**E- Finance: Status, Innovations and Future Challenges**

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**ABSTRACT:** Electronic finance means a provision of financial services and markets using electronic communication, electronic tools and technology with the help of internet and intranet. In other words, e-finance means use of ICT in financial service industry. E-finance is called one of the financial innovations, which offers numerous benefits to customers, financial institutions and government. The government of India and central bank, both are taking many initiative steps for developing e-finance services in India. The present study aim to investigate the status, model of e-finance, kinds of e-finance services and its impact on the Indian economy. Study also reveals the issues and challenges faced by e-finance in India. For this purpose study used secondary data compiled from various journals and articles. Overall result of the study shows that e-finance helps in achieving the economic growth of a country by providing many benefits to the FIs and government.

**Key Words:** Electronic Finance, financial services, E-Banking, Information Technology, India

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**1. INTRODUCTION**

E-finance means a provision of financial services and markets using electronic communication, electronic tools and technology with the help of internet and intranet. In other words, e-finance means use of ICT in financial service industry. It saves time reduces the paper works and chances of fraudulent. Nowadays, with the emergence of e-commerce, E-finance has become a buzzword among the entrepreneur, business firms and investors. Due to the increasing awareness about the use of internet and computer technology in commercial purpose, E-finance has emerged as solution to simplify the complexions involved in dealing with finance. It is somewhat the shift of system of financial service from the real world to a virtual one. E-finance raises more as compared to e-commerce sectors.  

The key drivers of the evolution of E-Finance include,

**Technology:** Computer, Internet, and Telecommunications Technologies enabled business to be conducted in a fast, efficient and secure way.

**Globalization:** Worldwide liberalization of trade and investment facilitated the phenomenal growth of global business including the Internet based e-business and e-finance.

**Regulations:** Both deregulations of the finance industry and re-regulations of e-commerce facilitated the growth though in some areas lacking behind technology.

**Entrepreneurship:** Creativity allowed entrepreneurs, start-ups and seasoned companies to break ‘old economy’ traditions and deliver business solutions through new, exciting and often radically different structures.

**Capital:** Capital provided the financial means to put these technical and human wheels in motion.

**Competition:** The above factors created a globally fertile and competitive environment and pool of talents to compete for introducing new technologies, concepts, and models.

These five factors have affected providers, users, regulators and investors by creating remarkable transformation in financial industry.

**DEFINITION OF E-FINANCE**

UNCTAD defines e-finance as “that of financial services delivered through Internet or online. E-finance includes online brokerage, banking, insurance and other financial services. Internet technologies have now penetrated all aspects of financial services industry, both retail and wholesale, back-office and front office, information and transaction”.

Rest of the paper is organized as follows: Section II discusses the review of literature. Section III outlines the objectives of study. Section IV highlights the research methodology. Section V highlights the models of e-finance. Section VI explains the different kinds of e-finance services. Section VII highlights impacts of e-finance and section VIII describes the challenges faced by e-finance in growth and development. Section IX concludes the study.
2. REVIEW OF LITERATURE

Shahrokhi (2008) examined the status of e-finance and also discuss the challenges and related issues facing by financial services and IT industry. Overall findings of the study show that the all areas of e-finance, application of technology to e-finance, growth of the e-finance in the financial services industry. Riyadh et al. (2009) try to investigate the present status of e-finance in Bangladesh and its impact on the economy, also analyze its rationale together with policy strategies for the successful implementation of e-finance in Bangladesh. Study found that the position of e-finance is still in its initial stage, hence a lot to grow up near future in this area.

Srivastava (2014) examined the status of E-finance, Scope of E-Finance, role and importance of SMEs in development of the economy on a country, the state of E-finance in India and the importance of E-finance for the developing countries especially in context with India.

Kumari Nidhi (2016) examined and analyze the progress made by E-Banking in India. Study shows that the internet banking has got attention in the Indian context. The banks are facing many challenges and many opportunities are available with the banks. Many financial innovations like ATMs, credit cards, RTGS, debit cards, mobile banking etc. have completely changed the face of Indian banking.

Krishnan Dandapani (2017) investigates the status of e-finance in the last two decades & recognize the impact of the Digital Age on e-finance in five key areas: Payment systems, Cloud computing in financial services, Valuation metrics for multi-sided platforms & Quantum trading, Cyber security – costs, benefits, and protection.

3. OBJECTIVES OF THE STUDY

- To study the strategic model of e-finance.
- To Study the different kinds of e-finance services adopted by India.
- To study the impact of e-finance after its implementation.
- To study the issues and challenges faced by e-finance in India.

4. RESEARCH METHODOLOGY

The study purely based on secondary data which is collected from various books, National & international Journals, published government reports, publications from various websites which focused on various aspects and impact of E-Finance.

5. Table .1 MODELS OF E-FINANCE

<table>
<thead>
<tr>
<th>Model</th>
<th>Products &amp; Services</th>
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| 1. Business-to-Business (B2B) | • Online financial services like, corporate finance, investing, IPOs.  
                                 | • International finance issues like, foreign exchange, derivatives etc. |
| 2. Business-to-Consumer (B2C)| • Includes such as online trading, online banking, e-bill payment,  
                                 | • E-Credit and e-loans  
                                 | • E-Insurance and guarantees |
| 3. Consumer-to-Consumer (C2C)| • e-money transfers  
                                 | • online transactions payments |
| 4. Technical infrastructure  | • Internet  
                                 | • CRM  
                                 | • Software and hardware  
                                 | • IT services etc. |
| 5. Global, institutional and  | • Rules and regulations  
                                 | • Contract enforcement etc. |
|    regulatory environment    |                                                          |

Source: Riyadh et al. & Author

Table .1 depicts the e-Finance sector models which are divided into five broad categories such as 1. Business-to-Business (B2B), 2. Business-to-Consumer (B2C), 3. Consumer-to-Consumer (C2C), 4. Technical infrastructure to support the e-Finance platform, 5. Global, institutional and regulatory environment that facilitate the functioning and growth of e-commerce and e-finance. This model shows that how does e-finance work between the two important parties i.e., business and customers.
6. KINDS OF E-FINANCE SERVICES

- **E-Banking**: E-Banking one of the important kind of E-finance services offered by FIs. E-banking is also called internet banking or online banking. The service enables customers to perform different basic financial transactions such as enquiring bank accounts; make bill payments; transfer funds etc. Because e-banking is relatively easy to set up, the barriers to entry are low and there due to this there are more service provider in the market. As a result, e-banking is not limited to just big and well established banks. FIs have no choice but to offer such services as e-banking, like ATMs and branches, has become a basic service that customers expect.

- **E-Payment**: Another kind of e-finance service is the payment system that forms an integral part of the banking and financial system. With the advancement of ICT, affordable e-payment can be a reality. E-Payment includes electronic payment in the physical world and the virtual (internet) world. e-Payments are delivered through various channels such as debit cards, credit cards, pre-paid cards, Internet banking and mobile banking.

- **E-Trade Finance**: traditionally, trade finance is based on paper work that makes it slow, more costly and error-prone. But the invention of Internet it is possible to streamline such processes through electronic documents. Services provided in e-trade finance are: LC (Letter of Credit) applications, Foreign Exchange and many more.

- **E-Credit and e-loans**: Now days for smooth running and success of SMEs these kind of e-finance services are more important. Under e-credit and e-loan facility, SMEs are required to apply for credit or loan facility online from the bank. When bank approved loan, than amount will be credited directly to the customer’s account and it will save the time as well as it is more efficient way of getting loans from the banks for SMEs.

- **E-Rating**: E-rating plays important role for both: banks and SMEs as it provide the credit and payment track records of the parties involved in the transactions to FIs as well as help in managing their risk. While banks have their own risk management and credit assessment units, they also rely on specialized services, which provide credit information and assessment data, as well as ways and means, such as credit risk insurance, to reduce the credit and transaction risks.

- **E-Insurance and guarantees**: Another part of the e-trade finance module in many banks, e-insurance and guarantee services enable SMEs to apply for insurance and guarantee online. As for insurance, banks normally partnership with large insurance companies to jointly provide such a service. In this case, information captured from the bank system will feed the bank's financial partners. This involves the privacy of customer data, thus the bank has to make clear to customers that such information will be
7. IMPACTS OF E-FINANCE

- **Impact of e-finance on international trade:** e-finance affect the international business in many ways such as new virtual network intermediaries or electronic marketplaces reduce the need for the firm to have human and financial infrastructures necessary for internationalization.

- **Impact of e-finance on developing countries:** E-finance and globalization offer many important opportunities. E-finance has great potential to improve the quality and scope of financial services and expand opportunities for trading. For many countries, e-finance will allow easier access to global capital and financial service providers, bringing opportunities to quickly widen access to and improve financial services. Achieving such gains will require that emerging markets give far greater priority to improving the framework for financial and other information, modernizing and strengthening their legal systems, and improving technology-related infrastructure.

- **Impact of e-finance on financial markets:** In this section we consider the impact of electronic communication and computation on stock markets, bond markets and foreign exchange markets. Now all the stock exchanges, bond markets, foreign exchange markets and financial markets have moved to electronic trading to avoid the risk of fluctuation and to reduce the cost of transactions.

- **Impact of e-finance on banking services:** The other sector which is affected by e-finance services is banking sector. By using e-finance services in banking it will provide certain gain as it reduce the transaction cost by less use of paperwork.

- **Impact of e-finance on non performing assets:** e-finance helps in proper assessment of loan risk with the application of modern techniques. It also ensure better customer relationship management, better loan monitoring (kumar,2001)and lessening the interest rate. Therefore, implementation of e-finance reduces the NPL of banking sectors.

- **Impact of e-finance on Revenue and cost:** Last but most important impact of e-finance is that it reduces the transaction cost as well paperwork, that will automatically increases the revenue of financial service sectors.

8. **TABLE.2 ISSUES AND CHALLENGES**

<table>
<thead>
<tr>
<th>Basis</th>
<th>Main challenges for e-finance</th>
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<tbody>
<tr>
<td>1. Security issues</td>
<td>• Software viruses</td>
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<td></td>
<td>• Hacking</td>
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<td></td>
<td>• Service disruption</td>
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<td></td>
<td>• Phishing-latest internet fraud</td>
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<td>2. Population issues</td>
<td>• Lack of awareness</td>
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<td></td>
<td>• Lack of privacy</td>
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<td></td>
<td>• Cultural barriers</td>
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<td></td>
<td>• Preference to personalized financial services</td>
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<td></td>
<td>• Lack of trust</td>
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<td>3. Revenue and cost issues</td>
<td>• Revenue structure complex</td>
</tr>
<tr>
<td></td>
<td>• Pricing complexities</td>
</tr>
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<td></td>
<td>• High cost of internet services</td>
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<td>4. Legal issues</td>
<td>• Lack of proper rules and regulations</td>
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<td></td>
<td>• Lack of law enforcement</td>
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<td></td>
<td>• Lack of e-certificate and signature</td>
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<td>5. Infrastructural issues</td>
<td>• Lack of integration between institutions</td>
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<td></td>
<td>• Lack of reliable &amp; affordable ICT infrastructure</td>
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<td></td>
<td>• Limited coverage services</td>
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<td>6. Technology issues</td>
<td>• Problem in adopting global technology in local</td>
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<tr>
<td></td>
<td>• Size</td>
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<tr>
<td></td>
<td>• Financial issues</td>
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<tr>
<td></td>
<td>• Lack of proper knowledge</td>
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<td>• Lack of resources</td>
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Source: Author compiled from various literature
Table 2 depicts the risks and challenges faced by e-finance services in growth and development. There are numerous challenges such as Security issues, Population issues, Revenue and cost issues, Legal issues, Infrastructural issues and Technology issues. It’s most important to consider all these issues related to e-finance for successfully implementation of e-finance services which help in achieving the economic growth of a country.

CONCLUSION
E-finance means a provision of financial services and markets using electronic communication, electronic tools and technology with the help of internet and intranet. In other words, e-finance means use of ICT in financial service industry. It saves time reduces the paper works and chances of fraudulent. From the above study we concludes that the e-finance raises more as compared to e-commerce in India and plays a significant role in the economic growth of a country by providing better e-finance services. Although there are lots of challenges and risk faced by e-finance but still it helps a lot in achieving the objectives of growth. It also improve the position of financial inclusion in India.

REFERENCES