

---

## **A STUDY ON THE FACTORS DRIVING E-COMMERCE ADOPTION IN DEVELOPING COUNTRIES**

**Sahana Shree N**

Assistant Professor, Surana College, Bengaluru

Email: [sahanashreen.com@suranacollege.edu.in](mailto:sahanashreen.com@suranacollege.edu.in)

**Dr. B G Lakshmi**

Associate professor, Surana College, Bengaluru

Email: [lakshmi.com@suranacollege.edu.in](mailto:lakshmi.com@suranacollege.edu.in)

**Dr. Mahalakshmi A L**

Associate professor, Surana College, Bengaluru

Email: [mahalakshmi.com@suranacollege.edu.in](mailto:mahalakshmi.com@suranacollege.edu.in)

### **Abstract**

The digital competition is at the core of today's commercial market landscape, e-commerce is an important pillar of the digital economy. E-commerce has a national growth-generating effect both by creating jobs and by collecting import taxes. Yet, due to failures on the internet and worries about the security of online banking, e-commerce is lagging in developing countries. Notwithstanding these obstacles, this research aimed to comprehend the factors impacting the uptake of electronic commerce in emerging countries. Advantages and disadvantages of the adoption as a basis for the factors. The analysis employed a literature review approach to inductively reach out to the pros and cons of adopting e-commerce in developing countries for the analysis. The environmental, technological, and trust levels were identified as the major roadblocks in e-commerce adoption. Developing countries are regarded to have environmental, organizational, and performance benefits that they could use to further the adoption of e-commerce. We discovered that all difficulties and advantages are related. However, the use of e-commerce is contingent on management attitude and the rationale and rules of e-commerce. By providing a novel view of the variables influencing e-commerce adoption the research contributes to the theory of its environment in developing and underdeveloped countries. Practically, when it is understood that all of the factors should be taken into account, developing countries can formulate strategies for breaking the barriers to e-commerce implementation.

**Keywords:** E-Commerce adoption, E-Commerce barriers, Developed and middle-income countries, Determinants of trust factors, E-Commerce benefits.



---

## **Introduction**

There has recently been a growing amount of research interest in Indian markets, and so research on this topic has been carried out in many other countries. A considerable amount of research efforts are directed toward the activation of electronic commerce (i.e., e-commerce) as one of them. Hence in this study, we attempt to understand the contributing factors for e-commerce in India.

E-commerce is described as a "process involving the purchasing, selling, barter or transfer and exchange of goods, services, and information using computer networks, most of the time over the Internet or intranet. There are various e-commerce platforms, including business-to-consumer (B2C), e-bank, business-to-business (B2B), consumer-to-consumer (C2C), peer-to-peer (P2P), and mobile commerce. Mobile commerce, which is part of electronic commerce, effectively brings e-commerce directly into the palm of the consumer with the help of a wireless network (wireless technology). The various advantages of e-commerce are product promotion, saving cost, real-time information providing, information consistency, stronger customer service, enhanced customer value and customer satisfaction, product customization, competitive advantage, and ease of doing business. E-commerce is not only of benefit to consumers and enterprises but also has positive implications on the general economic growth of a nation, by effective use of resources. E-commerce application has the potential to make transaction cost savings for consumers and suppliers and lead to economic development in the medium to long term, their function results in marketization and effectiveness. Hence, e-commerce offers a new way to do business by improving business operations cost, time, and work in the operational stage. Because China is the most popular country in the world, it can be predicted to have large numbers of potential e-commerce customers. Yet, e-commerce in China is now encountering numerous issues, including the absence of customer services and trust due to the inadequacy of Internet privacy and security. Thus, some conditions and criteria for the development of e-commerce also should be set. Access to information and communication technology (ICT) infrastructure is the foundation of e-commerce in any country. Technical mediators of e-commerce are the internet, intranet, e-mail, World Wide Web, and the extranet. Human capital with ICT skills and technical tools is also the main force for the development of e-commerce. Although the e-commerce market is



---

growing in practically all developed countries, Asian countries have not benefited from e-commerce yet. While e-commerce was introduced in India in the late 1990s, it was not until around 2016 that it started to bloom.

In countries that fall under underdeveloped countries, investigators must work out what is causing the take-up of e-commerce to be limited. E-commerce in India is still in the market development stage and can only be found in certain aspects, including mobile commerce, Internet banking, shopping malls, and the travel industry. The government has also begun to adopt e-government services. Some countries have taken steps toward further developing ICT, which is at the core of e-commerce. Besides India, Asian countries have been aggressively striving for the lead position in ICT, which is good for promoting the growth of e-commerce in Asian countries. These could act as inspiration and revelation for people to engage with online resources. This study analyzes the determinants of e-commerce adoption in developing countries. The fact that policy instruments, technology networks, and trust are more influential determinants of economic development in countries like India when compared to developed destinations is also established. Therefore, the research is focused on national policy interventions, technology framework sensed ease of use of trust and perceived usefulness as the five determinants of online transaction intention in India. Technology infrastructure is the foundation of electronic business and comprises computers, Internet connections, software, web applications, and telecommunication. There are also government programs to modify human behavior that play an essential role. The national-level policy can improve the technology infrastructure by providing aid to electronic devices, ICT service providers, and science centers. Through awareness-raising and education, governments can contribute to improving public perception and confidence in e-commerce. We also hope that our contribution can help the government in formulating the types of policies that will help the country's e-commerce become an engine of economic activity. Adding to that, the efforts to help other e-commerce stakeholders, including business owners and entrepreneurs, to pinpoint the influential factors in the growth of e-commerce, will benefit the government in the effort to alleviate e-commerce barriers. The structure of this document is as follows. Research into e-commerce in organizations, companies, and countries has been undertaken worldwide to find an explanation. Research related to e-commerce encompasses an extremely wide field of

---

applications—ranging from technological readiness, and key drivers of the up-scaling to success factors, impediments, e-commerce solutions, etc.—that affect e-commerce. In the developing world, development research continues to concentrate on e-readiness and factors of e-commerce adoption, while in the developed world, much of the research has centered on e-commerce success factors, payment systems, and institutions. The definition consists of two determinants that, in this work, can be embodied and perceived through the organization's e-readiness (awareness, resources, commitment, and regulation), as well as perceived external e-readiness (government e-readiness, market forces, and supporting industries). In the study of adoption measurement for business-to-business e-commerce adoption, company type, industry, firm size, number of employees' education, and existing ICT infrastructure are taken into account.

### **Challenges**

#### **Technological factors:**

It means the elements of the IT infrastructure are necessary to those countries that are growing up for existing with e-commerce. In the literature, one of the most mentioned is the perceived "ability" of e-commerce technology to adapt to a specific organization's/country's current systems/infrastructures is the perceived degree of adaptation and compatibility. Because other components such as the internet or electronic payment technologies lack the fundamental structures on which to operate, then this must be considered the most important of the technological underpinnings. Three vital technological/infrastructural constraints for e-commerce that need to be addressed and accepted in the developing world are poor supply and reliable facility logistical networks, unstable and low-quality internet networks, connections, and speed, and high internet access charges.

#### **Organizational factors:**

Organizational factors are those influencing the organization, the business the management, and the organization's output. Implementation of e-commerce technologies in the organization is possible due to management mindset, commitment, management support, and management promotion of this transformation. Furthermore, key organizational constructs are ability and understanding (i.e., IT knowledge and technical ability).

---

**Environmental factors:**

The internal and external political, economic, legal, and market factors of a developing country are all collectively called environmental factors. One of the most important discussed environmental factors is the existence and viability of adequate governmental legislation, regulations, programs, and incentives for using e-commerce. The difficulty with this factor is not present in the developing world, which creates business model hurdles; the larger the lack of a regulatory framework, the less quickly e-commerce will be adopted and expanded in a developing country.

**Customer trust factors:**

Customer trust factors are the extent to which customers are confident and relaxed in e-commerce processes and thus the extent to which customers are prepared to practice e-commerce. Consumer distrust is a significant obstacle to the development and establishment of customer trust in the physical goods they buy electronically and distrust of the security and integrity of e-commerce transactions, which they fear will leave them vulnerable to credit card theft. Several studies explored a connection between the factor and problem and studied the factors and challenges behind adopting e-commerce in developing countries. Because certain studies have shown relationships among components, in the grouping process, it has become clear that these issues or variables are interdependent and cannot be analyzed in isolation.

**Literature Review**

1. Bhushan Kumar & Prakash C. Antahal (2023) in their paper titled “Factors Affecting E-Commerce Adoption among Youngsters in J&K UT: An Empirical Study” showed that Four constructs including perceived risk, perceived benefits, perceived trust and sensed ease of use. In summary, online consumers still lack confidence and trust in the Internet as a medium for conducting business.
2. Richa Misra, Renuka Mahajan, Nidhi Singh, Sangeeta Khorana & Nripendra P. Rana (2022) in their paper titled “Factors impacting behavioral intentions to adopt the electronic marketplace” Found that social influence, perceived vulnerability, performance expectancy, and effort expectancy were important forecasters of behavioral purpose to adopt electronic marketplace.

3. Jagriti Singh's research paper titled "Factors Affecting Adoption of B2B E-commerce Decision: A Study on Indian Textile Industry" found that the following factors (of varying degrees) are suggested below, for each of the four themes, after the digitization of B2B commerce. The research was restricted to the textile industry only. Subsequent studies can mount a cross-industry comparison of these factors and themes.
4. Rohit Yadav & Tripti Mahara in their paper titled "Factors Influencing Adoption of E-Commerce by Handicraft SMEs of India" revealed that Market factors, strategy, human resources, and information are the main forces in implementing e-readiness among SMEs in India.
5. G. Lakshmi Priya & Dr. S. Smilee Bose in their paper titled "A study on variables influencing adoption of E-commerce in women entrepreneurs" indicate that Technological, organizational, environmental, and knowledge factors contribute significantly to the extent to which women's entrepreneurship use e-commerce.

#### **Objective of the study**

1. To ascertain the different elements affecting the acceptance and e-commerce adoption in emerging countries such as India.
2. To propose the barriers to the diffusion of e-commerce countries in underdevelopment.
3. Government's efforts to implement e-government services.
4. To identify the critical elements driving e-commerce's expansion.
5. To understand e-commerce barriers.

#### **Limitations of the study**

1. The research using factors influencing e-commerce acceptance in developing countries is different which depends on the country.
2. The study is based on a collection of secondary data.
3. The analysis in this study has both variation and authentication on the data type since the data is collected from different sources.

#### **Suggestions**

When developing countries implement e-commerce practices resulting from investments in communications infrastructure, a supportive regulatory and legal framework, and robust

---

institutional reform, adding to the education and training of human resources, developing countries will be well positioned to leverage a strong position of e-commerce environment universally.

### **Scope for future research**

There is a possibility that a study can be extended to recognize the factors that influence e-commerce adoption in India and other developed countries, as this is in the conceptual stage. It is proposed that the researchers research the efficiency of E-Commerce for companies, individuals, and governments.

### **Conclusion**

Organizational, technological, environmental, and trust factors of customers. Comprehend adaptability and compatibility, internet accessibility, electronic payment availability, management support and attitude, the existence and stability of infrastructure provided by the government, competition, consumer confidence, preparedness, and performance were the themes identified. Among the many, main issues noted is insufficient infrastructure. The key challenges consist of a lack of technology awareness, IT skills, IT competence, management support, qualified e-commerce staff, low quality of internet connection, high user cost, unstable logistical network, inadequate government infrastructure, mistrust of the product quality sold online and mistrust about the purchase process online are mentioned have been identified. Some of the primary advantages had a viral effect that improved performance. The principal benefits are market expansion, business acumen, reduced transaction costs, and heightened competition. Better satisfaction of customers to sales and profits that further improve performance and better work of employees to the quality in the value chain are the benefits that are causally linked.

### **References**

- 1) S.Z. Ahmad, A.R.A. Bakar, T.M. Faziharudean, K.A.M. Zaki An empirical study of factors affecting e-commerce adoption among small- and medium-sized enterprises in a developing country
- 2) Wyckoff and A. Colecchia, The economic and social impact of electronic commerce:

---

Preliminary findings and research agenda, Organization for Economic Cooperation and Development pp. 21-43, 1999.

3) Upadhyaya, P., P, M., & Prasad, K. M. (2013). Barriers to adoption of B2B e-marketplaces: an empirical study of Indian manufacturing MSMEs. *Integrative Business and Economics*

4) Kapurubandara, M., & Lawson, R. (2006). Barriers to Adopting ICT and e-commerce with SMEs in Developing Countries: An Exploratory study in Sri Lanka.

5) Aboelmaged, M. G. (2010). Predicting e-procurement adoption in a developing country: an empirical integration of technology acceptance model and theory of planned behavior. *Industrial Management & Data Systems*, 110(3), 392-414.

6) Ajmani, H. (2011). E-commerce in India. [http://www.chillibreeze.com/articles\\_various/Ecommerce.asp](http://www.chillibreeze.com/articles_various/Ecommerce.asp). Accessed December 2011.

7) Silpa K.S., Rajasree P.U., and Dr. Balasubramanian P. A Study on People's Perception Towards Online Shopping.

8) Bonfring *International Journal of Industrial Engineering and Management Science* 2016; 6 (3):96 – 99.

9) Akshata Ramannanavar and Dr. Nithyashree DA. (2019). Opinion and perception of youth towards online shopping. *Journal of Pharmacognosy and Phytochemistry* 2019; 8 (1)

10) SITA MISHRA (2014) Adoption of M-commerce in India