# Review and Prospect of e-Commerce

Saw Thandar Myint

*Professor, Information Technology Supporting and Maintenance Department, University of Computer Studies (Mandalay), Mandalay, Myanmar*

## ABSTRACT

*E-commerce is a boom in the modern business. E-commerce means electronic commerce. E-commerce (Electronic commerce) involves buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, predominantly the Internet. E-commerce is a paradigm shift influencing both marketers and the customers. Rather e-commerce is more than just another way to boost the existing business practices. It is leading a complete change in traditional way of doing business. As a technical and commercial revolution, e-commerce has an impact on the development of social economy more and more profoundly, and changes men's business model and lifestyle fundamentally. The current research has been undertaken to describe the scenario of E-Commerce, analyze the trends of E-Commerce. The study further examines the key variables imperative for the success of E-commerce business models.*

**Key Words:** *E-Commerce, Internet, Self-service technology.*

## 1. INTRODUCTION

Recent years, electronic commerce gradually becomes a hot topic of the public because of O2O business model. Enterprises are involved in e-commerce, such as catering, transport, education and so on. On the one hand, enterprises take advantage of the internet to build green supply chain, make the whole supply chain and enterprises more efficient. On the other hand, enterprises expand the market through financing, get a rapid performance promotion in a very short-term. But there are also some enterprises who don't have clear profit model. They grow too fast, the resources and management ability can't match the growth speed of enterprises. This situation makes enterprises face serious business difficulties, even the risk of bankruptcy.

## 2. DEFINITION AND CHARACTERISTICS OF E-COMMERCE

E-commerce consists of the buying and selling of products or services through such electronic systems as the Internet and other computer networks. As a new form of business, it is the commercial activity which utilizes electronic and digital means. Parties carry out a transaction by means of electronic trading rather than face-to- face transaction. Modern electronic commerce typically uses the World Wide Web at least at some point in the transaction's process, although it can encompass a wider range of technologies such as e-mail as well. The use of commerce is conducted in this way, spurring and drawing on innovations in electronic funds transfer, sup-ply chain management, Internet marketing, online trans-action processing, electronic data interchange (EDI), inventory management systems, and automated data col-lection systems. The characteristics of e-commerce come out of the advantages it provides. With the technology of computer and network, e-commerce produces a virtual global trade environment without limits of time and space, which has significantly expanded markets, reduced costs, promoted traditional industries transformations and improved the efficiency and quality of service in business activities. E-commerce is conducive to the formation of circulation system of modern commerce and has become an important part of modern service industry.

There are several features of e-commerce transaction significantly different from the traditional commodity trading. Firstly, consumers only can obtain information of goods by advertisement, rather than actual observation, selection or inspection. If the online sellers do not dis-close all pertinent information and provide false information, the interests of consumers would be violated. Secondly, the transfer of money paid for goods cannot be carried out immediately. Generally speaking, in e-commerce transactions, the consumers remit to online sellers at first and tell

them the desired goods. The online sellers will consign the goods to the consumer after receiving remittance. Thirdly, one of important elements of e- commerce transactions is how to guarantee that a valid contract has been entered between the parties. Assessing the validity of contracts is difficult in the Internet environment because the contracts are paperless. The system of digital signatures is therefore essential in helping to promote e-commerce because it ensures that all parties have entered in a binding contractual agreement.

## 3. E-COMMERCE FACILITATORS

### (1) Internet

A massive internet penetration has added to growth of E-commerce. Internet and smart phones are becoming an integral part of every life. Internet is no more a source of information but has become an important tool for shopping, learning, communicating and even getting service from plumbers, carpenters, doctors etc. Supply chain is also becoming leaner and smarter as digital platforms are helping to better connect with the customers who significantly reduces the waste and supporting to green businesses.

### (2) Payment Gateways

A payment gateway is an e-commerce application service provider service that permits credit card payments for e-businesses, online retailers, bricks and clicks, or traditional brick and mortar. The important variable of online business is the payment routes which comprises credit card, debit card, online banking payments, electronic funds transfer. The world is changing from cash to digital money and thus there is a must of payment gateways for sustainable future ecommerce.

### (3) Analytics

Analytics is the scientific process of converting data into insight for making superior decisions. Analytics helps businesses to collect, organize, examine, and report on all their customers do. The immense increase in the volume of data has mandated the businesses to focus on analytics to know the behavior of the customer. E-tailors must have real time access to information to measure return on online investments and optimize the channel mix. There are basic analytics capabilities readily available with the E-commerce players like average order value, basket size analysis, conversion ratio but deeper analytics solution for actionable insights of the consumer is required.

### (4) Social Media

Businesses are increasingly using social media in order to market their products. Social media comprises of websites and computer programs that enable people to communicate and share information on the internet using a computer or mobile phone.

Social media plays a greater role in brand building and informing various offers to the customers. It is also helpful in getting the feedback about the goods or service. It offers a platform for brand building, developing a community of trusted users, advertisements, spreading word of mouth etc.

### (5) Autonomous Vehicles

Autonomous vehicles are motor vehicles that use artificial intelligence, sensors and global positioning system, manages to drive itself without the active interference of a human operator.

The age of the autonomous car is coming fast. Buyers of autonomous vehicles will have more time to search the web, view emails, buy new products, and see advertisements all around. With autonomous cars, vast digital marketing experience will present itself. These purchases and search patterns can be traced to help companies tailor their marketing campaign to arrest this new segment. The scope of big data is now much bigger, but will be so tailored and predictive in the coming years that we may never have to manually adjust anything again.

### (6) 3D Printing

A 3D printer is a device that is capable of creating a three-dimensional object from a digital design. It uses "additive manufacturing" -- a layered process that has some similarity to the way an ink-jet printer successively layers its colors on a flat piece of paper.

It is believed that 3D printing, might one day blow away manufacturing of the kind we are using since the Industrial Revolution shook up agrarian life in the early 19th century. 3D printing is producing a market in designs that are meant to be printed by the buyer -- or a third-party manufacturer unrelated to the designer. The end product is not sold – it is the design that is sold, along with a permit for it to be printed. Buried in corners of the Internet are marketplaces where promising designers are offering their plans for printing at home or in the workplace.

## 4. RELEVANT RESEARCH ON RETURN BETWEEN SUPPLIERS AND RETAILERS

The early literatures on the return between suppliers and retailers (B2B) only considered two return strategies: full return and non-return. Padmanabhan et al . [1] outlined the theoretical framework of the return strategy between manufacturers and retailers. The framework analyzed when and how to adopt the return strategy, and discussed the benefits and costs generated by the return strategy. In the context of uncertain product demand and retailers' use of return strategy to attract retailers to hold more inventory, Marvel et al . [2] studied the impact of uncertainties in customer arrival rate and consumer valuation on product price strategy and return strategy respectively. Subsequently, Padmanabhan et al . [3] considered the influence of demand uncertainty and retailer competition on manufacturer's return strategy decision. Sarvary et al . [4] aimed at the demand of new products, a multi-period duopoly model was constructed to study how manufacturers understood customer demand information through return strategy. Later, many scholars introduced other types of return strategies, which enriched the research on the problem of return between suppliers and retailers.

Pasternack [5] studies the pricing and return strategies of perishable products based on the deterministic demand function by using the single-cycle inventory model. The results showed that the return strategy of partial refund was the best one compared with full refund and no refund. Tran et al . [6] combined refund and return quantity (quota) to study the relative preference of manufacturers and distributors for three return strategies, which included full refund with limited quantity, partial refund with unlimited quantity restriction and combination

of the two strategies. Some scholars studied the problem of returns between manufacturers and retailers from the perspective of supply chain contracts. They regarded the return strategy between manufacturers and retailers as a buy-back contract in supply chain, which was an effective means for manufacturers to encourage retailers to increase sales. Webster et al . [7] regarded the return strategy as a sales discount contract (Rebate), that was, to compensate retailers for unsold products after the end of the sales period. The scholar explored the optimal return strategy and risk preference under uncertain demand conditions. With the development of the Internet, there were endless papers on the return of electronic commerce.

Bayles [8] pointed out that the handling of returns in e-commerce is of great significance, but the main challenge it faces was how to formulate a return policy and how to deal with returned goods. Choi et al . [9] took the secondary market into account in the e-commerce environment, and explored the manufacturer's return processing strategy after reprocessing the retailer's return. With the in-depth study of returns service by foreign scholars, domestic scholars had begun to pay attention to the problem of returns between manufacturers and retailers. Yan Nina et al . [10] based on Choi (2004), considered the retailer's return processing strategy after simply reprocessing the return in the electronic market, instead of the retailer's return to the manufacturer first. Yao Zhong [11] mainly studied the return contract between the upstream and downstream enterprises in the supply chain. He believed that the return strategy under risk constraints was weaker than that under risk-free constraints. In summary, early studies on the return problem between manufacturers and retailers only considered two kinds of return strategies: full return and non-return. Later, many scholars introduced other types of return strategies. They combined the return strategy with other factors, mostly to explore the optimal return strategy under uncertain product demand conditions. Some studies suggested that manufacturers can understand retailers' demand information through return strategies. Some scholars regarded the return strategy between manufacturer and retailer as the buy-back contract of supply chain.

## 5. RELEVANT RESEARCH ON RETURN BETWEEN RETAILERS AND CONSUMERS

With the development of e-commerce industry, more and more scholars paid attention to the return behavior of consumers. At present, most of the literature on the return problems focused on the return problem between retailers and consumers (B2C). The following articles will review the literature from four aspects: the formulation of optimal return strategy, measures to reduce the rate of return, consumer behavior and return problems, and other return-related issues. Most scholars had studied how to formulate the optimal return strategy. Early scholars focused on two kinds of return strategies: unreasonable return and unacceptable return. Davis et al . [12] proposed the MBGs (Money Back Guarantees) model, which was the first mathematical model for retailers and consumers' unwarranted return strategy. By comparing unwarranted return and nonacceptance return strategies, it was found that retailers can make more profits through unwarranted return strategies when they can handle surplus goods better, or when the experiential value of goods was very low, or the matching degree between goods and customers' needs was very low. Since then, most of the studies on unwarranted return strategies had been expanded on the basis of this literature.

Che [13] assumed that consumers were risk averse, and explored the impact of two return strategies on consumers: unreasonable return and unacceptable return. The results showed that when consumers were highly risk averse or the retail price of goods was high, the seller should adopt a return strategy. Implementing the unwarranted return strategy increased the opportunistic return behavior of consumers. In order to reduce the return rate, some scholars had introduced other types of return strategies into the study of the return problem between retailers and consumers. Yabalik et al. [14] constructed a commodity return system consisting of return strategy, logistics process and sub-market, and discussed the optimal return strategy of retailers in two sub-markets. It was found that when one or two sub-markets did not return commodities, the partial return strategy was the best. Shulman et al . [15] considered the impact of Restocking Fee on consumers' purchase and return decisions in a competitive environment. Research showed that retailers will set higher return fees when there is a big difference between products sold by two competitors or when consumers have little knowledge of the matching degree between goods and preferences, and consumers will retain the business products. The above literature derived the market demand function through the consumer utility function.

## 6. CONCLUSIONS

A developing country may well attempt to be modernized if it introduces e-commerce effectively and efficiently. It will improve its output and lead to its competitive advantage. Information Technology (IT) has uplifted ecommerce worldwide. Now it's at ease to enter to a new market and marketers' can easily evaluate their product and company's performance.

A growing number of firms in various industries, such as banking, education, commerce, and tourism, etc. have improved their services by both incorporating technologies into their service delivery process. Integration of technology in services is becoming very common; however, very little academic research has been conducted to examine its influence. The issues related to E-commerce are also on the rise which is posing serious threat to its tall future and hence demands right strategies on part of marketers.

In recent years, some progress had been made in the research of returns on e-commerce platforms. Effective researches had been made on the formulation of returns strategies, the reduction of returns and some new returns. However, with the rapid development of e-commerce and the emergence of new formats and models, the return problem of e-commerce platform still faces new challenges and opportunities, and needs new research.

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