

## **E-commerce in Kerala: A platform for business enterprises to venture into the global market and boost economic growth**

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### **Abstract**

In 2016, Kerala became the first digital state of India. A consumer state, Kerala has a high potential for the electronic-commerce (e-commerce) market. The Government of Kerala is taking various measures to implement and facilitate the adoption of e-commerce to improve the state's economic situation. The policies and tax laws are being addressed to encourage small and medium enterprises, traders/merchants to adapt to the online marketplace and to use the opportunities to expand the business globally. E-commerce is a business platform that is mediated by the use of the internet. Across India, the increasing use of electronic devices and increased penetration of the internet are contributing to the growth of e-commerce. Different features like retailer's dynamic website, proper and accurate description and a better quality image of products, good quality and prompt delivery of products, 24x7 customer service with reduced turnaround time, product disclosure with clear terms of purchase and replacement, pre- and post-sale services are driving more customers towards online shopping. This paper examines the growth and challenges and the overall scenario of e-commerce in Kerala.

**Keywords:** E-commerce, economic growth, online shopping, Kerala, Internet

### **1. Introduction**

In the early 1990s, the commercialization of internet and World Wide Web platform led to phrase a new term called electronic commerce [1]. The present day definition of electronic commerce (e-commerce) is a business practice or trading of products and services with no barriers of time and distance using an internet or electronic devices like mobile. Over the years, e-commerce have grown with different modalities, and has impacted the way business is being carried out all over the world including India ([2]. E-commerce serves different services to a wide range of consumers and offers a huge market and numerous business opportunities for the economies. E-commerce is often confused or interchanged with e-business. E-commerce involves business (money) transactions, selling or buying of products over the internet, whereas, e-business includes e-commerce and other aspects of e-business strategies majorly focused on internal processes like production, risk management, finances, etc. In short, e-commerce is a subset involving sales aspect of e-business [1]. The innovation of new technologies and business strategies has provided e-commerce with multiple features like ubiquity, non-cash payment, global expansion, 24x7 customer service, automated product inventory management, sales improvement, etc. [3]; [1]. These features have made this business practice very unique and widespread over the conventional or traditional method. This business model serves advantages and disadvantages to both the customers and organization/business and has been widely discussed [4],[5],[3]. The adoption of e-commerce in a developed or developing economy depends on different factors [6] which has been categorized under general headings like technological factors (internet services, cyber security, usage of electronic devices), organization factors (financial resources, senior management attitude) [7],[8], socio-

economic factors (income of household, cultural belief), political factors (government policies, tax laws) [9], etc.

E-commerce industry has glorified the shopping and the selling style. Over a period of time different types of e-commerce business models have emerged. All these models have common components like online marketplace, internet, buyers and sellers [10]. At present, they are categorized as follows:

*Business to business (B2B)*: B2B means business between the companies like manufacturers and wholesalers or wholesalers and retailers [11]. This may include a broad range of intercompany transactions, including company purchases of services or technology, etc. and some types of financial transactions between companies, such as insurance, bonds, and other financial assets [12]. For example: ExxonMobil Corporation.

*Business to consumer (B2C)*: It involves trading of products or services between the company and the consumer. This is the biggest and deepest e-commerce market [12]. Amazon is the most common example of B2C e-commerce.

*Consumer to consumer (C2C)*: It involves promotion and interaction between customers. This enables the sellers and buyers to locate and talk to each other, and exchange and trade the product of their interest. For example: C2C selling market developed by OLX in India [13].

*Consumer to business (C2B)*: This is a new e-commerce business which is emerging in the market. In this model, individual, who owns a sole proprietorship, sells products or services to the companies [14].

The listed ones are the primary type of e-commerce models. In the market, there are other types of e-commerce models also like Business to administration or government (B2G), Consumer to administration, mobile commerce (M-commerce) [1]; [10], etc.

## 2. Growth of E-commerce industry in India

E-commerce has become a global phenomenon and is continuously growing. India is also one of the fastest-growing e-commerce markets worldwide [15], but has been far behind its counterparts from developed economies like China, US, Japan, etc. Based on revenue, the biggest e-commerce market in the world by country is China, which has the world's biggest and fastest growing e-commerce market (US\$ 632 billion) mainly led by e-commerce subsidiaries of the Alibaba group followed by US market (US\$ 340 billion) which is led by Amazon and eBay companies [16]. In 2018, the e-commerce revenue of India amounts to US \$22,138 million [17] with revenue of US \$7684 million generated from fashion industry itself comprising of apparels [18]. From 2016-18, the retail e-commerce sales (in revenues) in India has increased from 16.07 billion US dollars to 25.07 billion US dollars and this sale is expected to increase up to 52.3 billion US dollars by the year 2022, according to Statista [19]. India has a potential market for e-commerce and the e-commerce business can grow at an unprecedented rate considering the increased internet penetration rate in India. According to a report 'Internet in India 2017', published jointly by the Internet and Mobile Association of India & Kantar IMRB, by June 2018 India should witness around 500 million internet users as compared to 481 million in December 2017 [20] (Figure 1). From 2007-17, overall internet penetration in India grew from just 4% in 2007 to 35.03% in 2017 (Figure 2), registering a compound annual growth rate (CAGR) of 24.23% [15].

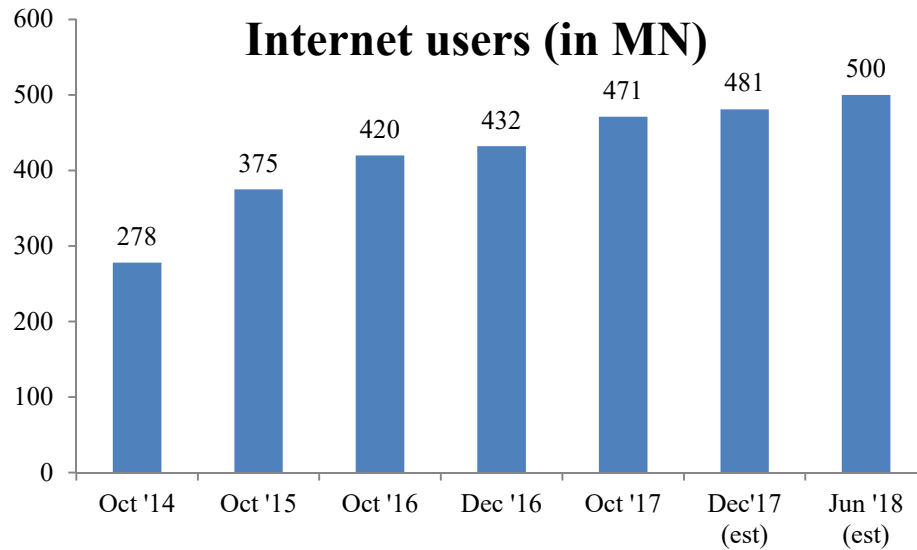


Figure 1: All India internet users' estimates, October 2017

Source: IAMAI &amp; Kantar IMRBI-CUBE 207

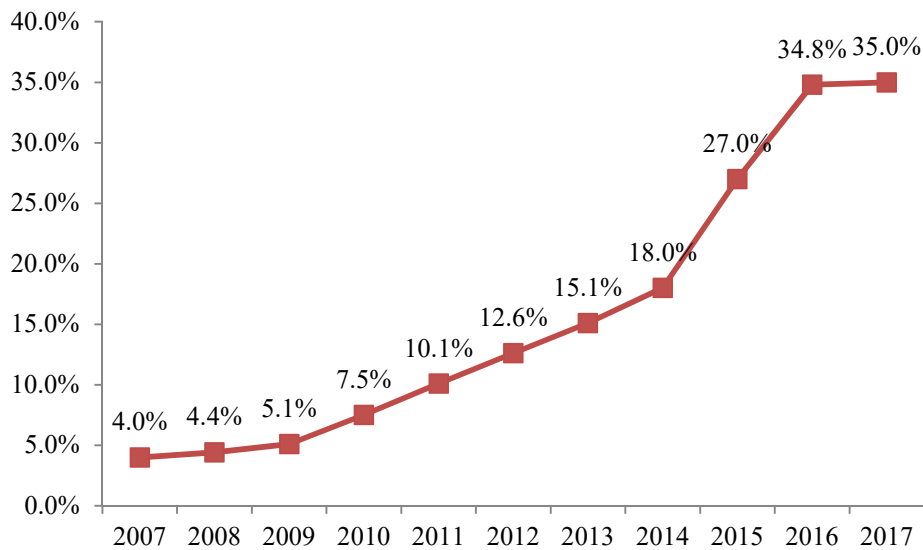


Figure 2: Internet penetration in India

Source: *Economic Times*, *Live Mint*, *Aranca Research*

According to the findings of this new report, as on December 2017, urban India has around 295 million and rural India has 186 million internet users. Though this number looks promising, but the estimated population of rural India is 918 million as compared to 455 million in urban India, as per 2011 consensus, thereby projecting an urban-rural digital divide. This digital divide in India is due to a poor digital connectivity and poor internet services in the rural areas [21], and other local factors like education and local language content.[22] The digital divide affects the social and economic scenarios of rural areas and various other sectors like health, education [23], etc. Overall to bridge the digital divide India should opt for a systematic approach, construct the policies or adopt alternative technology which could improve the rural digital infrastructure [21]. Millions of Indian internet users are opting for mobile connections to use different services like sending mobile messages, watching online videos, and shopping. According to

Statista, in the year 2017, about 23.93% of Indian population used their mobile phone to access the internet, and this figure is expected to increase to 34.85% by 2022 suggesting that India has a huge market for the digital and mobile sales. There is a gender difference also in the internet usage; males use it for downloading and purchasing, and female uses internet for messaging and promotional campaigns [24]. In India, the internet user market is dominated by males [20] and this gender role could influence the usage of internet including the online shopping which could affect the e-commerce industry.

### 3. Key Drivers of Indian E-commerce

There are myriad key drivers that affect the growth of e-commerce in India. The internet penetration in the cities, small towns has been contributing to the e-commerce pie and will be pivotal for future growth. There is an increased awareness of internet among all the age groups and people are getting used to online commerce due to easy availability of the products. The advancements in technology adoption such as the increasing proliferation of devices such as mobiles, smartphones and tablets, and access to the internet through broadband, 3G/4G, etc. have become major driving force and have led to increase in the online consumer base [25]. The country's or state's demographic factors like age, gender, social status, family size, etc. plays a very strong influence either negative or positive on the online shopping [26]. Over the past few years the India's standard of living has raised and in urban India there is an increase in annual household income which has boosted the economy and e-commerce. Other than metro cities, e-commerce industries are targeting Tier II and Tier III cities and small towns. Many of these cities are located in business-friendly states and these have well-developed industrial sector, and are connected to other major economic hubs. These city-dwellers prefer local and cheap products. According to a study done by the Indian Institute of e-commerce, by 2020 India is expected to generate \$100 billion online retail revenue out of which \$35 billion will be through fashion e-commerce [2]. Tying up of online retailers with Indian Post, Petrol-pumps and aviation industry are also extending their reach. Many of them are investing in logistics and warehouse to enable the delivery of products to remote locations [27]. To overcome the challenge of providing quality product and the touch experience, e-tailers are trying to converge the online and offline channels by setting up of the physical stores with good quality products at reasonable prices and enhance the customer experience [25]. Demonetization has really affected the e-commerce industry by a big drop in cash on delivery (COD) option. However, the Government of India's "Digital India" initiative has been introducing various digital services including the online modes of commerce [28]. The full proof transaction by debit card and credit card is another option and is on the rise. Many newer models such as private, white labels and drop-ship is also becoming popular [25]. In this heightened competition, common investors are looking forward for mergers, alliances and partnerships among players. Brands and brick-and-mortar retailers are increasingly focusing on 'going online'. Language also plays an important role in e-commerce. In India there are 22 major languages and with Hindi and English not only as the official languages but also widely spoken language. India has the largest English speaking middle class population and most of the e-commerce portals in India are in English. Analyzing that many people in India still prefer to speak their local or regional language, in January 2014, Snapdeal launched its multilingual interface in Hindi and Tamil language. The content development of website in Hindi was widely appreciated [29]. Developing the regional language versions of e-commerce portals will positively influence the growth of online shopping. The Government of India is also looking for foreign deposit investment (FDI) and is creating favorable FDI policies to attract the foreign investors. Many foreign Investors are funding e-commerce sector due to strong growth prospects in India [25].

E-commerce can drive the economy of country by empowering the different sectors. E-commerce web portal called Dharavi Market is an excellent example of business model where the craftsmen from the slum area of Mumbai called Dharavi showcases and sell their products including variety of goods from clothes, bags, accessories to pottery products. This enterprise also carries out customization of products. This highlights how a social enterprise can generate employment and improve the socio-economic status

of people via e-commerce industry [26]. Similarly, to empower the people living in the remote or disadvantaged areas, the Madhya Pradesh government initiated 'The Gyandoot project', a unique form of government-to-citizen e-commerce activity. Under this program rural people were provided with information to various government services and marketing information at low cost [30]. Various studies have shown that demographic factors like age, sex, marital status, income, family background, etc. can influence the consumer behavior on online shopping intention for different products [31]. In a quantitative and qualitative study based on variables like satisfaction, frequency of buying, the number of products bought and overall spending on online shopping among online shoppers from Delhi, Mumbai, Chennai, Hyderabad and Bangalore, different metro cities of India showed that female buy stuffs more frequently as compared to males, which could be due to that women are more impulsive buyers and also in these cities most of the women are educated and from the working class. Another interesting factor is the family size like nuclear, extended or family with children. It was found that family with children spend more on online shopping of products like airline tickets, movie shows, and leisure products, suggesting that children could be a game changers in the e-commerce market [31]. However, in this study, factors like age, marital status, income did not have any impact on online shopping which is in contrast to study conducted only in Bangalore [26]. This study from Bangalore where large section of society is educated and employed with maximum in IT industries, it was found that though gender does not influence the online shopping. However, other demographic factors like age, income and occupation do influence the online shopping. The better internet connectivity, digital literacy and awareness of online shopping among rural and urban dwellers can transform the Indian e-commerce sector.

## 4. Growth of E-commerce in Kerala

Kerala is a small maritime state of Indian peninsula with 14 revenue districts. It is a highly consumer state with the highest density of population compared to the other states of India. In the past few years, Kerala has witnessed amazing growth and development in its economy. Kerala's economy is primarily based on agriculture, tourism, industries and foreign remittances (Gulf money) [32]. According to IBEF, in the year 2015-2016, primary sector (agriculture, mining and quarrying segments) contributed 12.69%, secondary (manufacturing, construction, electricity, water and gas supply) 19.51% and tertiary (storage, transport, financial real estate segments) contributed 67.8% to the state's GSDP [33]. In 2016-17, at national and state level seven percent growth rate in the economy was reported and primarily the tertiary sector has upsurged the economic growth in the State [34].

### 4.1. Benefits of E-commerce in the Perspective of Kerala

Online shopping has become very common, largely due to the convenience and time saving option. The additional feature of safe transactions has also attracted more customers. The development of a dynamic and user-friendly e-commerce website with different features including search products, customization of products, 24x7 technical support and maintenance, security features for safe transaction, tracking of orders and info on shipping, track history, prompt delivery, etc. attracts the customer easily and effectively, and increases the online sales [4]. The dependence on the e-commerce portals to obtain the products instantly are increasing worldwide. In this scenario, the e-commerce with multifaceted features can boost the expansion of Kerala's business and economy sector in the following ways.

- Opportunity for the SMEs and Kerala-brands to flourish and expand.
- Access to the global or international market.
- Creation of multiple job opportunities like content developer, web designer, manager, etc.
- Job opportunities for small-time craftsmen, women, etc.
- Flexible, accessible and cost-effective platform for the entrepreneurs.

- Less investment or low cost to create a virtual store.
- Increase in marketing communication by e-mail, chatbot, etc.
- Acquisitions of new customers and improved sales.
- Heightened competition will enable business organizations to adapt and innovate quality products or services.
- Enhancement of knowledge in business management like marketing strategy, technical infrastructure, etc.
- Investment and market expansion in rural areas will impact the social and economic conditions.

#### **4.2. Role of ICT in Kerala's E-commerce**

Recently the Information and Communication Technology (ICT) has become one of the key players for the state's economic excellence. Kerala has conceived and implemented action plans to derive benefits of the emerging ICT for the economic development of the state. The Kerala government has restructured their educational system from primary to university level, marketing of unique bio-resources of Kerala, establishment of a school and courses delivering informatics knowledge and educational services [34]. At educational level, courses like MCA, BSc. Computer Science and software engineering are actively encouraged. By entering into tele-education and establishing software technology platform has enabled Kerala to become a 'Digital State' [35]. Other than the agriculture and foreign remittance, Kerala has started generating revenue by welcoming many multinational companies. In this context, Government of Kerala has established Technopark, an autonomous and India's largest IT park, which is a hub for about 400 operational companies and employs more than 56000 IT professionals. Now, more and more people are employed in IT sector. The Kerala State IT Mission (KSITM) has conceived and successfully implemented Akshaya, an innovative project to bridge the digital divide in Kerala and to further the social and economic progress of the state. This is a central web portal providing different types of online services including ticket booking, G2C and B2C services and building a better relationship between the government and the state. This portal promotes rural entrepreneurship, enable community participation and effective collective action for the social improvement [36]. In addition to Akshaya and IT@School, the other two pillars which contributed to the gradual evolution of Kerala as a digital society are Digital infrastructure availability and State Data Centre & Allied applications. By implementing the various ICT projects, the aim is to achieve digital and social inclusion. Kerala has recorded very high internet penetration, with broadband access across 20% of the household. Kerala also has the highest mobile penetration with 32 million connections, with an increase usage of smart phones and this account for 15% of the internet penetration [35].

#### **4.3. Trend of e-commerce in Kerala**

With a boom in the IT sector, Kerala has grown into one of the popular destinations for e-commerce and e-business solutions. Kerala has been ranked the ninth largest e-commerce State in India, according to the eBay India Census 2012. Kerala has been focusing on e-commerce by conducting seminars with a focus to create awareness of the opportunities on the e-commerce platform for retailers, brands and exporters based in Kerala. [37] The worth of consumer products is evaluated by the consumers of Kerala and enterprising industrialists attach great importance to the success of their products in the Kerala market. Today's Kerala economy is surging ahead in leaps and bounds. Many international companies are investing in so many projects in Kerala. Many small and medium scale industries (SME) and large scale industries those producing electronic items and textile are established in Kerala. Pollution-free, techno-savvy industries like IT, and electronics and communication are accorded impetus in Kerala.



#### 4.4. Key E-commerce platforms or portals in Kerala

To expand the e-business trading, Kerala State Industrial Enterprises Ltd (KSIE) has hosted their own e-com portal. This is one of the initiative, which will provide opportunities for SMEs to join this venture as “partners in progress” and will allow them to showcase their products and grab the opportunities for business in the global market. The e-com portal of the company “www.keralarcade.com” allows the customers to browse the wide range of products and also visit the partner micro-sites. This is first of its kind in Kerala and with the facility of online payment [38]. In an another e-commerce move, household retailer major Alapatt Super Shoppe, a part of Alapatt group has become the first offline appliances retailer in the state to open a secured online shopping portal for appliances from leading brands and with an option of free home delivery of appliances to the six central districts of Kerala including Kochi[39]. The same group plans to climb an another level by setting up an APP to facilitate the shopping. Another e-commerce example, ‘Keralaspecial.in’ portal focuses on marketing and selling of exquisite products like handlooms, handicrafts, spices, gift articles and apparels for Keralites across the world. They procure high quality products from the manufacturers and sellers to provide the best customer service. To enable prompt delivery they are linked up with India Post and other courier services, and provide both COD and e-payments method [40].

#### 4.5. E-commerce adoption by SMEs in Kerala

The e-commerce adoption by SMEs will be a cost effective medium to increase the global sale. In developing countries like Indonesia, Srilanka many SMEs companies are still on its way to adopt e-commerce. In a study comprising of SMEs in these countries, it was found that adoption of e-commerce had following benefits including extended market reach, rise in sales, improved communication with outside world, better company image, higher speed of data processing, and increased employee productivity[41];[42]; [43].

The Micro, Small and Medium Enterprises (MSME) are vital to the country’s economy and are often recognized as the engine of growth. Apart from contributing to the national’s wealth, this sector is crucial since it generates local or domestic employment opportunities but could also make an impact towards exports by partnering with bigger financiers. MSME is usually one-man management setups. Present day Kerala, has excellent digital connectivity, communication network, highly skilled human resources and a relatively good industrial infrastructure to support the growth of the MSME Sector. As on September 17, 2015, Kerala witnessed a total of 2,57,466 registered and working SSIs/MSMEs with a total investment of 17,98,646.38 lakh and production of the total value of goods and services worth 67,65,143.93 lakh. This sector by itself generated 13,18,666 numbers of employment[44]. The Snapdeal, an online marketplace in partnership with KPMG published the study titled ‘Impact of E-commerce on SMEs in India’, which examined the macro-impact of e-Commerce sector on the growth of SMEs in India. According to KPMG, initiatives like seller training programs, seller financing program to SMEs can help to plug the gaps and could facilitate adoption of e-commerce by SMEs [45]. The Government of Kerala has conceived plants to develop e-commerce portals as a virtual showroom to showcase handicraft and other Kerala specific products. Additionally, the government is encouraging MSME’s to participate in National & International Trade fairs and B2B meets by providing subsidies and incentives [46]. Additionally, major e-commerce player Amazon tried to partner with SMEs in Kerala. In 2015, Chai Cart an initiative was launched to spread awareness among local SMEs and sellers on the benefits of online sale on the Amazon India marketplace [47]. Kerala has a market for both buyers as well as sellers and local sellers can trade several items including books, electronics, home, kitchen, and personal care on the e-commerce portals. According to Peter George, Director – Sales Channels, the online platform will improve the existing trader’s business and prospects, and will expand the customer base.

The demographic and technical profile of the society can influence the online shopping. In a study involving 212 youth with 75% male and 35% female either pursuing graduation, post-graduation,

working or studying in school students showed that the youths in Kerala, especially the males and the respondents pursuing graduation and post-graduation are more inclined for the online shopping[48]. Additionally, other factors, like online trust, higher prior online purchase, higher quality orientation, net banking facility and credit card use has been pointed as the main criteria for higher online purchase intention among the youth in Kerala. The brand quality and impulse purchase orientation were the last factor that could influence the online purchase among youths. This study has implications for web-retailers, marketing managers, internet marketers, online vendors and web-shoppers who want to set up an e-commerce or online shopping in Kerala. In a similar study involving analysis of attitude and opinion of youth between the age 15-45 formulated the finding that male customers, and students and employed customers prefers online shopping of electronic items, cosmetics, apparels and tickets. There are many e-commerce players like Amazon, Flipkart, Myntra, Snapdeal, Ebay, etc. in the online retail industry and Amazon followed by Snapdeal is the preferred online retailers among Kerala youth [49]. Offers, discounts and advertisements attract the youth for online shopping, however, factors like absence of touch and feel, bad and delayed delivery were the major drawbacks of online purchase which was pointed in this study. In a study from Kannur district of Kerala, it was reported that lower price, followed by brand and the quality of products like electronic items, food, cloth and cosmetics were the main reason for online shopping[50]. From the same survey it was found that factors like high shipping cost, delayed delivery and websites uploading affects the final decision making to buy the product.

#### **4.6. Constraints of e-commerce in Kerala**

Kerala's economy is dominated by services and commerce. The Government of Kerala should partner with leading e-commerce providers or portals to encourage e-commerce [51]. According to Browntape, in a survey conducted in 2014, despite the potential of e-commerce markets, Kerala generated less than 1% online sales, either due to connectivity issues, laws and restrictions, or even cheating customers [52].

##### ***Taxation law***

Many e-commerce players could not set their base in Kerala due to the imposed value added tax (VAT) by the state government on the product sale. However, in 2015, in a legal fight between Flipkart and Kerala State Government, the Kerala high court passed a rule that the Flipkart has no VAT liability for the online retail trade involving interstate sales. This legality has opened the doors for many e-commerce players like Amazon, Snapdeal to venture into Kerala's e-commerce market [53].

##### ***Finance and Investments***

Other than technological development and technical skills, the finance/investment are very important to setup the e-commerce business [54]. SMERGERS is a marketplace for SMEs to associate with investors, buyers and advisors. This gives a platform for SMEs to connect with the potential investors and to finance and expand their business. As on September 2018, in this website as many as seven e-commerce websites belonging to SMEs from Kochi, Thiruvananthapuram cities of Kerala are registered either for the purpose of sale or for the investment. These SMEs falls into different categories like electronic products, home Appliances, garments, furniture, handlooms, handicrafts, etc.[55].

## **5. Conclusion**

E-commerce, especially the B2C segment has changed the way business is done all over the world. These days the trend of e-commerce has gained momentum because of many favorable variables like COD, customization or personalization of the product, home delivery, etc. Online shopping has gained popularity among all the age groups, especially the youths and well employed citizens. The development of e-commerce in Kerala will have a significant impact on the socioeconomic status of people. Additional studies from different districts of Kerala on the internet connectivity, customer online purchase intention,



online trust, prior online purchase experience, net banking facility, quality and brand orientation will help to construct new measures to promote e-commerce in Kerala. E-commerce model will help businessmen, entrepreneurs, retailers to reduce the cost, expand the market and enhance efficiency, etc. Creating awareness regarding e-commerce among the Kerala citizens, manufacturers, exporters is a pre-requisite to welcome the e-commerce business model and this will have potential to improve the lives and the livelihood/standard of living of the Kerala people. In this regard, the Government of Kerala can play a major part by highlighting the benefits of IT to its members and encouraging them to use customized software for their day-to-day operation.

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