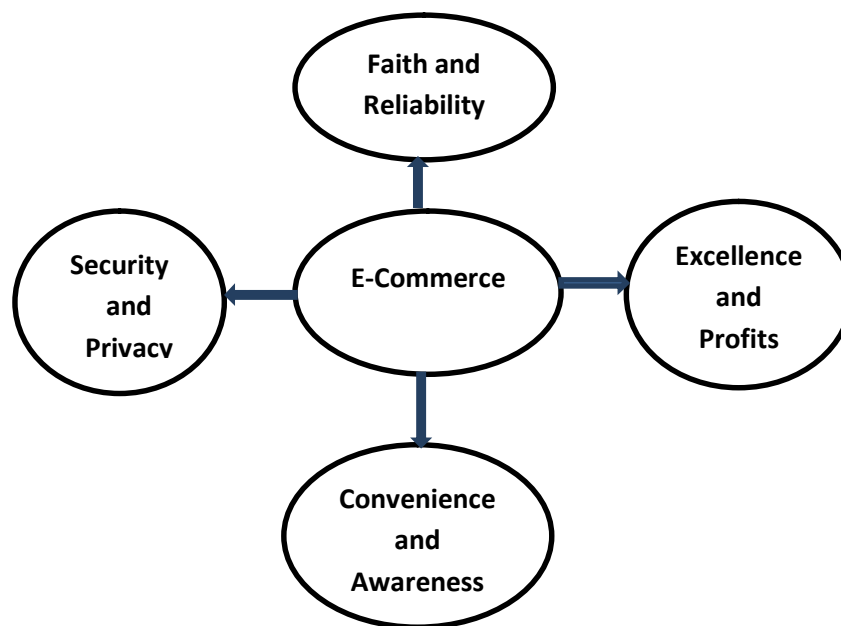
Figure 1.7: Benefits of E-Commerce

Simple to Set Up: It is simple to set up electronic commerce. You'll set up an online business indeed by sitting at home. You have got the desired software, internet, and device.

Cheaper than Conventional Trade: Electronic commerce is much cheaper than traditional commerce. E-business setup cost is a lot higher than the cost required setting up a conventional business. Likewise, the exchange cost is successfully less.

No Geographical Boundaries: there are hardly any geographical boundaries for e-business. Anyone can order anything from anywhere. This is one benefit of e-business.

Government Subsidies: Online businesses get benefits from the government as the government is trying to promote digitalization.

Flexible Business Hours: Since the web are continually available. E-business isolates the time deterrents that region-based association experience. For whatever time frame that someone has an Internet affiliation, you may have the choice to reach and offer your thing or organization to these visitors to your business website.

Gain New Customers with Search Engine
Search engines, helping to attract new customers to e-business such as redesigning a website. Offer different marketing strategies in rural areas. Search engines help to reach more customers.

Create Markets for Niche Products
An e-business niche is a distinct part of any industry that is often ignored by other companies. Handcrafted items, eco-friendly items, and beauty items are examples of niches. From the consumer's point of view, the e-commerce business offers many uncommon advantages.
1. Buyers spend less time sifting through the options.
2. More options for buyers
3. They take less time to resolve receipt and request inconsistencies.
4. Increased the number of open doors for buying optional products.

The most significant advantage of making a business 'online business empowered' is that it cuts down on delivery time, labor costs, and expenses in the following areas:
1. Reporting readiness
2. Mistake detection and correction
3. Make a compromise
4. Mailing lists
5. Phone calls
6. Information flow
7. Expanded time
8. Costs of supervision

To Do Activity

- Create a chart of E-Commerce works in rural e-business
- Visit a few rural towns and identify salient features of rural retail markets.

1.2 Business Models Addressing the Rural E-Commerce Opportunity

E-commerce is now gaining traction in rural areas. This may be a demonstration of the high quality of large demand in a rural market for electronic equipment and flexible telephones, all of which can be met by internet business. Because of every capital prerequisite and efficiently populated GIS, it is not feasible for all organizations to open showrooms or retail locations in India. E-business in rural businesses discovered priorities in a large variety of rural businesses, like nurseries, seed suppliers, fleece, wine, and ordinary supplies, which all separately employed conditions to far-reaching businesses. The extent that they are remembered for internet business activities, expectations from direct 'Electronic business directory's sort developments, like supply chain, to direct 'Electronic business directory's sort advancements.

Benefits of online movement systems such as Myntra, Snapdeal, Amazon, Jobong, Voonik, Shopclues, Flipkart, and others. The residents benefit from the online movement platform. Besides that, with the development of the Internet and mobile, the vast majority of the town's customers use multipurpose services. Electronic devices, utensils, blenders, and processors are maintained by these organizations.

Limitation of E-commerce
The current markets are most likely accessible via the internet.
- The Internet decreases the world and expands current geological parameters so that they can be seen anywhere.
- All-inclusive marketing and crusades should be available at a low cost.
- Retaining customers and client entities could be dramatically improved.
- Strengthen consumer and supplier relationships
- Improve the efficiency of trade mechanisms and legal capacities.
- Deals also shouldn't require the use of personnel.
- An inventory that can be updated rapidly and easily.
- This means that when prices or stocks are changed, you won't have to wait for the printer to offer the index some time, as this has been the case in recent years.
- You should include your values in your marketing letter, including such item quality and advantages, or you can move on to your customers.
- E-commerce constraints can be divided into two categories: technological and non-technical.
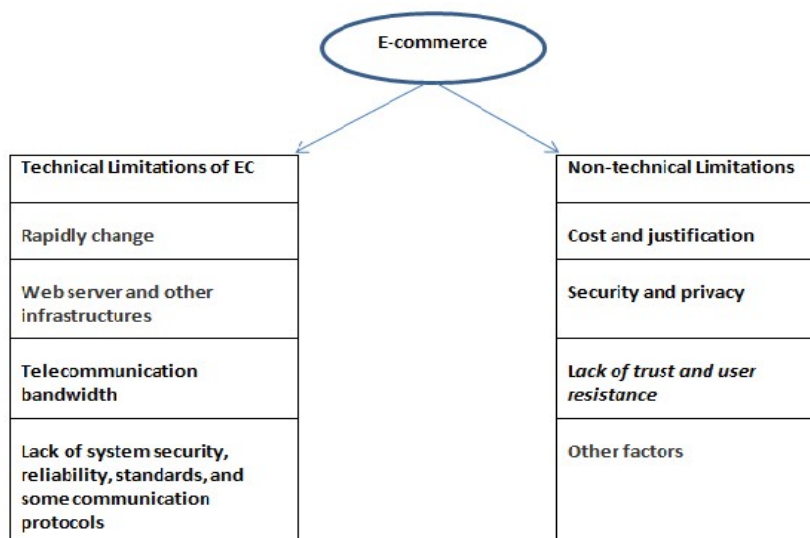
Figure 1.9: Limitation of E-commerce

Technical Limitations of E-commerce
The need of structure security, steady quality, measures a couple of communication protocols.
- Inadequate data transfer capacity via media transmission.
- Incorporating the Web and E-commerce PC platform with a few existing programs and databases is unpredictable.
- Vendors may require special Web servers and other setups while the servers are being built.
- E-commerce in some cases

Nontechnical Limitations
The following are the important non-specific limitations that hinder the spread of E-commerce. -
Justification and Cost: The cost of developing E-commerce in-house can be prohibitively expensive, and mistakes made due to a lack of experience can result in delays. There are many opportunities for

redistributing, but determining when and how to do so is a fundamental question. They are constantly improving security and privacy controls. Clients, on the other hand, consider these issues to be important, and E-business faces a long and difficult task in convincing them that online exchanges and security are extremely safe and private.

Lack of Confidence and User Resistance: Customers are unwilling to trust an unknown, unremarkable merchant (whom they don't always trust).

Other Limiting Factor

Electronic business, as an order, is as yet advancing and developing quickly. Many individuals are searching for a steady area before they go into it. There are insufficient help administrations. For instance, top-tier evaluators, or qualified E-commerce charge specialists, are uncommon. In many applications, there are not yet enough merchants and purchasers for productive E-commerce activities.

The electronic business could bring about a breakdown of human connections. Access to the Internet is still expensive and inconvenient for some potential customers. (With Web TV, cell phone access points, and consistent media consideration, the bare minimum would eventually produce.) Despite these limitations, E-commerce is advancing rapidly.

Business Models of E-commerce

The business model is a way of doing business, a technique for increasing profitability and benefits while continuing to operate as a commercial enterprise. Because of improvement in web technology, the E-Commerce business as a recreational activity has grown over the years. The online commerce trend combines traditional commerce foundations with the electronic system to perform co-operation.

Transaction Types based on E-business Model

Business types take part in a variety of Brokerage ways
• Aggregator
• Information Management System (IMS)
• Value Chain
• Community

A business model depicts how information is exchanged, i.e. how money is made. The e-commerce overview explains how a business makes money by displaying where it is located within the chain. Many models are absolutely honest. A business creates products or services and sells them to customers.

Value Proposition

A value proposition defines how a company's item or benefit satisfies the needs of clients. It has several key elements. To develop and/or analyze a company's value proposition, you must first understand why clients would want to do business with the company because it offers benefits that other companies do not or cannot. Personalization and customization of item offers, reduction of product look costs, reduction of cost disclosure costs, and transaction assistance are all examples of successful e-commerce value propositions from the customer's perspective.

Revenue Model

The revenue model depicts how the company can generate revenue, earnings, and a higher return on invested capital. E-commerce earnings shows may help a web business generate revenue. The model explains the trade's profit-making process, which includes the item and value-added benefits.
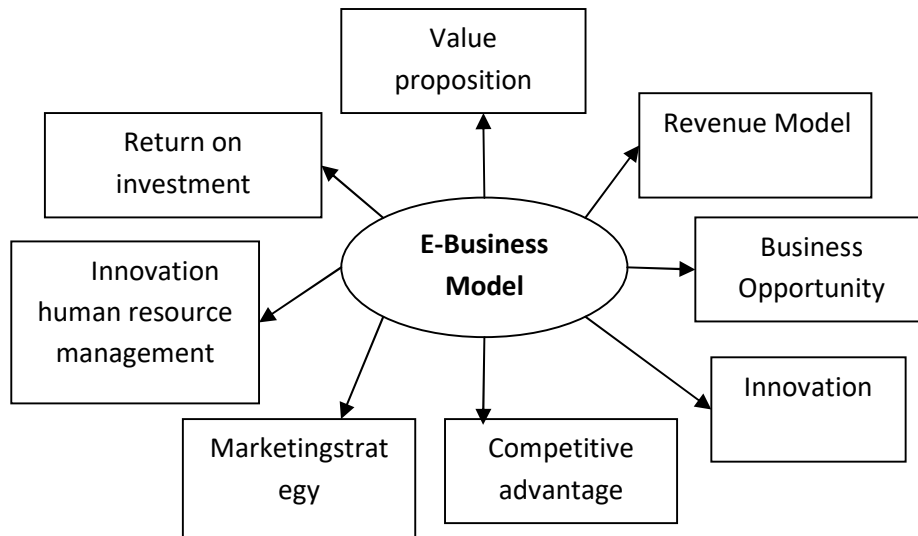
Figure1.9 E-business Types of Transaction

Types of Revenue Model

There have been numerous revenue models developed; most firms depend on one or a few combinations of the above major revenue models: subscription programs, service charges, exchange fee models, affiliate models, and deals reveals.

1. Advertising Revenue Model
2. Subscription Revenue Model
3. Transaction fee Revenue Model
4. Sales Revenue Model
5. Affiliate Revenue Model
6. Market Opportunity
7. Marketplace

Revenue Models

Table 1.1: Revenue Models

Re Venue Models		
REVENUE MODEL	E-SAMPLES	REVENUE SOURCE
Subscription	Consumerreports.org	Fees from subscribers in exchange for access to content or services.
Sales	Amazon	Sales of good, information or services.
Transaction Fee	eBay	Fees for enabling or executing a transaction.
Advertising	Yahoo	Expenses from advertisers in trade for advertisements.
Affiliate	My Points	Fees for business referrals.

In the advertising revenue model, an organization provides a platform for ads and receives revenue

from advertisers. Companies that can attract the most prominent customers or that have a highly specialized, segregated consumer and can gain consumer consideration can charge higher advertising prices.

A subscription revenue model is one in which an organization provides services and content to its consumers in exchange for a monthly fee. Online and mobile access to premium content, such as point-by-point evaluations, reviews, and recommendations, is made possible by the computerized adaptation of buyer reports. An organization receives a fee for promoting or making a transaction under the transaction fee revenue model. On the off chance that a vendor is successful in offering the item, eBay provides a sell-off commercial centre and earns a small exchange fee from the vendor.

Sales Revenue Model: a company infers revenue by offering goods, information, or administrations. Sales revenue models are Amazon, Flip cart.

Affiliate Revenue Model: Businesses that delegate commerce to an "affiliate" earn a referral fee or a percentage of the deal's revenue. Points earned through referrals will be converted to money by connecting businesses with potential customers and providing exclusive offers to its members. Members earn "points" that they can redeem for freebies when they take advantage of a deal and make a purchase, and My points become a cost.

Competitive Advantage
1. A company's ability to effectively use its money. Taking charge of customer satisfaction and positioning the company ahead of the competition.
2. Access to common assets that its rivals do not have.
3. Highly skilled workers
4. Geographic place
5. Image awareness of the brand

> **To Do Activity**
>
> **Illustrate the Online Shopping Application and Give Some Examples in Rural areas.**

Online Retail Opportunity for Rural Business

India's rural e-business has a major role to play in the country's economic development. Given that nearly 70% of India's population live in rural areas, enough funding and support will promote a fruitful working environment in these networks. In terms of the world, India is financially weak, more youthful, increasingly isolated geologically, separated from fundamental markets, socially embedded in tradition, less strong monetarily, and on the brink of extinction as compared to the average population.

The procedure of prevention is the most underappreciated aspect of provincial India that can be abused. To fulfil their desire to be successful, a large number of young, energetic people move to cities. Since rural India cannot provide these young business inventors with the growth opportunities they need to succeed, many of them settle for traditional business. Keeping in mind the assets that a capable world nation has and the types of rural assets that countries like India support, if the legislature can encourage these young people to stay in their networks and assist them in establishing business visionary activities from their own family-owned organizations, such a program can achieve unmatched success in provincial networks.

Rural Retail Scenario

In India, rural areas are increasingly representing growing purchasing power, changing purchasing behaviour, improved services, and increased access to information communication technology. The government has introduced rural development initiatives to benefit the needy in rural communities seek employment. In rural areas, infrastructure is being developed. Roads connected villages to nearby towns are being developed. Electrification schemes are in the development.

Approach to Rural Retailing
- Go directly to the manufacturer
- Create knowledge trading centres
- Earn local people's respect and trust
- Provide a financially rewarding stage for their agricultural yield
- Treat farmers as customers

Opportunities of Rural Entrepreneurship
- Rural India had three times the amount of families. With 41 percent of India's white collar class and 58 percent of the total extra cash, rural India has a large devouring class.
- Their purchasing market is expanding.
- Increased exposure and proficiency rates would expand its market.
- Having a focus on agricultural arrangements would improve regional earnings.
- The population is showing to be bran.

Local people's support and motivation: Rural business visionaries obtain a lot of help from rural people. Individuals from villages actively inspire and support business visionaries.

Low Foundation Cost: As compared to urban areas, the cost of establishing a business foundation is low for nation's entrepreneurs. There is no valid justification to extend or start new offices. 70% of people in India live in cities. Horticulture is a major source of income for the majority of the population in the region. Work in agriculture isn't always available. This is why untalented and semiskilled labor is more readily accessed by rural financial specialists.

Government Approaches and Endowments: India's legislature has consistently observed and proposed new arrangements designed to empower the country's economy. These strategies are totally adaptable, innovative, and flexible, with the proceeds going to benefit small business owners in rural areas. Simultaneously, the government has announced major endowments for the development of the rural business enterprise.

Accessibility of Raw Materials: Several times, local business visionaries rely on ranch-based items as crude materials, which are consistently available. These raw materials are easily accessible in the provincial region, which explains why there is no shipping or buoyancy costs.

Price of Production: When compared to urban industries, the cost of creation for rural entrepreneurs is extremely low. Since the elements of development are readily accessible with little effort, the cost of production is also low. As a result, rural people are able to sell their goods and businesses at a lower rate.

Ideal Utilization of Produces: Only the local company is capable of making the best use of homestead items. The majority of rural entrepreneurs rely on ranch produce as a source of raw materials.

Work age of Rural Youth: Rural entrepreneurs are offering 100 percent jobs to young people in the province. If the rural business visionaries win this movement, the movement of people from rural to urban will be delayed to an even greater extent.

Advancement Cost: For rural citizens, there are no advancement costs, and the difficulty is extremely low. There are no criteria for publicizing or other limited-time exercises for their products, in particular.

Potential customer: Villagers are financially secure in the twenty-first century. They have the ability to convert this massive population into potential clients. That is why, because of their ability, all multinational corporations are concentrated in India's rural villages.

Building the goodwill: Rural market visionaries provide a collection of tools for fostering goodwill. The majority of rural business executives have spiritual values, and they do not work for purely financial gain.

Benefits of Online Retail Business in besides, Rural India

- Store is open 24 hours a day, 7 days a week, and sells items all over the world. Is it possible to sell internationally?
- Customer's phone number is also available via e-mail.
- You have the right to sell an infinite number of items. He could sell from any manufacturer in the world if he wanted to. Our suppliers ship directly to their clients, so there's no need to keep stock.
- Products arrive two days after an order is made. Goods delivered to customers two days after ordering.
  - Customers receive their orders two days after placing them.
- Word-of-mouth, search engines, occasional advertisements in the local or national newspapers, links from manufacturer's sites, junk e-mail, and banner ads on coffee information sites are all successful methods of marketing. Promotional features in the group are also available.
- Maintains the website, including updating the product page as new items are launched or prices change, as well as social media.

Challenges Faced by Rural Consumers

Perceiving offline seller as more reliable: Shoppers have confidence in retailers that sell disconnected goods, as they have in the past.

Fear of poor after Sales service: There is a doubt related to service post-delivery of the product. Innovation and product development besides.

Fear of bad after-sales support: There is uncertainty about service after the product has been delivered. Aside from that, there's product creation and creativity.

Lack to know how to mobile app: The overall method of shopping online is unknown to most consumers. For the average rural user, deciphering mobile apps is a major challenge due to the fact that the majority of them are written in English.

Lack of trust: The legitimacy of the overall e-commerce system is questioned by rural customers. Even though assisted commerce has proven to be successful, education and experience are critical in encouraging self-purchase.

Lack of awareness of the brand: Given the fact that the decision is based on price, there are many goods that are equally priced and offer so many choices, making buying difficult. Companies that provide rural customers with digital access to product catalogues— Certain businesses provide digital access to purchase goods online. These businesses typically work with Kirana store owners/other retailers and shopkeepers to provide customers with tablets or kiosks so that rural consumers can see what goods are available online. This would be especially useful in categories like fashion, where touch and feel are significant.

IPay India

It offers customers a supported commerce experience by partnering with intermediary retailers that deliver these services to customers; the retailers pay a one-time fee and receive a commission on orders placed through them. These stores also serve as IPay cash collection locations. Customers may order using the tablet or by calling the IPay call center. The products are then shipped to the grocery store or directly to the customer. Orders put on the platform are prepaid and shipped to the customer in five to seven days. The platform supports over 20 product categories, including smartphone accessories, clothing, footwear, and fashion accessories.

Storage King

It offers financially supported commerce major retailers, similar to IPay India, by providing a tablet or kiosks. Customers are classified by phone numbers and receive short messaging service (SMS) in vernacular language for confirmation. Any sale results in a 6 percent to 20% cut for the retailer. The logistics must be handled by the sellers. Storage King is just responsible for the demand side.

- Providing or securing support services for various e-commerce facilities;
- Providing assistance and advice to certain communities and Small Medium and Micro Enterprises (SMMEs) on how to effectively adopt and use e-commerce for their development.
- Creating or assisting in the creation of e-commerce centres for SMMEs; and assisting in the production of websites or website portals that will allow SMMEs to transact electronically and obtain information about markets, goods, and other assistance.

E-commerce benefits of small business are an incentive for socio-economic development of rural communities.

✓ Direct benefits

Example of short term benefits-

✓ Save in communication, generate short term revenues.

Example of Long term benefits-

✓ Secure returning customers, long term business partnership.

Example of short term indirect benefits-

✓ Potential business opportunities, Advertising and marketing.

Example of Long term indirect benefits

✓ Ongoing business transformation, new business initiatives.

To Do Activity

- Identify various online Retail Opportunity for Rural Business
- Learn the concept of franchising by visiting the nearest franchisee

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1.4 Online Auction System

Since the internet has become a good place to purchase and sell products, online system based unloading administrations have advanced into most homes. Online sells off framework is a well based application, so the no more framework similarity necessity issue. The fundamental preferred position of the online framework is that the client can have the changed classes for their investment, and through this framework client can put resources into their own chosen firm.

The online auction system gives solution to users to sell and buy their various products with online maximum profit. It makes the online system for client use of Entrepreneurs, Organizations, Industrialists and Academicians.

The online auctioning system is basically designed for covering maintenance, subscription, campaign and complaint processes of the organization. The commercial customer process of the company is entirely different from the individual customers.

The system deals with client touch points: client request about the package, calls for subscription, services, complaints about technical or general problems.

Online Auction Website

The customer should be must User id and password to login auction system. Login user he/she is shown the bank accounts details with current balance and latest auctions. A user can pay money with the help of online banking even user can transfer the amount from another account.

- Change of address and stop payment request can proceed.
- The monthly / annual report can download.

Registration for Online Auction Sites

Internet auctions like online e-market. Dealers may offer each product or many bunch of a similar thing. In principle, online closeouts run a lot of like nearby sell-offs, however in the background, there is progressing information assortment. Much the same as nearby sell-offs, there are vendors and bidders - and champs and washouts. However, that is the place the likenesses among on the web and neighbourhood auctions end.

Homepage - The website opens up entryway to hopeful web clients through the Home page. The Home page is designed in such a manner that the design is as easy to use as could be expected under the circumstances. There is a navigational menu at the top of the page, which connects to different inward pages. Left side control drop down classification on the left side. The middle territory is for showing most recent items in the chronological request.

Login/User Registration - Those who wish to partake in the offering or sell items at the site need to enrol at the site as a seller or buyer. Just confirmed clients can partake in selling or in the offering. The framework consequently dismisses -confirmed clients who attempt to offer or sell at the site.

Register Products - This module is for introducing things for the offering. Just the individuals who have enrolled and confirmed as vendors can put their articles for the offering. The Module gathers data like Product Name, Product Details, Starting Bid sum, Incremental worth and so on. The framework consequently inputs the end date.

Offering Module–Anything can offer using the module. The bidder needs to verify before taking part in the offering. The framework checks whether the gradual sum entered by the bidder is equivalent or more than the steady least set during the item enrolment time. Records can put the history in the framework against the bidder account.

My Auction - Purchaser and dealer interface auction page. History of items can be seen by purchaser which is yet to open on which he/she has just awaited. So also the vender can see the improvement by offering of articles he/she has set for the offering.

Feedback - The motivation behind the page is to send messages/remarks to the web overseer.

FAQ - It intends this page for the first time clients of the site. The page gave answers to questions which are normal and much of the time inquired.

- ✓ Online Product Catalogue
- ✓ Paperless & cost effective
- ✓ E-mail able
- ✓ Searchable
- ✓ Zoom in and print page facility
- ✓ With turning page sound
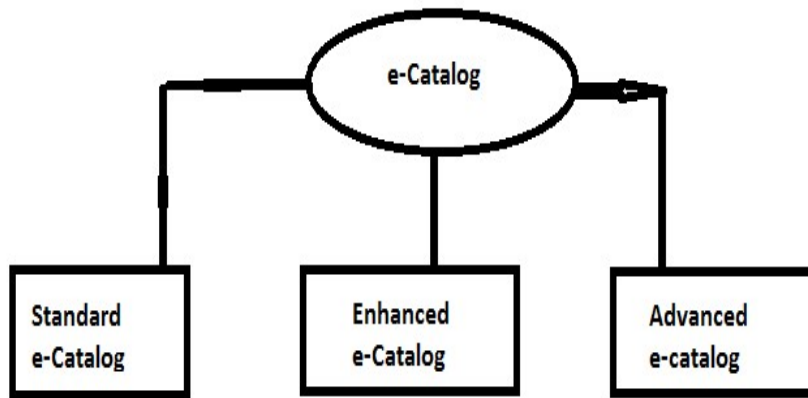
Figure 1.10: E-catalogue

Electronic Catalogue
Electronic catalogue are information about services and items in the electronics business, and require unique schemas. E-catalogue supports the definition, recovery, Storage and the product information throughout the internet business strategy, is a major fragment in basically all e-business applications. The decent variety of various types of items, applications, and language makes it a problematic system to structure and execute.

An electronic rundown is an online dispersion a graphic interface - html page in which the product and services offered by an association are showing up. Electronic files can store unprecedented amounts of things, which can be sifted through and described into different characterizations for customers to see logically effected.

Purposes of e-catalogues are to advance, to sell, to pass on, and to draw the customer's consideration. They are the propelled depiction of an association and a momentous e-commerce instrument. In the online business world, we find business-customer trades and business-to-business trades. Thusly, e-inventories are radiant specific gadgets between an association and its client, suppliers or various associations. For these reasons, inventories transformed into a device used consistently by different organizations.

There are different electronic inventories according to the way where they appear on the Internet. Retailer's e-records are free pages on the Internet, and their point is to progress and sell things and organizations. Enormous associations merge their e-inventories on their general destinations. All things considered, it does not use them as instruments for selling yet as plans to propel things and organizations and to draw the customer's thought. There is similar strip malls e-stock get-togethers– ebay.com, for example. In this circumstance, an Internet provider (ISP) gathers different associations' advanced productions, exhibiting a great number of offers made by the customers.

Advantages of E-catalogues
E-catalogues content is taken care of on a server to which guides from wherever throughout the worldwide method. They can be invigorated from the server in a standard, speedy and basic way. Likewise, the movements made are rapidly available for customers to see. Along these lines, inventories show the latest about new things, costs, retail stores, new advancement wires, etc.

Low Cost
- ✓ Market augmentation
- ✓ Interaction
- ✓ Information for customers

- ✓ Regular update
- ✓ Improved quality, refreshing product information available for use
- ✓ Elimination of time spent contributing Product information
- ✓ Fewer non-quality expenses, identifying input mistakes
- ✓ Substantial cost decreases for information handling tasks
- ✓ Time-sparing concerning information trades
- ✓ Improved requesting methods (e-acquisition framework)
- ✓ Simplified supplies the board (e-acquisition framework)

Analysis Phase: E-catalogue deal with many items. It analyzes attributes of products.
Vocabulary Definition Phase: Use different various names for similar product and specific vocabulary name itself.
Classification hierarchy Phase: In this phase database designer decides classification scheme.
Product Attribute Assignment Phase: In this phase assigns attributes to each node of the classification hierarchy derived from the previous phase. For example, product name, Price and manufacturer.
Database Design Phase: In this phase relational database schema gets generated.

E-catalogue
Electronic inventories (or short e-lists) are advanced distributions that present items to enable them to sell. You're probably searching for the correct programming of for configuration tips to assist you with making the best e-inventory for your business.
Step 1: Planning
Decide what items you need to remember for your e-catalogue. You additionally need to think about how you bunch your items. Photos are the bread and butter of your inventory.
Step 2: E-catalogue design
The basic Elements of a standard e-catalogue
Item name
Item photo
Item description
Item Specifications, sizes, delivery info, discounts, technical info
Benefits of items
Item Price
Buy/Cart buttons/ shopping links
Step 3: Choose your e-catalogue software
Need to complete design stage at the earliest and display, integrate it online into your website and share details with your buyers and business partners.
Step 4: Add links in your electronic catalogue
All electronic catalogues should have links inside, because there's no better way to point buyers to your shop than through the links.
Step 5: Publish and distribute
When you publish your e-catalogue online make sure you set it public, so that it's easy to find online. Your e-catalogue maker should give you this option
Customers can incorporate the E-Catalo directly into their own IT system, and can then use the Product data for their own needs.
Standard e-Catalo
- ✓ Page flip with turning page sound.
- ✓ Content index linked to pages.
- ✓ Quick Go-to page function.
- ✓ Page zoom-in & print facilities.
- ✓ Enhanced e-Catalogue
- ✓ Keyword based search facility.
- ✓ Send a page to friend facility.

- ✓ Advanced e-Catalogue
- ✓ Product pop up facility.
- ✓ Product URL-Page URL linking/forwarding facility.

To Do Activity

- Identify the requirements for interactive online system in relation to the role of auction house experts in Market efficiency
- Purchase a product over the net and narrate your experience.

1.5 Enablers of Growth in Online Rural Business

E-commerce or service providers that provide a single solution that can help a brand execute its digital strategy. E-commerce companies offer their customers all they need to make a successful online transaction, such as devices, software, and so on. The growing popularity and growth of Internet of Things (IT) technologies have provided incredible opportunities for users all over the world to benefit from these services and technologies. Using IT to conduct business online is known as Electronic Commerce (E-Commerce). While developed countries have banned and implemented E-Commerce, developing countries have not yet fully embraced adoption. The rapid development and progress of Internet technology has had a major impact on many aspects of business and daily life. This Internet technology allows knowledge buyers to buy products and services with an online retailer without having to go to a physical store. Businesses have taken advantage of this to expand their reach in the cyber market — well beyond the limits of time and space.

E-commerce Acceptance

'Enablers,' which are ten items listed in the diagram below, some of which require additional development and expansion, but are supported by current technologies, while others must be promoted and widely used using the best and the most advanced technology. What was required was a secure internet link, strong infrastructure; understanding once cyber-law was implemented; efficient transportation of product delivery; he is trustworthy protection systems; acceptable and effective warranty agreements; the principle of trust, as well as its promotion; awareness and training programs; and planning them once government funding was obtained. E-commerce that enables and disables items that policy makers, government, industry, and, eventually, the end consumer must understand (see in the figure). While the availability of 'allowed' will aid E-progress, Commerce's the existence of 'disable' will hinder it.

Enablers
- Postal Services
- Cyber law
- Security
- Internet and Infrastructure
- Trust
- Awareness
- Goverment E-Readiness
- E-commerce Online Presence
- Warranty
- Perceived Usefulness

Figure 1.11: Framework of E-Commerce enablers

In an improved framework, critical features can be grouped into the following categories:
1. Telecom and IT infrastructure;
2. IT skills / literacy awareness;
3. An idea of the importance of ease of use, and
4. Travel and postal services.

The availability of these and their subsidiaries will enhance the success of E-Commerce in any country. These things come together; therefore, complete success will take time, or in countries willing to pay whatever it takes.

The growing interest in e-commerce solutions by supply chain companies is highlighted by current developments in the technology, telecommunications, and media industries. There are various manufacturing units. This expansion is only temporary. Indeed, some investment analysts believe the performance rate will be high in the near future. There are a variety of reasons why it should be quick Development; this is a technically based chapter.

To Do Activity
Explore and write on use and impact of e-commerce enablers in rural business

Chapter Summary

E-commerce includes online promotion, online ordering, and electronic shopping and cyber payment of financial transactions for the business being conducted electronically. Analysis of different business transaction models based on transaction types and parties. The online auction is an e-business that takes place on an online platform, between auctioneers and bidders. Business to Business (B2B), Business to consumer (B2c), or Consumer to Consumer (C2C) is an electronic commerce.

The Online store accepts an order at the web front that involves physical delivery of the goods ordered to the customer's doorstep. E-commerce enabled is an end-to-end e-commerce service that seeks to sell products in rural India. Enabling technical services such as website development and marketing usually provide services such as supply chain and fulfilment.

There is a huge range of these businesses with a wide range of success and credibility. An example of one of these businesses is E-commerce Asia. It's no secret that online shopping has made the world a whirlwind. With more consumers than ever choosing to order their clothes, technology and online food, this means businesses have to deal with this shopping situation. Gone are the days of holding on to the Checkout, because e-commerce is certainly here to stay.

In terms of the number of people who regularly use smart phones on the rise, it is important for businesses to recognize that they have a unique opportunity to interact with their customers 24 hours a day. This means that 2020 has seen the introduction of most e-commerce businesses than ever before, as even high-end supermarkets now focus on sales through their website.

This obviously means that it's never really important to have an effective web design, which is why you need to contact us here at Vision Sharp. But you don't just have to take our word for it, because we'll give you a summary of how e-commerce is changing the world last year.

Model Questions

1. Explain the status of rural retailing and its features.
2. In what ways do rural businesses use the Internet and World Wide Web for business operations?
3. What factors influence this use?
4. How do rural businesses rate the effectiveness of their websites? What factors
5. Influence the perceived value of such websites?
6. What impact is the Internet and World Wide Web likely to have at the industry Level, for example on markets and supply chains?
7. What are the various applications of E-commerce?
8. What are the components of the enablers of e-commerce growth for rural business?

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Chapter 2 Electronics Payment System

Introduction

The electronic transfer of an installment is an alternative way of paying payments to the payee; in such cases, the electronic payment system acts as an outsider to support both the payee and the payer. To put it differently, e-payment is a form of service that assists customers who buy goods over the internet via internet shopping portals located in their respective countries.

Objectives

- To Study the concept E-payment
- To acquaint with the process of E-Payment
- To familiarise with e-payment security
- To provide insighs on strategies for fraud prevention
- To explain issues and challenges of electronic payment system

Chapter Structure

> 2.1 Electronic Payment Methods

> 2.2 Digital Payment for Rural Business

> 2.3 E-Payment Security

> 2.4 Strategies for fraud Prevention

> 2.5 Issues and Challenges of Electronic Payment System

2.1 Electronic Payment Methods

Electronic Commerce is a technique of business, which attends to the need of business associations, vendors and clients to decrease costs and improve the nature of products and services while speeding up delivery. E-commerce refers to the paperless trade of business data utilizing the accompanying ways-

- Electronic Data Exchange (EDI)
- Electronic Mail (e-mail)
- Electronic Bulletin Boards
- Electronic Fund Transfer (EFT)
- Other Network-based technologies

Features

Electrical Document Interchange
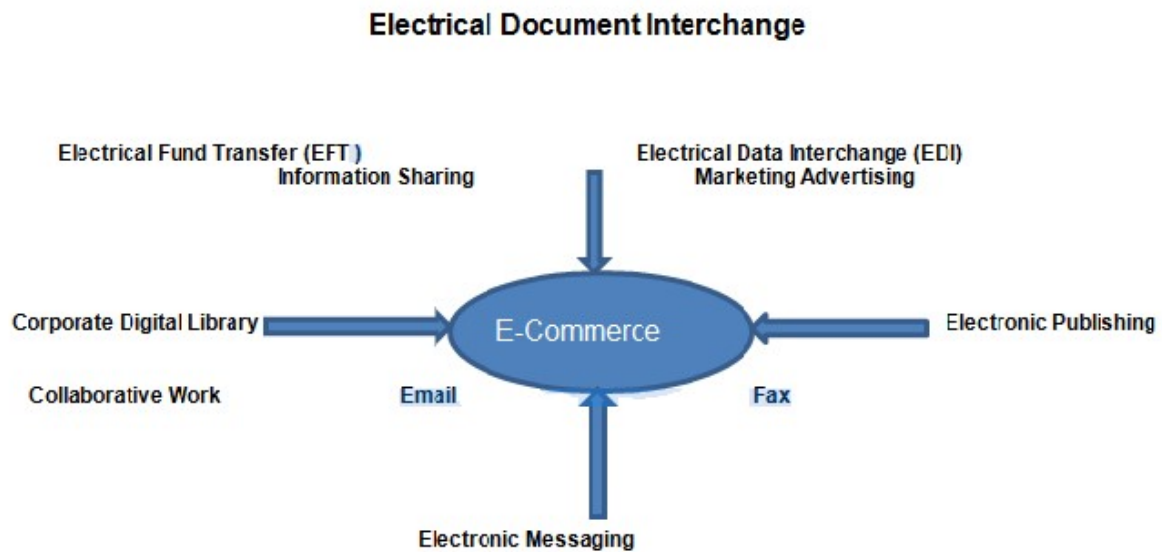
Figure2.1: Electronic Data Interchange

E-commerce provides following features –

- **Noncash Payment** – E-Commerce empowers the utilization of credit cards, platinum cards, smart cards, electronic fund transfer move using the bank's site, and different methods of electronic payment
- **24x7 Service availability** – E-trade computerizes the business enterprises and how they provide services to their various clients. It is accessible whenever.
- **Advertising / Marketing** – E-trade expands the span of advertising of items and administrations of organizations. It helps in the better advertising administration of products/services.
- **Improved Sales** – Using internet business, orders for the items can be created, whenever, anyplace with no human intervention. It gives a significant lift to existing arrangements.
- **Support** – E-business gives different approaches to give pre-deals and post-deals help to give better administrations to clients.
- **Inventory Management** – E-business computerizes stock administration. Reports get produced in a flash when required. The item stock administration turns out to be effective and simple to keep up.
- **Communication Improvement** – E-trade gives approaches to quicker, productive, dependable correspondence with clients and accomplices.

Electronic installment, which applies to paperless financial exchanges, is being used by Internet business destinations. The electronic payment system has improved business planning by reducing administrative work, exchange costs, and labor costs. It helps business organizations to expand their market reach/development by being simple to use and less time consuming than manual preparation. Credit Card

- Debit Card
- Smart Card
- E-Money
- Electronic Fund Transfer (EFT)

Credit Card

One of the most common electronic payment methods is a credit card. A credit card is a small plastic card with a unique number that corresponds to a bank record. It also has an enticing strip embedded in it that is used to scan Visa cards using card readers.When a customer purchases something with a credit card, the credit card guarantor bank pays for it, and the customer has a certain period of time to pay off the Master card bill. It's normally a credit card that has a fixed payment schedule. The on-screen characters in the Visa system are listed below.

The cardholder – Customer
- **The dealer**– Vender of the product who can acknowledge credit card installments.
- **The card backer bank** – card holder's bank
- **The acquiring bank** – the dealer's bank
- **The card brand** – for instance, visa or Master card.

Debit Card

A debit card, like a credit card, is a plastic card with a unique number that corresponds to your bank account number. Before having a debit card from the bank, you must have a financial balance.The significant difference between a credit card and a debit card is that if an installment happens debit card, the balance is automatically deducted from the bank account card's and one   must have sufficient funds in the bank account to complete the transaction; however, in the case of a credit card transaction, one need not have sufficient funds in your bank account to complete the transaction.

Smart Card

The smart card resembles a Visa or platinum card in appearance, but it contains a small microchips chip. It can store both business and personal data for a customer. Smart cards are also used to store cash and the balance withdrawn after each transaction. Smart cards must be accessed using a PIN that is assigned to each client. Smart cards are more expensive/provide faster handling and are more reliable because they store data in an encoded location.

E-Money

E-Money exchange refer to a situation in which a payment is made over the internet and the funds are transferred from one financial institution to the next without the need for human interaction. E-cash exchange are more efficient, convenient, and time-saving. E-money exchange provide online payments made with credit cards, smart cards, or debit cards. E-money is another example. If e-money is used, both the customer and the broker must register with the bank or company that is providing the e-money.

Electronic Fund Transfer

Electronic Fund Transfer (EFT) is a well-known electronic payment form. The sum may be transferred between the same bank or another bank using an Automated Teller Machine to move cash from one account to another (ATM). Web-based EFT is becoming increasingly popular these days. Currently, the client logs in to the bank's website, signs up for an account, and records their bank account. He or she may make a request to move a certain amount to other accounts, and the bank will notify the customer until the transaction is completed.

E-Payment

Table 2.1: E-Payment[1]

Features	Online credit card payment	Electronic Cash	Electronic check	Smart Cards
Actual payment time Transaction information transfer	Paid later The store and bank check the status of credit card	Prepaid Fee transfer. No need to leave the name of the parties involved	Paid later Electronic checks or payment indication must be endorsed	Prepaid The smart card of both parties makes the transfer
Online and offline transaction	Online	Online	Offline allowed	Offline allowed
Bank A/C involvement	Credit card account Any legitimate credit card Users	No involvement Anyone	Bank account Anyone with the bank	Smart card account Anyone with bank or credit card a/c
The party to which Payment is made	Distributing banks	Store	Store	Store
Consumer's transaction risk	Mostly born by distributing bank	The consumer at risk of stolen or misused	The consumer bears risk, but can can stop check	Consumers-risk of stolen. Lost or misused
The current degree of popularity	Credit card org. Checks for certification and total purchases. Thus, used internationally	Unable to meet internet standards in the areas of potential expansion &Intel	It cannot meet international standards so not so popular	Like online credit cards and is becoming more widely used
Anonymity	Partially or entirely	Entirely	No anonymity	Entirely, but if needed by the central processing agency can ask.
Small payments	Transaction costs high. So, not suitable	Low transaction cost. Suitable	It allows stores to accumulate debts until it reaches the limit before paying for it.	Transaction costs are low. Like electronic cheque.
Database safeguarding	Safeguards regular credit card information	Large databases & records S. No's of use, etc. Cash.	Safeguards regular account information	Safeguards regular account information
Transaction information face value	It can be signed & issued freely in compliance with the limit	Face value is often set & can't be altered	It can be signed & issued freely in compliance with the limit	It can be deducted freely in compliance with the limit
Real/Virtual world	It can be partially used in the real world	An only virtual world	Limited to virtual but share checking a/c in the real world	It can be used in real or virtual
Limit on transaction	It depends upon credit card limit	It depends upon how much prepaid	No limit	It depends on how much money is saved
Mobility	Yes	No	No	Yes

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[1] Source:" Sumanjeet. S (2009).The emergence of payment systems in the age of electronic commerce.The state of art.Global J.Int.Bus.Res3(3).18-40 "

E-commerce - Security Systems

The exchange of security information over the internet is extremely important. Customers would lose faith in e-commerce if its protection is compromised. The following are the basic criteria for stable electronic payments and exchanges. −

- **Confidentiality** − Unapproved individuals do not have access to information. During transmission, it should not be captured.
- **Integrity** − Information should not be changed during its transmission over the system.
- **Availability** − Information should be available at any time and from any location within a specified time frame.
- **Authenticity** − Before granting a client access to the required data, an instrument should be used to verify the client.
- **Non-Reputability** − It is a precaution against the swearing of the request or the failure to pay. If a message is sent, it should not be denied, and the recipient of the message should not have the option to refuse receipt.
- **Encryption** − Only approved users have access to information that has been encrypted and decrypted.
- **Auditability** − Data should be registered in such a way that it can be tested for honesty requirements.
- Measures to Ensure Security

Major safety efforts are following −

- Encryption − It's a very effective and realistic way of securing data being transmitted over the internet. The data is encrypted by the sender using a secret code, and only the predetermined recipient may decipher the information using the same or a different secret code.
- Digital Signature − Digital signature guarantees the authenticity of the data. A digital signature is an e-signature validated through encryption and password.
- Security Certificates − Security authentication is a digital id used to confirm the identity of an individual site or client.

Security Protocols in the Internet

Protocols that are used over the internet to ensure that online transactions are checked.

Secure Socket Layer (SSL)

It is the most ordinarily utilized protocols and is generally utilized over the industry. It meets following security prerequisites −

- Authentication
- Encryption
- Integrity
- Non-reputability

Secure Hypertext Transfer Protocol (SHTTP)

SHTTP adds public key encryption, validation, and computerized signatures to the HTTP web protocol. Secure HTTP bolsters a variety of security tools, providing protection to end-users.

Secure Electronic Transaction

It is a secure protocol created by MasterCard and Visa in a coordinated effort. Hypothetically, it is the best security protocol. It has the following segments-

- Card Holder's Digital Wallet Software − Digital Wallet permits the cardholder to make secure buys online through point and click interface.
- Merchant Software − This product causes traders to speak with potential clients and financial institutions securely.
- **Payment Gateway Server Software** − Payment gateway gives programmed and standard payment process. It underpins the procedure for the merchant's certificate demand.
- **Certificate Authority Software** − This software is used by financial institutions to issue digital certificates. Card holders and suppliers, as well as to sign secure electronic business account agreements.

2.2 Digital Payment for Rural Business

Rural India has a significant impact on the country's economic growth, and with the emerging changes in ICT penetration and the consequences of demonetization, the need to improve the patterns of the digital payment model in rural India, in addition to the digital initiatives implemented in rural segments, has never been more important.Taking into account the benefits, such as transaction transparency and space for curtailment. Even in the rural economy, the transition to digital payments should be encouraged, given the advantages of transaction transparency, the potential to reduce the parallel economy, and improved business ease.Some of the most notable recent developments include the introduction of various digital wallets such as Paytm and Mobiwik.

E-payment

An e-payment system is a method of constructing transactions or paying for goods and services using an electronic medium rather than using checks or cash. It's also known as an online payment system or an electronic payment system. The electronic payment system has increased in popularity as internet-based banking and shopping has become more widespread.As the world progresses with technological advancements, we can see the rise of electronic payment systems and payment processing tools. The percentage of check and cash transactions should decrease as these improve, strengthen, and make online payment transactions safer.

Digital Payment Requirements
- Acceptability : There needs to be wide acceptance of the payment system
- Anonymity: Customer identity should be converted to any type of fund
- Onvertibility: Digital money should be converted to any type of fund.
- Efficiency: Price should be near zero per transaction
- erfaces to help the existing system should be built.
- Scalability: If new customers and retailers come in, systems should not fail.
- Security: If financial transactions over open networks should be permitted.
- Reliability: Should prevent failure at single points.
- Usability: Payment should be as simple as in the real world.

Online Payment Categories
- Online payment categories divided into 3 parts
  - Micro Payment
  - Consumer Payments
  - Business Payments
- **Micro Payment :** It is used for a very small cost of a transaction.
- **Consumer Payments:** Consumer payment is effected by credit card transactions.
- **Business Payments :** Debit cards or invoices are suitable alternatives within this scheme.
- **Online Credit Card Payment System:** Consumers and merchants all over the world adopted the online credit card payment system, and it was by far the most popular payment method, particularly in retail markets. This form of payment system offers many advantages not

available through conventional payment methods. Privacy, integrity, efficiency, consistency of effecting transactions, acceptance, ease, and veracity are just a few of the most important. Payment by Credit Card via the Internet The basic procedure is very straightforward. Customers actually give their credit card information to the service provider in question if they choose to purchase a product or service, and the credit card agency handles the payment like any other.

- **Debit Card:** These allow the customer to withdraw money from his or her checking account at the point of sale using an ATM or a cashback feature offered by many merchants.

Benefits of Debit Card
- Service fees and elite charges.
- Takes care of your investments.
- Payments that are processed more quickly allow for better budgeting.
- There is no interest fee.
- Safety and security.
- The debit cards are connected to accounts that receive interest.
- Rewards from the bank and from customers.
- Credit card fees are taxed at a lower rate.

Types of Debit Card

Debit cards come in a variety of shapes and sizes, and it's important to know what each one has to offer. In India, the different types of debit cards are determined by the type of payment network that is linked to the card.

- **Visa Debit cards:** Visa debit cards are considered the most accepted debit cards for all sorts of online and electronic transactions worldwide. The VISA ATM network is distributed all over India and beyond.
- **Master Card Debit cards:** MasterCard debit card falls under common debit card forms. MasterCard is one of the most widely accepted electronic payment systems in the world. You can access your savings or current account via the company's Secure Code payment platform with a MasterCard.
- **RuPay Debit Cards:** In India, the debit card RuPay was launched. These kinds of debit cards are provided by the National Payments Corporation of India under a domestic debit card scheme. Such cards are only approved domestically. RuPay debit cards can be used to conduct a range of domestic transactions: you can pay for online and retail sales, as well as payments for utility bills.
- **Contactless Debit Cards:** Contactless debit cards allow you to make the payments by swiping the card. Wave the card clearly over the payment machine. The transaction is done automatically. These debit cards have a speedier cashless transaction process.
- **Visa Electron Debit Cards:** Visa's Electron debit card is very similar to Visa debit cards, except that there is no overdraft facility for cardholders. Such debits cards ensure you're not over-spending. Domestic and international ATMs may use certain debit cards for cash withdrawal. If you withdraw cash using a Visa Electron debit card, no interest charges are imposed. Payments for all kinds of transactions are also allowed at PoS terminals. Please note however that Visa Electron debit cards are not approved in Australia, Canada, USA, and Ireland. You cannot use a Visa Electron debit card to make offline payments on flights, trains, etc. The reason is the PoS terminal's inability to check that funds are being transferred in real-time.

Visa Electron debit cards issued by most Indian banks such as Syndicate Bank, Bank of India and Bank of Maharashtra

- **Maestro Debit Card:** Maestro Debit Cards are identical to the debit card MasterCard. Such cards are accepted worldwide. This card can be used to withdraw cash in ATMs all over the world. Payment can be made through this card for online purchases, and transactions at domestic and international PoS outlets.
- **RuPay:** The RuPay Card is a kind of debit card that comes with your bank account opened under the Jan Dhan Yojana Pradhan Mantri. The card is issued by the Indian National Payment Corporation. RuPay Cards are accepted across the country at all ATMs, and you can use them to withdraw cash where and when you need it.

Benefits of Adopting Digital Payments

Digital payment methods provide many advantages, such as

- Convenience
- Tracking expenditure record of purchases
- Reduced risk of theft, harm

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┌─────────────────────────────────────┐
│        Physical Cash payments         │
└─────────────────────────────────────┘
                   │
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│   Plastic Card based payments (e.g.   │
│        Debit/credit cards)            │
└─────────────────────────────────────┘
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│   Internet banking /electronic fund   │
│       transfers & payments            │
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│   Pre-paid cards (e.g. smart cards,   │
│      mobile pre-paid cards)           │
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│  e-wallet/digital wallet / mobile wallet │
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│  Digital currency (e.g. bit coin )/ virtual │
│            currency                   │
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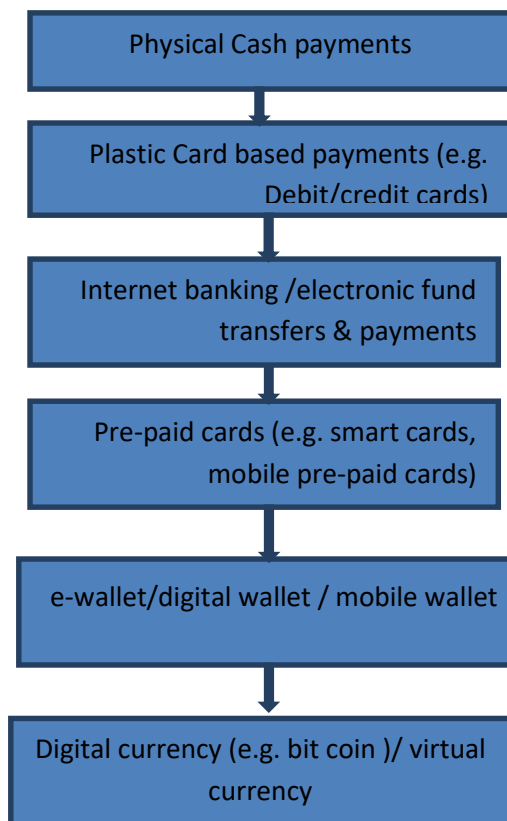
Figure 2.2: Benefits of Digital Payments

Bharat Interface for Money (BHIM)

BHIM is a mobile application (app) that uses a single identity, such as mobile number or name to allow easy real-time fund transfer. BHIM's Unified Payments Interface (UPI) Bharat Interface for Money (BHIM) is a payment application that allows you to make fast, easy and quick transactions using the Unified Payments Interface (UPI). Using their UPI ID, or scanning their QR code using the BHIM app, you can make direct bank payments to anyone and UPI. You can also claim money from a UPI ID via the app.

The following are the features of BHIM:

- **Send Money:** Using Virtual Payment Address (UPI ID), Account Number and QR Scan send money.
- **Request Money:** Enter Virtual Payment Address (UPI ID) to collect money. Also besides, one can the transfer money using the Mobile No. via the BHIM App (Mobile No should be registered BHIM or * 99 # and account should be linked).
- **Scan & Pay:** Pay by scanning the QR code via Scan & Pay or create yours to allow other people to make easy payments.
- **Transactions:** Check your transaction history and also collect requests awaiting UPI (if any) by clicking on report problem in transactions you can raise a complaint about rejecting transactions.
- **Profile:** You will show your account's static QR code and Payment addresses. You can also share the QR code on the phone via various messaging apps, such as WhatsApp, Email, etc. and access the QR code as well.
- **Bank Account:** You will show your account's static QR code and Payment addresses. You can also share the QR code on the phone via various messaging apps, such as WhatsApp, Email etc. and access the QR code as well.
- **Language:** BHIM is currently available in 13 different languages, including Hindi, English, Tamil, Telugu, Malayalam, Bengali, Odia, Kannada, Gujarati, Marathi, Assamese and Bengali.
- **Block User:** Users that send you block/spam receive requests from illegal sources.
- **Privacy:** If a secondary UPI ID is created (QR for the disabled UPI ID is also disabled), allow a user to disable and activate mobile number@upi in the profile
- **Payment Reminders:** Schedule the payments according to your convenience.
- **Split Bill:** Splitting up bills with multiple UPI users with one click.

Electronic Wallets

An e-wallet is a form of electronic card that can be used to make online purchases using a computer or smartphone. Its worth is comparable to that of a credit or debit card. An E-wallet must be linked to a person's bank account in order to make payments. An E-wallet is a type of prepaid account where a user can save money for future online purchases. A password is required to access an E-wallet. An E-wallet can be used to pay for items like groceries, online orders, and plane tickets, among other things. Software and details are the two key components of an e-wallet. Personal information is stored in this section of the software, which also provides data protection and encryption. The information section is a database of user information, such as their name, shipping address, payment method, amount due, credit or debit card information, and so on.

To set up an E-wallet account, the user must first install the software on his or her computer and then enter the necessary details. After shopping online, the E-wallet automatically fills in the user's information on the payment form. To activate the E-wallet, the user must first enter his password. The customer is not expected to fill out the order form on any other website after making an electronic purchase because the information is registered in the database and updated automatically. Any electronic device or online service that enables a person to transact electronically is referred to as a digital wallet. It entails purchasing something with a computer, laptop, or smartphone instead of using physical payment methods such as cards or cash.
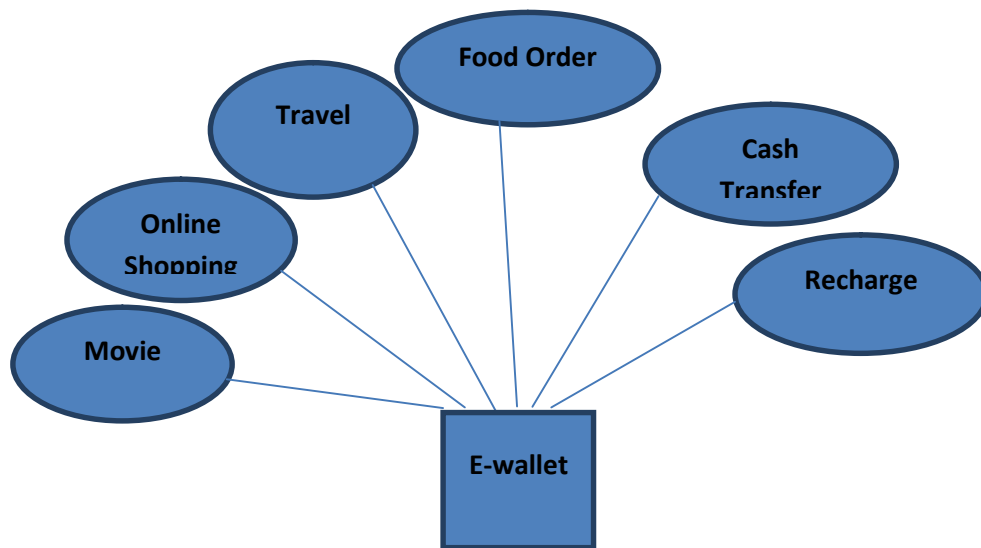
Figure 2.3: Benefits and use of Digital wallet

The Digital Wallet Core Uses

Many uses of the key for digital wallets exist. We've covered some of the main ones below that demonstrate the reasons for the technology's increasing modern-day use.

Payments: The primary goal of switching to a digital wallet is to give the consumer a more convenient and secure payment experience. Customers can transfer money quickly and securely from one bank account to another or to third parties using digital wallets. Holders of mobile wallets will save any debit or credit card information they carry with them to make payments more convenient.

B2B Marketplace Growth: We will promote the creation of a B2B marketplace in a closed-loop environment, separate from wallets and payments for consumers. Take agriculture as an example. Instead of a conventional cash loan, banks could give farmers' loans through a wallet. As a result, the farmers' options for spending the loan can be reduced. Allowing farmland to be used as a source of food might be one such process. The aim is to ensure that funds are allocated correctly and not misappropriated, resulting in economic gains for all parties.

Security : Digital wallets are known for their security. If your wallet is stolen from your back pocket, all of your cards are available for use. If your phone is stolen, the thief won't be able to access it without a variety of means of identification.Instead of a card number, a tokenized transaction ID is produced after a payment is made. This ensures that stores do not have any access to the financial records. Criminals would not be able to access your personal information even if you hack the store's records.

A digital wallet must be considered more than a computer. You will provide a wide range of financial services, payment options, B2B marketplaces, loans, and discounts to your customers. Such networks offer greater security than we've ever seen before, allowing businesses to satisfy their customers in an ever-changing environment.

To Do Activity

- Illustrate the financial enablement for rural customers.Identify the process if the customer's account has been debited and the merchant has not received the payment
- Prepare a chart of e-wallets, payment services.

2.3 E-Payment Security

Payment protection applies to any mechanism designed to ensure that contractors and subcontractors are compensated even in the event of a conflict. Safety is the main concern of e-commerce. The electronic payment system must be reliable for Internet transaction participants such as payment gateway servers, bank servers and merchant servers. The security architecture of the system is developed using various security protocols and techniques. Fraud that occurs with stolen credit card or debit card payment and customization information. It is shown in this unit that the secure communication tunnel technique is a secure electronic payment system capable of protecting traditional transaction data such as account numbers, sum and other data.

Electronic Fund Transfer

Transfer of electronic funds (EFT) is an electronic transfer of money from one bank account to another, either within a single financial institution or across multiple institutions, via computer-based systems, without the direct intervention of bank personnel. EFT includes direct debit transactions, wire transfers, bank deposits, ATM withdrawals and online payment services. Transactions are processed through the Federal Reserve Automated Clearing House (ACH) network, a secure transfer system linking all U.S. banks, credit unions, and other financial institutions. For example, whether you purchase from a store or online using your debit card, the transaction is done using the EFT program. The process is very similar to the withdrawal of the ATM, with almost immediate deposit and deduction from your account to the dealer. The direct deposit is another form of electronic transfer of funds. In this situation, your employer's bank account funds are electronic.

Modes of EFT
- NEFT-National Electronic Funds transfer
- RTGS- Real Time Gross Settlement
- IMPS-Immediate Payment Service

Procedures of Electronic Fund Transfer

In order to ensure the protection of university funds in the EFT system, all university staff applying for payments through EFT and all university staff involved in the processing of payments through EFT will comply with the following procedures:

The process for authorizing the EFT is subject to the same financial policies, procedures and controls that govern the disbursement of any other payment mechanism. EFT transactions will not be carried out in accordance with federal and state laws and approved business practices without the proper authorization of the parties concerned. Authentication of new EFT requests and changes to existing EFTs that are required before the transaction is entered into a computer-based banking system, including:

- **Validate** All new requests for electronic payment guidance have been received even where the request is internal.
- **Contact** Supplier or requester directly by telephone to report any changes to payment system requirements or payment instructions. Do not use the contact information provided on the request to change the payment method or the payment instructions. For example, Contact details in your Master Supplier file or information collected from the original contract. Please check the current payment instructions in the file before making any changes to those instructions (i.e. Current bank account and routing number given in the original instructions).
- **Verify** the new information contained in the payment instructions provided by the contact identified (i.e. Contact bank to confirm the correct account name, number and routing details)

- **Document** The verification process followed to confirm the payment instructions. The person responsible for entering/updating the wire instructions and the person approving the new/updated wire instructions must accept the verification record. The reference record shall be maintained in accordance with the policies for the conservation of records. Once wire transfers are accepted, they are placed as a prototype in a computer-based banking system and cannot be changed by those designated to use it. The establishment and modification of these models will involve two designated university signatories. Once Automated Clearing House (ACH) or Electronic Clearing Service (ECS) Payments are accepted, individuals who are allowed to maintain a vendor must set them up in the vendor master database of the financial accounting system. Bank balances are regularly checked for transactions that are irregular or unexpected. Reconciliation of bank operations with the general manager will take place without delay, with the investigation and resolution of the reconciliation process.

Needs of Security In E-Commerce

Maintaining proper security is crucial to e-commerce. Cryptography is a mathematical encoding technique used to convert information into an unreadable format to keep data confidential. Cryptography is a family of technologies that initially provide encryption, which converts data to some unreadable type to ensure privacy. Internet communication is like sending postcards where anyone can read a specific message; encryption provides the digital equivalent of a sealed envelope, and then decryption is the reverse of encryption; it converts encrypted data back to the original, transparent format (Nair, 2012).

The purpose of cryptography is to protect critical data as it moves through a medium that may not be secure. There are many different cryptographic algorithms, each of which can provide one or more of the following services to the applications. It is generally accepted that, in order to take protection into account, the payment system must comply with the following basic security requirements.

Security for Electronic Transaction

Payment protection applies to any program designed to ensure that contractors and subcontractors are compensated even in the event of a conflict.
Secure Electronic Transaction or SET is a system that ensures the protection and integrity of electronic credit card transactions. SET is not a payment system, but a security protocol applied to those payments.
Secure Electronic Transaction (SET)is a system to ensure the security of electronic financial transactions. It initially received funding from MasterCard, Visa, Microsoft, Netscape, and others. With SET, an electronic wallet (digital certificate) is issued to a customer, and a transaction is performed and checked using a combination of digital certificates and digital signatures between the buyer, the merchant and the bank of the buyer

Bank of the Buyer

SET uses Netscape Secure Sockets Layer (SSL), Microsoft Secure Transaction Technology (STT), and Teresa Framework Secure Hypertext Transfer Protocol (S-HTTP). SET uses some elements of the Public Key Infrastructure (PKI) but not all of them.
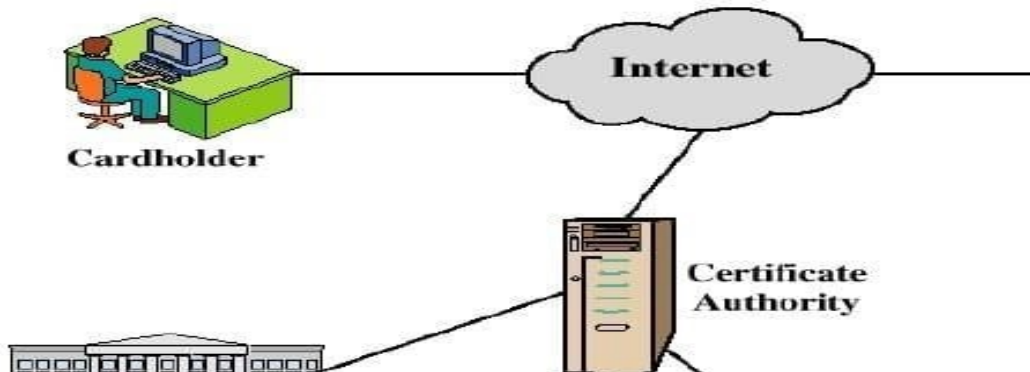
Figure 2.4: Secure Electronic Transaction (SET)

SET is a collaboration between MasterCard and VISA that ensures the security of all parties involved in the electronic payment transaction. It is designed to handle complex and essential functions such as:

- Authentication of cardholders and merchants
- Data protection and payment data
- Protocols and electronic security services provided by providers;

Safety is an essential part of any transaction over the internet. If its safety is breached, consumers will lose their confidence in e-business.

The basic criteria for successful e-payments / transactions follow –

Measures to Ensure Security

Encryption – It is a very efficient and realistic way of protecting the data that is being transmitted over the network. The data sender encrypts the data using a secret code and the data can only be decrypted by the specified recipient using the same or specific secret code.

Digital Signature – Digital signature guarantees information is authentic. A digital signature is an e-signature that is authenticated encryption and a password.

Security Certificates: Security Certificate is a special digital ID for verifying the identity of a particular website or user. When we think about e-commerce, health is one of the most serious issues. Cases such as identity theft and payment fraud in the e-commerce market are increasingly growing day by day. Giving their customers safe and secure shopping experience is of paramount importance to store owners.

Secure   Electronic   Transaction   (SET)   works: Assume that a customer has a SET-enabled browser such as Netscape or an Internet Explorer from Microsoft and that the transaction pro vider (bank, shop, etc.) has a SET-enabled server. The customer opens a bank account with Mastercard or Visa. Each credit card issuer is a bank.

- The customer obtains a digital certificate. This electronic file acts as a credit card for online shopping or other purchases. This requires a public key with a date of expiry. To ensure its validity it was through a digital transfer to the bank.
- Third party vendors are also given bank certificates. Such certificates include the public key for the merchant and the public key for the bank.
- The consumer places an order on a Web page, by telephone or by any other means.

- The client of the customer receives the merchant's certificate and agrees it is legitimate
- Information about the order is sent by the browser. This message is encrypted with the public key of the merchant, the payment information, which is encrypted with the public key of the bank (which the merchant can't read), and information that guarantees payment can only be used with this particular order.
- The seller verifies the customer by checking a digital signature of the customer's certificate. That can be done by referring the certificate from a third party to the bank or a verifier.
- The seller verifies the customer by checking a digital signature of the customer's certificate. That can be done by referring the certificate from a third party to the bank or a verifier.
- The Bank checks the retailer and the package. The bank uses the digital signature to the letter of the document and verifies the payment component of the post.
- The bank signs and sends the authorization digitally to the merchant, who can then fill out the order.

Secure Electronic Payment System Using Secure Communication Tunnel

A Safe electronic payment system consists of four parts of your network. Secure communication tunnels, transfer the link between the segments. A Secure communication tunnel means providing a safe way of communicating with retailers and sellers to the payment gateway between two or more parties or divisions, such as a customer.

The Payment Industry Data Security Standard

PCI DSS is a system that provides a set of security practices to protect cardholder data (credit card Pin) and, as we wrote in the introduction, it was created by a group of credit card companies and had twelve security requirements to enable online payment processes to be approved by both suppliers and buyers.

Build and Maintain a Secure Network
- Download and maintain a data protection, firewall setup.
- Do not use default vendor-furnished device passwords and other security parameters

Protect Cardholder Data
- Secure encrypted data
- Encrypt data and sensitive information through public networks

Develop a System to Manage Vulnerability
- Use and upgrade antivirus software on a regular basis.
- Build and maintain secure systems and applications.

Strengthen Controls
- Limit business need-to-know access to data
- Assign a unique ID to each device accessed user.
- Limit physical access to cardholder data

Regularly Monitor and Test Networks
- Monitor and control all connections to network resources and cardholder data
- Test protection systems and processes regularly

Maintain an Information Security Policy
- Maintain a strategy targeting information security

Build and Maintain A Secure Network

Install and maintain a data protection, firewall configuration:- Firewalls provide the first line of defense for any computer network, and for networks where cardholder data is stored, processed, and distributed, it is important to ensure information is safe. We verify access is given only to traffic matching security criteria. However, one of the PCI standard's underlying concepts is to segregate the network and networks involved in handling credit card data from the majority of the IT infrastructure components of an organization. During the process of an audit, firewall design requirements are therefore closely scrutinized. Ideally, a company has a sound change management process in place to thoroughly analyze proposed changes to firewall and router configurations, and understand the impact of the changes. The auditors will verify that firewall configurations have a formal change management process. The key issue for companies today is that most existing gateway security approaches suffer from one or more of the following deficiencies

- **Protection only against a known universe of problems.**
  While analyzing incoming packets or emails for compliance with predefined signatures and heuristics has a position in a secure environment, it is ineffective against emerging and mixed threats. The majority of attacks in today's rapidly changing threat environment are brand new malware, not minor variations of known threats.

- **Protection is limited to the data stream and lower-level protocol**.
  In general, these technologies utilizes filtering and elegant inspection techniques and have no deeper understanding of the application protocol on the stack. A gateway firewall that only uses packet filtering and tasteful inspection, for example, will miss a Web response that contains a malicious script.

- **Disparate point products for various protocols.**
  With the proliferation of different technologies for new forms of web communication, businesses have been forced to deploy a range of standalone point items that perform specific functions without the ability to communicate with other networks throughout smart phones which resulted in high ownership costs for these solutions.This has culminated in these approaches having a high cost of ownership.

Protect Cardholder Data

Protect Data Stored: Simply placed, all cardholder data should be encrypted. This will ensure the knowledge is safe even though it goes around other PCI specifications' protection tools and techniques. Nonetheless, businesses must be aware of how to manage encryption keys as well as how and where cardholder data can be stored.

Encrypt cardholder data transmission and sensitive information through public networks:

1. This clause ensures that all data sent over the public Internet, whether inside or outside of a company's website, are encrypted. Organizations may meet this requirement by utilizing a range of technologies, such as the Secure Socket Layer (SSL), IPsec, WPA, and WPA2.

To Do Activity

Interact with an online shopping site choose a product from list find out the online payment procedure which maintains security in online payment.

2.4 Strategies for Fraud Prevention

The online sale phenomenon has been growing for a few days and offers numerous rewards, both on marketplaces and social media. If you want to construct an e-commerce website or increase your sales revenue, E-Commerce Nation offers realistic content and feedback. Any company that decides to start an online business or adopt a multi-channel strategy for delivering its product or service. Online fraud is somewhat different from the types of fraud that are typically found in brick-and-mortar businesses. The first big difference is that you can't see who the transaction's counterparty is. This makes determining the identity of a customer on your web more challenging.

In order to protect yourself from fraud in the retail sector, you must take precautions. Unscrupulous men and women whose only aim is to suck off your business or its customers will still be searching for something for nothing. It is your duty as a retailer to educate yourself about the various forms of e-commerce fraud and take steps to protect your business.

Fortunately, there are strategies for preventing e-commerce fraud to help you with health. E-commerce fraud happens in several distinct ways-the first includes unauthorized transactions. Many storefronts provide their customers with a means to store personal information, such as a history of sales and specifics of delivery. Hackers who gain access to these accounts can hijack them to net some free things. The problem is that the solution – identity fraud – is much worse. Hackers can and will steal consumer information stored on your servers if they are not properly secured. Usernames, passwords, credit card numbers, and other personal information are all fair game.

Basics of eCommerce Fraud Prevention

Managing e-commerce fraud is a big part of keeping the customers' data secure. To protect your customers from identity theft and account fraud, take the following steps:

Ensure All Systems are PCI Compliant
When it comes to payment card details, the Payment Card Industry has developed strict storage and security guidelines. An e-commerce platform or third-party tool is the best way to ensure they are followed by your shop.

Use Address Verification To Avoid E-Commerce Fraud Risk
A zip or postal code is required for all transactions. Although this will not eliminate all fraudulent transactions, it will guard against the vast majority of them.

Require Security Codes for all Credit Card Purchases
- Modern credit cards have a set of three identification numbers on the back; entering specific numbers for each credit card purchase should be common procedure. It's a big part of e-commerce fraud detection.

Track Customer Behaviour and Purchase History
- Is a customer in Philadelphia who primarily purchases beard oil and face cleanser suddenly placing a large order for women's cosmetics in Russia? That's a dead giveaway that something isn't quite right.

Require Delivered Packages to be Signed For
Since criminals are unlikely to be able to imitate a customer's signature, this is about preventing them from receiving counterfeit products.

Screen Suspicious Activity
- E-commerce fraud can be prevented by setting up automatic reports for any of the following:
- Making several orders to the same account for different credit cards.
- Several charges to the same credit card in a limited period of time.
- Phone numbers that do not match the billing address's area code.
- Orders that are unusually high paying for express delivery

Mandate Strong Customer Passwords
- Unexpected shipping address change for a client.

Keep Track of Prior Fraud Attempts
- This will allow you to learn from fraud attempts against your organization while also establishing a clear pattern – maybe even identifying the region or demographic where those attempts are most common.

Establish Clear Anti-Fraud Policies
It's a little more difficult to defend yourself from chargeback fraud. Monitoring numbers is the best way to defend yourself from chargeback violence. If a customer wishes to report a fraudulent transaction, you can contact their bank with their shipping address and delivery note. Fraud is a fact of life in every sector, but it seems that e-commerce is especially vulnerable. You must educate yourself on the different forms of fraud that you can come across. Only in this manner will you be able to safeguard yourself and your company. Not only that, but it's one of the most likely days of the whole Black Friday weekend, as well as specific dates such as Cyber Monday. Throughout the year, both large and small e-commerce businesses struggle to boost Cyber Monday revenue. Meanwhile, fraudsters and cyber-gangs are planning elaborate fraud schemes to attack merchant websites or threaten individual retailers. During Cyber Monday, not only retailers, but also shopkeepers, are attacked. Hundreds of malicious apps claiming incredible sales have appeared, thousands of spam emails have been sent, and thousands of false and fake shopping websites have been set up on the internet. A weak security policy for retailers can result in a drop in brand value, customer anger, and significant financial losses; shopkeepers' lack of diligence can result in the loss of our privacy, financial statements, and a significant sum of money. Because no one is resistant to fraud, from large retailers to small e-commerce and shopkeepers, the United Nations have outlined some basic guidelines to assist the group.

Fraud Prevention
Implement of Fraud Prevention: To prevent all types of fraud from occurring on your customers or your system, your security needs to be the highest possible. This huge e-commerce event deals a lot with data breaches and digital payment fraud.

Fraud Strategy: Get ready for the big day with a policy that requires timely work. You should be clear about the steps you need to take in the event of fraud. That way, you will be sure to limit the damage done to your e-commerce or your customers' data. If your counter-fraud strategy is not timely, you can lose a lot of money and all your customers. You would not like that, would you?

Make sure you are using an SSL certificate: As an e-commerce merchant, you should already have a secure online payment solution. To make sure of this, you should check that your solution uses a secure socket layer, known as an SSL certificate.

Due Diligence: When processing payments and then receiving receipts, make sure the credit and debit card numbers are one of the last 4-digit numbers, printed on the receipts you received. If not, be sure to cancel the payment and prompt the buyer with the card used.

Be Careful about Large Orders: If you are not used to receiving large orders, ask for ID cards or ID documents, especially if these payments are processed with a gift card. These can be frauds and cyber-gangs may use fake gift cards to order large quantities of products.

Monitoring Social Media: Tracking social networks such as Twitter profiles, Facebook pages, and Instagram accounts can help you track customers who discover threats and security bugs. This will help you anticipate and implement your counter-fraud strategy soon.

Laxity and Bill Submission: Be aware that some scammers prefer to shop abroad and offer different billing and shipping addresses. These cross-border purchases represent a serious warning, which means that you want to ask for some ID documents for the purchase.

Rapid Order: Larger orders should not be your only focus. Also pay attention to many more small orders, especially those that connect between the two. Note the multiple order sequence purchased with the same credit card numbers.

Open your Inner Workings: Be careful about what your employees get. Communicate with them as much as possible. Tell them about the risks of Black Friday and represent them with Cyber Monday fraud. Also tell them about your counter-fraud strategy, SSL certificate and everything they need to take care of.

Shop Security: As an online shopper, you should be used to that one. Therefore, Black Friday and Cyber Monday should not be exclusive to online shopping any other day. This is why when you usually do, you use a secure Internet connection and do not use public Wi-Fi when you buy something.

Ensure that your ANTI-VIRUS Software is Updated: Or, if you don't have one, okay, download one. Keep your anti-virus software up-to-date and walk to protect yourself from people launched and sent by spying people, adversaries, and men who want to steal your personal information during these crazy days.

Receive only from Secure E-Commerce Merchants: As stated every year, shop on secure e-commerce websites via a secure connection in the form of SSL. This powerful encryption SSL protocol allows securely sending the received information. If you are on one of these websites, a lock will appear in the URL.

Keep It Online: If you are headed to hop on a phone call with one of the merchants you purchased, never give out personal and credit card details, for whatever reason. Social engineers are very good at manipulating and connecting data points to formulate large scale fraud. If you recently received a phone call from someone claiming to be the shop you ordered, ask for a call-back number and call them back to make sure.

Create a New Email Account: If you are shopping frequently online, then it may be a bright idea to try to use a new and a different email account. That way, not only do you have all your purchases in one account, where you can easily check on them, but you have to worry about an email saying something must be compromised if it is safe. Also, your email account will be protected from potential scams. Especially on days like Black Friday.

Check out E-commerce: Before filling a cart and processing your payment, think twice about checking the website you have. What does it mean? Do a quick Google search and scroll through some blogs and forums to find out if scams have been reported on the website you are currently buying. If not, you are free to buy it. If not, remove your cart quickly and remove your cookies.

Read the Website's Refund Policy: There are many laws to protect shoppers' right online. But some e-commerce can still scam some online buyers. You should, therefore, read the online shop's refund policy. Good Secure E-Commerce is easy and easy to find Refund and Returns Policy for everyone.

Check Grammar: Other things you should read: Privacy Policy and Terms and Conditions. Phishing websites often have grammatical errors, so you need to look for and search for grammatical errors. If you find some, go and find another website. E-commerce is one of the areas where cybercriminals are most breached. The damages caused by online scams are EUR 4 billion, an increase of 15% per year. Any online retailer must provide a protection system to limit the risks caused by online threats. The best scenario is to prevent fraud. The first step is to monitor and verify each order, taking care of the matching of IP, email and shipping addresses. Pay close attention to international transactions as most of the credit card fraud cases come from foreign buyers. So take care if the billing and shipping addresses do not match. Last but not least, prepare your business with a fraud protection service. However, the best protection for your online business is to know what threats are there and what to look for. It is impossible to be 100% safe, but by using these tips and being vigilant and intelligent, it can help you reduce your chances of becoming a victim of a scam (if you are a shopper) or fraud (if you are a merchant).).

Issues of E-Payment System: Despite the numerous advantages of the electronic payment systems, they will have their difficulties and challenges even in today's technologically advanced world. The challenges identified by previous researchers are infrastructure, regulatory, legal issues, and sociocultural issues.

Infrastructure: Infrastructure is fundamental for the effective execution of electronic payments. Appropriate infrastructure for electronic payments is an issue. For electronic payments being fruitful, a financially savy and reliable infrastructure that a dominant part of the population can take advantage of it is necessarily required. In developing nations, large portions of the country don't have banks and have no access to basic infrastructure that drives electronic payments. In connection to this, a research study reveals that in Nepal, Electricity and Telecommunication are not accessible all through the nation, which contrarily influences the advancement of e-payments.

Regulatory and Legal Issues: National, a provincial or global arrangement of laws, standards and different other directions are imperative prerequisites for the effective execution of e-payment plans. A significant portion of components incorporates guidelines on tax evasion, supervision of e-money organizations and commercial banks by supervisory specialists; central banks should keep oversight of payment systems, buyer and information protection, participation and rivalry issues. The worldwide and virtual nature of e-payment additionally brings up legal issues, for example, which laws are relevant in matters of debate and which jurisdiction will enable digital signature and Validity of electronic contracts. A valid and administrative structure that builds confidence and trust to help with technical efforts is an important issue in executing e-payments.

Sociocultural Challenges: Social and cultural dissimilarities in outlooks and the utilization of various types of cash (e.g. Utilization of credit cards in North America and utilization of debit cards in Europe) muddle with the job of building an electronic payment system that is relevant at a global level. As indicated by a discrepancy in the level of the security required and productivity among individuals of various societies and the degree of advancement worsens the issue. Buyer's trust and confidence in the customary methods of payment make clients more averse to embrace innovations. Innovations won't rule the market until clients are sure that their privacy is ensured and satisfactory confirmation

of security is safeguarded53. New advances likewise need to stand the test of time secure people's confidence, even though it is simpler to use and less expensive than the more established techniques.

E-commerce Fraud: Practices for Prevention
- Use e-commerce fraud protection services.
- Look for protection from fraud that combines artificial and human intelligence.
- Use verification techniques.
- Take advantage of email authentication.
- Identify the origin of the transaction.
- Ensure software systems are up-to-date.

Choose the Right E-commerce Platform: As long as you don't have to build your e-commerce site from scratch - which is becoming less and less relevant given the maturity of current e-commerce platforms - there are plenty of options for you to take. Here, the pick depends on functionality, cost, and many other factors. And platform strength vs. fraud should be another important criteria for all sizes of e-commerce companies.

Explicit criteria for cutting-edge risk management support can be found in the platform's offerings.
Align with PCI compliance
The Payment Card Industry (PCI) Data Security Standard is list of requirements gathered to ensure that e-commerce companies that store and process credit card information maintain the desired security within their websites. There are 4 different compliance levels based on the number of transactions stored and processed annually and whether the transaction occurred over the Internet or within a brick-and-mortar spot. For example, Visa's PCI-compliance levels are listed as seen below:
- There may be some growth for e-commerce companies that have previously suffered a hack.
- PCI compliance forces e-commerce companies to change default passwords on all network elements utilized within the business and setting firewalls between any systems that stores and processes credit card information and the internet connection.

Depending on the e-commerce platform provider, some necessary PCI compliance steps may have already been taken care of for your e-commerce site.

Once again, PCI compliance is not good for an e-commerce site and should be one that processes payment - any active site falls into this category.

Maintain Solid Site Security
- Choosing the most secure platform and complying with PCI requirements is great steps for e-commerce fraud prevention. However, there is still a lot of steps to be taken to ensure that any data or information stored by you within your e-commerce site is safe and secure.
- For example, make sure that all your checkout URLs have HTTPS during checkout. Or control whether your site will remain under HTTPS when you leave check out and return to it again later.
- Also, straightforward security tactics would do work for your store's security. Here, for example, you should update passwords of your network elements regularly.

Use of Credit Card Security Code during Transition
- The credit card security code is a 3-4 digit number that you see on the back of the credit card.
- Asking for these codes during a purchase ensures that the buyer physically holds a valid card in his or her hands.
- These codes are never printed on any transaction or any receipt. Therefore, asking for these codes protects the transaction from fraud.

- Once the transaction process begins, the card issuer replies with a response code that confirms or rejects the validity provided.
- Ensureto use these credit card security codes to provide the most secure purchasing experience for your customers.

Educate your Customers

The transaction is a two-way process where one side of it is your web shop and the other side is your customer. Therefore, when you are working hard to provide a safe and secure experience, it is not sensitive enough to help your customers. Ensuring that your customers create strong enough passwords for their accounts will help. The simplest thing that can be done is asking for the minimum number of letters, uppercase-lowercase letters, symbols, etc. in the password. By doing this, every password created by your customers will become so complex that any fraudulent attempt to retrieve them will fail.

Educate Your Employees

Security requires team-work, i.e. the efforts of a close network of employees. Internal password creation, or setting in-house security compliance rules and plans, what to look for or not during a transaction. The team at an e-commerce company must understand that the assurance of a safe and secure purchasing experience is the backbone of all actions and must follow rapidly with the necessary regulations. Ensuring safety is a big part of the seamless shopping experience. As long as you don't have to build your e-commerce site from scratch - which is becoming less and less relevant given the maturity of current e-commerce platforms - there are plenty of options for you to take. Here, the pick depends on functionality, cost, and many other factors. And platform robustness vs. fraud should be another important criterion for all sizes of e-commerce companies.

A clear criterion for cutting-edge risk management support can be looked for in the platform's offerings.

> **To Do Activity**
>
> Place your order at the click on cash on delivery/payment option before clicking on continue button use the address verification system and card verification value (CVV)

2.5 Issues and Challenges of Electronic Payment System

Rural India has a major effect on the country's economic growth, and with emerging changes such as CT penetration and digital initiatives in rural areas, as well as the impact of demonetization, improving the patterns of digital payment models in rural India has never been more relevant. It is critical that the rural economy undergoes a strong transition towards digital payments in order to increase transaction transparency, the scope of curbing the parallel economy, and the ease of doing business. Some of the most groundbreaking recent innovations include the introduction of several digital wallets such as Pat, Mobikwik, Free Charge, and others. Significant innovations include the introduction of several UPI (Unified Payment Interface) solutions and the BHIM app for a seamless transition to digital payments. According to market research, the time of demonetization following digital transactions has increased significantly. Limited digital transaction options for feature phones, digital transaction recognition issues, Pops transaction limits, and other internal issues all have an effect on digital transactions. Despite the fact that social trends in rural areas support digital payment adoption, the

paradigm shift faces significant challenges. Future steps, such as enabling digital payments. Transactions based on Aadhaar numbers can be game-changing if performed correctly.

E- Payment Options in India

The Government of India's dedication to transforming India into a knowledge-based economy is recognized by the Digital India Program. "No one, no papers, Cashless," say one of the so-called Digital India web sites. To facilitate cashless transactions and turn India into a low-income society, a number of digital payment options are available.

- E-Wallets - Paytm, tolls, etc..
- UPI - Integrated Internet Payments for Operations
- Plastic Money - Debit Cards / Cards
- Net Banking - Online fund transfer
- Aadhaar Card - Aadhaar Payment System

E-Wallets

Mobile wallets are electronic devices that allow you to save money and easily pay off debt. Credit/debit cards or bank accounts are used to deposit funds into your bank account. Most wallets aren't likable, so you can give money to other people who have the same wallet or pay vendors who accept it.

Payments through E-Wallets
Requirements

1. Online account in Digital wallet, for example, a few popular e-wallets are PayU, Paytm, packs, O oxygen wallet, Mobikwik, etc.
2. The mobile phone with the wallet app downloaded. Bank wallets are used and used on a PC desktop
3. Internet connection.

Processing of Transactions

1. Download the wallet app on mobile and create an account using your mobile phone number. Managed as a wallet account no.
2. Load money using a debit / credit card or net bank.
3. Transfer money from one fund to another using a mobile number

Limit / Danger

1. Consumer fund costs Rs. 20,000 months of all Rs.1 lakh/month with KYC
2. Merchant fund Limitations: Rs 50,000 / month with the selfish announcement Rs.1 lakh/month with KYC
3. Money can be transferred to the wallet of the same company.

Unified Payment Link (UPI)

The Reserve Bank of India regulates the Unified Payments Interface (UPI), a payment system implemented by the National Payment Corporation of India that allows for simultaneous transfers of funds between two bank accounts on the mobile platform. The Unified Payment Interface (UPI) is an electronic money transfer platform that allows anyone with a bank account to send and receive money from their mobile.

The recipient's phone number or Virtual Payment Address is all that is needed (VPA). UPI is an improved version of the Instant Payment Service (IMPS) instant payment platform that allows you to send money using Virtual Payment Addressing (Alternative ID issued by the bank), Account Number + IFSC, Mobile Number + MMID (Mobile Money Identifier), Aadhaar number, or Collect / Deduct base currency ID When a bank customer signs up for a UPI, they are given an MPIN (Mobile Bank ID number), which must be entered when verifying the transfer. Banks that accept UPI payments have begun to upload their UPI-enabled Google Play and Apple App Store apps. The National Payment Corporation of India (NPCI) has introduced a BHIM payment app as well as a NUUP transaction service that uses Aadhaar numbers over UPI.

Payments via UPI (Unified Payment Interface)
Requirements
1. Only a bank account for registration
2. Any smartphone with 2G / 3D / 4G / wifi internet connection.
3. UPI Bank Apps (28 Bank Enabled)

Processing of Transactions
1. Download the UPI banking app for mobile banking applications
2. Register by creating your Virtual Payment Address (VPA)
3. For shipping you need a pie VPA you will be asked to pay and done.
4. After entering the amount and VPA of the pie you will be asked to pay the payment and it is done.
5. Payee account details are not required, only VPA is required

Limit / Danger
1. The maximum purchase limit is Rs 1 lakh
2. The Issuer and Receiver must have a VPA (Credit Payment Address) for transfer of the fund.
3. Smartphone is required

Plastic Money
Plastic money refers to debit and credit cards that can be used at ATMs and redeemed at POS machines when you shop. Your luggage becomes useless whether you have credit or credit cards. And the transaction needs a PIN, the possibility of fraud is eliminated. You don't need to bring huge amounts of money with you. Simply swipe to go. Payments for debit cards are made via a bank account. When you pay with a debit card, your bank account is debited. A payment plan on a credit card, on the other hand, is a monthly payment.

Payments via Debit / Credit Cards
Requirements
1. Debit card issuance with bank cards by Pen Card/bank card or OTP mobile (Alternate Password)
2. Banks, ATMs
3. A swipe machine or POS (Point of Sale) machine for the seller.

Processing of Transactions
1. Remove the ATM card with the PIN no.
2. Used to cash out of any ATM machine using PIN no.

3. Used in any POS to shop within online shopping

Limit/risk
1. POS of the Swipe machine to the dealer must.
2. Card integration threatens security.

Payments with Cards Cards
Requirements
1. Issuing Credit Cards by the Bank. Card/password for the card or mobile OTP authentication (Alternative Password)
2. A swipe machine or POS (Point of Sale) machine for the seller
3. Online payment site

Processing of Transactions
1. Banking, Credit cards with a PIN are not available to the right customer only
2. There is a credit limit for cards issued, the limit varies from person to person depending on salary
3. Used in any POS to shop. Also for online purchases or transactions
4. Whenever a monthly payment is due, the relevant amount must be paid before the due date.
5. SMS notifications come via cell phone for all transactions.

Limit / Danger
1. All cards have credit limits, in addition to which you cannot purchase.
2. Withdrawals can occur, but at a high interest rate.
3. POS of the machine swiping at vendor prices.
4. Card integration threatens security.Net Banking

Net banking is another form of electronic transaction. All you need is a bank account with a central bank enabled. You can transfer money to others' accounts from the comfort of your home. No need to go to your bank for the money to be transferred. You can do all the billing and transfer yourself. This is the easiest cashless way to travel in India too.

Internet Transactions through Net Banking
Requirements
1. Activating the Net Banking site
2. Internet Center PC or Mobile

The transaction Process
1. First, add a payee bank account to the bank transfer page of your bank account
2. Adding a payee takes time, the exact time varies from bank to bank
3. Fund transfer is performed using NEFT, RTGS, and IMPS mode.

Limit / Danger
1. It takes time to install a payee
2. Not at the same time for bank transfers

The difficulty for the non-technical person: Since most digital payment methods are based on mobile phones, the internet, and cards. These methods are somewhat difficult for non-technical people such as farmers, workers, etc.

The risk of data theft: There is a high risk of data theft associated with digital payment. Hackers can access the bank or Wallet servers you use and access your personal information. They can use this information to steal money from your account.

Transfer: You keep a limited amount of money in your body bag. So, you think twice before buying anything. But if you use digital payment methods, you always have all your money with you. This can lead to overuse.

Participants in the payment process: A prepaid payment interface is created by many intermediaries in the payment industry. For compliance reasons, banks and other approved entities can enter into agreements with mobile app developers. The transaction is ultimately passed to a licensed company (read bank/mobile wallet/payment gateway) by application developers who manage software and IT systems.

The challenges of making digital use in rural markets

Using digital payments was an option prior to the demonetization period. However, in the rural market segment, where cash reigned supreme, only a few retail outlets accepted digital payments, and customers were wary of adopting such trends. Although such patterns have continued to shift as ICT has become more widely accepted, the number of digital payments has decreased significantly.Many mobile wallet firms, point-of-sale service providers, e-commerce companies, and government programs have all concentrated on developing digital development solutions.

However, there are some significant obstacles that are impeding the market's desired growth and driving it towards digitization:

Macro-Level Challenges

- India has been a cash-based economy for decades, consumers are yet to adopt digital solutions such as smart phone-based transactions, feature phone-based transactions, credit access, and about Using awareness. Debit cards are one of the most common problems with point-of-sale systems.
- The shortage of bandwidth and access to technology in different locations is the second major problem of the digital divide. Although it is stated that ICT services will be available in every corner of India, services are not available to customers in many places where installations have been completed.
- (For example, Biometric verification of Aadhaar information at the dealership has been made mandatory as part of the government's effort to streamline the supply of rations from Rajasthan; however, dealers need timely verification, and public connectivity can be difficult to ensure. Face challenges) Examples like these show that digital payment is only realistic and true to nature when loopholes in the system are closed. The availability of point-of-sale (PoS) solutions has also become an issue. The rapid development of digital payments in rural areas is being hindered by the complex growth of demand for PoS solutions, which has not been balanced by demand.

Consumer Challenge

One of the most significant obstacles to the growth of digital payments in the rural sector is a lack of confidence. The challenge of gaining consumer trust is a major challenge facing mobile wallets, digital

transaction service providers such as banks, fin-tech companies, and others, whether it is due to evolving information security issues or a lack of consumer awareness. Secondly, A significant source of concern is the cost of purchases levied on customers. Some merchants, for example, charge transaction fees on any debit card transaction, which is an extra expense to the customer. These processing fees must be saved in order to ensure that debit and credit cards are commonly used. Customers' purchasing processes have been greatly facilitated by mobile wallet providers, Consumers are wary of using mobile wallets for business transactions since mortgage companies charge between 1% and 4% for transactions on bank accounts.

Business Limitations

Digital payments in India are still in their infancy, and there is a pressing need for more successful rules, guidelines, and enforcement patterns to help boost the process. The affordability of PoS solutions on the market, the use of technology, and the ease with which enforcement requirements can be met are all important factors in motivating more retailers, merchants, and practitioners to implement the solution.Effortlessly Another significant issue impacting merchant adoption of digital payments is the reconciliation of transfers from banks to merchants. Other levels of restriction affecting the growth of digital payments in the rural area are merchant issues such as accepting digital payments by merchants, and vendors and suppliers not accepting digital payments from such merchants. If the above issues are addressed effectively. , Can certainly result in more resources in improving the effectiveness of digital payments in rural economy and achieving the objective of the digital and cashless economy.

Challenges of E-Commerce

Customers consider online exchanges or turnover and security as the second-largest test seen by e-commerce companies in India. Currently, the news about online tricky coupons, fraud, fake additions, spam emails, and MasterCard data tricks is dynamic customer confidence in the system. As of the present situation, most customers use cash on delivery service (COD). Effectively building electronic commerce over the organization implies building a reliable, adaptable infrastructure.

Figure 2.5: Showing possible challenges of e-commerce in India

Poor Infrastructure : The Internet is a basic tool for online business structure. E-commerce requires uninterrupted Internet service, so it is important to ensure this. Infrastructure is insufficient for buyers and sellers. Important e-commerce business foundations are the quality and speed of accessible computers, buyer's and merchant's versatile and electronic tools, web availability, web security, and online payment gateways**.**

Lack of Proper Cyber Laws: Cyber security is playing an important role in online business. Cyber law needs to maintain security in the country; It is difficult to do business online in the country without a law. Cyber law should be protected with its commercial and criminal areas of standard so singular property rights, privacy of content and information, data protection law

- Lack of Privacy and Security
- The confidence of Customers for Payment and Tax Related Issues
- Lack of Digital Illiteracy
- Virus Problem
- Localization in-terms of place and language
- Consumer's Perceptions
- Unrealistic competition

Figure 2.6: Challenges of E-commerce

Lack of Utility: Electronic payment systems require a large amount of information from end-users or make transactions more difficult by using more sophisticated web-based methods. For example, making a credit card payment through a website is not an easy way because this system requires a large amount of personal data and contact details on the web form.

Lack of Security: The online payment system for the Internet is an easy target for stealing money and personal information. Customers must provide credit card and payment account details and other personal information online. This data is sometimes transmitted in a non-secure manner, (Kolkata and Whiston, 1997). Providing these details by mail or telephone also increases security risks.

Problems with E-cash: The main problem of e-cash is that it is not universally accepted as it is necessary that business establishments must accept it as a payment method. Another problem is that when we make payments using e-cash, customers and salesmen have accounts in the same bank that issued e-cash. Payment is not allowed in other banks.

Lack of Trust: Electronic payments have a long history of fraud, misuse, and low credibility as well as a positive reputation without an established new reputation. Potential customers often refer to the risk of why they do not trust paid services and therefore do not purchase the Internet (Lietaer, 2002)

User perception regarding the acceptance of electronic payment systems: User acceptance is an important factor that determines the success or failure of any data plan project. (Davis, 1993), several studies on information technology report that user attitudes and human factors are important aspects

influencing the success of any information system (Davis, 1989, Burckhardt, 1994, Rice & Edin, 1991). According to Dillian and Morris (1996), the acceptance of users is "a willingness to work within a user group to employ information technology for tasks that are designed to support it". The electronic payment system is not a lack of awareness. Paying online is not an easy task. Even educated people face problems in making online payments. Therefore, they always prefer the traditional way of shopping rather than online shopping. Sometimes there is a technical problem with server customers who try to make payments online, but they fail to. As a result, they avoid it.

Online Payments are Not Possible in Rural Areas: The population of rural areas is not very literate and they are not able to operate computers also.
They are not interested in online payment as they are unaware of technological innovations.   So   the online payment system is not possible for the villagers.

Highly Expensive and Time-Consuming: The electronic payment system is highly expensive as it includes set cost, machine cost, management cost, etc. and this mode of payment will take longer than the physical mode of payment.

Home Consumer Risk Identification with Electronic Payment System: Broken application is included
Users have installed many apps on their mobile and raucous phonesKnowledgeable apps across the app. These apps can be accessed financially sensitive information and forward it to the attacker. A simple rural person can be trapped in the history of hackers.

Cyber Security: At ATMs, the majority of debit cards are reportedly revealed. When you withdraw cash and anyone asks for assistance via ATMs, you must use your card and PIN. We were jailed for a number of cards, and it took several months to get some hard-earned money from another bank. How can people be sure that exchanging cards at small stores and retailers would not expose their card information?

Bank: Just 40000 banks are located in more than six cities. Appropriate infrastructure is necessary to sustain the health of a jovial economy. In rural India, banks should not be completely prepared to manage e-commerce. In this remote region, there are inadequate ATMs, and the majority of them are not operational due to a lack of electricity or an adequate Internet link. In order to open multiple bank accounts, infrastructure is also needed.

Chapter Summary
A payment form that does not require cash or checks is referred to as electronic payment. Cash card, credit card, smart card, e-wallet, and so on. The key link in e-online commerce's growth and payment methods is the payment process, which we have looked at in this paper. As a result, before electronic signatures become more commonly used, we must rely on existing technologies to ensure network security. It is impossible to conclude that any of the payment strategies are comprehensive, despite the fact that each one has distinct advantages. If the client wishes to keep their information private, they can use payment methods like E-cash or Net Bill Checks, which provide a high degree of privacy. Smart Cards can be used if protection is a priority.E-payment programs can help both customers and service providers by rising global competition over time. The degree to which the security and privacy concerns raised by customers and vendors are understood is crucial to the effective adoption of

electronic payment systems, and will improve market trust in the system. It means that without user approval, these will not be effective. A modern type of online payment is an electronic payment system. Owing to a lack of protection in changing the market climate, problems are difficult to consider. The online payment system necessitates information technology upgrades. The failure of an electronic payment system is determined by the fact that it lacks a crucial factor.

Suggestion for Effective Use of the Electronic Payment System
Infrastructure: Significant advancements in banking and communications technology would be needed to provide the backbone of a noisy society. At least one bank will be given for every 5000 adults. It is critical that not only the banking system is developed to ensure that transactions can be done without hindrance, but that the supporting infrastructure is also within range, for people to be able to take turns at any time and place and to imagine that a stable exchange.
Electricity and Communication: Electricity and cellular connectivity are minimal and sporadic in rural areas. For the electricity supply in these areas, proper electricity and a cellular link are needed.
Outside the building: The dream of a loosely structured community would arise as a result of developing this infrastructure.
Education: In India, 6.41 million villages house 83.37 million people (68.9%). Just 14 percent (123 million people) of educated Indians in rural areas have not studied by the fifth week, and 18 percent (157 million people) have completed primary education, leaving only 280 educated Indians who can read and write. As a result of the high ratio, the Indian government should begin your campaign. In order to increase education levels in rural areas, it is also important to learn how to teach technology. The government should appoint more people who can clarify the overcrowding and villages to the people and gain their confidence. Teachers, health workers, village workers, development managers, bank employees, and other government employees Financial inclusion and digital economics must be taught to the rural population.

The Role of Government: The government should make efforts such as the department, the Bharat Interface for Revenue (BHIM- Internet-based app), Jan Dhan Aadhaar Mobile schemes, and others to encourage immediate adoption and substitute electricity as a means of payment. They are increasingly reaching every corner of the world.This would make it easier for people to gain access to artificial intelligence through electronics. The government must ensure that basic infrastructure construction in rural areas is prioritized. Make an effort in schools, colleges, Panchayats, and other places. This might aid in the collection of street trading data. Financial data should be able to enter an electric network in a highly populated city. Cash payments should be discouraged in favor of electronic payments. Gram Sabhas, Panchayati Raj Institutions, and Ward Sabhas Institutions in ULBs (Urban Local Bodies) must lead the way in digital marketing in rural areas. DOTs, like Swach Bharat, advocate for cleanliness. A large-scale campaign should be organized twice or three times a year in the region. It would be perfect.

How to get the word out about India's fullness campaign in rural areas.National Agricultural and Rural Development Bank (NABARD) will assist banks in opening two trading routes (PoS) in each town in 100,000 villages with a population of 10,000 people for electronic transmission to rural India. Rural Banks (RRBs) and Rural Partnerships will also be supported by Nabard. Banks are also supporting farmers by purchasing EMV (Europay, MasterCard, and Visa) and PIN-based RuPay Kisan Cards. This move is said to provide farmers with a safe technology that they can grow. Previously, Nabard

encouraged RRBs and local cooperative banks to share their banking knowledge and assist them in gaining access to the Core banking solution network (CBS).

To Do Activity

Identify what benefits accrue from the electronic payment system and how electronic payment system work in this regard.

Model Questions

1. What is e-commerce security and why is it important?
2. How to identify threats to e-commerce?
3. How to determine ways to protect e-commerce from those threats?
4. What are electronic payment systems?
5. What are the security requirements for electronic payment systems?
6. What security measures are used to meet these requirements?
7. What are the various digital payment methods?
8. What is meant by digital transactions?
9. What is E payment and its types?
10. What are the security requirements in E payment?
11. What are the advantages of electronic payment system?
12. What is the purpose of online transactions?
13. How can accounting fraud be prevented?
14. How can fraud detection be improved?
15. What are the challenges of electronic payment system?

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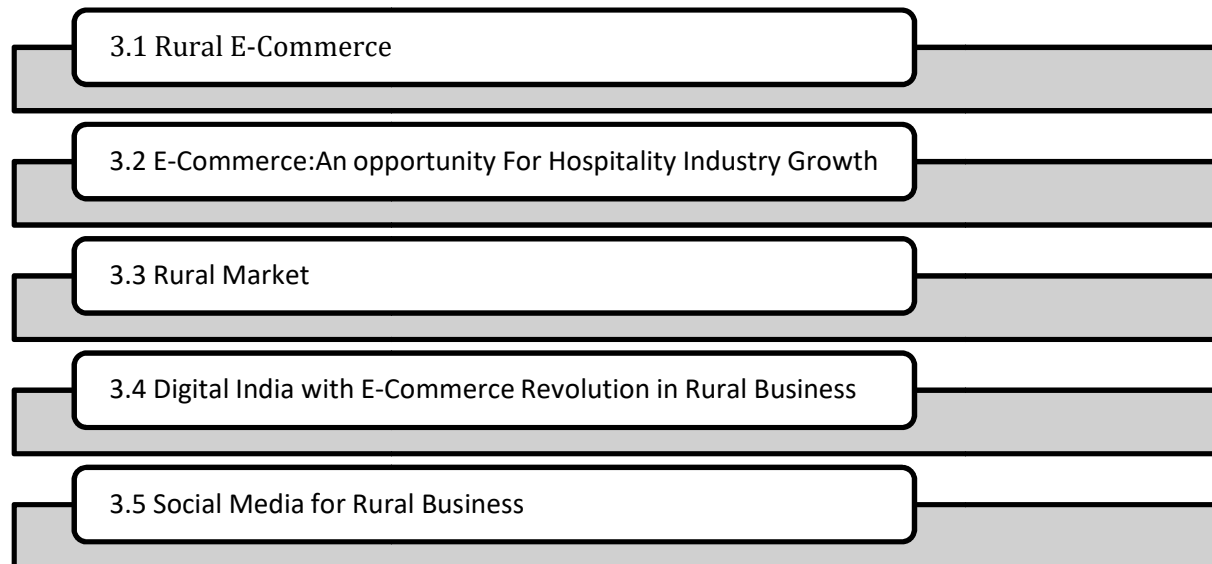
Chapter 3 Applications of E-commerce

Introduction

This chapter provides the application of e-commerce rural development in India. It describes the sharing of business information, maintaining business relationships and conducting business transactions using computers connected to the telecommunication network at the central level. It covers various applications of e-commerce in the fields of travel, tourism, hospitality, insurance, banking, and manufacturing. E-commerce is defined as buying and selling of products through the Internet. With the penetration of e-commerce in rural parts of India and   has made a significant impact on rural business. This chapter illustrates role of e-commerce applications in rural development and associated problems and challenges in the deployment of e-commerce applications.

Objectives

- To understand e-commerce concept and its applications
- To illustrate the importance and scope of E-commerce applications in Rural development
- To identify areas of e-commerce deployment in rural area.

Chapter Structure

> 3.1 Rural E-Commerce

> 3.2 E-Commerce:An opportunity For Hospitality Industry Growth

> 3.3 Rural Market

> 3.4 Digital India with E-Commerce Revolution in Rural Business

> 3.5 Social Media for Rural Business

3.1 Rural E-Commerce

E-commerce deployment in the domestic market has made remarkable progress, including rural parts of India. The information technology has played a major role in determining the success of an e-commerce business, and there are other factors that govern it as well. The availability of popular products, compliance with procedures that define the global commerce market and producing quality products are the real challenges of e- commerce. The companies dealing with Retail business   through e-commerce are yet to make inroads in rural India and thus provide an   opportunity for retailer's to improve their share in rural market.

Applications of E-Commerce

E-commerce systems are used in manufacturing, the retail and companies dealing with wholesale business. The most commonly used E-commerce applications are depicted in figure 3.1
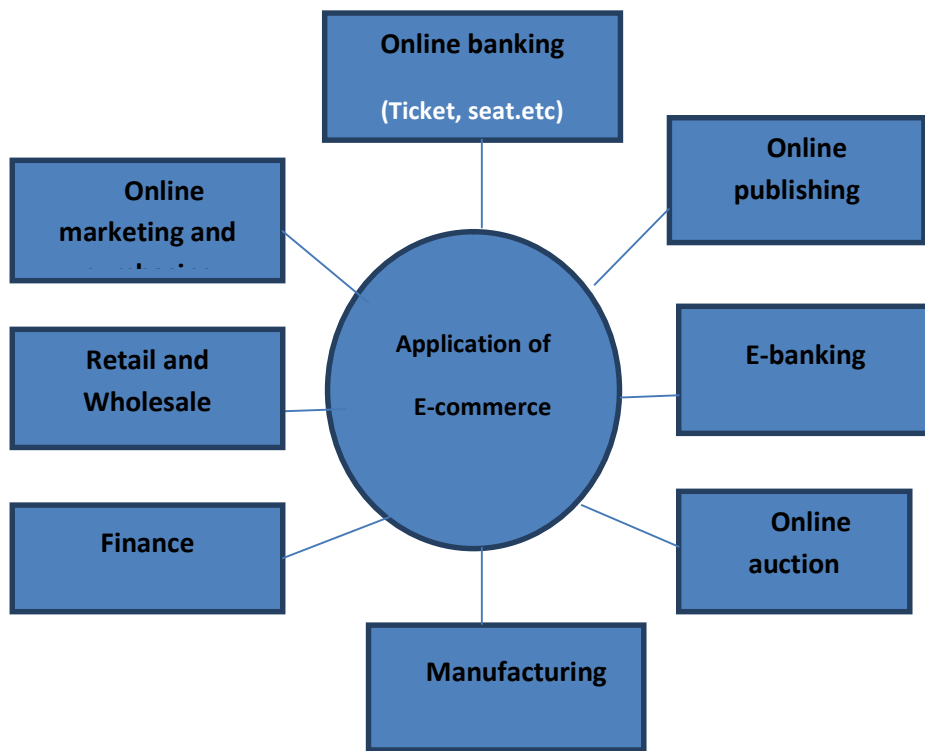
Figure 3.1 Application of E-commerce

The commercial application where e-commerce is widely used is as listed below.

Internet content in local languages - Online retailers see this growing segment as a new growth driver, as the growth of mobile subscribers is mainly credited to people who are comfortable with languages other than English. In all, 21 Indian languages which are used in various States have reached 540 million as of end of first quarter of the year 2021. Flipkart, the online service providing company uses artificial intelligence which converts speech into text in 10 different Indian languages.

Cashless Transactions – In the past few years, the country has seen a net addition of 140 million debit card users. The use of debit cards at sales terminal points has increased by 86 percent. This clearly reflects that citizens are comfortable in using debit cards for activities other than the withdrawal of money through ATM. The value of the Unified Payments Interface (UPI) transactions has substantially increased to US $ 1.7 trillion (US $ 14.79 billion). Likewise, digital users in India has doubled to cross $ 100 billion in the year 2020, according to the report by Google India , which is driven by mainly women and new Internet users from smaller cities.

Mobile Commerce - Increasing world-wise Internet usage is driving ever increasing urbanization Increasing ownership of smart phones has increased   access to online shopping websites and smart phones have played pivotal role in achieving 50 percent of the total population by the year 2020.

Internet *Saathi*- Under this project Google and Tata Trust have collaborated to improve Internet access among rural women in India. The project affected more than 16 million women in India covering more than 1.5 lakh villages of India.

Reliance Jio- The leading telecom service provider in India has provided the fastest internet access for users, allowing users to access all online resources through the variety of applications thus creating an

ecosystem. In the year 2019, Reliance Retail and Reliance Jio have launched a new e-commerce platform in India and Gujarat has become the first state to acquire it.

Udaan- Udaan is a B2B online trading platform to connect small and medium-size retailers and online retailers and provide with payment materials, payments and technical support. This platform is being used in over 80 Indian cities and extended to cover 500 cities in India.

Wholesale and Retail Sales- There are many sales and seller requests in the e-commerce scenario that comes with resale or can be called as an online sale.

Marketing - Using the web and e-commerce, the collection of data, behavioral requirements and purchasing pattern are considered.

Finance - E-commerce is used by finance companies on a large scale.

Productivity- E-commerce is embedded and used in the operation of company chains.

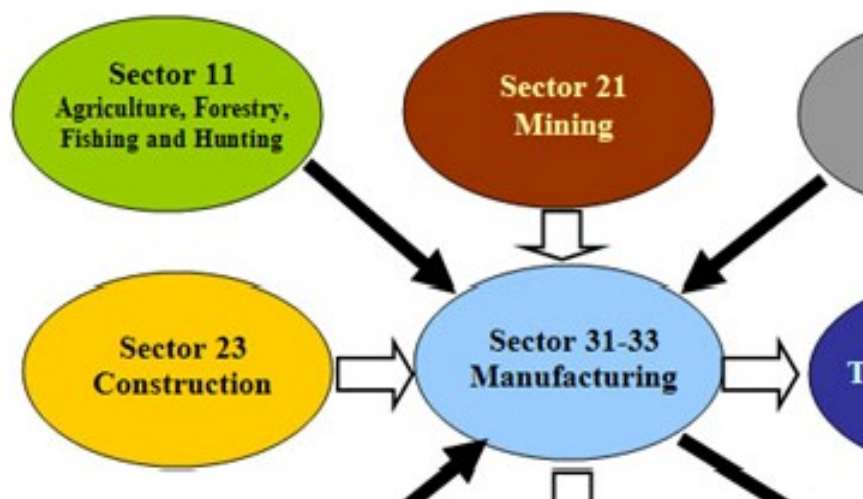**Product-** In E-Commerce, customer to customer are direct sales of goods between customers as a buyer and seller.

Figure3.2: Commercials Application of E-commerce

E-commerce in Agriculture
The development of agricultural Information websites to provide information on various crops, soil conditions, weather and pesticides has increased especially in last decade or so. The basic objective of such development is to strengthen Indian agricultural marketing system by publishing daily market information, such as minimum, maximum prices for goods and services.
- The establishment of *Gyan choupals* (information centers) in the villages to transfer practical and timely information to farmer has helped lots.
- The use of modern information technology to foster communication between investigators, extension staff and their farmer's customers in order to effectively transfer technology and information.
The agricultural services such as Mission Mode Projects (MMP) to provide information to farmers on pesticides, seeds, various government programs, eco-friendly fertilizers, soil fertility recommendations, effective crop management, climate and agriculture produce marketing
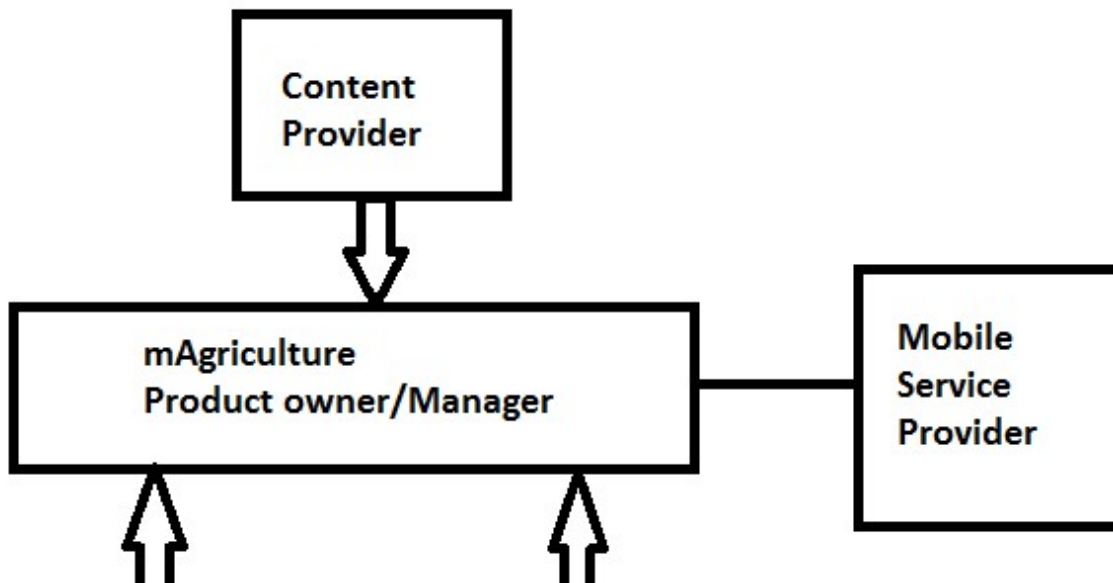
Figure 3.3 Mobile Applications in Agriculture
(Source: "https://www.indianretailer.com/article/whats-hot/trends/Why-small-E-Commerce-players-are-doing-better-in-the-Rural-Sector")

Sales
Through E-Commerce, consumers can purchase various products and services from different manufacturers. Industries can buy synthetic materials, etc. They use E-Commerce. Retailers can sell their products through E-commerce.

Real Estate Market
Online real estate services are provided by websites that show listing of houses, shops and apartments that are for sale and rent. Web sites play a role that supports goods retailers.
Now builders can use real-time technology on their website to showcase. This helps local companies attract consumers. Thus transactions can usually be started online, but make online, offline face-to-face with groups. Many websites provide real estate services in the online platform.

Internet Banking
Online Banking is also known as electronic banking, Net banking, virtual banking and is defined as the automatic delivery of new banking products and services through electronic communication channels. Customers can access online banking services through personal electronic devices such as personal computer, laptop, ATM, kiosks etc.

Delivery of Goods
E-Commerce allows for the delivery of products. For example, computer software is directly downloaded by a software developer on a client computer.

Import and Export
Electronic payments play a major role in importing and exporting the business. The Internet facilitated the export and export business. By using E-commerce entrants it can create questions about products, their manufacturers, price, quality, other terms and conditions. Exporters can also inquire about the right customers. Payments can be made by electronic means, including digital means such as online payments or online money transfers.

Supply Chain Management

A supply chain is a set of relationships between many companies with comparative relationships with the fact that one company provides goods or services to other companies, they, which provide goods or services to other companies, and so on.

The important point about such a request is that the information needs to be kept confidential as it crosses the Internet.

E-Tailing

E-tailing means recording online. The e-tailer is a B2C business that makes transactions with the end consumer. E-trailers can be pure gaming businesses such as Amazon www.amazon.com or businesses from the legacy business, www.tesco.com. E-tailing is a subset of e-commerce.

ICT-based E-Learning Services

E-Learning applications are very useful both at the educational level (at school) and in the community. At the educational level they can provide an e-learning platform that supports teacher work (e.g. Organize and upload material, build a library) the student's work (e.g. Online access to the library; clarity and online interaction); group performance. E.g. access to a remote laboratory for experimental work. In addition, they increase the familiarity of young people with the development of skills in ICTs. At the community level, each person has the opportunity to utilize online learning resources (e-courses) offered by various providers (companies, universities, private and public entities, etc.), to develop new skills and skills that lead to personal development and increase the skills and knowledge of staff in rural districts, which adds value to production, personnel and competition.

Libraries provide rural access to information and sources. Joining library networks enables local (students, professionals, etc.) to collaborate on a large number of information resources. For example, the Trikala-Greece Municipal Library is one of 30 selected libraries in Greece that join the Greek National Network of Public Libraries, gaining access to the archives of all Greek libraries, special Web sites, but also on the "digital deposit of books and magazines" developed at the level national (www.trikalacity.gr). The users of a municipal library can, by accessing the internal help center, view or order articles and books in a digital format.

E-Culture

ICT applications provide access for rural people to museums, cultural events, etc. These are exciting applications, especially for people in far-flung rural areas, to keep them on the international heritage line. An exciting use of e-culture has, among other things, taken place in the rural area of Kastelli-Crete, in the context of the EU Rural Wings project, targeting primary or high school students

Banking: Improving access to financial services is important for rural districts, especially those in remote areas. The use of e-banking and m-banking has revolutionized the provision of legitimate banking services, offering affordable new ways to deliver traditional services, and greater user benefits.

E-commerce in Real Estate and Cooperatives

E-commerce is an important way to innovate in local business development. Real estate companies should improve their information systems to track customers, so that they can conduct effective and efficient customer management.

The e-commerce business has made an impact on the unique retail industry in many ways. When it comes to the real estate market, higher average income, including the shaping of stock options increases buying or renting housing. Employees wish to find themselves in the upper portion of the residence with modern amenities. Employees are recruited across the country to serve customers resulting in real housing rising in cities that have been set up to serve regional districts. The

introduction of Goods and Services Tax (GST) has accelerated the e-commerce business because of the same tax structure across the country.

Residential Business

E-commerce is an important way to innovate in local business development. An inner-city and non-urban area can share its geographical information. There is a need to Information communications channels play the role of market media, and make product and service marketing more efficient. The rules, such as the release of geographical information, two companies signing contracts and collecting pricing, registration, licensing, and so on, will greatly simplify the e-commerce site, and to reduce business cycle and efficiency.

Residential companies need to improve their information systems to track customers, and provide an e-commerce model for consumer services to the public, so that they can make effective and efficient customer management. Real estate businesses recognize the details and functions associated with e-state office docking and improve employee efficiency through e-commerce. When real estate businesses develop projects, they are aligned with many departments of land, water, electricity, environmental protection, green, security, road, etc. Emerging processes are more complex.

The use of e-commerce for retail locations is in line with the consumers' concept of business forms. An asset has certain characteristics as a special asset, such as acquisition of land for repairs, long-term use, a long-term product development cycle, continuous production, and a long waiting period for monetization. Property buyers carefully choose the goods from Information released on the web by text, images, video and other means. Buyers choose to rent or buy real estate by asking online, browse. Real Estate e-commerce plays a different role in the real estate market.

Insurance Industry

Security: There is no risk of loss or damage to the policy as it may be with paper policies; the electronic form ensures that policies are stored securely and can be easily accessed as and when needed.

Simplicity: All insurance policies, whether health, pension, health or general, can be held electronically with a single insurance account. This means all the details of all the policies available in one account (location). Details of any of these policies can be accessed at any time by logging into the Insurance Repository online portal. A premium for all policies can be paid online and many service requests or complaints can be accessed on this website.

Single point of Service: All requests for service regarding e-insurance account or any electronic policies maintained under may be posted at any Insurance Provider locations - no need to go to the offices of the individual insurance companies service. If policyholders want to make any changes to their details such as address or contact, it is enough to change the details of their insurance account through the Insurance Repository with a single request - the Insurance Repository, which will also notify all insurance companies holding policies, about the change.

Jobs and Places of Employment

Efficiency: Online recruitment offers a variety of tools including pre-employment assessments, personal checks and screenwriters to allow you to select qualified candidates who can match the values and process of organization with minimal human interaction. Many software recruitment packages offer these services that one can customize to meet organization's specific requirements for each job.

GPS and drones help farmers improve productivity and reduce their enhanced environmental impact to produce farmers with on-board GPS equipment:

Some of the other advancements are:
- Setting high quality trajectories thanks to the automatic tractor guidance in the fields
- Separation of fields and rows of inspector's breeders reduce the input and the impact of their

creation.
- Direct treatment of Intra-based surface area map information.
- To develop agricultural parcels thanks to drones.
- Analysis of soil and soil (3D map) to develop models of sowing or to assess the needs of the ground
- Sowing using pills containing seeds and nutrients down into the soil.
- beat (frequency, distance, and accuracy)
- Monitoring plants to find discrepancies.
- Analyzing the irrigation needs through sensors
- Assessing plant health using optical illumination techniques.
- Silos Monitoring Note that satellite imaging technology is still widespread and sufficiently accurate in some modern practices.

The sensors provide the farmers important information related to farm and devices to facilitate daily activities:
The sensors provide farmers with important information related to the farm.
- Ground sensors monitor soil indicators (rain, humidity, etc.)
- Sensors on board a tractor or drones to monitor the health of plants, plants or standard requirements.
- Sensors in livestock Geo localization and monitoring.

Farmers also use a variety of connected devices to facilitate daily tasks:
- Robots connected to agricultural activities and the privatization of the hoeing and weeding.
- Dairy and feeding robots also facilitate livestock monitoring.
- Connected devices that allow several hybrid seeds to be planted in the same row depending on soil characteristics.
- Agriculture is innovative, autonomous heat, lighting solutions according to the needs of plants
- Intelligent agricultural technologies (GPS, drones, sensors and connected devices) are already very wide and have been adopted by many co-operatives and members. Two of the co-op even made it clear that they were adopted by all their members.
- Businesses provide members with Drone planning and monitoring services. Cooperate with one offer to combine these services and techniques of biological control and disposal of the tricho graphma with drone attack animations European fruit.
- Cooperatives use information from dairy farms and effective programs to help advise farmers on farm management.
- Businesses have also begun to use 3D printers to customize replacement parts on demand and thus reduce inventory levels. However, this method depends on determining the size of the half, raised the issue of ownership in respect of intellectual property rights.

Cooperatives have already succumbed to explicit farming, but believe that most important advances are yet to be made regarding information on improved parcels of land and plant requirements:
- Reduction in the use of a specific installation for use of medicines and treatment plants; reducing environmental impacts as a result.
- Increased productivity due to tooling.

Data analysis tools are available to farmers to help them make decisions and anticipate input needs there are several IT solutions available to help farmers use their data and anticipate the needs of their farms' future and make the best decisions:
- Advice for the seed to be sown (and very good) conditions thanks to an evaluation of the information databases sky weather and digital maps. This solution can also be used with a measuring instrument to compare the yields of neigh boring farms
- Advice on the use of fertilizer

- The requirements provided for irrigation are used to process speculation of meteorological condition

<table>
<tr><td>

To Do Activity

Prepare a chart of e-commerce application for rural development and identify that how e-commerce applications are helpful in rural e-business
</td></tr>
</table>

The Indian e-commerce sector has emerged over time with innovations that have changed the game rules around the world. Cash on Delivery (COD) is one example. Besides COD, e-commerce players need to focus on center experience to build confidence and confidence. Customer experience includes all customer service teams, to delivering real time service and providing after sales service. Delivering a good experience is important not only for ensuring customer repeatability from customers, but also for building a good brand and word of mouth community.

Concerns for home customers related to an online purchase, for example mistrust and fear of illegal services and non-logic markets are some of the challenges. These challenges can arise in the following ways: Vernacular and language usage and after sales support and most importantly trust, lack of touch, feeling and fear of after sales services will be resolved by auxiliary sales and the presence of an mini channel body. In the coming decades, we expect this sector offer many flexibility options such as taking turns with the help of mobile money and access to virtual test rooms. Continue shopping online as the sector is set for a meeting.

3.2 E-commerce: An Opportunity for Hospitality Industry Growth

Tourism is often associated with international travel, but it can also refer to travel to another destination within the same country. According to the World Tourism Organization, tourists are travelers living in and out of their normal area for more than one year based on leisure, business and other purposes. Tourism is a worldwide popular activity for business, trade, education, medicine, agricultural need, raw materials, history lessons, cuisine, entertainment and much more that comes with the clock ticking every second. Today, tourism is a major source of revenue for many countries, and it also affects the source and host economy countries; in other cases it is very important. Tourism is a vibrant and fierce industry it requires continuous flexibility in customer needs and desires, as consumer loyalty, safety and satisfaction are the center of tourism organization. Tourism is a social, cultural and economic phenomenon that involves the movement of people from one country to another or from one to another; besides their general nature for many reasons. Tourism is related to their activities, some of which include tourism spending, development, inclination, sponsorship, history, hospitality and much more.

E-commerce is an electronic process by which individuals or organizations perform work. There are various benefits of E-Commerce to consumers and retailers such as cost reduction and variety. Backed by an increase in Internet user base & mobile phone presentation, Indian E-Commerce saw impressive growth over the last few years. Considering India's population demographics and increasing internet access, the sector is being scaled up by rising prices.

E-commerce Growth in India

India first entered into an online E-Commerce Internet connection IRCTC (Indian Railway Catering & Tourism Corporation Limited).The Indian government has tried this online. The strategy was to make it easier for their community to book a train ticket. So, the government came up with the IRCTC. Online Passenger Reservation System for the first time gives experiences online ticket bookings from anywhere at any time. This has been a comfort to the average person now that he or she no longer to wait in line, no problems spending time in between unavailability of trains, no responsibility for

reservists and many more. Technological advances as age referral has also been identified through the IRCTC. Online program as now one can book tickets in one go easy payment may check the ticket status and availability to train again. This has been the greatest achievement in Indian history in the field of online E-Commerce after the unsuccessful success. IRCTC, an **online** ticket booking system is followed by airlines (such as Indian Airports, Spice jet, etc.). Today, the reservation system, the only alternative, is for booking a hotel, a bus **reservation** etc. are made using websites such as Makemytrip.com, clearrip.com, Yatra.com.

E-commerce Application in Travel, Tourism and Hospitality
Tourism e-commerce means an Internet-based business plan, including tourism and its electronic distribution system, taking into account tourism information and e-commerce banking.

Global impact and technological performance 'are excellent for creating new and consistent jobs and increasing the competitive power of tourism businesses. The high demand for access to and information of potential tourism customers makes these businesses one of the most important sectors to use e-commerce tools. Tourism businesses use e-commerce tools while communicating, presenting, advertising, marketing and managing .It is very common to use e-commerce in tourism and it is growing day by day. Productivity for travel, marketing, presentation, public relations, buying process sales, payment and delivery are all possible with e-commerce in tourism.
Tourism is an important part of world trade is one of the most widely used e-commerce sectors. In recent years, some important developments in the Internet and e-commerce application in travel agencies provide effective and efficient communication between customers and businesses

The benefits of e-commerce in tourism include; (Akbulut, 2007: 9-14)
- Profit increases due to the agency being disabled.
- Businesses have the opportunity to increase the quality of their service through e-commerce.
- A reduction in travel and travel expenses is a benefit to customers.
- The prominence of e-commerce businesses is increasing competition.
- Communication between business and customer is on the rise.
- Businesses that use e-commerce can work **24*7*365**
- Businesses can use human resources in an easy and flexible way.

E-commerce Tourism Process: The e-commerce, tourism process describes the entire process of supply and demand for tourism. As we know, the emerging business area is rooted in the evolving network structures and increasing consumer integration. When one adds to the tourist life cycle, looking at the travel of travelers, one can link the tourist stages associated with company processes

E-commerce Applications of Travel Agencies and tour Operators
Tourism is an important part of world trade is one of the most widely used e-commerce sectors. In recent years some important developments in the Internet and e-commerce application in travel agencies provide communication between customers and businesses. E-commerce applications were not only the first to gain experience but in recent years have become a major force in the construction industry (William, 1999: 67-73).

On the other hand, some researchers emphasize that widespread use of the Internet and directing customers to buy online can threaten the future of agencies. It is predicted that the role of tourism agencies will decrease and this may result in them being closed or affiliated with larger organizations. Successful travel agencies that use e-commerce application are causing the decline of traditional delivery channels. Most investigators think that information, organizations can be closed soon (Marino, 1999; Maselli, 2002). In addition to the fact that agencies that have e-commerce, databases and use the Internet effectively can reach wider and in this way their profitability and market share can increase.

| Pictures links to vacations getaways, business travel and rates, availability, residential properties |
| servations and explore the hotels. Each different hotel link has extensive information on all hotel services, packages. |
| Reservations, checks rates, find a hotel, special offers, hotel locator, by city, state, country. |
| Find a hotel, reservations, hotel directories, route planners, frequent visitors. |
| Choosing a location , reservations ; search rates & availability by city, state, country. |
| Rates @ reservations, special offers. |

Figure 3.4 E-commerce application in Travel and Tourism

- With its quiet start in the early 20th century, the rental car industry has come a long way in embracing technology.
- Beginning in the 1990s, the industry began to use technology to improve its reservation systems.
- Internet booking and automotive marketing have helped rental companies move their business, increase its reach and efficiency and at the same time better serve customer needs and wants.

Car rental companies are looking at their Web strategies not only for also for the corporate travel market.

Tourism E-Commerce Process

The tourism marketing process describes the whole process of supply and demand for tourism. As we know, the emerging business area is rooted in the evolving network structures and increasing consumer integration. When one adds to the tourist life cycle, looking at the travel of travelers, one can link the tourist stages associated with company processes. Supply chain processes cover planning, sales, monitoring, and relationship management. Providers will meet, and deliver services to tourists, who have been circulating their lives on site and after the trip.

Processes of the Supply Side

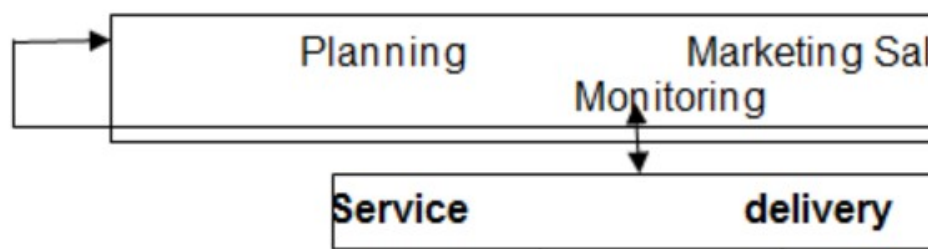| Planning | Marketing Sal |
| | Monitoring |

| Service | delivery |

Figure 3.5 Tourist Life Cycle

Use of E-Commerce in Insurance service is a hands-on activity to carry out insurance issues on the

network or through a smart card system and is an effective component in speeding up and simplifying insurance processes. Electronic insurance is the radio that modern Iranian technology in the field of information and insurance has made little use of. One of the most notable points in insurance is that when it comes to banking systems and hospitals, etc., that it leads to proposing these plans. In this scheme, as each transaction and online trading through the SHETAB program, that is, the Interbank Card switch, electronic banking consolidation, and electronic money transfer to all banks take place; reasonable use.

Impacts of E-insurance on the Efficiency
1. E-Insurance will reduce administrative and administrative expenses through the business automation process, and will improve administrative data.
2. E-Insurance, by selling the insurance policy, will directly reduce the commission paid to men (in fact a part of this commission should spend money to attract consumers and marketing).

E view-Travel and Tourism Exchange
Travel technology is the Usage of IT or ICT in the transportation, tourism and hospitality industries; E - Tourism can also be defined as the entire use of Information and Communication Technologies (ICTs) within hospitality and tourism industry, and tourism experience. In some cases, the term "travel technology" can mean technology designed for use by travelers, such as light-weight laptops with universal electrical power or satellite communications. XML-based technology already exists increasingly important to the travel industry. The biggest challenge has been in tourism.

The sector in adopting technology is the lack of accurate technological education 'right' that is relevant to their business. There is a wide gap between the tourism and technology sectors. Some organizations have been able to jump into this gap and turn them into Online Travel Agents (OTA). However, not all tourism businesses need to grow into a successful OTA use technology.

E – Commerce in Travel and Tourism Sector
The growing technology sector and information technology industry have taken the commercial and global management industry to a global level, producing a simple but costly sector. It is challenging the technological and developmental challenges of each sector with respect to trade and commerce. The Tourism and Tourism industry are also part of this global experience. The industry has the biggest impact on GDP per capita. Offer more than 75% of GDP over the next 10 years. There are many promotional booking programs that you may know about small business travel opportunities in the global travel and tourism industry.

Travel-related institutions and Internet companies are joining to discover the potential market for e-commerce. E-commerce being an active domain for selling travel products has led to problems such as fraud and false identity. E-commerce has slashed independent travel agency performance rates.

E-commerce has the need for tourism workers to become more aware of technological developments. Although this is a good feature that will enhance the skills of international workers; In India most low-skilled tourists need financial support to pursue the necessary education in regards to e-commerce even though their knowledge of travel destinations and hospitality in providing the best services goes down beyond the professional staff. The easy availability of information through the e-commerce system has made the current generation of travel providers less sensitive to local information. There are many service points in a very detailed and simplified way that customers prefer to make their own travel plans instead of having the help of a travel agency.

E-Trade as a Key Factor for Growth of Tourism in India
Over the past decade new technologies have caused a huge uptick in the world economy again and in many aspects of modern life. The rapid advances in information and communication technologies

(ICTs) and the Internet have caused tremendous changes in society and the business world around the world. As a result, companies were "pushed" because of changes created by the rapid development of ICTs and a growing number of Internet users to redefine the processes they use to perform their tasks with their customers, suppliers and the state.

ICTs and the Internet have donated and continue to provide facilities for companies and organizations, new opportunities and opportunities that they can use to make a profit. Anyway, new technology has posed new threats and risks for companies to face the technological environment in which they operate. New technologies offer significant benefits for companies; the most important benefit is the reduction of costs in trading. E-commerce is an important tool for successful companies. E-commerce is one of the most important aspects of the new technology and the internet. E-commerce presents to companies a greater challenge of global reach in overseas and global markets at lower cost, increasing as a result of their sales and consequently their profitability. E-commerce and new technology is contributing to the travel industry. The benefit to customers is the fact that the customer is able to buy products and services at any time of the day directly from the travel companies which is a challenge for the mediator role.

Travel companies also gain significant benefits with ICTs and e-commerce. Travel companies provide their customers' information, services and products 24/7. Sales function improves with inexpensive and effective product marketing as well resources online, compared to traditional advertising methods like television and radio. In addition, travel companies communicate directly with their customers who save time and money.

However, the most important benefit is marketing gained by new technologies as well e-commerce is about your preference for the services and products that travel companies are able to offer to their customers. The key to success is the rapid recognition of new customers with customized and modern products and services that satisfy their needs.
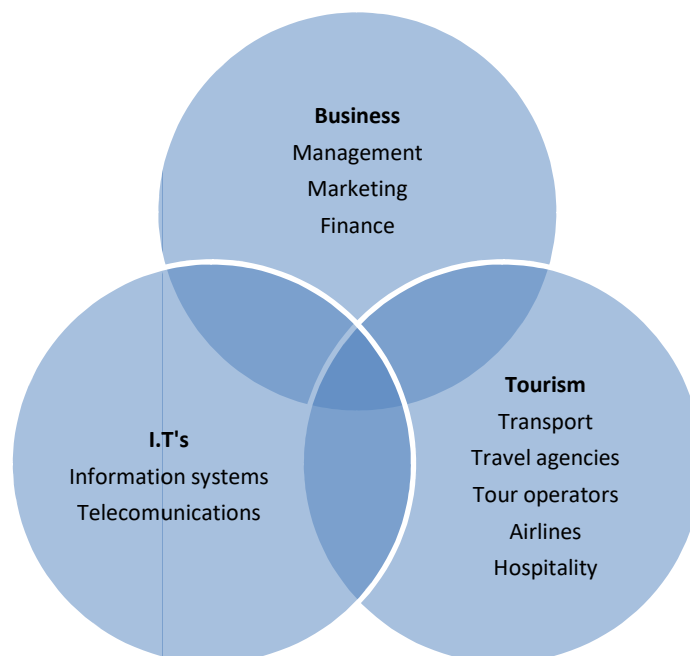

Figure 3.6: IT applications in Tourism and Business

It is important that current information and communication technologies must be updated, expanded and integrated internally and externally. ICT integration in tourism will benefit both, service providers and customers integrate with other stakeholders on the same platform. The selection of an information communication technology tool is important to match customer needs and service size.

The proliferation of technology across all travel referral channels and staff is using new tools to find information, identify relevant products and book. The integration of ICT offers a powerful and profitable tool to promote and strengthen the tourism industry.

<table>
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To Do Activity

Illustrate the gaps between tourism business and ICT influence and suggests measures to fill the gaps in tourism enterprises.
</td></tr>
</table>

3.3 Rural Market

Rural marketing is the method of designing, selling, promoting and distributing unique home products and services leading to the desired exchange with rural consumers in order to meet their needs and desires and to achieve organizational objectives. The emergence of domestic markets as unstoppable skills emphasizes the need for self-evaluation. Marketers over the past few decades have, in new ways, tried to understand and impact on domestic markets. Some of their efforts have paid off and many markets are still frustrating. Marketers have had the opportunity recently. Improving infrastructure and accessibility, it promises a bright future for those who intend to travel to the countryside.

Concept of Rural Marketing

The Rationale for Domestic Marketing in India The Economy always plays a major role in people's lives. In India, leaving major cities, all districts and industrial townships linked to the domestic market. The rural market in India generated huge profits in the country as rural regions made up the largest consumer in the country. The domestic market in the Indian economy generates more than half of the country's revenue.

Rural marketing 'is the same as marketing. The target audience here is comprised of consumers residing in rural areas:

1. Let's define the word simply: Local problems with planning and implementing marketing plans (often called marketing strategies or 4P's) only in rural markets to achieve marketing objectives.
2. In a nutshell: Rural marketing is the process of designing, pricing, promoting and distributing specific home goods and services that lead to the desired exchange with rural customers to satisfy their needs and wants, as well as to achieve organizational goals.
3. Marketing efforts are always the same; the only important factor is the type of customer. Thus, the term can be interpreted as: In the case of rural marketing activities, it is transformed into rural marketing and managers are called rural marketing managers.

E-Insurance and Its Role in E-Commerce

The general concept of insurance is the use of the Internet and information technology to produce and distribute insurance services and the specific purpose of e-insurance, is to provide cover for an insurance policy, where in every claim, proposal, contract, negotiation will be done online. Although payment of insurance, dissemination of insurance policy and claim payment process can be done online, in some countries, regulatory (technical) and technical (technological) restrictions may not permit electronic transactions at all. Globally, however, in order to support premium insurance premiums and online distribution insurance policies, the rules are constantly changing.

Accepted effects of active insurance are included:

1. Insurance will reduce administrative and administrative expenses through the business automation process, and will improve administrative data.

2. E Insurance, by selling the insurance policy, will directly reduce the commission paid to men (in fact a part of this commission should spend money to attract consumers and marketing.)
3. As a marketing manager you have to perform the same tasks. Therefore, the definition of marketing stated by the American Marketing Association may apply equally to rural areas. We will only add the word 'rural' to describe the name: Rural marketing is the process of organizing, and carrying out the work of understanding, pricing, promoting and disseminating ideas, goods, and services to create interchanges (at home levels) that satisfy individual and organizational goals. (Only the word 'rural' has been added to the definition adopted by the word means that sales activities are conducted in rural areas to satisfy rural areas.)
4. Specifically, it can be said that: Rural Marketing means producing products (goods and services) for rural customers and making the necessary arrangements to supply them.
5. Finally, we can say: Rural marketing is advertising for rural customers. It involves designing a marketing plan (4P's) to arrive at the exchange you need home customers who satisfy their needs and wants.

Application of E-Commerce in Insurance Industry

Insurance is a position of hands-on activity to carry out insurance issues on the network or through a smart card system and is an effective component in speeding up and simplifying insurance processes. Electronic insurance is the radio that modern Iranian technology in the field of information and insurance has made little use of in this scheme, as each transaction and online trading through the SHETAB program, that is, the Interbank Card switch, electronic banking consolidation, and electronic money transfer to all banks take place; using logical structures to use to link electronic records, such as paper structures in complex transactions, such as cheques, documents containing important information, etc. is important. The main advantage of online services is the ability to communicate more effectively and powerfully with customers. In this case, all active processes will begin to function as function-oriented systems; For example, web technology allows all insurers the ability to see the required information, perform related tasks and provide the required information.

Advantages and Benefits of E-Insurance:

Benefits and benefits of insurance are investigated from three perspectives of "insurance", "under contracts", and "policyholder":

1- Insurance Benefits

Speed - The higher the speed, the process of getting rid of the insurance policy and the damage Using Increase accuracy in insurance operations

- Develop a used insurance plan, based on the latest Hardware and software resources
- Eliminating expensive and time-consuming categories, such as issuing introductions, inquiries from institutions.
- Reducing the insurance office space by improving the physical space.
- To encourage policyholders to continue to use insurance matters with full discretion
- Attracting parties to insurance contracts
- Maintaining current contract policyholders and institutions
- To facilitate insurance issues such as documentation, reporting.

E-commerce Opportunities

Opportunities to wisely implement certain insurance policies such as placing a policy holder in medical facilities, only by phone or online.

- Prevention of fraud and corruption.
- Direct cost analysis.
- Consolidation of comprehensive insurance plans at all branches, insurance website and ATM insurance centers.

2- Benefits of Companies under Contract

- An opportunity to identify insurance immediately.
- Reduction of facility fees, from insurance.
- To prevent corruption and fraud.
- An opportunity to issue special insurance policies in the Center area without reference to insurance.
- Quickly identify policyholders.
- Promote clients to use the services provided.
- A quick introductory book.

3- Insurance Benefits

- Increases the rate of real insurance coverage.
- Reduces the frequency of self-presentation to insurance branches.
- No need to fill out the forms manually.
- Facilitates for details of insurance policies related to the policyholder.
- Do away with introductory letter required for submission.
- Facilitates payment and receipt of related fees.
- Reduces the time and cost of using insurance coverage and effective satisfaction.
- Increases familiarity with insurance issues through the insurance website.
- An opportunity to take free insurance consultation through the exact details of the insurance website.
- Helps for   (almost) direct contact with managers and managers at any time and place.
- Quick access to statistics and generation of reports faster (Nikoo Fetrat; 2007, 1-3) and (Ahmadi; 2009, 6).
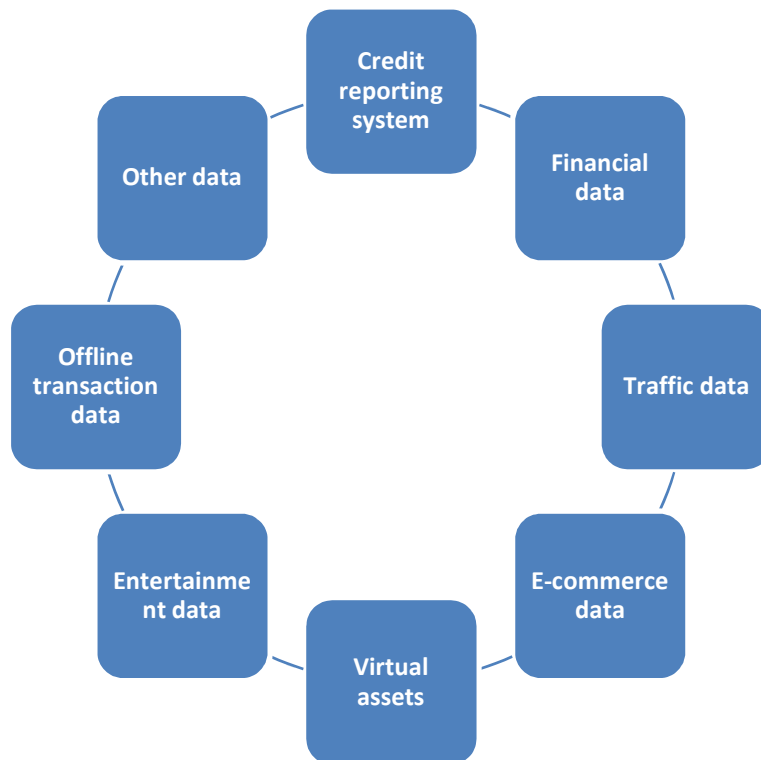
E-commerce in Banking

Internet banking services mean that any inquiry or transaction should be processed online without having to refer to the branch at any time. E-Banking (Internet Banking) is an e-commerce App that allows consumers to perform any online banking activities, financial services online in a secure and secure way. It involves using the Internet for the delivery of banking products and services. E-banking operations include BFSI (Banking, Finance, Security and Insurance). Banking concerns about providing customers with banking services, where financial services include securities, payment gateways, mutual funds etc.

E-Banking includes

- Bill payment service
- Fund transfers
- Querying the account balance
- Credit card customers
- Applying for/claiming Insurance
- Investment through Internet Banking
- Shopping
- Automated Teller Machines,
- Credit Cards
- Debit Cards
- Smart Cards
- Electronic Funds Transfer (EFT) System
- Mobile Banking
- Internet Banking

- Telephone Banking

3.7 Figure Applications of E-commerce

Benefits of E-Banking

Time savings: Internet banking, no doubt, saves time by allowing direct transactions from the office, home or any other location. The average person is comfortable with visiting the bank and waiting in line and providing emergency and physical assistance with unwanted bankruptcy.

Ease of use: The great opportunity that online banking offers   easy to use. We can pay off the phone and electric bills through an online bank without having to rush into the company's cash collection stores. It helps to avoid delayed payments.

24x7 Services: Online banking transactions can be done at any time and from anywhere.

Eco-friendlier Process: Internet banking is an eco-friendly process as it does not use as much paper as standard banking methods and thus helps to protect the environment.

Easy access: To perform online banking operations, all you need is a basic computer-based computer system.

Faster Banking: Internet banking is the fastest way to do banking activities. Whether you buy goods online, pay off bills or transfer money, it is done in real time and within times.

Cost savings: The process is very expensive. It removes businesses of the practice of moving people into paying off corporate debt in particular, who spend many hours making bank cycles to perform all the functions associated with a business bank.

Other Benefits: Online banking has many other benefits. Users can buy online; buy tickets, book reservations, etc.

E-commerce in Manufacturing Sectors

E-commerce is a way for manufacturers to try new products without risking huge sums of money. Instead of setting up brick-and-mortar stores, or keeping a list available, you can start by offering this new product to your new store:

- **Direct Customer Access.** In addition to having high-profit marriages, you will interact with customers, allowing you to learn from them and good products.

- **Many Prospects.** A large arena generates a lot of sales opportunities; one has to be aware of their existing distributors. Potential problems are often interrupted by offering your products in a different market, so you are not competing with your current network.
- **Opportunities to Innovate.** Finding customers outside of existing relationship also frees from the specs one has to stick with if one has better product idea, one can take action on it, allowing product analysis and overtime updates depending on what your customers want.
- **Scalability** E-commerce efficiency in manufacturing will enable your organization to grow and increase easily to meet market needs and customer needs by opening new sales channels and continuously accessing new sales segments.
- **Improving Performance**. Integrated enterprise resource planning (ERP) and other back-end business systems, e-commerce provides the best performance for manufacturers. Customers are able to order online anytime and where appropriate, customer service can focus on actual customer service - such as shipping costs and timely shipping - rather than simply ordering customers, and the need to replicate data on private systems is eliminated, thus eliminating them. Errors and optimization of shipping processes and an increase in order surges.
- **Improved Product Awareness**. Just as e-commerce can help manufacturers and distributors of industry find new customers, so it can help improve brand awareness in the market place. Developing search engine optimized pages is the fastest way to improve the functionality of search engines and improve the chances that target audience will know who you are.
- **Analytics.** The use of e-commerce in production provides an appropriate platform for the organization to launch a fully analytical campaign. Via ecommerce, manufacturers and distributors can more than ever monitor and analyze promotional strategies, sales productivity, product mix, and shift in inventory, sales performance and customer engagement.
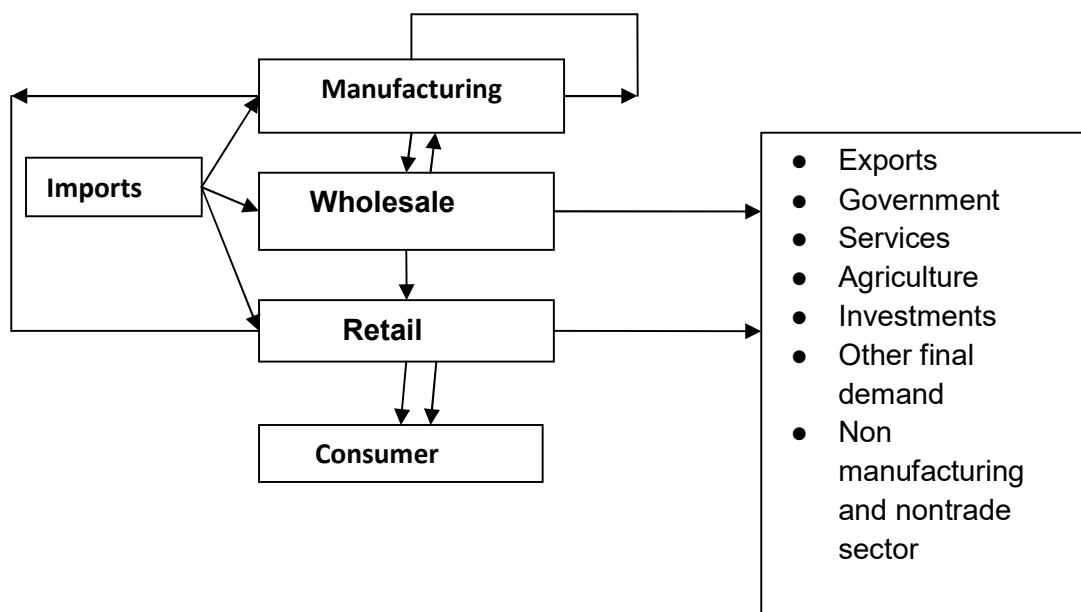
3.8 Figure Impact of E-commerce

Advantages of Ecommerce for Manufacturers & Suppliers
  1. **Access to New Markets**
Ecommerce goes hand in hand with digital marketing, making scale in new markets more expensive. Increasing brand awareness and reaching into unexpected sales opportunities would not have been possible without e-commerce.
If you are concerned about what your distributors see as a threat to the e-commerce space, show them that you can both benefit from your digital presence.

Instead of competing with them, give them access to special offers such as colors, finishes, sizes, or special products.

In addition to that, tailor your products to any new markets you are trying to enter to increase your reach without competing with your partners**.**

2. **Efficiency after the End of the Operation**

The right e-commerce tool should be able to improve the efficiency of your business backwards.

This means that any e-commerce tool that works should be able to engage with your customer relationship management (CRM), business services planning, and other business systems.

For the benefit of full digital capabilities, streamline the integration process ahead of time. If the solution doesn't integrate with your existing business plans, that's not the solution.

3. **Better Pre-workout Activities**

Forward-thinking activities will also benefit from entering the e-commerce space, where customers can use the automated portal service to extract quotes or check the status of their order, and spend less time taking orders and giving more questions over the phone.

The customer service team can focus on leading care, building relationships, and providing true customer support in areas where digital solutions are available.

To Do Activity

- **Illustrate the e-commerce application in Rural areas.**

In India the e-banking has its own benefits for both banks and customers. The challenges raised by Internet banking are often administrative in nature, which can easily be counterbalanced with the implementation of adequate technical and safety steps.

The journey to the domestic market does not come without obstacles. Heterogeneity of home buyer needs, distrust of online transactions, cheap offline products and the absence of platforms in local languages, digital illiteracy and a market based on touch and feel are the biggest barriers to access and assistance. Gaining the trust of the home buyer. However, some companies are making roads to remove some of these barriers and penetrate home buyers. Companies such as Shopclues, IPay India, Inthree, Store King, One Bridge, Connect India, etc. They make an effort to sell in the domestic market. Their initial success is an indication that the domestic market has great potential and requires extra effort to satisfy the demand for products. In addition to that, the growing number of new users of e-commerce giants such as Amazon and Flipkart from rural India presents an emerging picture of the huge opportunity in rural India.

3.4 Digital India with E-commerce revolution in rural Business

E-commerce is thriving and represents a growing boom in Rural India. Their success depends on market understanding, customer value and offering a variety of features. The impact of digital India on the future of E-Commerce in Rural India; represents a variety of opportunities for retailers, consumers, E-Commerce Industries and contributing factors to rural Indians. We have found that high-quality E-Commerce will significantly increase the years in the coming market. While rural Internet access or Broadband is relatively low compared to the urban area, the Government of Digital India will manage or fix the gap that is growing the global consumer e-commerce market by spreading business through social media (Facebook Commerce, Twitter Commerce), mobile trading etc. and embracing aspects of a Digital India project such as digital infrastructure creation and digital writing. The integration of the E-Commerce project with Digital India makes easy communication possible anywhere in the world in

seconds. With online trading, businesses are opening up to the global market. Indians should call Digital India Vision or Digital Bharat Vision projects or Digital Hindustan Vision projects going forward. The current state of Internet users in India is highly volatile and campaign for ‖Digital India‖ can connect a large number of rural Indians worldwide through the Internet and E-Commerce Industries can transform many rural Indians into a commercial enterprise.
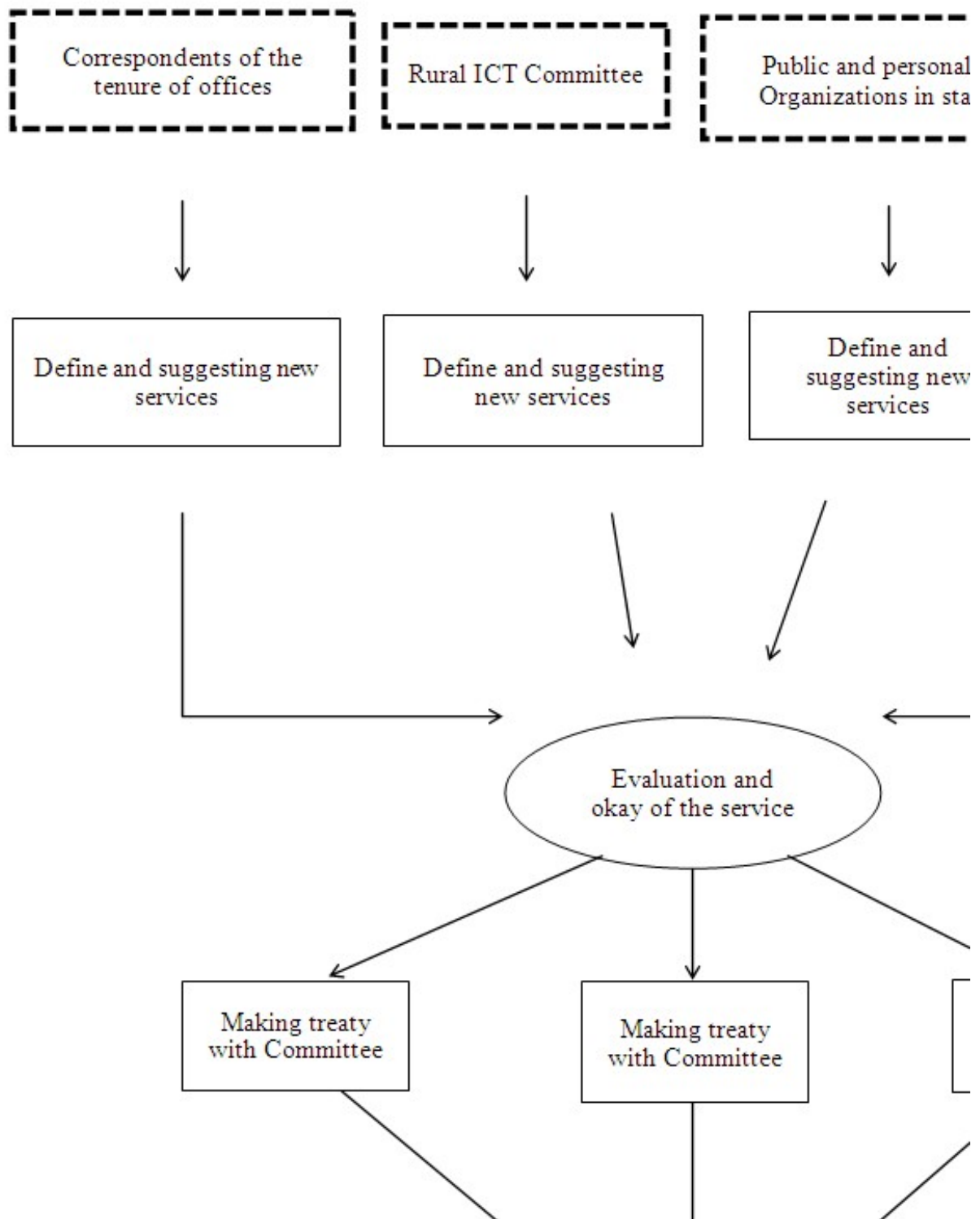
India's vision for digital to improve in the field of electronic services, products, products and service-oriented programs, etc. Digital technologies, including mobile application and cloud computing are playing an important role in the rapid development of the economy and growing Indian citizenship worldwide. Digital India is the dream system of the Indian government. The aim is to provide government services to the citizens of India through telecommunications and connect the rural area via the Internet; thereby people can get the benefits of all government services and improve their digital learning. The Indian government wants to work with the mainstream community by connecting digital as well be able to equip the community in numbers. Now in the modern era where people live in the digital age, keeping up with technology as the world moves on a daily basis. Each person must learn how to use digital technology in everyday life, including communications, transactions, business and many other daily activities. With the help of Digital technology people can manage everyday tasks and share information in the most efficient and ineffective way.

Digital India is the first step to transform India into a financially viable and economically viable "Digital India" as defined by digital content through Information and Communication Technologies (ICTs) and contributes to the growth of employment, economy and productivity. The vision of the program is to empower India through digitalization and the reason is "Digital India: Power to Empower". It will be able to provide a space of electronic production in the same range as the growing needs of the country. Digital India is a bridge between digital "what-and-nothing". Confirming that the government services provided by each Indian citizen to achieve sustainable development in the country.

Digital India Power to Empower- Methodology

The Digital India program looks promising and will transform the E-Commerce sector through the Internet and Broadband in the far corners of India. It will not only increase trade, retains efficiency and will test the broader market for buying and selling a product. Most of the products are consumed and sold by local residents in the local market, which means that the products may not be getting the proper price due to the lack of demand for products in the limited local market. Limited demand means lower revenue leading to lower revenue for E-commerce industries, because these consumers do not know the quality.

Providing access to digital resources is Digital India's commitment For example, the program is to provide access to phones, tablets and computers for those who are damaged or visually impaired (partial or complete) of learning or intellectual disabilities or physical disabilities etc.

3.1 Flowchart: Model of Service in Rural Business (Source:
"https://www.orangemantra.com/blog/the-impact-of-e-commerce-in-rural-india/")

Fintech Platforms	Provide apps and platforms that link farmers to personal and financial providers. Agricultural and government related services based on their crop and crop rotation.
Farming as a Service	Offering agricultural services and equipment at a discounted capex rental price and increased revenue.
E-commerce and Market Linkages	Providing platforms to farmers and retailers where they can buy agricultural inputs and sell products without middleman.
Nano Technology	Providing services such as the use of Nano tablets and viral cupids to treat disease, enhances the absorption of nutrients by plants.
IOT and Big Data	To facilitate data collection and decision making using drones, sensors, IoT technologies, and data analysis.
Post-Harvest Technologies	Provide technology and equipment for cleaning, sorting and processing plants on the farm, as well as cold storage to reduce waste and increase food shelf life
Smart Machines	Providing remote machines, works with great accuracy, and performs specific tasks using harvesting robots, seeding machines, electrostatic sprayers etc.
Precision Farming	To facilitate installation of water, fertilizer and pesticides, at the right time for production.

Figure 3.9 Mobile commerce application in rural business. (Source — #IndiaTrends2018: Trends Shaping Digital India)

In Saadhya-E-education, plays an important role in the current situation in rural development. After Digital India came into existence high speed networks provide internet access and mobile transactions to people. In addition to rural areas health services and education. The place is improving day by day. It also provides a platform for Indian farmers (E-farming) to select the best crop depending on the weather, crop protection and marketing details, etc. In addition there are many other useful activities in Indian society.

E-commerce in Consumer Goods Mobile Commerce
M-commerce (mobile commerce) to buy and sell goods and services through wireless devices such as phones and tablets. Telephone communications, where services are flexible, payment of fees and account updates can all be done with a single handheld device. Examples of m-commerce include mobile banking, in-app purchases, virtual market applications such as Amazon's mobile app or digital wallets such as Google Pay, Apple pay, Android pay and Samsung pay.
- Most subscriptions have been mobile-related and applications for various things such as money transfers, tariffs have been raised, contributing to the growth of mobile commerce worldwide.
- Advances in integrated electronic technology allow for the availability of many types of technologies, such as the Broadband Internet, Handsets, and the supported network. All this

development opens up the opportunity to provide the user with many ecological services that have never been seen before.

- The purpose of all services in some way has to be revenue generating. This represents a growing number of Mobile Commerce or m-commerce as a low-tech electronic or e-commerce site, which has been growing in popularity with the Internet.

- Features that drive the M-Commerce market are increasing adoption of smart devices, better Broadband connectivity, cheaper services, social access to M-Commerce services, etc. However, there are some drawbacks in terms of reliance on Internet networks, user monetization, and stiff competition.

Services and Applications of Mobile Commerce
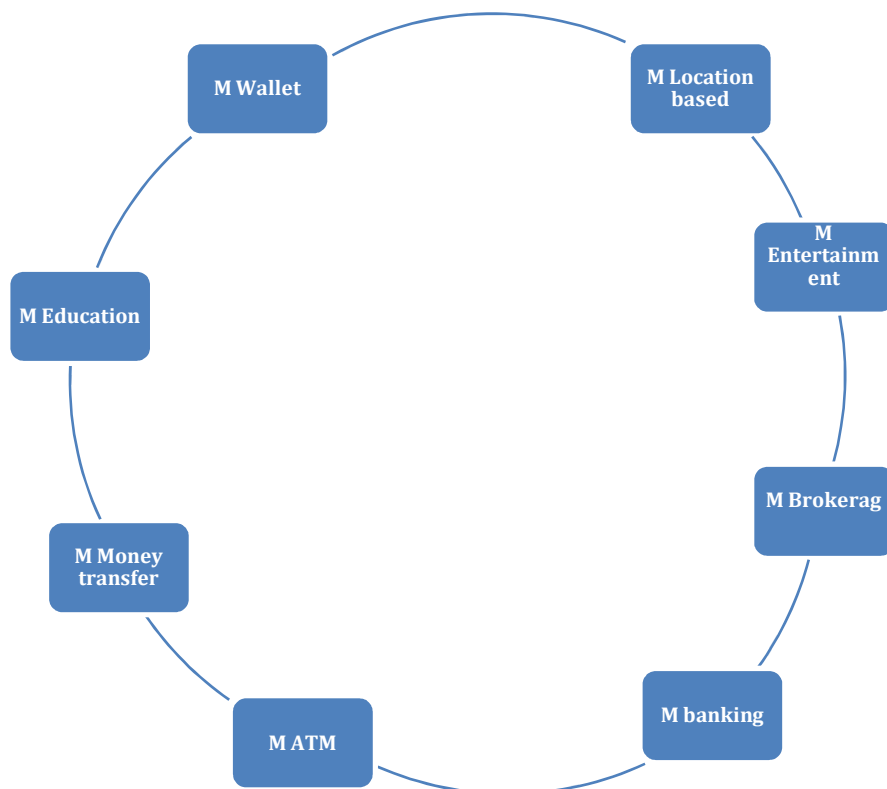
3.10 Figure Services and Applications of Mobile Commerce

Mobile Tickets: It is a process where users can order, pay, receive and confirm tickets from anywhere, anytime using Mobile Phones. Tickets can be booked or canceled on mobile with the help of a simple request. Ticket screening such as digital boarding passes in the form of SMS or MMS. This is used in many programs such as Airline Selling, Cinema Purchase, Train and Bus Stage, Event Ticket Offer, Buyer Voucher Distribution.

Mobile ATM: Introducing mobile money services for unpaid, operators are now moving towards more efficient ways of extracting and managing distribution networks that can support cash and cash flow. Mobile ATMs are specially designed to connect a mobile money platform and provide ATM banking quality.

Mobile Money Transfer: Refers to online payment services made through the mobile phone. It is possible to transfer money from one person to another using a mobile phone.

Mobile Content Delivery and Delivery: The day's mobile shopping and distribution now mainly consists sale of ring tones, songs, wallpapers and mobile games. The combination of portability,

portable audio players on one device expands the purchase and delivery of full-length movie and movie tracks. The download speed available with 4G, 5G networks enables users to buy a movie on a mobile device in a few seconds.

Older Information and Additional Packing Services: Mobile Information and Integrated Installation Services: Many types of information services can be provided to mobile phone users in the same way as they are offered in computer programs. Other services include news, stock quotes, sports scores, Traffic reporting.

Mobile Banking: Today, Banks and other financial institutions are using M-commerce to allow their customers access to account information and to do things such as buying shares, issuing loans, receiving notifications, transferring money to other banks. Other bank accounts services are small statements and checking account history, checking account balance and recent transactions, PIN provisioning or change and online reminder.

Mobile Brokerage: The stock market services offered by mobile devices are also widely known as the Mobile Brokerage. It allows subscribers to respond to market development in a timely and smart way through their virtual environment.

Mobile Vouchers, Loyalty Cards and Coupons: The mobile ticket service can be used for the distribution of vouchers, coupons and loyalty cards. This is represented by a physical token sent to a mobile phone. A customer who brings a cell phone with these tokens to the market receives the same benefit as if it had a traditional logo. A Web browser on a mobile device, customers can buy online without having to own their own computer program. Some mobile marketing apps with geo-location capabilities are now providing user-specific messages to the right person at the right time.

To Do Activity
Elaborate the application of M-commerce in rural business.

3.5 Social Media for Rural Business

Rural development forms the key agenda of Government. However, the use of ICT in the rural development sector is sluggish. The main reasons for this are non availability of -ICT infrastructure in rural areas, poor ICT awareness among senior agency officials working in rural areas and problems with the home language. Agriculture is an important sector with over 70% of Indians living in rural areas and taking the lead in looking at agriculture and integrated ways of making money. The industry faces major challenges for product improvement. The growing demand for agricultural products, however, also provides opportunities for producers to grow and improve their live hoods. Information and Communication Technology (ICT) plays a vital role in addressing these challenges and extending the lives of the rural poor. ICT offers the opportunity to introduce new services, new services and services in rural areas or improve existing services.

The Indian community is a vibrant community with diverse cultures, many races and castes, many languages and differences between urban and rural people. Since the birth of independent India, there is no denying that India has grown as a country and as the economy accelerates with a huge increase from infrastructure to public health care, from the telecommunications sector to the IT sector and much more. But development is not a linear process but an integrated system with a complex concept. Even rural India shrinks by any definition of development. The Indian government has begun numerous attempts to engage the Indian mass and many UN programs have been implemented in Indian cities. Besides, many private social networks have taken over as various NGOs, news channels, various websites etc. But in contrast to the planned industrial growth in Europe, Asia and Africa still remain unaffected by the model due to the large size of many countries that have no connection. India is going through the same problem.

The Use of ICT in Rural Development

In India ICT worked in rural development, such as Warana Wired Village Project , Dristee, Sari, Sks, Chaupal, Cybermohalla, Bhoomi, Mitra, Deesha, Star, Set, Mates, Server, Lokmitra, Post, Gramdoot, Dyandoot, Tarahaat, Dhan, Akshaya, Honeybee, Praja.

- Cybermohalla
- Bohoomi
- E-Mitra
- Desktop
- Star
- Ours
- Friends
- E-Server
- Lokmitra
- Send
- Gramdoot
- Dyandoot
- The Tarahaat
- Dan
- Akshaya
- Bee
- Praja

Rural Business

Business is an economic activity that involves the general production or acquisition and distribution of goods and services for profit. Local businesses are those that are established and operate in rural areas, away from urban areas which is the tradition of many non-agricultural enterprises.

Types of Rural Business
• Agro-based business
- ✓ Farm Agricultural Farm. ...
- ✓ Prod Vermicompost Organic Fertilizer Production.
- ✓ Business Dry Flower Business. ...
- ✓ Fertilizer Delivery Business. ...
- ✓ ⬜ Organic Farm Green House. ...
- ✓ Farm Farming Chickens. ...
- ✓ Mushroom Business. ...
- ✓ Hydroponic Retail Store.

- **Forestry**
- **based business**
- **Minerals-based businesses**
- **Traditional business**
- **The dairy business**
- **Renewable energy business**

Needs of Home Projects
- Financial need
- Technical need
- Structural requirements
- Need for Management

Needs of the Rural People

- ✓ Primary health care facilities
- ✓ Education
- ✓ Proper sanitation
- ✓ Healthy food, water and housing
- ✓ Details
- ✓ Road and walking

Role of Social Media

There is an important role of social networking in e-commerce. Social media serves an important purpose of online marketing by helping companies establish strong web presence, lead productivity and increase traffic. A large percentage of advertising campaigns take place through social media websites.

Due to emergence of strong computer networking there exist an opportunity for companies to increase the popularity of their commercial sites, increase brand awareness among online customers, increase sales, facilitate oral communication and ensure public support for online customers. New technologies have also been used extensively in coordinating development. New technologies such as mobile, website and internet are interactive in nature.

Mobile Technology: This technology plays an important role in connecting people and introduction of mobile technology has the lion's share in bringing the world to a higher level of development.

Mobile Banking: Primary transactions, e.g. Banks' transactions are partially converted from paper to mobile banking or Internet banking. It also helps nature save trees. The most noticeable is that the users who use this technology center are also increasing. The user can not only view their balance, they can create their own account, apply for a loan, etc. and can do all the banking transactions with the help of mobile banking. And now there is an ATM center in the villages. Therefore, there is development in the banking sector too. Mobile Banking has two advantages over traditional banking methods. First, it is available for 24 hours a day and thus meets the needs of customers of the bank at any time. Second, it is possible wherever mobile internet is available to carry out banking transactions

Agriculture: Farmers are given proper guidance on the use of fertilizer, the amount of fertilizer to be added, soil condition, where soil yields are most beneficial. Technology has also been instrumental in raising crop yields for farmers. Developers are increasingly using new technologies (Bughin et al. 2011) to develop and deliver services such as these, to complement existing mobile technologies such as SMS and voice calls. Recent changes: Introducing the "KISAN TV" channel

Agribusiness can Benefit from Social Media: The agribusiness is uniquely ready to start taking advantage of social networking without going for huge investment Most of these methods require only a small amount of time to start with.

Here are some quick and easy ways to get started recognizing these benefits today:
- Start posting content today. It's never been easier to start your own agribusiness content channel whether you're writing for your blog or sharing a third party clip, go ahead and start sharing. If you post interesting and useful content, the farmers will find it.
- Use Facebook ads for your marketing. For less than RS.300/- a day, you can start using Facebook ads to reach your target audience. Use Face book's guidance, to build an audience based on aggregate (farming, agriculture, etc.) or direct (irrigation, maize / soybeans, etc.) -

or upload a list of data supported by Farm Market is to find the best ID game.
- Invest in video ads and video content on platforms such as YouTube. Instead of old-school TV ads, invest in YouTube video content. Not only farmers there, but you can get higher click rates and direct communication with mobile devices.

Social Media Key: Farmers use social media in their daily lives, and you don't want to miss the opportunity to interact with them. Make sure that takes that into consideration in your agricultural business plan.

A social website is a new world of free media created by individuals or businesses on the web and includes:

Social Networking Sites (SNS): Web sites where people can create their own profiles to connect and share information with their friends (Mayfield, 2008). The most popular communication websites are Facebook, LinkedIn and MySpace.

Wikis: Wikis allows people to add and edit information and create an online database (Mayfield, 2008). Similar to Wikipedia.

Podcasts: Websites, which provide audio and video subscription services to users (Mayfield, 2008). ITunes is a very popular platform.

Forums: Forums are online discussion forums where users create and discuss specific topics (Mayfield, 2008). 10

Position Included: Search engines such as Google, Yahoo! Ask again live. An interactive environment that has an excellent product or service to offer and often puts things in order of reputation (Webber, 2009).

Blogs: Internet magazines where people can post ideas, photos and links to other web pages or sites. Some come from individual or corporate sites, while others are hosted on Blogger, BlogHer (for women), Weblog, Tumblr, and other blogging sites (Webber, 2009).

The e-communities around targeted topics are generally supported for general use although some are free. For example, Hewlett Packard has communities on its website, and there are communities that include games like kayak Mind for people enjoying kayaking. Communities protected by password protected quickly (Webber, 2009).

E-commerce that will directly contribute to the growing e-commerce industry in India:

1. Internet marketers will have to make full use of the technology, and by innovating using analytics generated using big data will help make customers feel special and increase brand loyalty.
2. Cash on Delivery (CoD) accounts for 60 percent of transactions, according to the Internet and Mobile Association of India.
3. The increasing adoption and use of Smartphone businesses enables big data for consumers to use to perform marketing-based marketing and marketing.
4. Product feedback and service through social media channels has a positive impact on the minds of a large customer base.
5. It is necessary to build a high quality site and SEO-friendly ecommerce to build long-term relationships with customers with specialized content which helps to maximize profit margin.
6. A 24-hour consulting service to provide exemplary accountability and customer guidance has raised the quality of online shopping.
7. Mobile marketing has the potential to boost online consumers because they are more comfortable using mobile browsing and shopping devices, and they are now more open to receiving messages from merchants on their cell phones.

Local Opportunities for Industrial Development through E-commerce:
- Create a supportive environment for the development of the home industry.
- An inclusive environment where support services and support industries grow together as e-

commerce grows i.e. Logistics, manufacturing, processing and packaging industries.

- Contributing to building and improving roads, infrastructure, Broadband infrastructure and product certification processes.
- Global practice. Make possible entry of small town and small producers into global supply chains.
- Construction of large numbers of household chores. The weight of the economy in rural towns.

Figure 3.10 Key Intervention areas for fostering e-commerce growth

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To Do Activity

- Find ways to raise awareness and use social media tools for users.
- To find out if social media has reduced operating costs for companies.
- Analyze the impact of social media on customer relationships

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Social networking sites have undoubtedly changed the lives of rural people. According to the agribusiness methodology, these have provided farmers with many opportunities and made the process of selling the crop easier with online programs that have led to mental retardation. There are many success stories in the health care field. Domestic politics is a place where social networks do not meet the requirements. But there is still plenty of room for improvement in social media services as with better technology, these networks should improve and provide economic opportunity to take advantage of the system. Social Media can help provide that, a media that cares about a well-integrated and believed community of responsibility. Services like Facebook, twitter provide great access, but the number of people who do not have the technology necessary to install the app but which can help connect a large number of people.

The social media network has undoubtedly changed the lives of rural people. According to the agribusiness approach, this has provided farmers with many opportunities and has simplified the harvesting process through online programs that have led to the removal of ancestors. The

introduction of information and communication technologies has emerged as a major source of development in India. In order to accelerate the growth of homes, it is important that we learn new ways to integrate social and human capital development into information and communication infrastructure. The impact can be seen in many examples and these examples are not just for social media such as Facebook but the use of an NGO such as Gram- Vaani has improved, explaining social media with a new perspective on development and social work.

The Government of India has made a significant contribution to the development of web portals at national, state and district level. There are more portals for citizen centralization and therefore a facility to respond to the data and information needs of citizens and people living in rural and e-transactional services.

In India, information technology services and rural communication centers have been established. More than one lakh telecoms are currently active. The recommendations listed below are for developing countries like India:

1. To institutionalize the first culture of ICT in villages.
2. Telecentrins make the most of the remote villages in the city.
3. Since the inception of telecenters, the people and the government have to be alone.
4. The government needs to devise a strategy for telecenters.
5. Invite farmers to invest in telecenters in any way. Telecenters need to be self-sufficient.
6. Development of e-business prevents absorption and migration in young people.
7. Villagers get economic development from virtual work.
8. Villagers need to learn information technology.
9. The economic impact of ITC in villages should be studied annually.
10. Get villagers to do security product sales.
11. Agricultural insurance is provided by ITC in villages.
12. ITC provides health insurance in villages.
13. Governments should provide ITC facilities to encourage villagers.

Chapter Summary

There is wide scope for applying e-agriculture concept in developing countries through agriculture as farming and e-commerce agriculture can only work in an environment where there is good ICT Infrastructure. Virtual agriculture requires the development of effective agricultural technology Programs. Participating in e-commerce activities requires consumers and sellers to have access to the Internet, and to themselves are able to use the necessary hardware and software effectively. Unfortunately, in many developing countries, there are many issues that hinder e-agricultural development. This includes the lack of ongoing ICT infrastructure, the lack of it relevant skills among potential users of ICTs (farmers, rural communities, extension workers and researchers etc.), lack poor content, and lack of access to ICT facilities. For agriculture to benefit rural communities in development countries, the digital divide should be billed. Content in an appropriate digital environment should be improved or changed; and access ICTs should be made affordable in rural communities.

For e-government projects defined many projects are adequately designed until the final (customization) phase of formation, while only a few reached the final stage of operation (e.g. the contract phase). This suggests that future projects it should be designed and used in a holistic way to achieve maximum benefits. Plus, there is less evidence of citizen involvement in government decision-making (Mashiionini et al., 2003). Future dominance apps can think about e-vote and email campaigns, so that citizens can express ideas about community food policies, transportation and nature. The recruitment of new technologies will enable governments to provide the above services by definition. However, governments must use their regulatory processes carefully so that

competition can be motivation and innovation is enhanced (Choudrie and Papazafeiropoulou, 2006).

E-commerce allows consumers to overcome geographical barriers and allows them to buy products at any time and from anywhere. Online and traditional markets have different strategies for doing business. Traditional retailers offer fewer assortments of products due to the space on the shelf where, online retailers often have no listings but send customer orders directly to the manufacturer. Pricing strategies are also different for traditional retailers and online retailers. Traditional retailers base their prices on the retail market and the cost of maintaining the collection. Online retailers support prices at delivery speed.

There are two ways for marketers to run a business through e-commerce: online fully or online and brick and mortar is made of mud. Online advertisers can offer lower prices, greater product choices, and higher levels of efficiency. Many customers prefer online markets when products can be delivered faster at a lower price. However, online retailers cannot provide the physical experience that traditional retailers can offer. It can be difficult to judge the quality of a product without physical experience, which can cause customers to find a product or vendor uncertain. Another issue related to the online market is concern about the security of online transactions. Many customers remain loyal to reputable sellers because of this problem.

Model Questions
- What does social commerce mean?
- How social media can increase online sales?
- What is social media ? Explain and give examples?
- How can e-commerce strategies build a better customer relationship?
- What is e-commerce? What are its applications?
- What is the application of e-commerce on various sectors?
- What is e-commerce? What are its uses?
- What are the major benefits of e-commerce? What are the various applications of e-commerce?
- What is E-commerce in the hospitality industry?
- What is online travel services such a popular internet application?
- What is hospitality innovation?
- What is mobile commerce in e-commerce?
- Why is M-commerce important?
- Explain the various e-commerce applications in Agriculture business?

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Chapter 4 E-commerce in Rural Areas

Introduction

India is a large country with large domestic and multinational market spread in Urban and semi urban area. The rural part of India lacks appropriate infrastructure and therefore rely heavily on agriculture and other labor-intensive activities. However, in recent times India is witnessing winds of change to sweep across rural areas with technological advances. The rapid economic growth in rural areas and modern commercialization are making its presence felt in rural India over the last few years. Service development in rural ICT offices is a collaborative process whereby various organizations work through a unique process of service delivery in rural areas. The civil society and service providers are meeting this process to offer their services through their offices, and the ICT Committee, on the other hand, is made up of the National Information Centre (NIC), related banks and post offices.

The management and coordination of the service delivery process were undertaken by the rural ICT Committee. The office staff, the use, and management of the necessary office personnel provide services to citizens. The production of utilities and the provision of electrical services in offices may operate from the private sector, but with the provision of the Portfolio Committee. The relationship between the empowerment of service delivery services in rural district offices, from specific levels to the level of service delivery.

In the new operating structure, the transfer of joint ownership of office staff by following government policy was made by the ICT committee. The Committee scrutinizes the parameters and implements criteria, determines the proposed services and determines which services can be provided by the offices. However, all e-service activities are described in the form of an agreement between the service provider and the ICT Committee. After the description and measurement of the software, a service may be provided and each delegate is responsible for the service. The e-service contacts are responsible for updating the software used to provide the services and they play the role between the author of the offices and the community and the vendors themselves which provided the services

Objectives

- To describe the concept and importance of e-commerce in Rural Areas.
- To describe online rural shopping.
- To study the Role of E-commerce in a rural area
- To explain e-commerce contribution in non-farm sector
- To familiarize key trends of e-commerce in public sector

Chapter Structure

4.1 Rural E-Business

4.2 Online Rural Shopping

4.3 Role of Rural Business

4.4 E-Commerce contribution in Non-Farm Sector

4.5 Key trends of E-Commerce in Public Sector
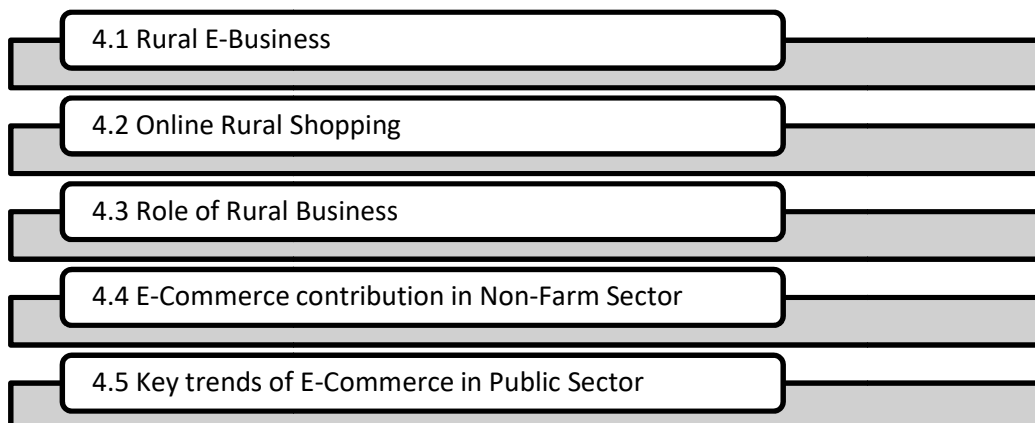
4.1 Rural E-Business

The defined process is a new manifestation in the e-business space. Each power can have its basis in developing service delivery offices. This results in the alignment of blocks and offices often increasing the revenue available but the purpose of the committee are often the development of offices and making this component an exciting component that will eventually lead to increased revenue in this area. The community organizations can view offices as an appropriate organization to increase service delivery to rural residents that will help reduce the migration of people from cities and villages. However, development in this area requires a synergy between the public sector and the humanities and to achieve this, beneficiaries must have a lot of cooperation and praise.

E-commerce in Rural Areas

E-commerce as a business development strategy, an effective learning tool can be an experience for some business owners. A study of entrepreneurial entrepreneurs who have used e-commerce strategies can provide insight into the opportunities, challenges and potential impacts of the e-commerce business. Also besides, as many business owners seek help from service providers offering counseling and classes, these case studies can be used by such mediators to help illustrate the promise and facts of an e-commerce strategy.

Local businesses have grown in sales, revenue, and/or employment, as well as those that have developed markets and customer relationships through e-commerce. Local businesses owned by locals as opposed to branch plants or franchises. Selected entities include local firms of different sizes and at different stages of business development; brick-and-mortar stores and real businesses; firms focused on e-commerce activities in business and those focused on consumers; and companies from various types of rural communities.

The business opportunities that pay for the existence of e-commerce ultimately depend on the factors viz. demographic characteristics, e-commerce experience, information technology and information for e-commerce opportunities and limitations. The results allow for the provision of opportunities associated with various business profiles to gain a willingness to pay for e-commerce to be present

The Indian economy is dominated by rural people because most of the people live in rural areas. While the digital installation process has been implemented, the next set of Internet users, including several rural and small towns, have come online using accessible smart devices. The challenges facing E-Commerce in rural India, including language, trust, transport infrastructure, product portfolio, logistics, and distribution are slowly disappearing. The decline in the cost of mobile phones, increasing speed of the Internet and the advancement of digital literacy have been made magically, with which the E-Commerce industry will be launching more of its reach in rural areas.

Cash On Delivery - Trust Generator the initial fear of making online payments remains a common barrier for urban and E-commerce customers in the area. Despite the huge increase in payments made online over the past few years, home buyers are very skeptical of the effort. Therefore, to capture this exclusion of rural and Indian mainstream media, E-Commerce platforms have come up with something that produces trust, cash on delivery. The youngsters from rural areas, who do not have a bank account in a small-town, can buy goods in one click.

The emergence of Artificial Intelligence has also made an impact on Rural Areas; after realizing the huge potential and increasing demand for E-Commerce platforms, it has begun to create competitive advantage through technologies such as Artificial Intelligence (AI). By using customer information, which is provided by the consumer, such as his family structure, income, interests, etc. Artificial Intelligence recommends appropriate products and also helps home customers with

purchase recommendations based on the search history and consumer experience and preferences.

M-Commerce - Home residents use mobile phones to access the Internet. Areas with low internet speed can be hosted using mobile apps because accessing websites seem to be   a difficult journey for the rural people. As rural India is not used to computers and laptops, M-Commerce serves as the main focus of E-Commerce companies, aiming to conquer the domestic market. By using E-Commerce programs people in the community can find products at an unprecedented cost and are encouraged to find products that were not available in their market before.

Communication Intelligence to Facilitate Interaction -The most important factor for increasing Internet adoption in rural India is the availability of indigenous language content, since the majority of rural Indians, speaks English. To build trust and promote online transactions e-commerce companies focus on customizing applications to communicate with local customers in their regional language at various customer touch points such as mobile applications and service centers. Incorporating artificial intelligence platforms for rural customers, voice recognition in the acquisition of documents will be helpful.

New strategies in the distribution of E-Commerce giants are making numerous efforts to introduce themselves as an easily accessible destination for online consumers in rural India. To solve the local problem and become more accessible, E-Commerce platforms have begun to introduce smaller stores to act as endpoints, which will gradually eliminate the fear of online shopping. Another noteworthy new thing about distribution is the effort to get India's posts to be exported and distributed. Currently, about 90% of offices are located in rural India, which are reliable, affordable and have a broad network. Using these benefits E-Commerce platforms have plans to partner with India Post to ship products to different locations.

Digital Literacy entry into rural parts of India happens in multiple ways. E-Commerce companies are intended to focus on two things namely, providing information on online shopping and providing access to online platforms. Some people from rural India are educated and aware of these online purchases but do not have access to E-Commerce platforms. Rural areas such as the Commons Service Center (CSC), auto shops, and Gram banks that attract large numbers of people can often be used as centers for digital platforms. Not only this, people who are proficient in using the internet will include shopping online, but they will teach other people or people from smaller cities and promote shopping online, thus making them more profitable for digital learning. Also, a person who can read digitally in different regions can be hired by E-commerce companies through an incentive or commission to help their community by helping them with online shopping or ordering on their behalf.

The Role of E-Agriculture
1. Guarantee composed data scattering utilizing ICTs in horticulture, agribusiness, fisheries, ranger service, and nourishment, to give full access to far reaching and point by point data and data, particularly in provincial regions.
2. Public-private partnerships should seek to maximize the use of ICTs as a tool for improving productivity (quantity and quality).
3. Global Positioning Systems (GPS) to identify and describe features of sites or activities that provide quality performance to the sites;
4. Variable Rate Technology (VRT) that allows precise, specific installation applications.
5. Yield surveillance of recording crop production as historic sites for crop management
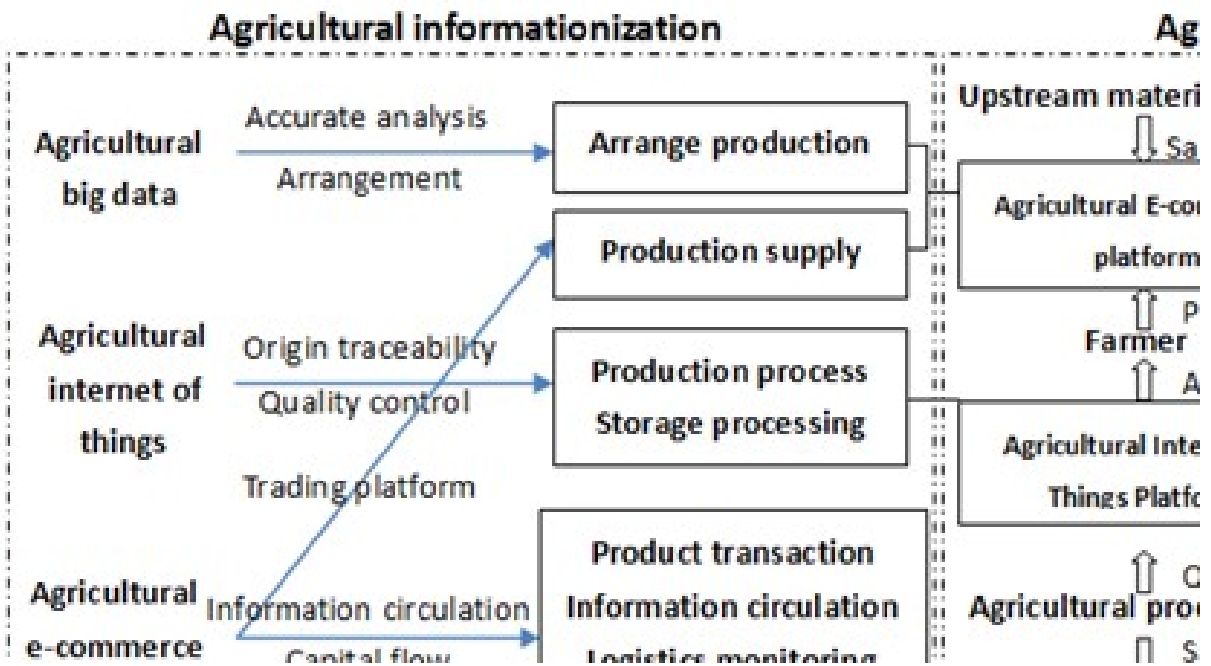
Figure 4.1: Domestic e-commerce restructuring of agricultural production chain based on information technology (graphic design)

Use of the Internet in Regional language

Hindi being the most widely used Internet language in India, while Marathi, Bengali, and Tamil-speaking and Internet-speaking Telugu make up 30% of Indian language Internet services. In the forty years since its inception, the Internet has undergone a major transformation. Enable data flow, including entertainment, news, financial resources, and courses. It has brought people together by enabling a variety of ways to communicate between people, especially email, instant messaging, video conferencing and social media forums. It also allows consumers to buy anything at any time while giving manufacturers greater access to more markets. Besides, the Internet is a very cost-effective, industry, promoted by businesses and supported by various industries and large enterprises.

The tools for online production and communications development provide benefits for almost every business and government. The Internet has helped governments to extend their services to citizens and improve their delivery. In the short, it has been difficult for many of us to think about the world without having immediate access to the internet. The global economy is changing from the English-speaking world and the use of many different languages on the Internet has changed over the last few years for global communication and trading purposes. Mass media platforms such as Face book, Twitter, and Google allow users to write in local languages.

English continues to be the fastest-growing language of India, with a great need for regional languages. This provides a tremendous opportunity for startups to create and distribute content to build high-performance platforms. Netflix has seized the opportunity in India, considering the huge amount of regional content available on its platform. Moreover, initial content investing is slowing down, as venture capital (VC) is betting that traditional content will attract Internet users without worrying about the ability of these companies to generate advertising revenue for Google-controlled businesses and Face book Inc.

Chat applications Chat requests take care of India's 170 million internet users. This is expected to grow to 400 million by 2021 at a CAGR of 19%. The current market is dominated by Hindi internet

users, accounting for 50% of Indian language users. Kannada is expected to be the largest user base growing at a CAGR of 20% over the next five years. In all 45% of Indian language users face the challenge of text entry to chat applications. Adoption of input methods such as voice to support text, local language keyboards and translation is expected to improve the user experience.

The social media platform has 115 million internet users and is expected to increase to 300 million by 2021. Hindi users make up 44% of Indian Internet users in this category. Bengali, Telugu, and Tamil respectively account for 30% of Indian language Internet users on social media platforms.

58% of Internet users who do not have access to the basics of communication are likely to take advantage of the local languages. Tamil, Telugu, and Kannada have the highest intensity of using this category in the next five years.
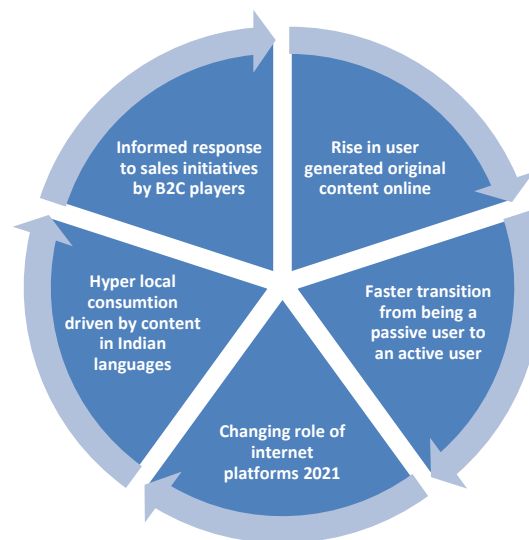

Figure 4.2: Indian language internet-The road ahead
(Source: https://www.slideshare.net/TheHWD/indian-languages-defining-indias-internet-2017)

Financial Enablement for Rural Customers
 Financial inclusion is an important factor in reducing poverty and increasing prosperity. Access to basic financial services makes those who are more fortunate and more vulnerable to society to get out of the vicious cycle of poverty and equip themselves and their families. The drive for inclusive capitalism helps unite all communities and achieve inclusive economic growth. Financial inclusion means that individuals and businesses receive inexpensive financial products and services such as transactions, payments, savings, credit, and insurance that meet their needs and are delivered efficiently and effectively. Access to a purchase account is the first step in several financial transactions because a purchase account allows people to save and send money and receive payments.

The Investment Contributes to the Development results in for-
- Reduce social inequalities
- To drive economic growth
- Empower people
- Manage financial risks
- Invest in health care and education
- To drive economic growth
- Manage financial risks
- Set long-term goals

Access to Financial Services is facilitated by-

- Scheduled commercial banks
- Regional rural banks
- Payment banks
- Micro-finance institutions
- Business correspondents (Bank Mitra)
- Small finance banks

The Indian government and financial institutions have developed the following digital infrastructure:

- Unified Payment Interface (UPI)
- Unstructured Supplementary Service Data (USSD)
- Immediate Payment Service (IMPS)
- National Electronic Funds Transfer (NEFT)
- Aadhaar Pay and BHIM
- Debit cards and credit cards

Banking Cards
Banking cards offer consumers security, convenience, and control. These cards provide two-factor authentication such as a PIN and OTP for secure payments. **The** Payment cards empower people to purchase items from stores, on the internet, through mail-order catalog, and over the telephone

AePS (Aadhaar Enabled Payment System): AePS is a bank-led model which empowers a bank customer to use the Aadhaar number to access the bank account and perform basic banking transactions like cash deposit, cash withdrawal, intra bank or interbank fund transfer, balance inquiry and obtain a mini statement

UPI (Unified Payment Interface): It brings multiple bank accounts onto a single mobile application

Mobile Wallets: A mobile wallet is an easy alternative to carry cash in digital format. Mobile wallets allow users to pay with their smart phones, tablet or smart watch.

Mobile Banking: Mobile banking is an assistance given by a bank or some other money related establishment to permit its clients to lead various sorts of monetary exchanges remotely utilizing a cell phone.

Micro ATMs: Micro ATMs are devices that are used by a large number of BCs to deliver basic banking services. They enable consumers to instantly deposit or withdraw funds regardless of the bank associated with a particular BC.

To Do Activity
• Illustrate the financial enablement for rural customers.

4.2 Online Rural Shopping

The advent of the Internet, combined with the proliferation of revolutionary technologies, has had a profound impact on the lives of people everywhere in the world. There has been a tremendous amount of change in the practices of traditional businesses. Now businesses are coming online to carry out or sell their products for retailers, one of the main impacts has been the phenomenon of virtual stores selling products and services online. Consumers can currently purchase goods and services in almost every location, 24 hours a day and 7 days a week, except for chronological and geographical weddings. Citing data on Google Trends, a report compiled by Google India highlights the growing popularity of concerns among Indians about online shopping.

From research, it is clear that the low price offered by online companies plays a very positive factor compared to other retail prices that encourage home buyers to buy online. Shopping saves time online and more savings due to the availability of 24 * 7 and a large number of products with their pictures on the packaging helps consumers know about their products what they look like. As an alternative, online shopping also has some discouraging features because home buyers choose to test products physically before placing orders. The information provided at the mall is also not enough for them to buy online. Also, all marketing activities are coordinated by companies based on consumer behavior. What they think, and what they do with different marketing strategies has nothing to do with the performance and success of companies. Often home buyers don't care about buying decisions. In carrying out a thorough study and analysis, marketers can use the right marketing strategies to attract new buyers and retain existing buyers. Consumer tastes and behavior are changing at any given moment, so learning further about consumer behavior is very important and helping companies to use the right marketing strategies to attract business is not what consumers expect.

Internet Shopping - **a Strategy Need for Rural Customer**

The administration ought to create framework offices, for example, streets, railroads, etc., in provincial territories to arrive at the enormous country Indian market.

Rural networks such as telecommunications systems, internet centers, broadcasting programs, etc., should be improved so that there are no communication gaps between players in the domestic market segment.

- Effective Supply Chain Management Methods can deliver various costs associated with domestic markets such as distribution costs, communication costs, customer costs, sales costs.
- Educating home buyers is the key to successful home marketing. Homebuyers need to be educated on all aspects such as product use, collecting product information, consumer rights, rules, and regulations, finding the right product at the right place at the right time.
- Active marketing is heavily influenced by an effective distribution system which means that such products are a major consumer at a faster time at a lower cost.
- A state or federal advertising board or market committees also producers, retailers, and retailers has to be consulted because they have a desire to make use of it.

The companies need to promise in a language that is understandable to home buyers and it is necessary to speed up delivery services in remote areas of cities or towns. Companies need to consider and compete for locally made labeled products and enhance their interest in domestic consumers by highlighting their production date and expiry date. Corporate guidance is in high demand wherever the products are sold Also, companies need to increase brand loyalty to domestic consumers' by way of contacting homebuyers in any way to promote their beauty to home buyers. Emphasizing the potential for the continued growth of online shopping, most online retailers limit their distribution to a specific city, but the jobs can increase as soon as other business models are

successful. Consumers recognize that online retailer offers some benefits of going to *kirana* stores (small independent retailers) or retail outlets. The availability of multiple payment methods such as internet banking, cash transfers, credit cards, and debit cards means it is ideal for urban consumers to shop online while saving time and money.

Home products dominate the categories of products, but many online retailers carry other imported food items. Given the difficulty of importing food products into India, online retailers currently rely on local distributors.

Steps to Start a Grocery Store
Organize your Business
The program is essential for success as an entrepreneur. It will help you unpack your business information and discover unknown things. The important considerations are:
- Costs of starting and continuing grocery store business
- Target Market
- Long will it take to break?
- Operated business

Starting and Continuing Grocery Store Business
At first glance, grocery store owners can expect to spend between on equipment. A good plan for the sale will cost an additional. The initial projection would be a great investment, lasting around. Pre-opening costs, including rent and insurance, can add another. These costs, when combined with good opening advertising, security deposit, and operational fees, can easily exceed

Costs of Grocery Stores
The cost of grocery varies from country to country and even within country from state to state. This is primarily due to various factors and one of the important factor is wages for labours associated in various activities. The other contributing costs includes recurring charges on rent, power consumption, insurance and pilferages of grocery items and risk of perishable items.

Target Market
Preferred customers are local people. Because the retail business is so competitive, small retailers thrive in local communities. Many consumers prefer to go to big box stores like Wal-Mart, Costco, Kroger, or Target for their groceries. Because of this, the new grocer will need to prioritize smaller communities, individual homes, and college forums by providing affordable food.

Grocery Store Makes Money
Grocery stores produce most of their processed foods, but they also make money by supplying fresh meat and producing, cleaning and alcoholic products.

How much will you charge customers?
Grocery prices vary widely, as they offer a large selection of products. Grocery items can cost as little as while packaged meat can cost. As a rule of thumb: offer lower prices for more purchases. Also, low price offers will earn your place in the local market.

Does your business more profitable?
The easiest way to increase the profitability of your store is to include a storefront with an unpleasant purchase. Items such as magazines and batteries can have a market capitalization of up to 70%, which means that selling just a few of these items can yield the same profit as the whole retailer's cart. Also, diversifying your store by adding services such as a coffee shop can significantly increase your profit potential.

Service Delivery Startup Business
- **Payment Methods:** Provide various payment options to customers on website as all customers can access the payment method online or vice versa.

- **Friendly Introduction:** The audience will access your website and this will improve your

reach.

- **Customization:** Doing research and learning about food preferences will increase business opportunities what works in one city may not work in another city so take care of local cuisine tastes and customize menu to have something for everyone. One should know when they are going to order their food, the types of food one would like to order.

- **Product:** No matter how good food quality is, it doesn't work if people don't know it. The internet means via email and websites to try and make people more aware food delivery service.

- **Identify Target Area:** One should always start own business by focusing on a restricted area. This will help to focus on one thing and make brand name more powerful.

- **Active Workers:** Get on board good staff to make sure customers get what they have ordered and how they want to hear it.

Rural Business Ideas
- Agar Battis or incense sticks
- Paper cups

• **"The travel industry in the town:** There, the occupants activate their town and show others about the existence and living there. They include guests in their day by day lives - and get them to see the paid lifestyle in the town.

• **School for Preparing Entry-Level Exams**: Most young people in villages often go to higher education in cities, and therefore have to write entrance examinations. A school that focuses on preparing **young aspiring** students for the same can benefit. Such schools may be opened in other fields and - for example, be taught English which is the weak link for young aspiring communities from rural area.

• **Insurance Broker:** Protecting crops, and other agricultural outages, facing the risk of weather dependence, rainfall and other natural disasters such as a fire is all time concern. To a certain extent, if insurance is provided to farmers, it can be of a great help in the event of a natural disaster. Women can start their rural advertising agency. Many commercial organizations are very active in reaching people in big cities, online, or through places like TV or billboards. But not many people focus on directing rural communities. This is where women can come in and start a separate business that specializes in selling to rural people.

Local homemade ice cream, cakes or other sweets - one can easily start a baking business. Similarly, one can create new items from discarded items. You can just collect items that people throw away and convert them into attractive products. This not only makes this less expensive cooking material, but it also takes care of waste management in the area.

Eco-Friendly Beauty Businesses "Rural women may want to consider setting up business-friendly and adventurous businesses. They can think of making eco-friendly soaps, made up from natural ingredients. They may also consider developing other beauty products or household products made locally. Home-made food, clothing, and jewelry are some of the areas for starting businesses in rural areas. For example Samosa, Kachori, Vada Pav, Panipuri, and Bhaji.

Embroidery, Crochet, and Food- Many small business ideas for rural India do not require big capital requirement. Entrepreneurs can look at how to use the resources available to make the products they need. Remember, the demand for these products is not just in the villages - but everywhere. Therefore, one has to think carefully about what one can do, and what you need - and set vision
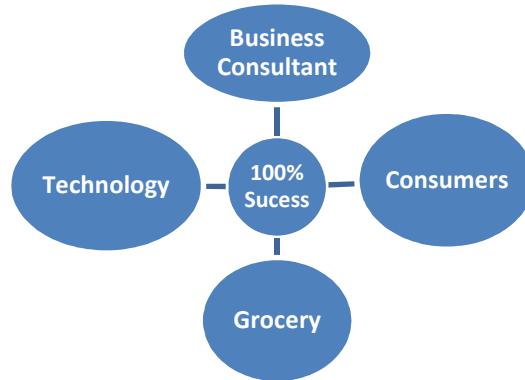
accordingly.

Figure 4.3: Rural business

With technology that reaches every corner of our lives, local entrepreneurs can access the world. All you need is a good website and an online store.

Figure 4.4: Model of E-Grocer

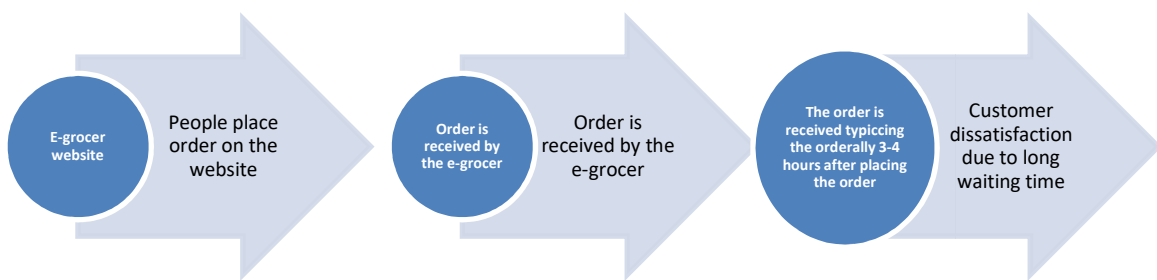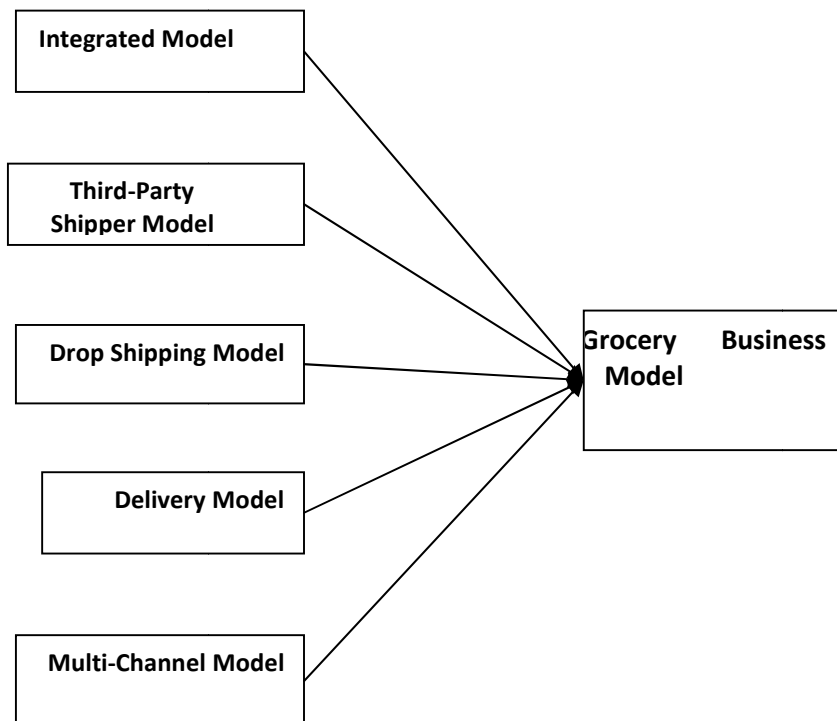**E-Grocery Business Model**

Figure 4.5: E-grocery Business Model
(Source: http://article.sapub.org/10.5923.j.ijnc.20170702.01.html#Sec5)

These five broad types of business apply to e-grocery and e-tailing. These types of businesses are not

selected from each other and may operate jointly or periodically. The success or failure of each company will depend on the details of how to use each model. The online shopping industry is one of the fastest-growing industries in India. This business model is most popular among people in the service industry followed by the business category and retired people. E-grocery business model has analyzed the strategies of what is known as the Indian online grocery Industry. The model shows that a major reason for online grocery shopping is saving time and effort, for the average customer of this model who is satisfied with the quality of the products received by them, and retailers providing customers with the option of substituting. This model result shows that customer expectations while shopping online and in the natural market are completely different. The problem lies in this model is the delay in the scheduled delivery, the unavailability of products due to some unavoidable circumstances.

Developing E-commerce Services

Consumer Information
Most of the people aim to do online transactions, but they avoid doing so for fear of financial insecurity. They are made aware of the security measures taken by various trading websites rather than feel secure about their money and need to be motivated to do so online.
Pricing Policy Specifications: When companies offer discounts on products, they must specify their position in small amounts concerning the price of the competitor. This will build interest in the minds of consumers.
Expand Size and Location: Various websites on E-commerce do not offer the option of specific locations in their drop-down menu, due to which the person wishing to buy the product is denied an opportunity and loose potential buyer.
Different Payment Methods: Most consumers in the domestic sector have the misconception that they can buy a product online as long as they have a credit card. E-Trade websites need to educate prospective buyers about various options such as cash on delivery, bank account, etc.

To Do Activity
- Has the big basket changed the online food market?

4.3 Role of Rural Business
The Non-Farmer Sector (RNFS) covers all non-agricultural activities: Mining and logistics, housekeeping and non-domestic manufacturing, and processing. Local entrepreneurs play an important role in the economic development of the country. The growth and development of the domestic industry facilitate**s** self-employment, leads to a wider distribution of economic and industrial activity and contribute to the high utilization of available non-commercial goods.

Rural, Non-farm Sector
Small Scale businesses offer many benefits in rural areas. The role of small businesses in rural India can be seen from following examples.
   i.   For non-farm employment traditionally, rural households in India were engaged in agriculture only. But now rural households have a variety of sources of income and participate in many non-agricultural activities such as wage employment and commercialization, manufacturing and services, as well as traditional domestic agricultural and agricultural labor. This could be largely due to the establishment of small-scale rural industries of agriculture.
   ii. The hiring of artists: The home industries play a major role in providing employment

opportunities in rural areas, especially for indigenous artisans and weaker sections of the society.

iii. Preventing Migration and Urban Development, Improvement is an issue for rural-urban migration in search of work.

iv. Poverty alleviation and small-scale industries are important as producers of consumer goods and consumers of capital, thereby addressing the problems of poverty and unemployment. The promotion of small and medium enterprises has been considered by the Government of India as a powerful tool for achieving twin purposes; the rapid growth of industries and the creation of productive employment in rural and backward areas. '

v. These industries contribute significantly to other socio-economic factors, such as the reduction of inequality, the distribution of development to other economic sectors.

Rural areas are geographically isolated from the influence of big cities and towns. Areas such as these are different from urban areas with densely populated and suburban populations, and also in coastal or wilderness countries, such as forests. Rural areas may have an agricultural character, although many rural areas are exposed to economies based on the industries of curtains, mining, oil, and gas, or tourism. Government services such as law enforcement, schools, fire departments, and libraries may be far away from the center, or unavailable. The Resources such as water, sanitation, traffic lights and refuse collection may not be available. Public transport is sometimes absent or very limited, people use their cars, walk or ride an animal.

Rural development is a plan designed to improve the economic and social life of the rural poor. It is a process, which aims to improve the health and self-perception of people living outside of urban areas through a collective process. Rural development is about bringing opportunity among rural people from the traditional way of living and developing. It is also presented as a progressive organization.

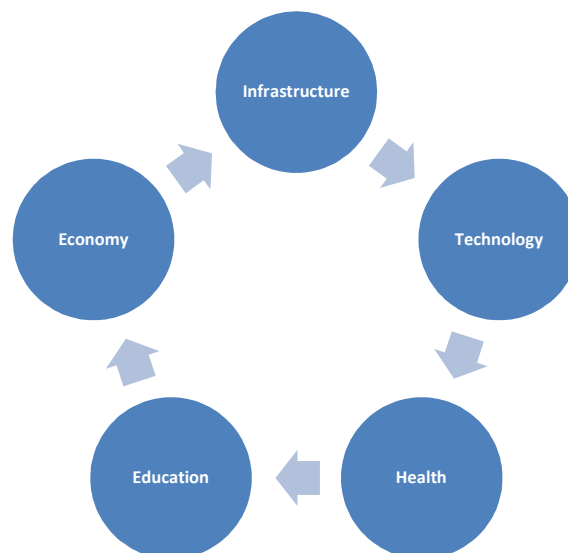**Figure 4.6: Rural nonfarm sectors**

Importance of Rural Non-Farm Sector

The non-farm sector, especially in rural areas has received widespread attention in recent years for the following reasons:

- Growth in the farm sector was not in line with overall job growth.
- The proposed non-farm rural development strategy may prevent many rural people from moving to the industrial and commercial areas.

- When the economic base of the rural economy extends beyond agriculture, the rural and urban economic spaces will undoubtedly be reduced along with the results of many other factors that are relevant to the health and aspirations of the people.
- Domestic industries tend to be more profitable and less labor-intensive.
- Local industries have an important place to develop in agriculture.
- Rural income distribution is more unequal in areas where there is a broad network of non-farm systems; the lower boundaries of rural communities play a greater role in non-farm activities, but their participation is much lower than in the upper mountain.

Need for Rural, Non-Farm Sector
- Over the years, the contribution of the agricultural economy to India's GDP has declined sharply.
- With a advent of agriculture, the average size of agricultural
- This means an increase in jobs in the non-farm sector. It is estimated that 64% of rural employment are in the agricultural sector, while the agricultural share in rural output is 39 percent.
- Reducing the dependency of rural communities on agriculture as a source of income will help improve the overall income of the rural population.

The non-rural sector (RNFS) has been named in another area of development in India. This has been a major source of non-agricultural goods and services for rural households.
- Multiple small scale industries expanded in rural areas. However, with the liberalization of trade, investment in the smallholder industry was replaced by the Micro, Small and Medium Enterprise (MSME) Act. It is an incentive for MSME businesses, but has reportedly been in urban cases.
- In India with low labor turnover and complex agricultural laws, small holder and backward farmers dominate the domestic economy. The income from agriculture (agriculture and livestock) is not enough for their livelihood.

Handicraft Industry
The handicraft industry plays a vital role in the Indian economy. This sector contributes to the creation of more employment opportunities, especially for workers. It helps in securing a large amount of foreign exchange in the country, thus strengthening the country's economy. The handloom industry has improved significantly over the long term. It is spread throughout the country. Most handloom units are operated as sole suppliers or otherwise operate under master weavers (Bansal, Gaur, 2008). Concerning the state of Kerala in particular, the male industry plays a vital role in the state's economy and job creation. The greatest number of looms is found even in rural areas of the state. The handloom rhythm can be heard concerning almost every village in Kerala. Some men and women are knitting. In the early days, the majority of weavers followed the line of possession. The key networks associated with the movie, it was Salinas and Devan gas. In this context-

1. Improved technology must be obtained by handloom miles to recover those energy levels. Employees should be trained in the use of modern technology.
2. 2.In addition to focusing on advanced technology, priority is needed for cost-effectiveness in the implementation of ICT, effective use of public facilities (e.g. Lambs, warehouses, services provided by government-owned enterprises, etc.).
3. Today's management strategies should be well received to better promote products like market segmentation, direction, and positioning, etc.
4. Special focus on product quality, especially in the export segment. Competition for cost and quality is essential to maintain and improve exports

5. Politics should be discouraged or prevented as much as possible because it promotes inefficiency, discrimination, deception, etc. Membership in the community is only offered to real and regular employees (weavers) and not to outside clients or temporary employees.
6. Effective measures to collect backlogs in the Government should be established by cooperative communities as soon as possible. This is essential for their survival and growth.
7. Over-reliance on Hantex (the apex collaboration, community) should be avoided. Instead, the stand-alone approach to production and distribution should be adopted as much as possible. This, in turn, removes problems from major and overlapping problems.
8. Efforts should be made to gain the power of the arts and tourism industry (e.g. Eco tourism, Ayurveda tourism, etc.), herbal fabrics (e.g. Tulsa cloth, sandals, etc.) to increase revenue.

4.4 E-commerce Contribution in Non-Farm sector
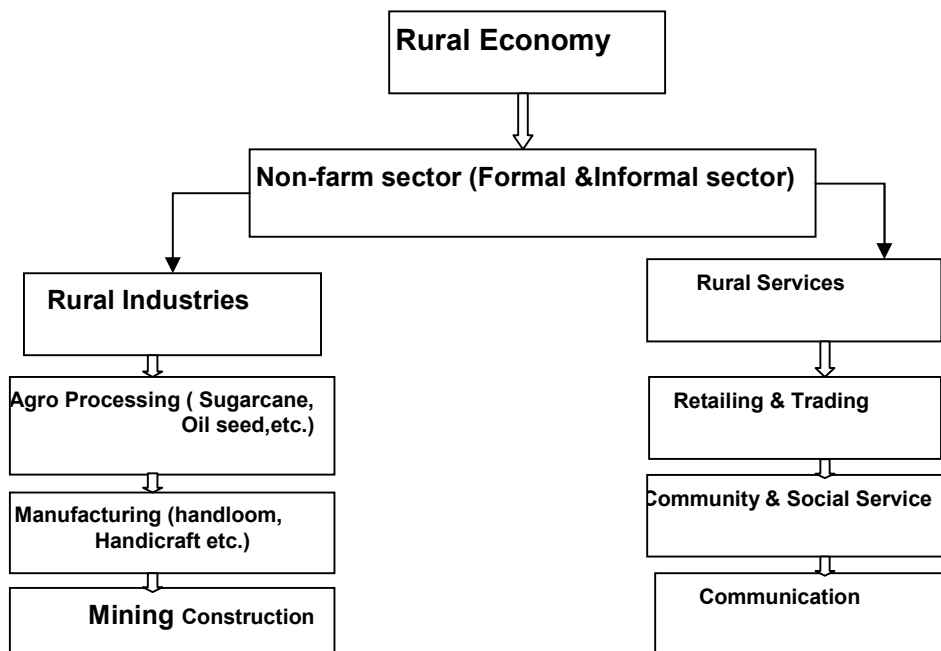
Figure 4.7: Rural Economy

Non-agricultural activities are non-agricultural activities or agricultural activities. Farming is defined as any kind of work other than renting farms in the form of wages, self-employment, or unpaid family income.

For example
- Milk
- Producing micro-scale
- Consumers
- Transport etc.

Milk

Milk is an inside for the extraction and handling of creature milk - for the most part from goats or cows, yet in addition from wild ox, sheep or camels - for human utilization. Individuals feed their

wild oxen on various kinds of grasses just as containers and Bajra that develop during the stormy season. The focus is on

- Milk is sold in a nearby village
- Traders have established cum chilling collection centers from where milk is delivered to remote cities and towns.
- More than 40% of Indian farming households are engaged in dairy production
- In 2001 India became a global leader in milk production with a production volume of 84 million tons.

Manufacturing Small Scales
- Production zones occur on a very small scale with simple production methods.
- People are doing production work in their homes or fields.
- Less than 50 people work on the project.

Sugar cane is the Smallest Small-Scale Manufacturing business in the town.
- Some people have sugar-reducing machines.
- Earlier crushing of sugarcane was done with the help of bulls
- They crush sugarcane and produce jaggery and resell it to retailers to make a small profit.

Shopkeepers
- Few buyers buy various goods from the urban markets and sell them in the suburbs.
- Shopkeepers play a major role in the villages, Day by day, non-agricultural products are provided in shopping malls
- Small shops in the village sell a variety of products such as rice, wheat, sugar, tea, oil, biscuits, soap, toothbrushes, batteries, candles, stationery, pen, pencil and even cloth.

Transportation
- Communication from town to city to buy and sell goods has improved in the towns.
- We can find rickshaws, *tangas*, jeeps, tractors, bullet cart and a bogey.

Clay
- They make pots and crafts according to their needs
- They use a date available in the village
- Some skilled potters make beautiful pieces of art in different cultures
- Other products available are flower pots, cooking pots, storage pots etc.
- They play an important role in building and developing families in the village

Carpentry
- They make furniture, doors etc. For cheap and affordable prices for good quality items
- They use firewood from the village as well as from the countryside
- Many skilled craftsmen making modern furniture and some of the finest furniture.
- Other furniture is sofas, chairs, tables, lamps, etc.
- Help them imitate families in the village.

Domestic Non-Farm Sectors including Handicraft
Current Status of Handloom and Handicraft Industry in India
According to the combined demographics of Handlooms and Power looms the handicraft sector plays a very important role in the world economy. It is one of the largest economic activities that

provide direct employment to over 65 lakh people involved in theft and mobilization activities.

The Energy Sector plays an important and important role in the world economy. It offers a great deal of work for artisans in rural and small towns and creates a great exchange of worlds, while preserving its cultural heritage. The crafts have great potential, as they hold the key to supporting not only the existing set of millions of skills spread across the length and breadth of the world, but also the growing number of new entrants into the artwork. Currently, crafts contribute a lot to job creation and export.

The handloom and Handicraft industry has suffered because of poor planning, due to increased problems of lack of education, low funding, and poor exposure to new technologies, lack of market intelligence, and poor institutional structure.

The Indian textile industry has four main categories:
- Modern fabric miles
- Independent power
- Clothes and blankets

The Handloom and Handicraft industry in India is mainly in the informal sector and is currently recovering due to its low productivity, lack of skilled labor (as personal capacity is key to the product) and current exposure to better jobs with better labor costs by comparison. If the product does not show manual labor skill, it will not fetch the premium amount needed to pay labor costs.

- The handloom industry is taking a unique position in the Indian economy, besides being the largest producer of non-farm domestic employment.
- The handloom industry, especially in-house, is staffed by the whole family. They disperse, scattering thousands of villages and towns across the country.

Haryana - Panipat and Rohtak
Andhra Pradesh - Ammavari, Adoni, Kuppam, Chirala, Athimanjanpet, Bothala Kuduru, Dharmavaram, Eluru
Kerala- Azhicode, Balaramapuram, Cochin, Kozhikode, Kannur, Palghat and Trichur
Tamil Nadu- Arrupukottai, Arani, Anakaputhur, Ayyampettai, Arokonam, Andipatti and Bhawani

Many organizations are working hard to make the handicraft work.
- Capacity acquisition
- Availability of raw material
- Maximum cost of investment/investment
- Availability of government support
- Homework
- The desire to improve
- Provision of short-length fabrics to valued customers

There are opportunities for different hand woven fabrics and export market
- Opportunities for the overpayment
- Establish available government programs
- Diversity in design changes and texture of small scale planting
- Product renaming and differentiation
- Trust and build capacity
- Fashionable fabrics in the middle and lite class

(Source: Ramaswamy, V.S. And Namakumari, 2002)

The Handloom fabric is eco-friendly.
Handloom has great potential for recruitment.
- It has great potential for foreign exchange.
- It has a local need

Product Range
- Paulia Saree
- Nagpur Saree
- Solapur Top Padar Saree
- Pune Saree
- Vidarbha Tussar Saree and Dress Material
- Solapur Chadar

Covers Bed and Towels
- Decorative materials
- Carpets
- Wall Hanging

Handloom and Handicraft who are potential employers in the non-farm sector
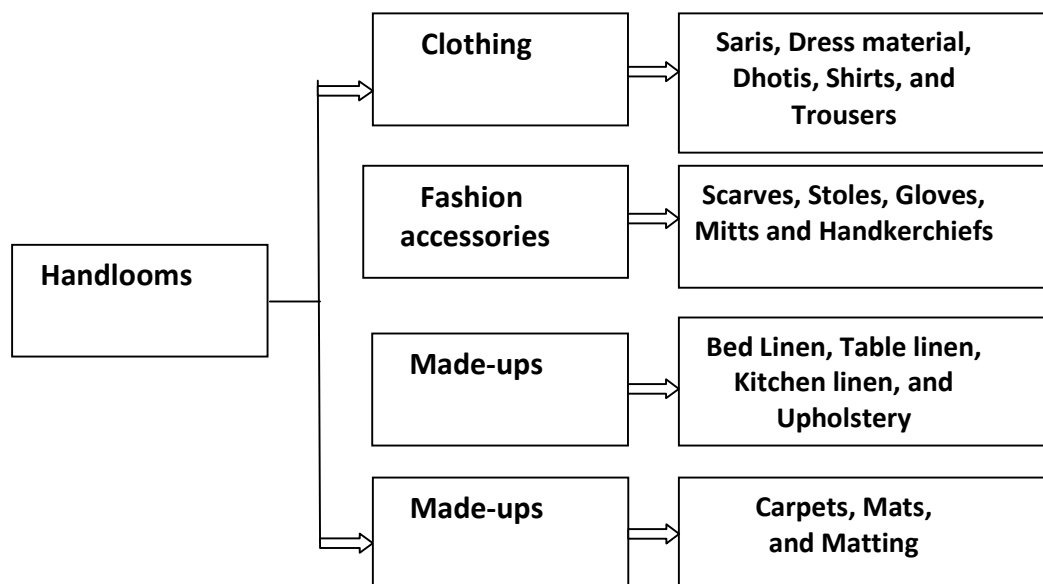

Figure 4.8: Classification of Handloom Products (Source: Export Promotion Councils of Handlooms as of March 2014)
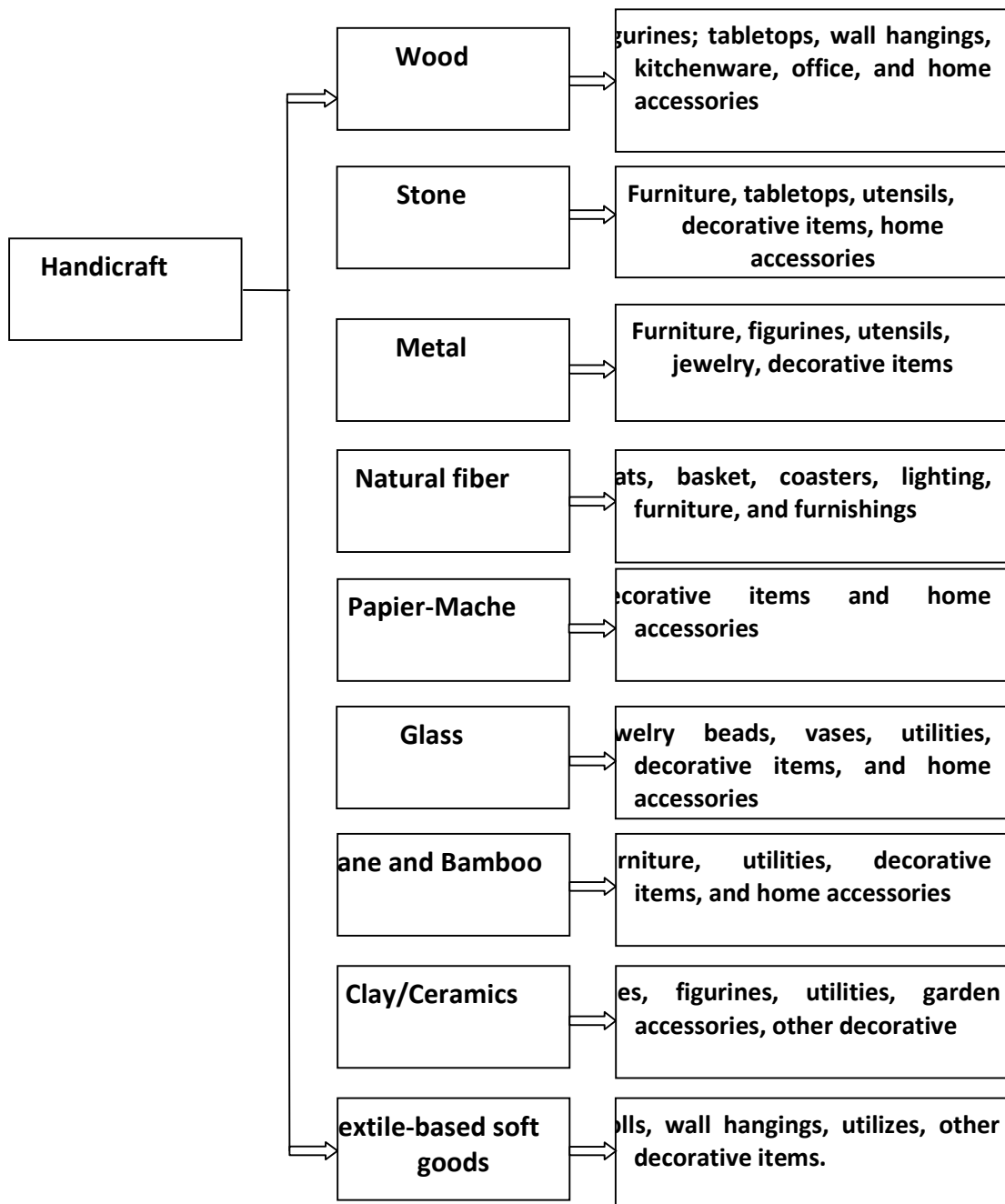
Figure 4.9: Classification based on handicraft raw material (Source: Export Promotion Councils of Handicraft as of march 2014)

Health Care Management in Rural Area

1) ASHAs: ASHA is a voluntary health worker who acts as a liaison between the public and the public health institutions. It provides basic information about health care services and encourages people to access services from public health facilities.

2) Ambulances: Under NHM, States / UTs are supported to set up a referral system where people can call the 108 or 102 telephone number by calling an ambulance. Dial 108 is an Emergency

Response Program, designed specifically to care for critical care patients, traumatized and accidents, etc. 102 services are a basic outpatient program aimed at caring for pregnant women and sick children even though other categories are also for-profit and are not restricted.

3) Mobile Medical Units (MMUs): MMUs provide outreach and rural outreach services through a team of staff, including one doctor, one nurse, one lab worker, one pharmacist, and an assistant and a driver.

4) Employees: Support is provided under the National Health Mission to the United States and UTs for involving health care workers in public health facilities through contracts, diligent provision of physicians and other staff to work in rural and remote areas, to build capacity, etc.

5) Infrastructure: NHM subsidies are provided to States / ITs for the establishment of new facilities designed for population and time-consuming maintenance and upgrading of existing buildings by either building new or renovating existing buildings.

6) Drugs & Equipment: In addition to the efforts of States / UTs to ensure drug availability at public health facilities, the Government of India has been providing free drug / free drug money to US states / UTs under Reproduction and Child Health (RCH) and programs National Centers for Disease Control for Tuberculosis, Vector Diseases affecting Malaria, Leprosy and HIV / AIDS and others. The government is also urging the United States / UTs to provide worldwide access to essential medicines at public health institutions through funding and incentives under the National Department of Health Mission (NHM).

7) Untied Grants to facilities: Under NHM, assistance is provided to countries / UTs to strengthen Subs, PHCs, CHCs and District Hospitals for the provision of appropriate infrastructure development services and to increase service delivery at these centers.

8) Reproductive Support, Maternity, New Birth, Child and Adolescent Health (RMNCH + A): RMNCH + A seeks to address the major causes of maternal and child mortality and delays in accessing and utilizing health care services. RMNCH + The strategic approach provides a 'continuum of care' to ensure equal focus at various stages of life. Support of states / UTs under the National Health Mission of RMNCH + A including Janani Suraksha Yojana (JSY), Janani Shishu Suraksha Karyakram (JSSK), Wernal and Child Health Wings in high-burden institutions, Integrated Management of Chronic Illness With Children (IMNCI), Home-based New-Birth Care (HBNC), the establishment of foster care for sick children including New Born Care Corners (NBCCs), New Born Stabilization Units (NBSUs), Special New Born Care Units (SNCUs)), Nurse Rehabilitation Centers (NRCs), Public Vaccine Program, Rashtriya Bal Swasthya Karyakram (RBSK), Rashtriya Kishor Swasthya Karyakram and family planning services.

9) Support for the control of communicable and non-communicable diseases: Under the NHM, support for States / UTs for the control of communicable diseases including vector-borne diseases such as Malaria and Filariasis, Knowledge and Tuberculosis and disease surveillance. Under the National Centers for Disease Control, NHM supports prevention and agreement

Rural Marketing
Rural Marketing is the way toward creating, estimating, advancing and circulating explicit home merchandise and ventures bringing about the ideal trade with rustic clients to fulfill their requirements and needs and to accomplish hierarchical objectives.
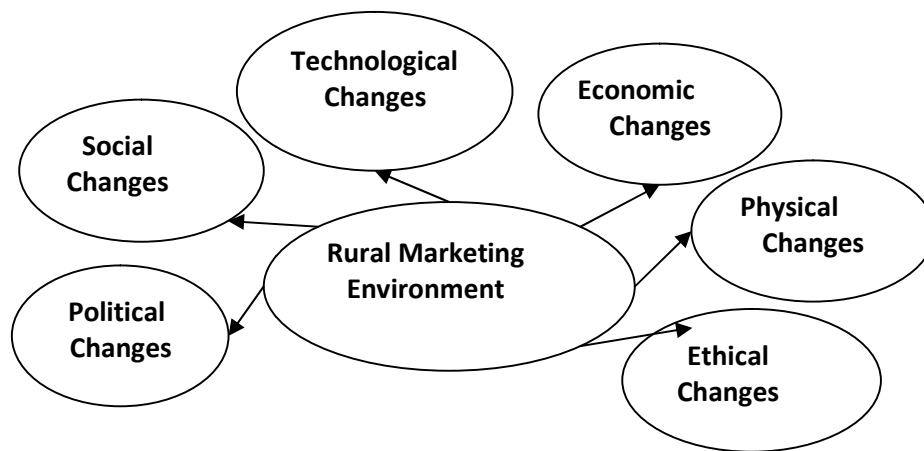
Figure 4.10: Rural Marketing Environment

To build the capacity of domestic manufacturers to e-commerce to facilitate market and sell their products, or buy products used for their businesses. Agricultural producers, smallholder farms Create the capacity for rural people to become consumers online

> **To Do Activity**
> · **The role of the Association Indian Handloom and the Handicraft Industry**

4.5 Key Trends of E-commerce in the Public Sector

Domestic policies these days are at the heart of policy debate in many countries around the world, to address and effectively support the specific needs and opportunities of rural areas and their population in the new era. To clarify the role of ICTs and their use as tools that enable rural development, and on the other hand, it explores the perceived barriers to the adoption and use of ICTs in rural areas. In such a context, the primary focus is on the realization of a new rural development paradigm. Subsequently, the scope and strength of ICTs applications are considered, which can facilitate the implementation of a new policy framework in rural areas. Following is a discussion of the steps needed to improve ICT applications in rural areas and emerging obstacles to the adoption and implementation of ICTs in these regions. Finally, some policy issues were introduced regarding the adoption and use of ICTs with a view of rural development.

E-commerce Application in Agriculture

1. Agricultural Market by e-National - National Market (NAM) is a pan-India trade center, coordinating APMC's mandate to create a unified agricultural commodity market. This Portal provides a one-window service for all APMC-related information and services and includes new arrivals and pricing, Buy and Sell merchandising, to provide responsive trade offers, among other functions.

2. Desta Mart and Desta Talk-DestaMart provide Agri input to agricultural retailers, DestaTalk

targets farmers by providing information related to the agricultural sector. DestaMart, which is an e-commerce platform, the company aims to provide Agri, seed, pesticide and fertilizer supplies in the home market.

3. E-Chaupal-E-Chaupal is a business platform that contains a set of organizational methods and networks that connect farmers to the global markets. International Smoking Company (ITC) has been established. It consists of three layers, each with a different level of spatial integration and is composed of three essential elements.

   a. The infrastructure (physical or organizational) through which the activity takes place.
   b. The business (person or organization) planning the transaction, and,
   c. Earth integration of the layer. The first layer consists of pools of town-level access to the internet (e-chaupals), managed by an ITC-trained local farmer and traveling one mile (I5kilometer) for each targeted farmer.

Each set of five villages receives e-Chaupal, which is justice for single people in rural India. The second layer consists of brick and mortar infrastructure called hubs administered by a local mediator who has local knowledge/skills called Samayojak and is within a reasonable distance (25-30 kilometer) of the target farmer.

MARKET was the first regulatory project, launched in 2000 to strengthen India's agricultural marketing program. It turned out to be the world's largest site. It stores and publishes its well-maintained database, information about low daily prices and higher prices of about 300 items and more than 2,000 varieties in many regional languages.

4. Agricultural Equipment Trading - To introduce the future sale of agricultural commodities in India, 2003 two contracts for the sale of two commodities were entered into. They are, National Commodity and Derivatives Exchange Limited (NCDEX) and Multi Commodity Exchange of India Limited (MCX). This trade is extremely successful for rural products. They are associated with exchanging forward to decrease the value dangers of the rancher.
5. Big-Haat agri-commerce Start-aims to help farmers reap the benefits of e-commerce and save time, money in the process. It was started in January 2015 by Sachin Nandwana, S Kumar and Raj Kancham. They aim to equip farmers by providing them with quality agro-inputs and services through the market platform.
6. Indian Farmers Fertilizer Cooperative Limited (IFFCO) is a global cooperative fertilizer company with more than 40,000 members of the organization, has announced its plans to market the capital market jointly by creating an economic arena.
7. RML's free mobile application offers more engaging content formats such as podcasts, photos, videos on mentorship and new features such as interviewing Agri-specialists and leading farmers to build a social community in the app and a digital platform for engaging agricultural communities and agricultural participants. This app has features such as 6 Day Taluka weather forecast, historical updates on the 6 crop market integration, warning /warning protection from unforeseen weather, and direct contact with regional vendors. Also, understand the supply chain tendencies, timely input from planting to harvesting, product promotion, policies, subsidies, schemes, health, and financial information, key agricultural key
8. The "I say Organic" (ISO) site was launched in 2012; a food retailer from Delhi is thinking of making organic produce more generic than different from the world. The stock is sold through the ISO website daily. Orders are picked up over mobiles or online, and deliveries are made within a few hours. Customers can choose from cash delivery or card or make online payment.

Benefits of e-commerce and Information Technology for the improvement and consolidation of the agricultural sector in India-

Timely information on weather and disasters, better promotional exposure, information awareness, pricing, and automated agricultural practices, reduced risk of agriculture and imports, Improved communication and communication channels, Center for online trading and e-commerce

Use of E-Agriculture

The use of e-Agriculture encompasses all agricultural activities and infrastructure there

ICT has the power to empower the community. Like:

1. Provide Internet Information on Agricultural Needs through ICTs that assist farmers to access information on commodity prices.
2. Plant care practices and establishing direct relationships with potential buyers to offer a better price for their product.
3. To help farmers get information on commodity prices.
4. Many public institutions improve farmers' access.
5. Information not only about agriculture, but also impacts other areas of life, such as education, health, and products required daily necessities without assisting the local community and the rest of the world.
6. e-Agriculture also provides information needs of various players in the Agri value chain
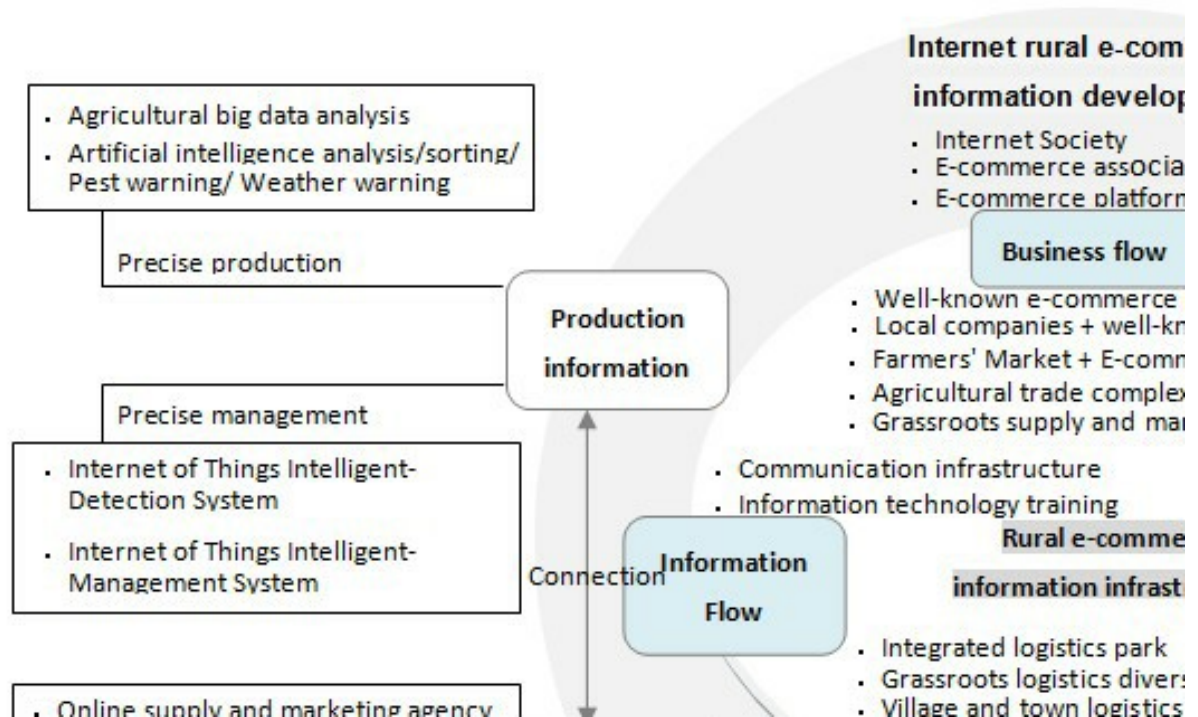
Figure 4.11: Rural e-commerce information model (Source: Advances in Economics, Business and Management Research, volume 96)

As far as business travel goes, one need to accelerate the launch of well-known e-commerce businesses, strengthen local business integration, agribusiness, commercial real estate and grass-roots services and trade partnerships in cities and towns, in partnership with e-commerce. The benefits of great platform management and marketing drive innovation, see a change of vision, change online and offline, never change orders, take a collaborative approach to management, and monitor multi-channel and wide-spread agricultural products.

In terms of information flow, efforts should be made to develop Internet infrastructures such as telecommunications infrastructure and network connectivity. It connects urban and rural areas with 3G, 4G network, optical fiber Broadband, and wireless local area network. In December 2018, the number of people who were not spending money in rural areas was 562 million, calculated 63.2% [3]. It is an integral part of infrastructure development to improve the environment of information centers and to improve the language and cultural skills of farmers.

In terms of property, it should build a multi-dimensional structure, a network structure and a full-size park system for the park + a city-wide lawn distribution center + and a city property distribution network. Highway, rail, drainage, water transport, and other transportation infrastructure are requirements to ensure smooth running. The formation of cold-blooded areas is a very important issue for rural commerce. Depending on the situation itself, it may take private transportation or interact with the e-commerce cold chain.

To high cash flows, rural agricultural banks and post banks formed, and small-scale loans should be made to facilitate cash flow in a way that farmers are familiar with. Through a network of farmers involved in networking, an online financial platform has been launched.

Specific Functions of Rural Development Administrators at the Local Level specific Functions of Rural Development Consultants in Regional Level
- To manage quantitative rural changes, including local inhabitants and institutions
- To consult rural inhabitants on the questions related to their problems or needs (for instance: job search, search for psychological assistance, directing to particular institutions, etc.);
- To manage networks and network organizations of rural development actors
- To consult persons paring and implementing the projects of rural development;
- To plan and to organize the provisions of public services to rural inhabitants
- To consult on solving the problems related to human relationships, attitudes, changes of behavior and, etc.
- To organize training courses and seminars for rural communities and local government specialists;
- To solve social conflicts in rural areas and to do prevention work, to straighten the feeling of community and citizenship;
- To contribute to the reduction of rural poverty;
- To promote social inclusion and to enhance entrepreneurship among rural inhabitants;

- To initiate the creation of rural communities and partner organizations;
- To initiate and to prepare the projects for rural socio-economic development to implement social innovations;
- To evaluate the vitality of rural area to gather data about local resources (social, economic, environmental, cultural), to analyze and to assess them, to implement their monitoring;
- To implement inhabitant's needs' surveys, public relevant information about the area to society

Table 4.1: Multifunctional role of local rural development administrators

Specific Functions of Rural Development Administrators at the Local Level	Specific Functions of Rural Developments Consultants in Regional Level
To manage quantitative rural changes, including local inhabitants and institutions	To consult rural inhabitants on the questions related to their problems or needs (for instance: job search, search for psychological assistance, directing to particular institutions, etc.);
To manage networks and network organizations of rural development actors	To consult persons paring and implementing the projects of rural development;
To plan and organize the provisions of public services to rural inhabitants	To consult on solving the problems related to human relationships, attitudes, changes of behavior and, etc.
To administrative the European Union and national support for rural development actors;	
To organize training courses and seminars for rural communities and local government specialists;	
To solve social conflicts in rural areas and to do prevention work, to straighten the feeling of community and citizenship;	
To contribute to the reduction of rural poverty;	
To promote social inclusion and to enhance entrepreneurship among rural inhabitants;	
To initiate the creation of rural communities and partner organizations;	
To initiate and to prepare the projects for rural socio-economic development to implement social innovations;	
To evaluate the vitality of rural area to gather data about local resources(social, economic, environmental, cultural), to analyze and to assess them, to implement their monitoring;	
To implement inhabitants needs' surveys, public relevant information about the area to society, etc.	

(Source: Management Theory and Studies for Rural Business and Infrastructure Development ISSN 2345-0355. 2018. Vol. 40. No. 2: 143–154. Article DOI: https://doi.org/10.15544/mts.2018.14)

E-commerce in the Public Sector

The public sector has already launched many e-commerce applications. The e-commerce precedent for the government is to expand the effective online services, or e-services, offered by the government. There are many different types of financial transactions can occur in the public sector, and governments have done a good job of providing access to these online sites. Tax rates, fees,

permits, and shopping opportunities are all examples. Online examples of these services are given below.

Easy Money Transfer / Classic Shopping Cart Model
The government does not engage in many financial transactions with the creation of private entities, but there are some examples of how government agencies are using e-commerce technologies to facilitate the governmental activities of their citizens.

Online License and License Fees
Online fees, permits, and licensing fees are one of the ways e-commerce is used by governments, as it is one of the most widely used services where citizens pay their government money. There are already many applications available in this area and many more are being developed - especially with the advent of government   private companies.

Internet Tax Transfer
Several provinces have developed and implemented the use of online tax filing applications. • With public/private partnerships (www.tax.gov/ elect.htm), five states are working with the STAWRS (Simplified tax and Wage Reporting System) to allow users to pay federal or state taxes.

Postal Services
A postal service is one system that has the potential to connect across the country. It has reached almost every village, even those in remote areas. The last two years have seen impressive growth in the Indian mail service. The reason is that the department that has been losing weight over the years has now partnered with over 400 E-Commerce websites that also include hundreds like Amazon, Flipkart in the delivery of goods.

Chapter Summary
Today markets are often driven by consumers in the current economy. Whether online shopping or e-commerce is relatively new compared to consumers working in rural areas; they were more familiar with the pros and cons or the ups and downs of this business.

To make it more effective and less acceptable, online retailers first need to understand the consumer's understanding and make the necessary changes in line with it. From research, it is clear that the low price offered by online companies plays a very positive factor compared to other retail prices that encourage home buyers to buy online. Shopping saves time online and more savings due to the availability of 24 * 7 and a large number of products with their pictures on the packaging helps consumers know about their products what they look like.

As an alternative, online shopping also has some discouraging features because home buyers choose to test products physically before placing orders. The information provided at the mall is also not enough for them to buy online. Also, all marketing activities are coordinated by companies based on consumer behavior. What they think, and what they do with different marketing strategies has nothing to do with the performance and success of companies. Often home buyers don't care about buying decisions.

So by doing a thorough study and analysis, marketers can use the right marketing strategies to attract new buyers and retain existing buyers. Consumer tastes and behavior are changing at any given moment, so learning further about consumer behavior is very important and helping companies to use the right marketing strategies to attract business is not what consumers expect.

The Handloom and Handicraft industry in India is mainly in the informal sector and is currently

recovering due to its low productivity, lack of skilled labor (as personal capacity is key to the product) and current exposure to better jobs with better labor costs by comparison. If the product does not show manual labor skills, it will not fetch the premium amount needed to pay labor costs.

The craft sector is one of the most promising sectors of the economy with all employment requiring attention from the government all requiring attention from the state to transfer such industry to a well-organized industry, where art workers will be happy to be brought in terms of employment law and more workers will be promoted in the industry.

It turned out that the craft business, especially the kind of cottage industry, where the family the members of the master weaver work with him. Due to the high rate of unemployment in education, it was found that in certain units even people had them a good education worked for them a little reward or get along with their family units. Sixty percent of weavers have been reported responsible for health problems: knee pain, backache, headaches, breathing, and joint pain.

The weavers work on the arrangement with the contractor on the credit cycle. The sector can be a leading source of employment and for national resources income if the sector is to be allocated accordingly, consideration in the Government, even if it is a state or a mid in its protection, advocacy, and development.

The sector can bring in large volumes of other country's national currency as it is popular throughout the world because of the value of doing well again unencrypted form It turned out that the craft business, especially the kind of cottage industry, where the family members of the master weaver Join hands

Due to high rates of unemployment in education, it was found that in certain units even people with good education worked for them a little reward or get along with their family units. The survey shows 60 % of weavers have been reported responsible for health problems: knee pain, backache, headaches, breathing and joint pain. Agriculture, the backbone of India, is quickly losing its grip, and fast enough processes need to be made. In this context, the constant use of the latest ideas and best technologies is essential to improve the economic well-being of the farmer.

The agricultural sector of India is driven by R&D effort, but inefficiencies and inaccuracies in disseminating relevant information to the agricultural sector have resulted into poor outcome. The implementation of the following recommendations can help realize the full potential of ICT in agriculture and improve rural livelihoods.

Research and Innovation
1. Agricultural information technology systems need to incorporate local information that is integrated into regional and international systems and maintain the links of policy makers.
2. Additional investment in infrastructure and human resources required for these programs.
3. Promote awareness of using and maintaining e-commerce in appropriate formats and languages in rural areas.
4. Support new technologies for remote connectivity such as Wireless Broadband or Solar Power Systems.
5. Existing technical information channels (e.g. Extension services, radio stations) should be integrated with new communication technologies, available to farmers.
6. Agriculture and computer education should be a subject in the school curriculum.
7. The development of digital libraries in rural areas can provide sufficient space for learning, and transfer learning and technology to rural communities.

8. The government should develop clear policies, for public and private sector for their economic participation.
9. As women's access to e-commerce is very limited in rural areas, so it should include gender-specific considerations.
10. Teens are often ICT savvy and their input should be incorporated into strategies and projects. In India, it is necessary to change the status of Farmers, transporters, consumers, traders, etc. They should support e-commerce to ensure equitable, timely and interactive access to markets for small business owners.

The main purpose of financial inclusion is to provide depth access to banking services across the country, including lucky and disadvantaged people with the same focus, the RBI has always been consistent revitalizing the banking sector to expand the banking network with the arrangement of new branches of brick and mortar, growing a range of business books and new. Over the decade, various approaches such as the opening of non-frill zero accounts in Jan Dhan, DBT schemes, RuPay card issuance, Kisan Card issuance, Aadhaar-enabled schemes and mutual payment interface is already made by the government. In a nutshell, the Government has taken proactive steps in driving technology to the rural masses and to offer the benefits therein.

Model Questions

1. What does social commerce mean?
2. How social media can increase online sales?
3. What is social media **?** Explain and give examples?
4. How can e-commerce strategies build a better customer relationship?
5. What is e-commerce? What are its applications?
6. What is the application of e-commerce on various sectors?
7. What is e-commerce? What are its uses?
8. What are the major benefits of e-commerce? What are the various applications of e-commerce?
9. What is E-commerce in the hospitality industry?
10. What are online travel services such a popular internet application?
11. What is hospitality innovation?
12. What is mobile commerce in e-commerce?
13. Why is M-commerce important?
14. Explain the various e-commerce applications in Agriculture business?

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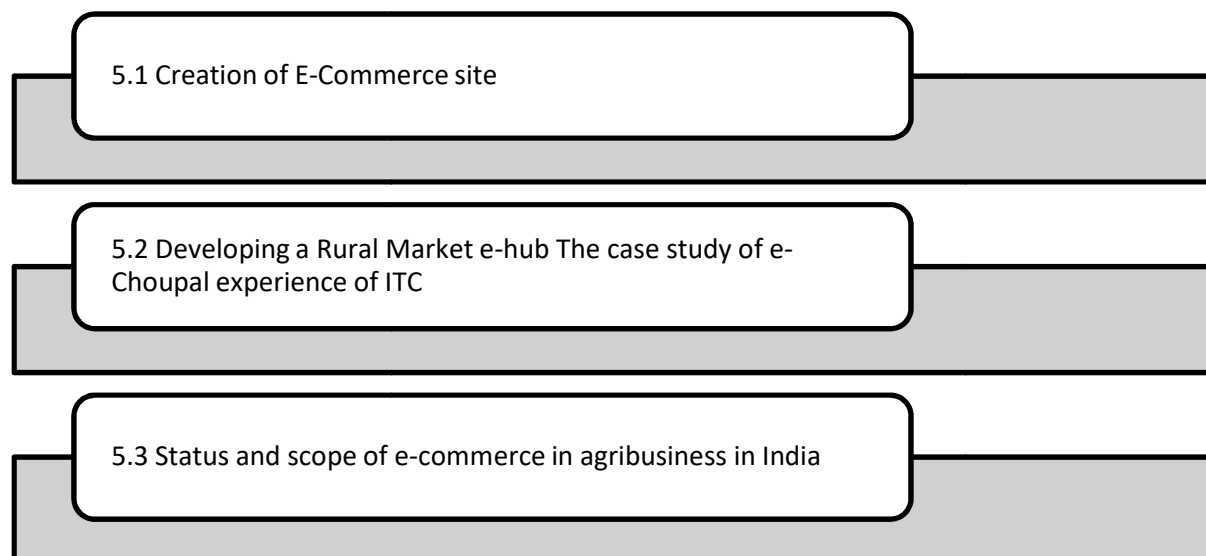
Chapter 5 A Case Study

Introduction

The Indian agricultural sector is being transformed by information and communication technology (ICT), which can help all farmers, including small landowners. Agriculture is a critical sector for many rural people, and a significant number of people in developed countries depend on it. Traditional agricultural reform methods face numerous challenges in terms of production, marketing, benefit, and so on. Traditional agriculture's problems are primarily aimed at using Information and Communication Technologies (ICT), which can make a significant contribution to the well-being of small rural landowner farmers. ICT assists in meeting the increasing demand for new approaches. It also assists rural people in becoming authorized by providing superior access to common tools, such as established agriculture technology, operational production schemes, markets, banking, and monetary services, and so on.

The following case study elaborates application of information communication technology in the agricultural sector.

Objectives

- To identify use of e-commerce applications in a rural area
- To present e-commerce applications in agriculture and rural development
- To explore untapped e-commerce applications in agriculture and rural business
- To outline the benefits of e-commerce applications in agriculture and rural management.

Chapter Structure

5.1 Creation of E-Commerce site

5.2 Developing a Rural Market e-hub The case study of e-Choupal experience of ITC

5.3 Status and scope of e-commerce in agribusiness in India

5.1 Creation E-Commerce site

Below is a list of all the steps we took to get started and develop our e-commerce site successfully:

1. **A Domain Name Registration**

   It's a really easy operation. You'll need a domain name that best fits your brand. Don't get too caught up in the mechanism. A website like GoDaddy can be used to register for a domain name.

2. **Identify Developer for the Design of Website**

   This is a crucial step in launching the e-commerce website. When it comes to hiring a developer, make sure to do your screening if you want to launch your platform in a fair amount of time and in a professional manner. Obtain references from the developer's other e-commerce websites. Obtain a launch schedule for the site, as well as an estimate of how long it will take. Make sure they have a graphic design experience so they can crop images to match the website.

3. **Company Registration Documentation for Legal Compliance**

   Register your company, obtain a vendor's license, and begin researching legal business issues. A local lawyer will assist you in the development of your company. While it is an upfront expense, it will most probably save you time and money over the long term.

4. **Pick a Forum for E-commerce and Website Hosting**

   To save time and money, go with a common e-commerce platform. I recommend Shopify, WooCommerce, or BigCommerce. Most developers are familiar with these, making it simple to add plugins, payment processing, and other features.

5. **Find a Theme that Suits your Vision for E-commerce.**

   To save even more time, you can purchase a theme from Theme Forest that closely matches the e-commerce look and feel you want.

6. **Take the Live Page**

   As soon as you decide to start your company, go live with your website, even if you haven't listed any of your products yet. Has your developer create a home page, an "About Us" page, and a "Contact Us" page.

7. **PitchBox**

   The value of maintaining relationships with media contacts cannot be overstated. This is where Pitchbox enters the picture. Pitchbox takes care of the hard work of outreach so you can focus on what you do best: developing real, one-on-one relationships with the people you want to meet. The aim of Pitchbox is to increase the number of outreach activities. It handles everything from prospecting to emailing to process control and management all aspects.

8. **Customized Outreach**

   Personalized partnerships are extremely important for both sellers and the media. If you've successfully implemented an SEO strategy, you're well aware of the value of personalized relationships. Be sure to pitch something useful to the website. When pitching a story idea to a reporter or publisher, you must do your homework so that the email does not get lost in their inbox or is deleted unread. The vendors are the ones who make the decisions about sales and promotions. They will keep you up to date on the latest trends for their brand to help you boost your sales.

9. **Payment Gateway Interface**

   Have you ever wondered how credit cards are allowed on e-commerce sites? It's done through a payment gateway and even a credit card processor. Stripe or PayPal are possibly the two

services you're most familiar with. If you choose to accept credit cards, recurring billing, or mobile payments, a platform like authorize.net or 2Checkout.com will help.

Getting approved for a payment gateway and credit card processor is not a simple operation, so do your research ahead of time to ensure you're ready. Before you can apply, you must first set up a secure checkout process on your website, develop a Privacy and Return Policy, determine your shipping and delivery methods, and provide a working phone number and email address for customer service. You will need to make all of this information available on your website.

For example: How to Build an eCommerce Site: A Step-by-Step Guide
 Step 1: Sign up and select your plan
 Step 2: Determine how you want to build your website
 Step 3: Link your domain to the server
 Step 4: Set up your e-commerce platform
 Step 5: Publish the e-commerce page

Follow these measures for any designer of an e- commerce platform. But we'll use Wix as an example for this post.

Step #1: Sign up and Choose your Plan
The first thing you can do is build a Wix account. In contrast to other pages, the sign-up process is as easy as it comes, taking no longer than 10 seconds. You will only need an email address and a password to continue. You can start using Wix for free right now. The free plan, however, does not have any e-commerce functionality. Experimenting with the site builder is basically a trial phase. Navigate to the premium subscriptions section and choose 'Company &e-commerce,' as seen in the screenshot below.
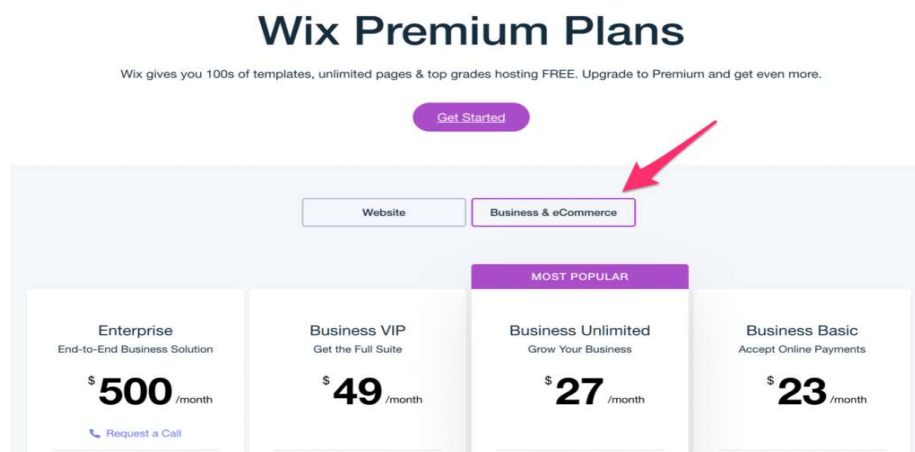
Figure 5.1: Business and e-commerce plan (Ref: https://www.quicksprout.com/create-ecommerce-website/)

Not all "Website" plans provide online sales functionality, which you'll need for your e-commerce site. E-commerce plans include the ability to accept online payments, a free SSL certificate, improved storage, unrestricted bandwidth, and a one-year free domain. Choose a schedule based on the scale

of your website and organization. If you're a small business selling a few things, the Simple Business or Business Unlimited plans are ideal. Web sites that are bigger and have more entries Larger websites with special requirements may use the Company VIP plan or the Enterprise solution.

Stage #2: Determine How you Want your Site to be Built

After you've signed up, you have two options for getting started. You may use Wix ADI or Wix Editor to continue. With the ADI, you'll answer a series of questions about your e-commerce platform, and the app will create it for you in minutes using artificial intelligence. You can start with a template and customize it with the editor.
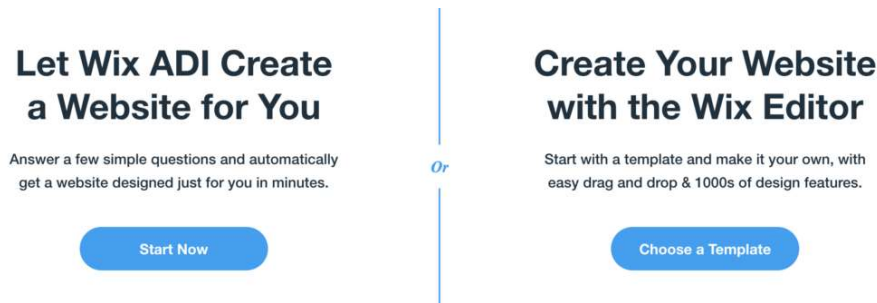

Figure 5.2: Website template (Ref: https://www.quicksprout.com/create-ecommerce-website/)

There is no such thing as a right or wrong direction here. It all depends on your personal preferences. And if you use an ADI, you'll be able to make changes in the editor later. For beginners, using AI to build an e-commerce site based on the feedback you get is probably the best option. It's less work, and you'll have a working site to edit instead of beginning from scratch with a prototype. The publisher, on the other hand, is simple and straightforward. It will most likely take a little longer.

If you use the ADI, you'll be asked to choose the type of e-commerce website you're building (for example, an online fashion store or a jewelry store) as well as the features you want (like an Instagram feed, live chat, subscribe form, etc.). For those of you who already have an online presence, the AI tool can import content from your own website or Google Places. After that, you'll be asked to pick a theme and choose a prototype.
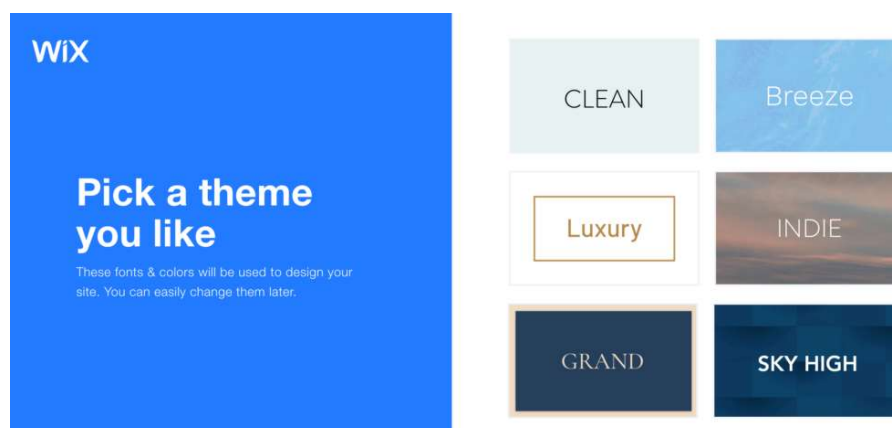

Figure 5.3: Web site theme (Ref: https://www.quicksprout.com/create-ecommerce-website/)

I completed the entire process in under two minutes, and the platform built an eCommerce site for me automatically. Then it's just a matter of filling in the blanks with your own text, photos, and whatever else you want.

Step #3: Connect your Domain

Before you publish the eCommerce site, add your domain.

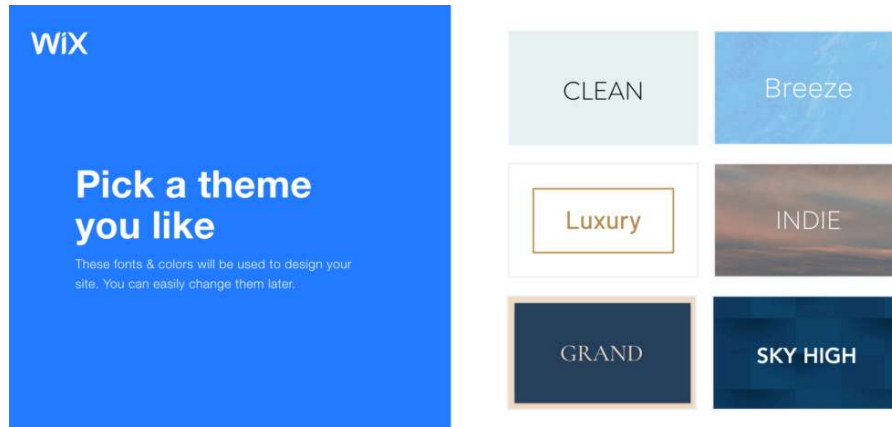Select "Domains" from the "Settings" tab on the left side of your dashboard.

Figure 5.4: Choose Domains (Ref: https://www.quicksprout.com/create-ecommerce-website/)

You have two choices here: purchase a new domain name or connect to an existing domain name. Professional advice: Do you want a domain name? Find one of the best domain registrars. Getting a domain from a domain registrar is typically the safest choice. However, if you want to keep it straightforward and go straight to your e-commerce tray,

Step #4: Customize your E-commerce Website

After you've connected your domain, you'll need to set up your site's e-commerce features. These are the components that will allow you to sell products online.

- Place the products in the order.
- Create shipping zones
- Settle on payment plans.

I'll give you a quick rundown of each of these e-commerce website components below.

Services and Products

To add a product, go to the 'Shop Goods' section of your dashboard on the left side of the screen. Then, at the top right of the screen, press the "+ New Product" button.
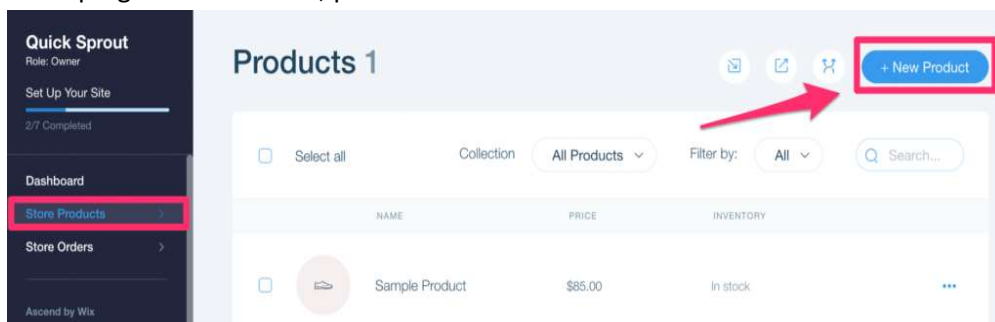

Figure 5.5 Upload Product list (Ref: https://www.quicksprout.com/create-ecommerce-website/)

You will be able to name the product from here, add it to a list, set the price and write your summary of the product. You may also include product images and videos. Add a product ribbon (such as "new arrival"), label the item as "on sale," create a section for items like a return policy or care instructions, and handle tax settings with Wix." Box size choices, color preferences, and inventory tracking will all be able to be customized. Dispatch First, the shipping laws will have to be handled. Determine the regions to which you ship and how those rates are measured.I set up free shipping in the US for the example site I've been building in this tutorial and set a flat rate for international orders.
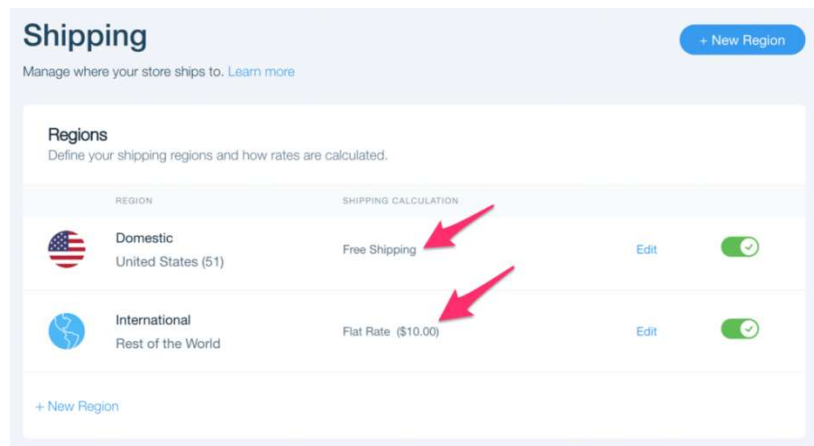
Figure 5.6: Choose regions (Ref: https://www.quicksprout.com/create-ecommerce-website/)

Perhaps you just want to sell to people in the other country. Simply uncheck the international toggle box on the right side of the screen and pick Canada as a new zone. When it comes to shipping rates, you'll have a variety of options. You may, for example, provide free shipping to customers who spend a certain amount per order. You can charge shipping by weight, order total, or USPS determined rates in addition to a flat rate. You can also monitor handling rates and give customers the option of picking up orders in-store in some areas.

Payment Methods
You must first set up your approved payment methods before you can be billed. With Wix's integrated payment processing system, this is a breeze.

Figure 5.7: Integrated Process of Payment (Ref: https://www.quicksprout.com/create-ecommerce-website/)

For this example, I selected the integrated processor as well as PayPal. This gives you the ability to accept all major credit cards like Visa, American Express, Discover, Mastercard, UnionPay, JCB, and Maestro. Processing rates are 2.9% + $0.30 per transaction, which is pretty standard in this space. Wix doesn't take any commission on top of that.
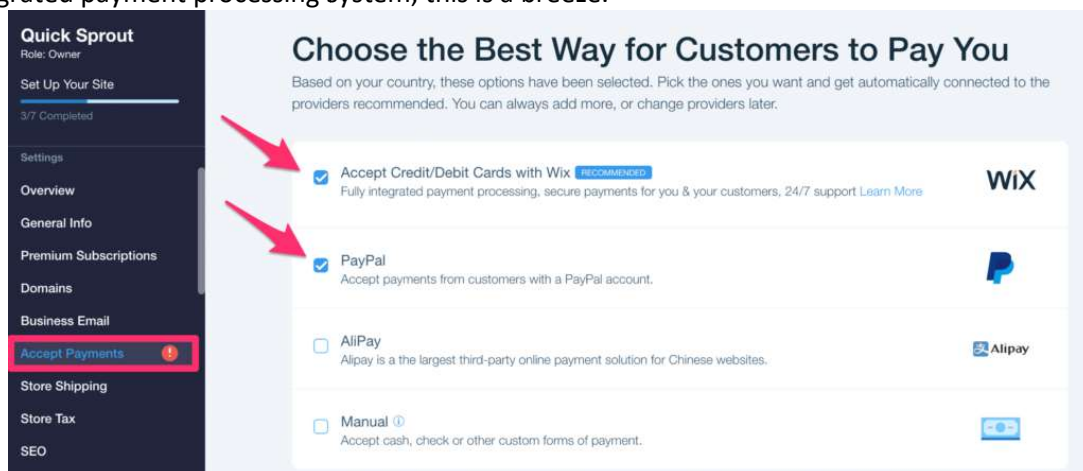
Step #5: Publish your eCommerce Site

You MUST have a related domain in order to do this (explained in step #3). You must be on a paid Wix plan as well. Technically, if you're on a free plan, you might publish your site, but it won't be with your custom URL. Without a paid contract, you won't have any of the eCommerce capabilities. So if you haven't done so already, before continuing, make sure you go ahead and finalize your subscription. In the top-right corner of your editor, press the publish button for the site to go online.
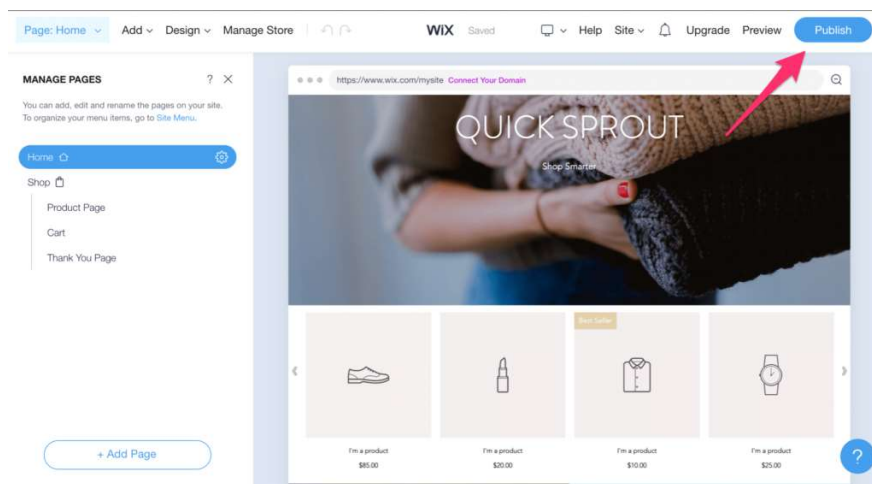
Figure 5.8: Web Site Publish (Ref: https://www.quicksprout.com/create-ecommerce-

By the way, the site overview you see on the screen was entirely generated by the AI solution we discussed earlier. I haven't customized anything yet, nor have I modified the interface or attached images. If you take that path, it will only serve to demonstrate how simple it is to create an e-commerce site.

To Do Activity

- Discuss the strategies of an online storefront
- How are some structured suggestions that the web storefront designers can make use of while designing and implementing an e-commerce storefront?

Best Practices for Creating an E-commerce Site

Your eCommerce site will be up and running in no time if you follow the five steps outlined above. It's straightforward, and everyone can do it. However, this will not be enough to make your website popular. Here are some best practices to remember as you build out your site and go through this phase.

Discuss Strategies of Online Storefront

Tips for Growing Sales through Online Marketing

You've found the product, and your website is functional, but your sales aren't what you expected. Here you can develop your online marketing strategy and grow your company by increasing conversions and growth.

1. **Optimize your Website for Multiple Platforms**

   Have you tested your website on multiple devices? You need to make sure that your customers are looking at your site from different sources and that each of them has the same (positive) experience. Check that your website is working properly on the various devices used by your target audience:
   - Mac
   - PC
   - iPhone
   - Android
   - Tablets

2. **Create a Simple Way to Checkout**

   To put it another way, make sure the guests don't have to fight their way to the finish line. Before your customers turn away from your goods, don't place too much emphasis on clicking "Order." Here are a few suggestions on how to go about it: Take a straightforward approach: Keep the site's design to a maximum of two or three colors. Context patterns and heavy graphics should be avoided. Provide a convenient and easy-to-use "checkout" option, such as a traditional shopping cart. Do not provide a connection to your site: If you do have connections, make sure they are ready to open in a new tab and that the customer is not fully removed from your database.

3. **Free Shipping Offer**

   Online shoppers are caught up in the possibility of opting for free shipping. Unexpected shipping costs at checkout can surprise customers with low conversions.

4. **Improve Your Search Engine Optimization (SEO)**

   If you haven't already done so, read on for more details on search engine optimization, or "SEO." You'll be allowing Google to track you and assist you in finding people through their searches if you do it this way. Metadata is information that identifies other information. Meta is a prefix that means "underlying meaning or description" in most information technology contexts. Metadata is a type of data that summarizes basic information about it, making it easier to locate and interact with specific instances of data. Metadata can be thought of as a directory. This directory assists the decision support system in finding the data warehouse's contents. Simple document Metadata includes author, date created, date changed, and file size. Being able to sort through all of the Metadata is a huge plus.

   Backlinks (also called "inbound links,", "incoming links," or "one page link") are link from one website to another's page. Backlinks are regarded as "votes" for a particular page by Google

and other major search engines. Organic search rankings are higher for pages with a large number of backlinks. In short, metadata help Google and other search engines understand your website.

So, where do you start?
- On your website, you should have high-quality, relevant material.
- Have backlinks for your website. For example, we can use backlinks to compare our selling items to that of other customers. This may be a sucess story, testimonial, or review from a customer that they can post to their website. These terms now have a backlink from us since they link to youtube.

5. **Social Media**

In today's world, the company's social media presence is critical to your website's success. Not only would this boost your exposure, but it will also increase confidence in your organization and goods. To help you engage your client base, set up and manage at least the following social media sites.

- Facebook profile for a company
- Instagram accounts for companies
- Twitter for Professionals

6. **Get the List in the Free Directory**

Your company has already been listed in more free directories than you may know. The aim is to ensure that your business data is consistent with all of them. Searching in Ext is a great way to get a list of all the directories listed in your business. It's a membership resource that lets you handle your company's information in all folders with ease. When all you have is a website, Google gives you a high ranking.

7. **Participate in Video Marketing**

Consider incorporating folded video material into the mix if you haven't already. Small, catchy video pieces are common, especially on social media. A very effective technique is to create simple, fast-moving clips (usually set to music) that contain an interesting or common product.

8. **Review**

Customer input is highly valuable. New customers are more likely to trust you with their money if they see that you have impressed their existing customers. Strive to fix any problems that arise with your customers until they leave a negative review and damage your reputation. This analysis tool comes highly recommended.

9. **Study the Data**

Knowing what your visitors do when they arrive at your website will help you make crucial decisions on how to boost your online sales. Using Google Analytics will help you build a map of your website's traffic and improve your overall map.

10. **Increase Visibility by Running Advertisements**

Facebook's advertising management system has recently seen significant changes. These resources are priceless in terms of online marketing. Although Facebook ads do not directly contribute to conversions, they are extremely successful at increasing awareness of your content and increasing traffic to your website, both of which are needed before a sale can be made. Here are a few fast sales tips for using Facebook ads to increase conversions:

Limit your audience to the people who can help you achieve your most important goals: selling handmade wedding gowns? You will reduce the probability of your advertising being seen by restricting your audience to women between the ages of 18 and 40 who are in an "engaged" relationship.

Implement Seasonal Offers: 50 percent off standard products is a topic that attracts potential buyers who would otherwise not click on your ad in the hopes of signing a contract. You will get more people to connect with your ad encouraging them to share it with their mates. Discounts and sales are excellent for attracting new customers because they enable you to expand your customer base without lowering the value of your product or service.

You can Improve your Online Sales

There are several successful strategies for improving the marketing methods and increasing sales. To get those conversions, you'll need to know the most common tips and tricks in the industry. Increase the company's exposure and traffic by using digital ads and web marketing, SEO, and getting to know your customers!

To Do Activity

How are some structured suggestions that the web storefront designers can make use of while designing and implementing an e-commerce storefront?

Why you should sell products on the website?
1. People spend money online.
2. The eCommerce website costs less than the storefront.
3. Provides an online shopping facility.
4. An online presence will find your products in search.
5. Growth in mobile means people can shop from anywhere.

Before you build your e-commerce store you need to create an eCommerce website An easy way to create an eCommerce website

1. Market research and finding your niche location
2. Getting ready to sell
3. Choosing your e-commerce platform
4. Select items to include in your eCommerce website
5. Creating your online store
6. Opening your store and selling products

Marketing Your Commerce Web Site
1. Content Marketing
2. Social media marketing
3. Influencer Marketing
4. CIO
5. Email Marketing
6. PPC Advertising

5.2 Developing a Rural Market e-hub The case study of e-Choupal experience of ITC

ICT can make significant inroads in a traditional agrarian economy like India. India's agricultural sector has benefited from ICT. Private sector companies are developing innovative ICT technology platforms in collaboration with local farmers. ITC Ltd was one such private project in the state of Madhya Pradesh. It has aided farmers in a variety of ways, including the creation of local leadership, shared ownership of the assets produced through this initiative, and access to Simplicity for reliability and scalability. Customization to meet relevant local requirements and specifications Dedication to the organization.

E-performance Couples have ushered in a new age in Indian agriculture. The studies in the other untapped areas must be continued and replicated. There are enormous economies of opportunities to develop business networks that can result in a win-win situation for both companies and farmers. Once a channel is developed, it can be used for a variety of goods and services, as illustrated in this case study. The network's popularity was largely due to the involvement of local farmers and regular maintenance.

Introduction

India is the world's second-largest country by population. The majority of the population lives in villages and relies on agriculture for a living. Agriculture is the backbone of the Indian economy. This accounts for about 26% of the country's total GDP. India's 600,000 villages are home to 65 percent of the country's population. Most villagers work in agriculture or agriculture-related facilities, so agriculture is their lifeblood. There are various agro-climate zones and agro-climate regions.
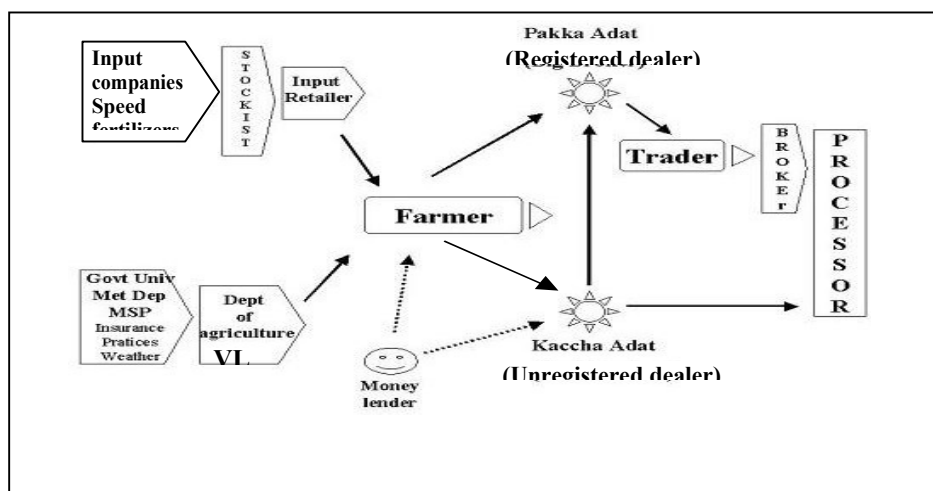
Figure 5.9: Conventional value chain
(Source"http://www.planningcommission.gov.in/reports/sereport/ser/stdy_ict/4_e-choupal%20.pdf)

Background

Indian farmers depend on the Department of Agriculture for a variety of inputs, including temperature, modern and scientific agricultural practices, and insurance coverage. All of these are gathered by the Department of Agriculture's VLW from various sources such as government colleges, meteorological agencies, insurance companies, and so on Farmers approach input dealers, who get

their seeds, fertilizers, and other products from wholesalers who have direct contact with the farmers.

Farmers transport their produce to Mandis (regional market yards) in small multiple lots during the year after harvesting, where the beans are auctioned in an open outcry scheme for traders and agents of the processing companies. The government regulates these market yards in order to encourage fair price discovery and item aggregation. The beans are then bagged, weighed, and moved to the processing units by efficient bidders who pay the farmers in cash (to which it will be sold). The government regulates these market yards in order to encourage fair price discovery and item aggregation. The beans are then bagged, weighed, and transported to the processing units by good bidders who pay the farmers cash (to whom it would have been sold through a broker). This entire process is carried out by a number of intermediaries, each of whom acts as a principal with the next transaction in the chain. as shown in Fig 1. However, as and intermediary applies its profit margin to the rate, the processor's cost of production rises, even though the farmers receive the lowest price and margin in the entire value chain. In addition, intermediaries also obstruct the flow of market data to farmers and profit from it. Here, they don't get paid for their jobs, but they do get paid for their time.

About ITC-Inter Business
The International Business Division (IBD) of ITC founded in 1990 and is responsible for the export of a variety of agricultural products. It accounts for more than 60% of the ITC Group's total foreign exchange earnings. ITC-IBD has a laser-like emphasis on strengthening its core competencies in a few commodities. IBD continues to supply agri-commodities such as Feed Ingredients-Soyameal, Rapeseed Meal, Foodgrains-Rice, Wheat & Wheat Products, Pulses, Coffee, Black Pepper Meal, Foodgrains.

E-choupal Concept
E-choupal is a Hindi word that means "village meeting spot." The market is a gathering place for vendors and customers to conduct business. E-choupal is a virtual marketplace where farmers can directly negotiate with processors for better prices on their goods. E-choupal offers business benefits, but it also caters to a wide range of producers and customers. This encourages both smaller and larger players to take part.

The elimination of some levels of intermediaries allows a larger share of profits to reach the lower end of the value chain. The appeal of E-key choupal is that it can be used to link large producers with small producers and small users with large users, obviating the need for a broker hierarchy. The Internet serves as a networking backbone with low transaction costs.

The actual delivery of products to the processor is still achieved through the existing intermediaries. In an economy like India, where intermediaries add value at a low cost to every phase of the value chain, E-choupal does not attempt to eradicate intermediaries entirely. Intermediaries play an important role in the economy. Farmers become market-oriented as a result of E-provision Choupal's of all market information. They're used in e-choupal intermediaries, but they're cut off from the business data that goes to farmers.

Generating Concept
The ITC-IBD senior executives came up with the concept of developing and using an electronic marketplace during a brainstorming session. ITC believes in using a business model that benefits

society and helps to boost stakeholders' quality of life while also adding value to shareholders' properties. He also believed that in order to tap the Indian rural market, the leaders needed to recognize and unleash the power of technology.

Idea Initiation

The challenge of meeting the evolving needs of global consumers, competing in a low-margin agri-commodity sector with aggressive transnational trading behemoths, operating from a high-cost economy like India, and searching for alternative markets during the recession were the primary drivers behind the new business model. In addition, ITC has worked to progressively incorporate the service component into its operations and improve customer-Centricity. In India, the service factor has never been tried before in the commodity sector. ITC opted to use the new model to launch new lots, new varieties, new packaging, and non-standardized orders.

The ITC is the world's largest soybean exporter. They used to buy soybeans mostly from local markets. This resulted in a problem with low-quality goods; it is necessary to manage a wide range of products while maintaining high intermediation costs. In the Indian market, there is insufficient physical, social, and institutional infrastructure, which is replaced by intermediaries who add value to the chain at every stage.

Plan Conceptualization

ITC-top IBD's executives conducted a large brainstorming session. ITC wanted to build a customer-focused business model while also using existing infrastructure. Questions like the following were discussed:

- What is rural India's strongest corporate business model?
- What are the obstacles faced by these leaders?
- Are they going to have to function under new organizational structures?

The responses pointed to an electronic economy with low transaction costs. Multiple intermediaries are involved in the product supply chain. However, their total removal from the value chain would be unwise for any business model, as they compensate for weak infrastructure and provide critical value at very low costs on each leg. However, their total cost makes the chain uncompetitive. By suppressing the data flow and market signals, they may also extract erratic signals.

The creative use of information technology, through e-Choupal, has strengthened the core business by lowering supply chain costs and delivering superior products. Customer services include real-time monsoon information, prices, and improved farming practices, all while facilitating interactions between businesses and the village's community. Furthermore, IT provided the opportunity to create a unique model of 'rural delivery' based on the same structure.

The Project's Goals are Established

The project was started in order to create a win-win situation for both farmers and the business. On the one hand, the company was assured of increased sales and a larger share of commodity exports, while farmers earned better prices for their goods and increased the productivity of their farms.

The following are initial priorities:

Helps to increase the efficiency of farming by disseminating the new short & medium term information on district-level weather forecasts.

Best agricultural practices (generic as well as specifically) A provision in the village itself of quality inputs (seed, herbicide, fertilizer, pesticides, etc.)

Helps improve price realization for farm produce by making live data on markets available, viz. Wise rates provided by venue/buyer

- Foreign prices of the related agricultural commodities on the market History & Up-to-date supply & demand details
- Expert opinion on possible future movements in prices

Helps to reduce the cost of transactions in selling farm output by buying production on the doorstep of farmers via clear processes for pricing & weight management

- E-Choupal is an ICT platform that promotes data and information flow and enables online market transactions.
- Transmitting details (weather, prices, news),
- Transfers of information (farm management, risk management)
- It facilitates sales of agricultural inputs (quality-screened) and It offers the farmer right at his doorstep the option of an alternate output-marketing channel (convenience, lower transaction costs) Therefore, e-choupal is a distributed transaction network that brings together suppliers, consumers, and data and service providers.

E-choupal is a model that has a variety of non-conventional features, namely:

- Customer-centered ability that can be used for a variety of goods and transactions once it has been tested, it is easily scalable.
- Local talent and individuals are utilized, and local leaders are created.
- It can be used for both local and international suppliers.

ITC-Role International Business Division (IBD's) in the Creative Process

It's critical to create an ICT transaction system, establish transaction rules, and maintain the platform. As a result, ITC acted as a platform builder, platform coordinator, and platform rule setter. The unique fusion of the sequential top-down and bottom-up approaches is the platform's defining feature. As senior management conceptualized the new model at the strategic level, what started out as a top-down approach soon transformed into a bottom-up approach, with the tactical team coming up with a slew of new ideas.

The Chairman of ITC constantly provided inspirational leadership by challenging assumptions and flushing out possible solutions, having resourced the project in its initial phase with a strong belief in the concept's potential rather than the short-term pay-off. IBD's senior executives provide thought leadership to the project, conceptualize experiences, refine/articulate & communicate the business model/purpose on a regular basis, and extract value from ideas produced by the operations team to broaden the project's scope. While the operating team carries out the plans and expands the network in the remote hinterland, grinding it out gives a sense of accomplishment. The project moves forward thanks to a well-coordinated team effort led by each member, who, depending on the situation, takes on a leadership role at different times.

The ICT Platform Evolution

By studying the e-choupal as a transaction platform, it developed slowly and evolved continuously. The key issues encountered during the setup and management of these 'e-choupals' are infrastructure constraints, such as power supply, telecom connectivity, and bandwidth. There are various alternatives and innovative solutions available, some of which are expensive. To overcome the challenges of a shortage of telecommunications and e-commerce, The primary goal was to

develop a local language portal that provided farmers with information such as local weather, market prices, and best practices.

The development of content was also an important part of the model. The creation of a B2B site that explicitly integrated transactions into the back-end ERP and ensured that there was no latency in the processing helped to achieve this goal. At this point, personalizing content for the Fra was a major challenge.

At the operational stage, technology and organizational processes have changed. One of the first items the project discovered was that there are no off-the-shelf deployment technology solutions available in rural India. State-of-the-art technology must be localized to overcome the problems of inadequate connectivity and the digital divide that exists in rural India.

Core Elements of the ICT Platform

UPS and green energy sources manage local energy supply vagaries, resulting in further non-availability. To the extent practicable, user interfaces in the local language are iconic and intuitive, assisting first-time computer users. As the Internet is the largest e-choupal backbone, it is served by local public telecommunications networks or VSAT/Wireless networking and solutions Smart card technology is used to identify a choupal user in a particular way.

The challenge was to customize all of these because skill sets are limited and service facilities are inadequate. With careful preparation, they were able to turn e-choupal into an E-hub that could be used for a variety of products and inputs. E-choupal is a rising site that is expanding its scope as it goes. Using the "e-choupal" to supply and procure goods from each participating village, the E-hub assists other operators, such as input suppliers and rural distributors, in operating efficiently. Direct feeds, integration with their ERP/back-end systems, and a live meta market with no inherent inefficiencies would make this possible for rural commodity buyers and distributors. The technology roadmap will provide a secure, unified database of farmers with all information about their assets and creditworthiness available online to aid this process. This database, in conjunction with smart card identification, will allow online e-choupal transactions, leading to integration with participating financial institutions such as banks, insurance firms, and credit agencies to facilitate farmers' transactions with suppliers and distributors.

Initially, it appeared that e-choupal was the first time an experimental business model had been used in India. As a result, it was important for the organization to raise awareness of the rural market and to try new stuff. Internally, 'equal experimentation' known as 'Roll Out, Patch It, and Scale-Up' characterizes the execution. Since there are no precedents or manuals, this technique was used because certain lessons can only be learned by practice.

Members of the platform and their benefits. At a higher organizational level, the digital technology program resulted in improved inter-personal dynamics, such as increased contact with farmers, the skills needed to be culturally conscious and open to generating ideas from daily routine encounters with Sanchalak and villagers, and collaborative initiatives across organizations as well as within the business vs. the traditional approach. Employees decided to learn more about the villagers and how they operated. Employees needed to be fluent in the villagers' language in order to communicate

with them and understand their concerns. Employees must be dedicated to achieving the project's target in even the most remote locations.

Hierarchical management practices had to be unlearned, and the executives had to accept a whole new way of creating distributed leadership in the organization. It was important to have close collaboration and cooperation between employees in the hinterland and Sanchalak. To develop these new skill sets, ITC has implemented a series of programs/events aimed at employees and directors :

Field teams will attend workshops on maintaining farmer relationships. Outbound training curriculum for senior management teams, including a leadership style inventory workshop to improve mutual leadership skills. Workshops on strategy for communicating goals and creating new ideas on a regular basis

For the directors, quality testing and entrepreneurship, growth training programs are available The creation of trust among contributing farmers is the only factor that can foster long-term working relationships.

Local Leadership Development
Since the aim of e-Choupal was to be achieved by the use of technology, the Internet was chosen as the primary component for project execution. The key bottleneck, on the other hand, was a shortage of telecommunications coverage in rural areas, as well as the recipients' illiteracy. Even if the first problem is solved by setting up a VSAT link, the second problem will still occur. It was unrealistic and impractical to expect farmers to scan the internet and use the tools available. To build confidence among farmers in ITC activities, the village group, not someone from outside, serves as the interface between farmers and businesses. When ITC competitors use the Directors model in the future, ITC's success will be decided by trust and a sense of belonging among the villagers against ITC.

Encouraging Local Participation
A virtuous cycle of higher production, higher wages, enhanced risk management capacity for farmers, higher investment, and higher quality and productivity results from market-driven industry. The vicious cycle of Indian agriculture is the polar opposite of this. In addition, that rural incomes will reawaken latent demand for industrial products, which is essential for India's economy to continue to expand. This will set in motion a new virtuous cycle that will move the economy forward. To achieve these targets, the rural population's participation must be ensured. ITC relies on farmer input to build the website's content. Farmers' participation in the content creation process helps them to easily tailor the information to meet local needs. Farmers at ITC lead a focus group discussion to determine what details the village farmers need. The layout of the website, the language of the information, and the content are all determined by the user. The involvement of local farmers ensures that e-choupal receives sufficient and understandable data.

Important Performance Factors.
The e-Choupal experience demonstrates that ICT platforms can provide rural connectivity and e-commerce support. If the particular needs of society and business are conceptualized, these networks have enormous potential.

The following are some of the factors that have enabled the e-choupal to work effectively:

Detailed knowledge of rural markets: both economic and social networks are rural markets, and social and economic transaction operations are inextricably linked. Understanding the operations is critical until the processes are conceptualized. As far as possible, the network's adoption was aided by the use of the local community. Creating a transaction model entails the following steps: The success of e-choupal is due to the fact that the farmer and the processor both benefit from the elimination of middlemen and the timely availability of information. Logistics networks are exploited: modern rural market logistics are exploited, but data asymmetry cannot be exploited (unlike that in a conventional market). In this case, e-choupal makes use of local entities while avoiding the data asymmetry that is typical among them.

Selection of Directors: Both the selection of Sanchalak and the group's acceptance of Sanchalak are crucial to the success of e-choupal. ITC used a trial and error method to establish the procedure for selecting Directors. Within the platform's terms, Director is the interface for controlling the platform. The e-choupal is the farmer's. The farmer's key motivation for accepting theDirector was to receive training and raise awareness of his critical position.

Making a Suitable User Interface: In rural areas, the technical interface must be basic. In rural areas, the Graphical User Interface (GUI) must be tested and used only after it has been validated. To begin, the user pattern must be identified and secondly, It needs to be tried, double-checked, and confirmed. Farmers, for example, are oblivious to the concept of insurance. e-Choupal has developed a simple interface scheme that a farmer can understand.

Bottom-up entrepreneurship model: e-Choupal enables a vast amount of local creativity as well as the stimulation of local entrepreneurship. The farmer and Sanchalak are free to use e-choupal in any way they see fit. In rural India, e-choupal awakens the creative spirit. The concept of e-choupal has aided in the development of skilled workers in rural areas. This has a positive knock-on impact.

Attempting to recreate the experience with: The e-choupal theory refers to every agricultural and related activity in rural India. Across India, the basic character of agriculture is the same but the value chains of different crops have their complex dynamics. The socio-economic features of various regions are like that. Although making e-choupal functional, these complexities must be taken into account. Consequently, the efficiency/revenue models of the supply chain differ across goods & geographies. ITC has acknowledged e-choupal as its main corporate initiative and has made significant investments.

After successfully passing the pilot stage, the e-choupal project is already being scaled up from its use for businesses such as coffee, aquaculture, and wheat in other states of India. For example in the case of wheat, the transition in the industry would be driven by the ability of e-choupal to bridge the disconnection between the way wheat is purchased (physical properties), processed (chemical properties), and the way the customer purchases the final product (rheological properties &organolept).Which guarantees the consistency of quality in various types of Atta (Indian flour). This was simply not feasible in the system where wheat is currently sold, or too costly.

In addition to the original usefulness of e-choupal for the procurement of farm produce, the efficacy of the delivery of the range of products and the operation of these rural communities is gradually being checked. This business model has opened up a completely new and more profitable way for a variety of products & services to be sold and promoted in rural India. In addition to farm inputs such

as pesticides, seeds, and fertilizers, e-choupal is also evaluated for new services that include selling home appliances, consumer goods, etc. It will not only promote the entry of customers and insurance firms into unexplored and diverse rural Indian markets but also increase people's living standards at the same time. For all the above things Director, or an intermediary from the village, will take orders from the farmers and villagers. He would combine the orders into a large order and this order would be put directly with the producer of products or services via the network. Both goods and services will be distributed directly to the village.

Conclusion

ITC is successful in giving the farmer a sense of ownership and allowing him to generate additional revenue by eliminating the middleman. ITC has purchased various awards via e-Choupal, including "Golden Star Trading House" for demonstrating a strong track record in agricultural commodity exports. Participating farmers were able to increase their profits and eliminate the payment delay when the commodity was sold. The farmers' debt burden has been reduced as a result of this. The success of e-Choupal has taught corporations in India and abroad new lessons. The novel initiative has numerous advantages for ITC, farmers, and other businesses. Farmers have benefited from increased raw material sourcing and the development of a backbone for marketing the final products that are sold through E-Choupal, though ITC has benefited from increased raw material sourcing and the development of a backbone for marketing the final products that are sold through ITC.

The e-choupal case study helps to recognize the variables that in many states have led to the performance of the ICT platform:

E-choupal is one of the most effective ICT application systems that has been scaled. This is due to the fact that it was produced with that organization in mind. The Sanchalaks were chosen with consideration and were able to serve as neutral coordinators. The Sanchalaks were able to elicit a sense of involvement. This participatory style helped ICT to gain trust at the local level. The value of confidence in preserving societal relations cannot be overstated. E-choupal has been customized, checked, and finally implemented on the operating level. E-choupal has found recognition in all three businesses into which they have ventured. An effective way to introduce yourself.

E-choupal has also benefited small farmers financially. Each beneficiary receives benefits, and equitable benefits render adoption quite easy. The platform model's adoption was aided by extensive training and dispersed leadership concepts. Via local action and planning, people's empowerment reduces inequality. The ability of the choupals to deal with several inputs offers economies of scale. Rigorous preparation and distributed leadership concepts aided in the implementation of the platform model. Via local action and planning, people's empowerment help to reduce disparities. The choupals' ability to work with a variety of inputs offers economies of scale. It's a low-cost, multi-business model run by the farmer's representative. ITC has validated, scaled, and sustained it for many businesses. The ITC has shown that even small farmers can profit from ICT platforms by launching this initiative.

To Do Activity
• What is the best corporate business model for rural India?
• Does it need a new breed of leaders?
• What challenges do these leaders face?
• Do they have to work in a new organizational structure?

5.3 Status and Scope of E-commerce in Agribusiness in India

A history of rapid adoption and assimilation of new technologies, especially cost-cutting technologies, is emerging in today's agriculture and the food supply chain in general. Due to the high degree of fragmentation present in the supply chain, large volumes exchanged, and homogeneous products, agriculture were presented as one of the great promises of e-commerce. Through the use of e-commerce, internet technology has created the opportunity to increase cost savings and demand. The government has implemented a variety of policies to address critical issues that restrict the output of agriculture, including:

1. Creation of websites focused on agricultural information to provide information on different crops, soil conditions, weather, and pesticides.
2. Strengthening the agricultural marketing system of India by publishing regular market information on commodities and their varieties, such as minimum, maximum and modal prices.
3. Establishing Gyan-choupals (information centres) in villages to transfer knowledge to farmers in an efficient and timely manner.
4. For the cost-effective transfer of technology and knowledge, the use of modern information technology to facilitate contact between researchers, extension workers, and their farmers' clients.
5. Envision Mission Mode Projects (MMP) services in agriculture to provide farmers with information on pesticides, seeds, various government schemes, eco-friendly fertilizers, soil fertility recommendations, efficient crop management, marketing of weather, and agricultural produce.

The ability of farm stakeholders to communicate, receive, analyze, and use information to identify and react appropriately to market signals is directly impacted by these policies. The first step is to develop the information system in all of its phases, which involves gathering product prices in various major markets, analyzing the data, and finally enforcing the changes. The second move is to correctly adjust the available price information to the market's development in order to expand production options and intelligent product sales during off-peak periods.

An increasing number of agribusinesses see the Internet as a marketing, management, operations, and collaboration tool. For many individuals and businesses, the Internet as a business tool has proven to be enticing. An online presence is increasingly being perceived as a prerequisite for making a purchase.

Attracting more customers, raising public awareness of the organization and its products, endorsing strategic or policy-related positions, and selling more goods are all targets. There are several different estimates of the potential of doing business over the Internet. However, there is a lot of uncertainty about what is going on. What companies should do to take advantage of the opportunity that exists. Also to the most seasoned marketer, the essence of e-Business can be perplexing. Many barriers to effective e-businesses, e-Marketing, or e-commerce are perceived by both suppliers and consumers. Companies are forced to devise marketing campaigns explicitly for online market share growth in order to succeed. Early evidence indicates that developing new business models based on rapidly changing technology is difficult. As a result, the aim of the case study is to compare

conventional business and e-business models, as well as integrated strategies, using the best models available in the existing literature and industry discussions. Much of the e-Agribusiness elements are still in use and have been for several years.

E-Business: A organization that depends on computer media, which needs at least two members. The subjects of e-Business are management and policy. E-Marketing, e-commerce, and e-Agribusiness are all subsets of e-Business.

E-Marketing: A company that depends on computer media and needs at least two members. E-Business is concerned with management and planning. E-Marketing, e-commerce, and e-Agribusiness are all examples of e-Business subsets.

E-commerce: A financial transaction or a contractual agreement for the exchange of products or services is carried out by an online company. As seen in the e-Business Continuum below, e-commerce is a branch of both e-Business and e-Marketing.

Agribusiness: comprises the agricultural input market, the manufacturing sector, and the manufacturing, processing sector: producers, suppliers of agricultural inputs, processors of agricultural outputs, manufacturers of food products, and those shipping, selling, and/or preparing food products.

E-Agribusiness: is essentially an e-Business based on agricultural products or services.

E-rise Commerce's in India
The rapid adoption of technology, led by the increasing use of devices such as smartphones and tablets, as well as access to the internet through broadband, 3G, and other means, has resulted in an increased user base online. Favorable demographics and an increasing internet user base have aided this growth. Highlights include the rise of home grown players such as Flipkart and Snap Deal, as well as the immense interest of investors in these businesses.

The rivalry has grown even further with the arrival of e-commerce behemoths like Amazon and Alibaba. Both of these international players have the financial capital and patience to push the Indian e-commerce industry forward. They also have an advantage because of their vast domain expertise and best practices gleaned from their global experience. Furthermore, these companies have worked in markets where the e-commerce industry has developed and are aware of the problems and strategies that must be implemented. Indian companies realize this and are looking to continue focusing on expanding sellers and variety on their pages, innovating on many customer touch points, and providing smooth and quick delinquency to compete with international organizations.

The Indian government's ambitious Digital India initiative, as well as the modernization of India Post, would have an effect on the e-Commerce industry. The Digital India project aims to establish a one-stop shop for government services, with the mobile phone acting as the distribution mechanism. The program will offer the e-commerce industry a strong boost as it would contribute to a rise in trade and production, warehousing by bringing the internet and broadband to remote corners of the world.

India Post's distribution channel and other e-Commerce-related services are being developed as a major revenue model by the government, particularly because India Post handled cash-on-delivery (CoD) business for companies like Flipkart, Snapdeal, and Amazon. Both of these endeavors will have a major impact on extending the reach and growth of e-commerce players in previously unserviceable areas.

India's overall retail potential is huge, and strong e-commerce growth is expected as a result of a demographic dividend (a young population, increasing living standards, and an upward mobile middle class) and rising internet penetration. From an investment standpoint, the market is mostly a minority stake market, with early-stage deals gaining the most traction. Such early-stage funding will assist companies in establishing a stable foundation from which to develop. With such strong market conditions and an equally upbeat investor culture, we expect many more e-commerce businesses from India to enter the coveted billion-dollar club.

E-Business User Models

The three most often discussed e-Business markets are Business-to-Business (B2B), Business-to-Consumer (B2C), and Consumer-to-Consumer (C2C). Decisions on the business model are guided by the e-Business market plus the characteristics of the product, organization, and industry. These are important because of their effect on a company's integrated strategies. Media reports and literature for the past two years illustrate the implications of not properly assessing a company. Most of the early dot.com craze was motivated by the need for a first-mover advantage. The emphasis of business models was on using unique technological concepts to capture vast quantities of venture capital available in a robust economy, irrespective of the business feasibility of the design.

Two main e-Business models: The improvement-driven model and the business model based on sales. Improvement-based ventures use the Internet to achieve savings in internal productivity, increase marketing efficiency, and change the perceptions of customers. These are indirect advantages because they do not contribute to a new transaction directly and do not produce profits from consumers immediately. Cost savings and performance, however, are also major reasons why businesses try e-Business. Category and brand creation, improved customer support, and product enhancement by online knowledge or goods are other leading reasons for improvement-based Internet projects. On the Internet, sales-based market models follow either the supplier-based revenue approach or the user-based approach. Provider-based models have payments charged for the website by other organizations who wish to access the users of the site. Prime examples are content sponsorship and retail partnerships. Revenues in user-dependent

Company Models Online

To fully benefit from the e-commerce industry, a large number of companies use different innovative concepts and operating models, such as partnering with online marketplaces or setting up their own online stores. Some of the most common organizational models are as follows: Sellers also partner with leading markets on the latter's website to set up a dedicated online store, which is referred to as marketplace and pick-up & drop. In order to manage inventory and drive sales, sellers play an important role. They use the marketplaces' website to manipulate and access their delivery network for high traffic. However, when it comes to pricing and customer care, the sellers have very little say.

Self-owned inventory is a model in which the e-Commerce player owns the inventory. The model offers a better customer service and after-sale fulfillment. It provides smoother operations and contributes to better controversies by providing ready information on stock, position, supply chain, and shipments. On the other hand, there is a risk of potential markdowns and working capital being trapped in inventory. A private label is a business model in which an e-commerce company produces its own brand of products to sell on its website.

This model competes with branded labels by offering a diverse product and price range to its customers. The margins on these items are generally higher than those marketed third-party products. The establishment of an online branded store by the e-commerce player or a third party is needed for the white label. The brand assumes the responsibility of generating website traffic and providing services by partnering with payment gateways. This aids in the growth of credibility, customer interaction, and loyalty, as well as a greater sense of control over the brand's and product's experience.

Applying e-Agriculture
All measures in the field of agriculture and infrastructure in which ICT can empower the population are included in the implementation of e-Agriculture.
1. Use ICTs to provide Internet Demand-Based Agriculture Information to farmers in order to assist them in obtaining crop price information.
2. Crop treatment practices and forging direct partnerships with potential customers in order to get greater value for their goods. Assisting farmers in gaining access to product price information Access to the agricultural sector is improved by multipurpose community centres.
3. Awareness about agriculture has an effect on other aspects of life, such as education, health, and things required for daily needs, in addition to promoting communication between the village community and the rest of the world.
4. e-Agriculture also meets the information needs of the different players in the agri-value chain.

E-Agribusiness Spectrum
1. E-agribusiness has a lot of potential in agriculture, particularly in horticulture and processed goods. Mango, grapes, spices, and other fruits and vegetables are in high demand on both the national and foreign markets.
2. Sugar, tea, agriculture -processed goods. To make more sales, dairy products, drinks, etc. may also be sold online. Farmers get up-to-date information about the market and can sell their products through the electronic medium.

Major e-Agribusiness Advantages
1. Global Sector: e-Agribusiness has a virtual global distribution marketplace. Since the Internet is used by millions of people around the world, conducting business through this modern technology is limitless and consistent.
2. Inventory cost -Agribusiness helps to reduce inventory costs by many times by introducing just-in-time technology. It also improves the company's ability to forecast demand in a given industry with greater accuracy.

3. Market Service: Market and after-sales expenses normally account for at least 10% of e-agribusiness operating costs. Many of the equipment, as well as product/service quality upgrades, may be placed on-site.
4. Distribution period: Customers place orders on the internet via e-Agribusiness, and goods are delivered in a standard manner.
5. Quick reach: With the help of the Internet, companies can now provide information on their products and services to all potential customers around the world at a low cost.
6. Direct connection: Businesses can use the internet to establish direct connections with consumers, key suppliers, and distributors in order to complete transactions and exchange trade information more easily.

E-Agribusiness Challenges
- Computer illiteracy and e-commerce ignorance.
- Internet connectivity issues.
- Expression issues.
- Electrical load shedding.
- The persistence of middlemen in the agricultural supply chain.

E-Agribusiness Evolution
Due to certain factors such as the rate of Internet adoption as a business tool by producers and consumers, their scale of operations, and the size of the industry, the evolution of e-commerce in the agribusiness sector is gradually picking up. Facts indicate that large-scale manufacturers are shifting their activities online. Another factor to consider is the scale of the deals for e-commerce participants. While it is likely too early to predict which model will win out, online businesses have the potential to become massive economic hubs, connecting supply chains within vertical industries and horizontal supply chains across industries.

Any third-party e-agribusiness sites are likely to fail as a result of strategic and operational constraints, operational inefficiencies, or a lack of funding. Not only is e-commerce about business, but it's also about strategy. Dotcoms could be replaced by companies who have integrated the Internet into their strategy and produced real financial returns. Traditional agriculture's cornerstone "bricks" (traditional agriculture) tend to be treating e-commerce as a business requirement. As incumbents, traditional agribusiness companies hold significant market share, and some are adamant about maintaining that position. Some customers with a significant market share are now establishing procurement sites. ITC's e- Choupal and Cadbury India Ltd's procurement sites are two recent examples that can be cited.

Experience with Customers The top ten items that e-commerce companies must do in order to expand When consumers switch from study to purchase phases of fulfillment, their preferences shift rapidly. These shift drivers must be considered by e-commerce companies, and plans must be adjusted accordingly. It will be necessary to make it simple to switch between ordering on tablets, cell phones, and computers. Furthermore, flexible multichannel returns and distribution options, as well as the ability to touch and feel the product before purchasing, must be created. They must also provide adequate after-sale service and support. Product reviews and ratings should be available online, as well as videos, more advanced sizing, and fitting tools.

Technology Advancements As technology evolves, e-Business must upgrade its offerings on a regular basis. Shopping via smart phone, for example, has arrived; they must create user-friendly mobile applications for their websites. They must ensure that their websites are quick enough to conduct business, particularly during sales, deals, and discounts. Technologies that allow seamless integration of back-end and front-end infrastructure, customer experience optimization systems, automated inventory management, and analytics will be critical for e-commerce businesses.

Convergence between online and offline channels Consumer tastes change quickly as they move from research to purchase to delivery phases. These shift drivers must be considered by e-commerce companies, and plans must be adjusted accordingly. You'll need to make it easy to switch between ordering on tablets, phones, and computers. Flexible multichannel returns and distribution options must also be developed, in addition to touch and feel requirements of the product prior to purchase. They can also provide adequate after-sales service and support. Online product reviews and ratings, images, more advanced sizing, and fitting tools should all be available.

System of Operations
Business models have changed rapidly in the e-Commerce industry, owing to increased competition and players' inability to handle high costs. To remain in business, e-commerce companies would need to adapt and grow on a regular basis. Furthermore, many of these businesses began as startups in the e-commerce sector and have grown to enormous sizes thanks to steady market growth, but they lack well-defined skills and organizational structure. Customer acquisition costs in Indian e-commerce have been rapidly increasing due to intense competition between several well-funded players. Just 2% of website visits result in sales at the moment. As a consequence, there is a distinction between prospective and actual customers. This environment, when combined with high transaction costs, may be problematic.

Conclusion
It is concluded that the effect of internet-based e-commerce on the agricultural industry is still unknown. It's possible that supply chains will become more powerful. More differentiated products that meet the needs of consumers may result from stronger relations between producers and consumers. E-commerce provides an alternative forum for the promotion and marketing of agricultural products that benefit from targeting broad geographical populations and offering relatively low-cost comprehensive product details. Markets could be becoming more open .Globalisation of the industry will become a reality as the Internet transcends geography. Transformation is all about transition.

To Do Activity

- In what ways do rural businesses use the Internet and the World Wide Web for business operations? What factors influence this use?
- How do rural businesses rate the effectiveness of their websites? What factors influence the perceived value of such websites?
- What impact are the Internet and World Wide Web likely to have at the industry level, for example on markets and supply chains?

Summary

The technological revolution, which is described here as the availability and use of the Internet, has altered the way most businesses function. They have access to business opportunities from a local range thanks to e-commerce. Never before done on a global scale. This Internet revolution, on the other hand, is a double-edged sword for rural entrepreneurs and small business owners. Through effective use of technology, rural companies can enter new markets and serve new customers. E-commerce offers them a spot in the new market, but it also exposes them to greater competition from well-known companies like Amazon.com. Rural entrepreneurs must innovate and adapt knowledgeable e-marketing strategies to be different and efficient in this new competitive e-environment.

Entrepreneurs are debating how to use e-commerce to develop their businesses.

The knowledge of other company owners can be an important learning opportunity when it comes to strategy. Rural entrepreneurs must innovate and adapt knowledgeable e-marketing strategies to be different and efficient in this new competitive e-environment.

Educating intermediaries on the advantages and disadvantages of e-commerce techniques.

The aim of this project is to provide case studies of rural businesses that increased revenue, income, and/or jobs, as well as those that used e-commerce to expand market and consumer relationships. E-Chaupal has been a big success in linking and engaging rural India. A farmer who is still practicing. ITC finds a number of schemes to be successful when services expand to other states and goods—Choupal is a major driver for ITC exports. E-Chaupal has also gotten a lot of coverage.

From e-Chaupal, renowned academics have succeeded in restoring the supply chain, and the model implemented by the ITC has the potential to be reflected in minimal development and developing countries. ITC has been successful in generating farmer ownership and enthusiasm getting extra income by eliminating the middleman. ITC e-Choupal purchased various to show a track record in the export of agricultural commodities. Participating in farmers' ability to increase your income and eliminate delays in receiving payments after selling the product. This has helped to reduce the debt burden of farmers.

The success of e-Choupal novel initiative are many times greater for ITC, farmers, and other companies. E-Choupal has helped farmers in improving and achieving their productivity ITC benefits from better sourcing and better sourcing of raw materials build the backbone for marketing key products to FMCG companies Like ITC. Assists in identifying the factors that contribute to the case study of e-Choupal.

The Success of ICT Platforms

e-choupal is one of the best ICT application platforms continually increased and improved. E-Choupal was adopted and later verified and later extended the active phase. E-Choupal has been approved in all three businesses. An effective way to implement a new business model. Rural Market e-choupal also provided financial benefits to small farmers. Everyone the beneficiary receives the benefit and adopts the same benefit speed. Acceptance Intensive training and distributed leadership concepts facilitated the acceptance of the concept of the stage. Empowering people through local action and training reduces the odds. Choupal is capable of dealing with a lot of people. The range of inputs provides for economies of scale. E-choupal was launched in an attempt

to boost ICT platforms market access by eliminating the use of intermediaries. ITC has a concept to be conceptualized and implement this procurement cum marketing platform. It is a low cost / multi-business Farmer Representative Running Model. It has been validated, extended and ITC continues to be the go-to for many businesses. By launching this initiative, ITC showed even marginal farmers can benefit from the ICT platform.

How the Internet-based e-commerce business is changing is still uncertain. The supply chain is more efficient. A strong relationship between producers and customers leads to differences in products that meet customer needs. E-commerce provides an alternative space to promote and market agro products with the benefit of reaching a wider geographic population and providing detailed product information at a lower cost. Markets are more transparent. As the Internet changes the geography, the globalization of the region becomes a reality. Change is about change and change is the winner and loser. Winners are fast innovators who can meet customer needs. Losers are reluctant to take this powerful approach and follow the trend.

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Editors' Profile

Dr W G Prasanna Kumar

Dr. W G Prasanna Kumar, Chairman, Mahatma Gandhi National Council of Rural Education (MGNCRE) prides in calling himself a Public Servant working for Climate Change. His expertise in Disaster Management has him in the advisory panels of several state and national level departments. He is also an expert advisor for the government of Telangana in its Disaster Response Force endeavour. A master trainer for Civil Services candidates, he conducts intensive training programs periodically at the behest of nationally recognized training institutes. He is currently actively involved in promoting higher education curriculum addressing rural concerns in India. **"Villagers to be producers not just consumers"** is his conviction that drives him to work for rural challenges. He aspires for an adaptive disaster risk resilient and eco-responsible India. The Curriculum on MBA in Waste Management and Social Entrepreneurship, and BBA and MBA in Rural Management are his major academic achievements dedicated to India's rural concerns. This has culminated in several collaboration MOUs for introduction of MBA/BBA Rural Management in Higher Education Institutions across India.

Dr. Prasanna Kumar excels in taking a vision and making it a reality and a plan into action, driven by a strong motive to achieve. He has translated positive intentions into tangible results. Being clear on the vision, defining a pathway, setting of the track with a clear destination point and quickly taking corrective actions as and when needed – are his prime qualities that make him an Achiever.

Under Dr. W G Prasanna Kumar's leadership MGNCRE has done nationally recognized instrumental work in building rural resilience including rural community engagement and Nai Talim - Experiential Learning. He has guided and helped MGNCRE in making key decisions and implementing agenda in several areas including Nai Talim (Experiential Learning), Community Engagement, Rural Immersion Programmes, Swachhta Action Plan activities, Industry-Academia Meets and Exhibitions on Waste Management, Comprehensive Sanitation Management in villages by working with Higher Educational Institutions, making curricular interventions in Waste Management and Rural Management, compiling Text Books on Waste Management and Rural Management, UNICEF (WASH) activities and several other related impactful activities. MGNCRE has become an interface for Government of India for promoting academic activity focusing on the rural concerns, being an advisor and a curriculum development agency for the Government of India. The Council is also now an RCI for Unnat Bharat Abhiyan.

Another pathbreaking achievement has been the formation of Cells through online workshops for institutionalising the efforts of MGNCRE. Vocational Education-Nai Talim-Experiential Learning (VENTEL) discuss MGNCRE's interventions in HEIs and making Vocational Education as a Teaching Methodology; Workshops on Social Entrepreneurship, Swachhta and Rural Engagement related activities in Higher Education Institutions has paid dividends and the key roles of the HEIs is highly appreciated by the Ministry. Building continuity and sustainability is being done through Social Entrepreneurship, Swachhta & Rural Engagement Cells (SES REC). Institutional level Rural Entrepreneurship Development Cells (REDC) Workshops/ FPO/FPC-Business Schools Connect Cells (FBSC) are organized with the objectives of Functionality of RED Cell; Preparation and Implementation of Business Plan and grooming students to be Rural Entrepreneurs.

A man with many firsts to his credit, and an incredible record of accomplishments, Dr. W G Prasanna Kumar is currently guiding MGNCRE in building a resilient rural India.

Dr K N Rekha

Dr K N Rekha, is a PhD Graduate from IIT Madras. She has 14 years of experience in training and education Industry. She works at Mahatma Gandhi National Council of Rural Education (MGNCRE), Hyderabad as Senior Faculty. She is involved in curriculum development on Rural Management and Waste Management. Prior to this, she worked as a researcher at Indian School of Business, Hyderabad, a short stint at Centre for Organisation Development (COD), Hyderabad. She has co-authored a book on "Introduction to Mentoring", written book chapters, peer reviewed research papers, book reviews, Case studies, and caselets in the area of HR/OB. She also presented papers in various national and international conferences. Her research areas include Mentoring, Leadership, Change Management, and Coaching. She was also invited as a guest speaker at prominent institutions like IIT Hyderabad.

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The Author of this book is presently working as a Dean Academics in Yashaswi Academy For Skills,Pune and posses total 19 years of experience in academics.She has a rich experience in academics.Dr.Sunita Patil are highly qualified in the field of information technology. Her many research articles are published in National and International Journals and Conferences. Prior to going to Education and Training, the author has worked in Software industry as a Software testing Professional for a period of 2 years. She has publisehd 14 books for Computer courses offered for Graduation and Post Graudation of SP Pune Univeristy, Pune.

Mahatma Gandhi National Council of Rural Education (MGNCRE)

Department of Higher Education
Ministry of Education, Government of India

Where there is Rural Wellbeing
there is Universal Prosperity

सत्यमेव जयते

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