

# Impact of ICT in E- Commerce

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## Abstract

A primary and essential part of E-Commerce (EC) since its very development is considered to be Information and Communication Technologies (ICT): every accomplishment and modernism attained by ICT has a direct pressure on the progress of e-commerce. While separately, ICT and EC manipulate various spheres from traditional retailing to shipping and engineering to education industry, there is a need to study the two concepts' correlation, particularly ICT impact on E-Commerce. The purpose of this paper is to find out the ICT-EC association from a vast literature review that analyzes ICT and EC impacts on various sectors and spheres. From the compiled literature, we will try to explain and draw our own inferences on how ICT may influence e-commerce

**Keywords:** Communication Technology, E-Commerce, SMEs, Knowledge-Based Economy

## I. Introduction

At the present time many conventional enterprises are turning towards more digitalized and technology-oriented ways of doing industry E-commerce matters for expansion not because it is a fancier or more handy way to go shopping; it matters because it lets businesses to generate competence gains in all the stages of their production and allocation processes. It is worth mentioning that information and communication technologies (ICT) play a vast role in maturity of e-commerce, and with today's fast -advancing technology there is surely no doubt that even more businesses, particularly SMEs which incidentally make up for around 97 percent of world's business, will adopt e-commerce one way. Particularly in electronic commerce is incessantly being introduced into the commercial world. Enterprises have experimental the advantages of adopting new technology into their working practices and that the profits outweigh the costs

## II. ICT Awareness and Its Implications in diverse Sectors

Though ICT and e-commerce will be mentioned together fairly frequently in this paper, it is worth mentioning that ICT still covers a much wider range and has innumerable of implications in various sectors and industries. As Tachibana has stated, in order and Communications Technology (ICT) is considered to be one of the most powerful forces that is able to reform the current century. The ground- breaking effects of ICT have an impact on the way people live, learn and

work and even the way the administration and the society interact. Indeed, ICT has become a crucial means of development of the global economy. ICT incorporates a wide range of systems, devices and facilities that are utilized in data dispensation (“information” in ICT) as well as telecommunications tools and services for information communication (the “communication” of ICT).

Yoshimoto & Nemoto assume that the use of ICT and technology has impacted frequent aspects of commerce, changing not only the means that businesses are done but also generating new sectors and jobs in business. ICT refers to a number of separate media, such as telephone and mobile telephony, radio, TV, video, voice information systems, and computer-mediated networks. For example, one of the means of ICT that has become quite accepted and sensible for small and medium enterprises is broadband and its facility of as long as access to Internet anytime anywhere.

Furthermore, ICT has been used to decrease costs by dropping the use of energy-related products (petrol). So it can be stated that ICT may have an effect on surroundings as well. According to Falch, M. & Nicolajsen, modifications in the organization of transportation activity by means of ICT lead to noteworthy decreases in energy usage by the shipping sector. However, the authors also state that the use of ICT affects not only production costs but also administration costs, and since administration is about communication and indulgence of information, chances are these management costs are somewhat affected.

### **III. E-commerce and its essential ties to ICT**

The center of attention of this paper is to evaluate how ICT knowledge can impact on industrious application of e-commerce. To answer that question, one must understand e-commerce and its essential ties to ICT. By its very definition, e-commerce “doing business over the Internet”, either as business-to-customer (B2C) transactions or business-to-business (B2B) transactions. While “doing business” represents the commercial part of e-commerce, the part “over the Internet” completely belongs to ICT.

### **IV. ICT and E-Commerce impact on efficiency of SMEs**

A huge literature has been enthusiastic to SMEs and the potential of adopting e-commerce and e-business for their more productive tricks while knowledge of ICT is crucial in order to carry out successful e-commerce transactions, the acquiring of such knowledge and skills can be somewhat problematic and less achievable for SMEs and much easier for large business enterprises. Literature reveals that while Higher Education Institutions (HEI) offer decent and latest information and knowledge regarding ICT to help SME adopt E-commerce, there are several hurdles that do not let the procedure of ICT knowledge transmission to take place. Actually, SMEs are not aware of the occurrence of potential and knowledgeable ICT experts in HEI or they are simply indisposed to learn from HEI as they suspect credibility and data accuracy reliability of HEI.

As much as ICT is fundamental for electronic commerce and business, many traditional non-electronic businesses take advantage of ICT to increase efficiency. According to Koutsoutos, some ICT technologies like computer networks are predominantly crucial, as they allow SMEs to outsource some activities, so as to work nearer customers and

dealers, and to better incorporate activities through value chain. Koutsoutos goes on discussing about the consequence of ICT knowledge, stating that workforces become more productive when they get more experienced in the field of ICT.

### **ICT Knowledge Impact on Various Spheres of E-Commerce**

Facts and understanding of ICT can open a lot of doors to successful implementation and productive application of e-commerce: every achievement and advance attained by ICT has a direct influence on the progression of e-commerce. First and foremost, e-commerce is deeply reliant on telecommunications since it is a means of involving computers across global or local networks to easily communicate. Furthermore, ICT knowledge can impact on productive purpose of e-commerce in the sector of transportation and road freight. One of the important sectors of e-commerce is logistics and transportation (storing and delivery of goods from e-commerce transactions).

### **Conclusion**

There are numerous conclusions that can be haggard for this article due to an extensive yet diverse literature review on general impacts of ICT and e-commerce. First, e-commerce has a strong dependence on the course of ICT – E-commerce was born and has evolved owing to information technologies and consequently shall follow ICT every step of the way. The commentary further explains how the knowledge of ICT and successful application of e-commerce can help enterprises reach their fundamental goal – reduce costs and increase success. As the literature reveals, this implication of ICT and e-commerce has special effects even on environment (energy saving). Enhancing of learning system, road freight, engineering and architecture are some of the numerous areas that take advantage of information and communication technologies, as illustrated in this article.

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