



**The Ministry of Education of
Azerbaijan Republic**

**To increase effectiveness of operations in Financial
Markets by applying electronic trade system.**

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JUNE 2019

Acknowledgments

First of all, I want to tell thanks to the Rector of UNEC for his excellent and splendid managerial skills and keeping students in countenance all the time and I would like to express my gratitude to the Ministry of Education of the Republic of Azerbaijan for giving us opportunity to receive modern education in English in "SABAH" groups.

I want to show my gratitude to my supervisor Vekil Ibrahimov for his special support during this dissertation. Without his encouragement and advice it would be very tough for me to accomplish it.

Abstract

To increase effectiveness of operations in Financial Markets by applying electronic trade system.

Nowadays financial market is a very actual topic for discussing and debating. The purpose of the study is to illustrate the role of ETSs in the development of financial markets. The dissertation aims to provide differences between previous and present state of financial markets. The dissertation provides benefits according to the progress of Electronic Trading and demonstrates the problems that were faced during this process. To answer the main and secondary questions, this dissertation also has a theoretical part. The theory is mainly based on role and importance of the financial markets and it also shows the areas that can be improved.

It consists of three chapters: first theoretical, second practical parts and the third result section. The theory is mainly based on role and importance of the financial markets and it also shows the areas that can be improved. Furthermore, the second part is about the importance of Electronic Trading and its positive effects.

I hope that this dissertation will be beneficial for Finance students and who interested in financial markets and ETS as well.

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1. Introduction

Actuality of the study. As we know day by day the role of technology rises. Because of that it is impossible to imagine financial markets without Electronic Trading System. As we know the importance of ETS increases every day. Also it is can not be denied that serious problems arise in the financial markets and ETS due to the growing number and volume of operations, the risk and hazards of these operations.

The relevance of the subject. A comprehensive analysis of the ETS shows that the development of this commenced during the 21st century and it is still continuing rapidly. Within this scope, an important and fundamental question that we should ask ourselves is the question: Will the ETS encompass all the fields of financial markets in the future?

The level of studying the problem. Different theoretical, methodological and practical issues of ETS and financial markets are presented by famous economists are used during this dissertation.

Object of the study. Electronic Trading Platforms, ETS and a lot of financial markets specifically were analyzed during my work.

The purpose of the study. To achieve the special aims of the study, the following tasks are made:

1. To analyze the essence, goals and tasks of ETS as an important unit of the trading, to reveal its specific and essential features;
2. Summarize and systematize the regulatory and legal framework for ETS and Electronic Trading Platforms;
3. To substantiate the necessity and determine or decide the main directions for improving the Electronic Trading, as an important condition for enhancing the stability of the financial system;
4. Propose and advice measures to improve the role of Electronic Trading Systems in the global financial markets;

5. Develop practical recommendations on the methodology of Electronic Trading Systems. The huge effects of ETS on The New York Stock Exchange and NASDAQ Stock Exchange analyzed and illustrated.

Practical importance of the work. The practical significance of the work is that the recommendations and suggestions made allow financier to apply my ideas in their work and real lives.

Volume and structure of work. For covering theme fully and profoundly, my dissertation work consists of introduction, three chapters, results, conclusion and references.

2. Financial markets

2.1. Financial markets and its sub-categories

A financial market is a broad term describing any marketplace where trading of securities including equities, bonds, currencies, and derivatives take place. It is

obvious that some financial markets are tiny with little activity, whereas some financial markets like the New York Stock Exchange (NYSE) trade trillions of dollars of securities every day. Financial market is a huge platform where buyers and sellers are involved in sale and purchase of financial products like shares, mutual funds, bonds and so on.

Financial markets are a complex but simple topic. However, to understand deeply and thoroughly the intricacies of the financial market, it is vital and necessary to know what they actually are. In general terms, they do not refer to any specific place or spot or location. Every financial transaction takes place in the financial market. They are pervasive in nature because the financial transactions are very pervasive throughout the whole economic system.

Financial transactions contain the following:

- deposit of money into a bank
- purchase of debentures
- Lending loans and etc.
- issuing equity shares
- sale of shares

Financial markets build an open and regulated system for companies to acquire huge amounts of capital. This is done by the help of the stock and bond markets. Moreover, markets allow these businesses to offset risk. Markets do this with commodities, foreign exchange futures contracts, and other derivatives.

Since the markets are public, they contribute an open and transparent way to determine prices on everything traded. They reflect all available knowledge about everything traded. This lowers the cost of attaining information because it's already incorporated into the price.

The sheer size of the financial markets contributes liquidity. Stated in other words, sellers or salespeople can unload assets whenever they are in need of to raise cash. The size also lowers the cost and expense of doing business. Companies don't have to go far to find a purchaser or someone

Kenneth C. Griffin says that, “Our financial markets work best when they are competitive, fair, and transparent.”

Functions of the Markets. The role of financial markets in the success and power of an economy cannot be belittled. Here are four key and essential functions of financial markets:

1. Puts savings into more productive use. As mentioned in the example above, a savings account that has money in it should not just let that money stay in the vault. Hereby, financial markets like banks open it up to individuals and companies that need a home loan, business loan, or student loan.

2. Determines the price of securities. Investors aim and purpose to drive profits from their securities. Nevertheless, unlike goods and services whose price is set by the law of supply and demand, prices of securities are set by financial markets.

3. Makes financial assets liquid. Buyers and sellers can make a decision to trade their securities whenever they want. They can make use of financial markets to sell their securities or make investments as they want.

4. Lowers the cost of transactions. In financial markets, various types of information regarding securities can be obtained without the need to spend.

Importance of Financial Markets

Here we talk about importance and use of financial markets. It is broad and wide topic. But let's start. There are a lot of things that financial markets make possible or enable, including the following:

- Financial markets contribute a place where participants like investors and debtors or borrowers, regardless of their size, will get fair or equitable and proper treatment.
- They provide or give individuals, companies, and governmental institutions with access to capital.
- Financial markets help reduce or decrease the unemployment rate because of a lot of job opportunities it offers.

The various types of financial market.

This is very important information and data. Everybody can use of it. Let's go through the various types or kinds of financial market:

Commodity market. The commodity market manages and conducts the trading in primary products which occur in almost 50 major commodity markets where entirely and completely financial transactions increasingly outreach physical purchases

which are to be delivered. Commodities are commonly categorized in two subgroups.

- Hard commodities are raw materials typically mined, such as gold, iron ore, oil, rubber etc.
- Soft commodities are typically grown agricultural primary products such as wheat, cotton, coffee, sugar, sugarcane etc.

As we know, commodities are physical goods, but not all physical goods are commodities. Commodities have certain characteristics and properties that make it practicable to trade them in markets:

- They can be stored for long period of time, or in other cases for unlimited periods. Their value relies heavily on measurable and quantifiable physical attributes and on the physical location of the commodities.
- Commodities with the same physical attributes and the same physical location are also fungible.
- If a buyer has contracted to purchase petroleum of a certain density and sulfur content or wheat of a special type and moisture content, it need not be concerned about which well pumped the oil or which farmer cultivated the wheat.

Derivatives market. It facilitates and helps the trading in financial instruments such as futures contracts and options used to assist control financial risk. The instruments derive their value mostly from the value of an underlying asset that can come in a

lot of forms – stocks, bonds, commodities, currencies or mortgages. The derivatives market is split into two parts that are of completely different legal nature and means to be traded.

Exchange-traded derivatives. Exchange-traded derivatives are standardized contracts traded on an organized futures exchange. They also involve futures, call options and put options. Trading in such uniformed instruments requires from investors a payment of an initial deposit which is settled through a clearing house and aims at eliminating the risk for any of the two counterparts not to cover their requisites.

Over-the-counter derivatives. Those contracts that are privately negotiated and traded directly between the two counterparts, without making use of the services of an intermediary like an exchange. Securities such as forwards, swaps, forward rate agreements, credit derivatives, exotic options and other exotic derivatives are nearly always traded this way. These are tailor-made contracts that remain largely unregulated and provide the buyer/ purchaser and the seller with more flexibility in meeting their needs.

Insurance market. It assists in shifting various risks. Insurance is used to transfer the risk of a loss from one entity to another in return of a payment. The insurance market is a place where two peers or partners, an insurer and the insured, or the so-called policyholder, meet in order to make a deal primarily used by the client to hedge and guard against the risk of an uncertain loss.

2.2. The importance of financial markets and institutions

Financial markets and institutions play an essential role in the economy by managing risks and allocating savings to productive and profitable activities; when functioning smoothly and exactly, they empower economic growth and improvements in overall welfare.

The Basics of Financial Institutions. Financial institutions serve most individuals in a few ways, as financial operations are a fundamental portion of any economy, with people and companies relying on financial institutions for transactions and investing. Governments consider it imperative, obligatory, requisite and mandatory to control and direct banks and financial institutions since they do play such a necessary portion of the economy. Generally, liquidations of financial institutions can lead to panic.

In the United States, the Federal Deposit Insurance Corporation (FDIC) insures regular deposit accounts to reassure individuals and businesses regarding the safety of their finances with financial institutions. The health of a nation's banking system is a linchpin and big shot of economic stability. Loss of confidence in a financial institution can easily lead to a bank run.

A financial institution is liable for the supply of money to the market through the transfer of funds from investors to the companies in the form of deposits, loans, and investments. Large financial institutions such as JP Morgan Chase, HSBC, Goldman Sachs or Morgan Stanley can even manage the flow of money in an economy.

The most common sorts of financial institutions involve commercial banks, investment banks, brokerage firms, insurance companies, and asset management

funds. Other sorts involve credit unions and finance firms. Financial institutions are controlled to control the supply of money within the market and guard consumers.

Example. Bank ABC is a shareholder-owned institution that gives offer banking and investment services to a huge variety of customers. The bank acts or behaves as a mediator or intermediary between retail and institutional investors, who give and provide the funds through deposits and retail and institutional investors, who are specially looking for or seeking financing. The bank pays a 2% interest on the deposits it gets or receives from households and businesses from the interest earned from lending services. In addition to that process, the bank gives and provides fund management and health and life insurance services through its subsidiaries.

In addition to that, Bank ABC operates and transacts business in the wholesale market, seeking to lend large conglomerates and corporations as well as government agencies. Within this framework, the bank includes and involves a highly-equipped advisory team, which provides corporate finance, forex, capital markets and investment management services.

The bank is regulated and controlled for the guard of consumers. Hence, its funds experience strict investigation by the Federal Deposit Insurance Corporation (FDIC) and the Federal Reserve System. These two key Federal agencies are liable for guaranteeing that the bank will be able to reimburse the borrowed funds.

9 major financial institutions. In the present financial services marketplace, a financial institution exists to provide a wide assortment of deposit, lending and investment products to individuals, businesses or both. Whereas some financial

institutions center around providing services and accounts for the general public, others are bound to serve only certain consumers with more specialized offerings.

To know which financial institution is most suitable for serving a particular need, it is necessary to comprehend the distinction between the sorts of institutions and the reasons they serve. The significant categories of financial institutions involve central (or national) banks, retail and commercial banks, credit unions, internet banks, savings and loans associations, investment banks, brokerage firms, investment companies, insurance companies and mortgage companies.

Central Banks. Central banks are the financial institutions are in charge of the oversight and board of all other banks. In the United States, the central bank is the Federal Reserve Bank, which is in charge of conducting financial policy and supervision and regulation of all financial institutions. Individual consumers do not have direct contact with a central bank; instead, large financial institutions work straightforwardly with the Federal Reserve Bank to provide products and services to the general public.

Retail and Commercial Banks. Customarily, retail banks offered products or items to individual consumers whereas commercial banks worked straightforwardly with businesses. At present, most of large banks offer deposit accounts, lending and restricted financial advice to both demographics. Products offered at retail and commercial banks involve checking and savings accounts, credit cards, certificates of deposit (CDs), personal and mortgage loans and business banking accounts.

Internet Banks. The newer participants to the financial institution market are internet banks, which work similarly to retail banks. Internet banks provide and offer

the same or similar products and services as conventional banks, but they do so via online platforms instead of physical locations.

Credit Unions. Credit unions serve a particular demographic per their field of membership, such as teachers or members of the medicine. Whereas products offered resemble retail bank offerings, credit unions are possessed by their members and operate for their benefit.

Savings and Loan Associations. Financial institutions that are mutually held and provide no more than 20% of total lending to businesses fall under the class of savings and loan associations. Individual consumers use savings and loan associations for their personal loans, deposit accounts and mortgage lending.

Investment Banks and Companies. Investment banks do not take deposits; rather, they help and assist individuals, businesses and governments raise capital through the issuance of securities. Investment companies, more generally known as mutual fund companies, pool and collect funds from individual and institutional investors to provide or give them access the much broader securities market.

Brokerage Firms. Brokerage firms assist individuals and institutions in buying and selling or offering securities among accessible investors. Clients of brokerage firms, moreover, can place trades of stocks, bonds, exchange-traded funds (ETFs), mutual funds and some alternative investments.

Insurance Companies. As we know, financial institutions that assist individuals transfer risk of loss are known as insurance companies. Individuals and businesses

utilize insurance companies to ensure against financial loss due to death, accidents, disability, property damage and other kind of misfortunes.

Mortgage Companies. As far as we know, financial institutions that start or fund mortgage loans are mortgage companies. Whereas most mortgage companies serve the individual consumer market, some specialize in lending options for commercial real estate only.

Financial institutions, differently known as **banking institutions,** are corporations that render services as intermediaries of financial markets. In general, there are three major types of financial institutions:

1. Contractual institutions – insurance companies and pension funds
2. Investment institutions – investment banks, underwriters and brokerage firms.
3. Depository institutions – deposit-taking institutions that receive and ingeniously manage deposits and make loans, including banks, building societies, trust companies, credit unions and mortgage loan companies;

Financial institutions also can be divided comprehensively into two categories according to ownership structure:

- Cooperative Banks
- Commercial Banks

Some specialists see a pattern toward homogenization of financial institutions, meaning a tendency or inclination to invest in the extreme similar areas and have similar business strategies. A result of this might be fewer banks serving specific target groups, and small-scale producers may be under-served.

Standard settlement instructions. Standard Settlement Instructions (SSIs) are the understandings between two financial institutions which fix the receiving agents of each partner in ordinary trades of some sort. These agreements enable traders to make quicker trades since the time used to settle the receiving agents is preserved properly. Restricting the trader to an SSI also bring downs the probability of a fraud. SSIs are utilized by financial institutions to encourage quick and accurate cross-border payments.

Regulation. Financial institutions in most countries work in a vigorously regulated condition because they are crucial parts of countries' economies, because of economies' reliance on them to develop the money supply through fractional reserve lending. Regulatory structures vary in each country, but specifically involve prudential control as well as consumer protection and market stability. Also some countries have one consolidated agency that regulates and directs all financial institutions whereas others have separate agencies for different or various types of institutions or establishments, for example, insurance companies and brokers.

Countries that have separate particular agencies involve the United States, where the essential governing bodies are the Federal Financial Institutions Examination Council (FFIEC), Office of the Comptroller of the Currency - National Banks, Federal Deposit Insurance Corporation (FDIC) State "non-member" banks, National Credit Union Administration (NCUA) - Credit Unions, Federal

Reserve (Fed) - "member" Banks, Office of Thrift Supervision - National Savings & Loan Association, State governments each also as often as possible regulate and charter financial institutions.

Countries that have only one unified financial regulator mainly involve: Norway with the Financial Supervisory Authority of Norway, Germany with Federal Financial Supervisory Authority and Russia with Central Bank of Russia.

Benefits of raising funds through financial institutions are as follows:

1. Financial institutions give long term finance, which are not given by commercial banks;
2. The funds are made accessible even during periods of depression, when other kind of sources of finance are not accessible;
3. Obtaining loan from financial institutions expands the goodwill of the borrowing the capital market. Subsequently, such an organization can raise funds very handily from other sources also;
4. Besides giving funds, a significant number of these institutions also offer financial, managerial and technical advice and consultancy to business firms;
5. As repayment of loan can be made in easy installments, it does not prove to be a lot of weight on the business.

FINANCIAL MARKETS AND INSTITUTIONS: IMPORTANT FUNCTIONS

Economic system depends extremely on financial resources and transactions, and economic efficiency rests in part on productive financial markets.

Financial markets comprise of agents, brokers, institutions, and intermediaries transacting purchases and sales of securities. The numerous people and institutions operating within the financial markets are connected by contracts, communications networks which form a remotely visible financial structure, laws, and friendships. Also the financial market is split between investors and financial institutions.

The term or name *financial institution* is a wide phrase and expression alluding to organizations which act and behave as agents, brokers, and intermediaries in financial transactions. *Agents and brokers* contract for the benefit of others; and *intermediaries* sell securities for their own account. *Financial intermediaries* buy securities for their own account and sell their own liabilities and common stock. For instance, one stockbroker buys and sells stocks for us as our agent, but a savings and loan borrows our money (savings account) and lends it to others (mortgage loan). The stockbroker is categorized as an agent and broker, and savings and loan is named and titled a financial intermediary. Brokers and savings and loans, like all financial institutions, purchase and sell securities, but they are characterized independently, because the primary and main activity of brokers is purchase and selling rather than purchase and holding an investment portfolio. Financial institutions are grouped according to their main and major activity, although they often and mostly take part in overlapping activities.

Time Preference. Time preference alludes to the value of money spent now with respect to money available for spending in the future. Businesses and organizations

are as often as making decisions among short-term and long-term uses of funds, and business executives must judge between outlays which give a return in the near term and those which pay off numerous years from now. They must decide upon commitments and responsibilities requiring funds now and those requiring funds later, by allocating or designating not only funds that they expect to receive at present, but also those that they expect to get in the future.

The cash and capital markets price reserves with the goal that organizations and governments can make reasonable economical allocations of capital. The price of capital is set in a focused marketplace by free market activity powers. The market price of capital is contrasted by organizations with the normal returns in proposed capital expenditures. Organizations assign their cash-flow to real investments whose arrival is at over the expense of capital. Long-term investments are contrasted with short-term ventures utilizing the financial-market-determined expense of capital. Subsequently, the assignment of capital among short-and long-term ventures relies upon the free play of free market activity in an open market.

Like businesspersons, shoppers may settle on a period design for consumption that does not really harmonize with their present or expected pay streams. Financial markets enable us to execute time changes in the installments for products. Without them, there would be no chance to win enthusiasm on funds, and uses would be constrained to current receipts and money. Funds enable numerous purchasers to defer utilization and to get comes back from ventures.

Risk Distribution. The financial markets disperse economic risks. Employment and investment risks are isolated by the creation and conveyance of financial securities. On a bigger scale, the cash and capital markets exchange the enormous risks from individuals really playing out the work (business risks) to savers who acknowledge

the danger of an unsure return. The possibility of disappointment for a 100 million € cell phones producer might be isolated among a huge number of financial specialists living and working everywhere throughout the world. In the event that the cell phones business bombs, every financial specialist loses just piece of his or her riches and may keep on getting pay from different investments and employment.

Figure 1 Classification of participants in the financial markets		
<i>Participants</i>	<i>Classification</i>	
Commercial Banks Savings Banks Savings and Loans Credit Unions Finance Companies Life Insurance Companies Financial Pension Funds Institutions Investment Companies	Financial Intermediaries	Financial Institutions

Real Estate Investment Funds		
Mortgage Bankers Agents and Investment Bankers Brokers Securities Dealers and Brokers Clearing Houses Stock Exchanges	Securities Market Institutions	
People who own stocks, bonds, and other securities People who borrow money with mortgages, installment loans, and other instruments Businesses (Non-financial) Governments	Investors and Borrowers	

Diversification of risk. Notwithstanding allowing people to separate employment and investment risks, the financial markets enable people to broaden among

investments. Expansion implies joining securities with various properties into a portfolio. Customarily, an expanded arrangement of financial cases is less risky than a portfolio comprising of one or at most a bunch of comparative securities. Total risk is diminished in light of the fact that losses in certain investments are balanced by additions in others. The advantages of broadening are conceivable because of the presence of huge, differentiated financial markets where speculators may purchase and sell securities with minimum transactions cost, administrative obstruction, etc.

Functions of Financial Intermediaries . Financial markets encourage the development of assets from the individuals who set aside some cash to the individuals who put cash in capital resources. Reserve funds are appropriated among investments and consumption through securities exchanged the financial markets. Financial institutions encourage and improve the appropriation of assets, cash, and capital in a few regards:

1. Payments mechanism
2. Security trading
3. Transmutation
4. Risk diversification
5. Portfolio management

These capacities are important to an effective financial system, and managers are improving execution ability through improved electronic correspondence, PC preparing, and institutional plan. Note that these capacities are normal for specialists. Financial intermediaries are uncommon kinds of specialists that gather data about economic elements, assess financial data, and bundle financial cases.

The financial intermediary, by buying essential securities and issuing secondary securities adds choices to borrowers and loan specialists. Issues of financial intermediaries are termed secondary securities. The way toward changing the terms of cash purchased and sold by financial intermediaries is termed transmutation. For instance, investment funds and advance affiliations get cash with short-term, little parity reserve funds stores to make 20-to-multi-year contract loans in sums typically surpassing 10,000 €. Timing and sum are generally changed through transmutation, with adjustments restricted just by the innovativeness of the financial establishment and the acknowledgment of its clients.

Financial institutions additionally go about as portfolio managers and counselors over the vast majority of the essential securities possessed by speculators. The private financial sector manages a large portion of the home mortgages, commercial mortgages, consumer loans, state and local government securities, and business loans. Moreover, almost one-fourth of outstanding basic stocks are overseen by investment companies, and a substantial segment of the rest of the offers of stock are contributed with the exhortation of trust institutions. The most fundamental purposes behind getting institutional administration are:

- ❑ convenience,
- ❑ protection against fraud,
- ❑ quality of investment selection, and
- ❑ the low transaction cost.

Financial institutions give an advantageous spot where savers can securely contribute overabundance cash and customers can without much of a stretch obtain reserves. Ventures are secured against deceitful borrowers by the foundation's

certified advance officers and a flock of authorities and lawyers. Well-prepared investment analysts and loan officers look for good investment opportunities and screen prospective securities in order to acquire the best and optimal yield accessible for the hazard level that suits the financial investor's preferences.

Income tax differentials among people and organizations are relieved by middle people, which exchange charge derivations from low-to high-pay citizens and give tax-exempt administrations instead of assessable intrigue. For instance, annuity reserves owe their reality to charge differentials. Salary put resources into and earned by annuity reserves isn't saddled until retirement when rates are by and large lower than before retirement. Commercial banks compensate investors with "free services", which are nontaxable, instead of pay premium, which is assessable. The investors get nontaxable advantages, for example, financial records, voyager's checks, and low-rate credits as a byproduct of the utilization of their cash. Renting middle people, a sort of finance company, pass devaluation charge shields from gear clients in low-charge sections to hardware proprietors in high-charge sections. The deterioration cost lessens pay charges more for high-than for low-charge section proprietors.

2.3. The effects of financial markets to the economic performance and policies of a country

Ben Bernanke says that, "Developments in financial markets can have broad economic effects felt by many outside the markets." Financial markets are very important to the general well-being of an economy. With successful markets for credit and capital, borrowing and investment will be constrained and the entire full scale economy can endure. Financial markets

frequently neglect to shape in order economies and in less created economies, causing low dimensions of investment and low growth rates.

Every single financial market has an essential and optional component to them. For instance, so as to buy a vehicle, an individual may apply for a line of credit from a high-road bank. Eventually after this, the loaning bank can pitch the agreement to another bank, which will pay the principal bank an expense, or rate, and afterward gather the reimbursements from the underlying borrower. So also, the proprietor of the vehicle may protect it with a neighborhood safety net provider, who gets an underlying charge (a premium). The back-up plan may then pitch a portion of the hazard to a re-safety net provider, who may likewise pitch a piece of this hazard to another guarantor.

Please explain how financial markets may affect economic performance.

The basic reaction is that well-grown, easily working financial markets assume a fundamental job in adding to the well-being and effectiveness of an economy. There is a solid positive connection between financial market improvement and economic growth.

Financial markets help to proficiently coordinate the progression of reserve funds and interest in the economy in manners that encourage the gathering of capital and the generation of products and enterprises. The blend of well-created financial markets and institutions, just as a differing exhibit of financial instruments and items, fits the requirements of borrowers and loan specialists and along these lines the general economy.

Also, proficient financial markets and institutions will in general lower inquiry and exchanges costs in the economy. By giving a huge exhibit of financial items, with differing danger and valuing structures just as development, a well-created financial

system offers items to members that give borrowers and loan specialists a nearby counterpart for their requirements. People, organizations, and governments needing assets can without much of a stretch find which financial foundations or which financial markets may give subsidizing and what the cost will be for the borrower. This enables or allows speculators to contrast or compare the expense of financing with their normal rate of profitability, along these lines settling on the venture decision that best suits their requirements. Thusly, financial markets direct the distribution of credit all through the economy—and encourage or promote the generation of products and ventures.

In many creating countries, constrained financial markets, instruments, and financial establishments, just as ineffectively characterized legitimate systems, may make it all the much more exorbitant to raise capital and may bring down the arrival on reserve funds or ventures. Constrained data or absence of financial straightforwardness imply that data isn't as promptly accessible to market members and dangers might be higher than in economies with all the more completely created financial systems. Likewise, it is increasingly troublesome and intense to hold a differentiated portfolio in little markets with just a constrained determination of financial resources or reserve funds and investment products. In such slender financial markets with small exchanging action and couple of choices, it might be increasingly troublesome and exorbitant to locate the correct item, development, or hazard profile to fulfill the necessities of borrowers and moneylenders.

A financial market is a form of a specialized market that channels financial resources from surplus entities to deficit entities for the sole purpose of carrying out economic activities (Jalloh, 2016; 4). In this regard, financial markets include all financial institutions that propagate financial resources from savers (surplus units) to entities that require financing to undertake financial activities.

The process of transferring financial resources is referred to as financial intermediation; the process of directing financial resources between surplus and deficit entities. In this regard, financial markets constitute an important resource in economic growth (Jalloh, 2016; 13).

On the other hand, Iram and Nishat describe economic growth as the indicator of the health of the economy (Iram & Nishat, 2018). Foreign direct Investment stimulates and revives economic growth of a country while the financial markets play as intermediaries for the flow of investment, be it local or foreign investment from external entities into the local economy.

The remote venture isn't just as funds yet additionally information exchange, innovative overflows just as argumentum human capital.

It is a wide spread belief that foreign direct investment (FDI) leads to positive productivity effects for the host country through various mechanisms including adoption of foreign technology, and direct capital financing (Alfaro et al, 2017). In the recent past, findings have shown that the capacity of a country to utilize externalities occasioned by FDI is limited by local conditions such as the local levels of education and financial markets development (Borensztein et al, 2015). The paper by Alfaro, Chanda, Kalemli-Ozcan and Sayek provides evidence to the fact that FDI only facilitates growth in countries which have well developed financial markets.

Financial markets are important in enabling economic growth in any economy. They are closely connected to all markets and almost all individuals in an economy (Winkler, 2016). This amplifies and enlarges the significance of financial markets which lies with the fact that they are connected with all spending decisions and resolutions in an economy. A flow of funds analysis is definitely the optimal way of highlighting the close inter-linkage between real activity and financial markets.

The funds circulating in a financial market on the other hand are either from locals or from foreign direct investment. On the case of local investments, the gain of an economic agent for example a household or firm results from the loss in another financial agent, i.e. for an agent to incur a financial surplus then an agent in the economy has to incur a financial deficit; the sum of all financial balances in an economy, works out to zero (Winkler, 2016).

Contrary foreign direct investment does not affect two agents in the economy the investment is from external sources, thus it propagates a gaining situation for the local economy. The sum of all financial balances involves the investment from external sources thus does not add up to zero (Winkler, 2016).

Financial markets perform the primary function of inter-temporal and interpersonal resource transfer, and are financial markets (Merton and Bodie, 2015; 12). Although foreign direct investment can be in different forms, it still embodies the fact that it adds financial value to the local economy. FDI induces a number of positive effects to the local economy in the form of technological transfers, managerial skills, introduction of new process and productivity gains (Alfaro et al, 2017).

FDI by and large depends on capital from abroad; therefore the overflows for the host nation essentially depend on the domestic financial markets development. Thusly, overflows won't be confined to the enhancements in a nearby business by exploiting the new learning, buys of new machines and hardware and the contracting of gifted work and the executives. Local investment is fit for benefiting the required financial assets however may be compelled in giving the new mechanical progressions and potential enterprising needs.

Foreign direct investment has the potential to generate and create backward linkages but in the absence of developed financial markets, this is rigorously hampered. FDI

through linkages that multinationals create allows existing firms in a host economy to achieve economies of scale and even help in creation of new firms (Hirschman).

Basically, foreign direct investment influences economic growth by increasing the total factor productivity of the host economy and generally by raising the efficiency of resources in use in the host country (Odenthal, 2014). As mentioned before, local investment has little influence on the growth of the economy because of the zero sum game which takes place since any gains by an agent end up in a loss by another agent.

Studies have shown that foreign direct investment in a country with a well-developed financial market contributes to economic growth at a higher rate as compared to local investment (Odenthal, 2014). It is however hard to measure the magnitude of foreign direct investment on a host country, since the high growth rate might be as an effect of other unconnected factors. Also the crowding out effect connected with foreign direct investment is yet to be unambiguously studied. Foreign direct investment also promotes domestic investment in that it generates an entrepreneurial influence in the local investors who imitate the new technologies progressed by foreign investment.

In less developed economies with low educational, technological and infrastructure development, foreign direct investment has a relatively smaller effect on growth, commonly characterized by threshold externalities which include less developed financial markets (Morisset, 2018).

The Role of the Financial Sector. As the economy develops, and develops more complex, the financial sector should keep pace. Banks have to be developed and ended up more modern in their capacity to evaluate prospects for risks and returns; and, in parallel, there should be the improvement of other financial sources of investment capital. Supported and rapid development has to be supported by a broadening and

extending of the financial system, able of serving the wants of all parts of the economy. Those economies that have maintained fast development over the long term have experienced colossal basic alter, as they have moved from being transcendently rustic and agrarian to a more urban, manufacturing-and-service-based structure.

Policy Implications. For nations encountering quick development, advancement of a sound financial sector is very critical. Subsequently, in numerous rising markets and creating nations nowadays, accentuation must be put (among other things) on changes that empower moved forward working of the financial system. At early stages of advancement, this involves fortifying the rights of borrowers and loan specialists, advancement of a credit rating system, bringing down the costs of getting credit (not the intrigued rate), and streamlining implies for settlement of disputes.

The key part of the financial sector in economic growth is presented by Schumpeter. He contended that the benefit arrangement by budgetary mediators counting investment funds mobilization, hazard administration, ventures assessment, checking the supervisors, and encouraging exchanges are vital for innovative enhancement and financial development. Budgetary middle people ought to be able of effective assignment of assets encouraging in that way higher returns and desirable and preferred risk transformation.

The key question for the policymakers in less developed economies is how to have a process of sustained economic growth. Underdeveloped countries have the agenda to support financial sector reforms. A better developed financial system reduces transaction, information and monitoring costs. It increases the efficiency of resource allocation and in turn spurs the growth. A well-developed financial system promotes investment opportunities to potential businesses, mobilizes savings, enables trading,

monitors the workings of managers, offers hedging, and diversifies risk (Levine 2015).

A productive financial system offers improved financial choices, underpins the better dissemination of assets and in this manner quickens economic growth. A strong financial sector needs profound established residential and global financial system just as liquid securities exchanges.

Well-created financial markets spread data about gainful and beneficial investment and venture openings, upgrading the productivity with which capital is assigned. They help with observing directors and reinforcing corporate control, emphatically impacting the effectiveness with which assets are designated inside the firm. They prepare funds, encourage specialization, and support trade.

By firmly controlling financial markets and exchanges, governments can restrain financial unsteadiness. Be that as it may, in the event that doing as such was costless, at that point we would routinely observe nations that experience financial emergencies slapping on tight controls. We don't propose that approaches of financial suppression have costs just as advantages.

Re-regulate domestic financial markets. A long profession, beginning with the writing on tight banking, advocates exacting guideline of household financial establishments and markets stuck in an unfortunate situation of financial insecurity. In this day and age, such administrative measures would be powerful just on the off chance that they were thorough. Restricted banking would not be sufficient, for intermediation would basically move from banks to close banks, (for example, finance companies, just like the case in South Korea after 1997) and securities markets, and the outcome would be no noteworthy decrease in financial precariousness. By definition, such measures would restrict the development of bank

credit to the economy and security and value market capitalization relative the benchmark in which domestic financial markets and institutions are gently managed. The more thorough the important guidelines (and the more viable they along these lines are in restricting financial insecurity), the more certain one can be that the development of credit to the private division would be compelled. Less financial unsteadiness would be accomplished at the expense of less financial profundity and advancement.

Some basic cost-benefit calculations keep running as follows. Accept that reregulation of domestic financial markets wipes out banking however not currency crises. Banking emergencies are less successive and exorbitant as far as yield losses than currency crises, as indicated by Dobson and Hufbauer, on whose gauges I draw. The average output loss per year from a financial emergency is 53 percent as large as the average output loss per year from a currency crisis, and a financial emergency in arbitrarily chosen nation in a haphazardly chosen year is 66 percent as likely as a currency crisis. The outcome is to quality 30 percent of the complete expense of financial emergencies to their financial emergency part. Given a rough approximation of a 1 percent loss in creating GDP development per annum because of financial emergencies, a 0.3 percent for every annum loss of GDP is wiped out by this strategy mediation.

The costs of the intervention depend on the elasticity of economic growth with respect to financial development and on how drastically financial regulation hinders the development of financial markets. Demetriades and Luintel (Table 3) provide detailed estimates of the impact on financial development for one country, India; their estimates suggest that moving from deregulated to highly regulated financial markets results in a 30 per cent percentage decline in financial depth at the mean (where the financial intermediation ratio is computed relative to GDP). King and

Levine (2015) show that reducing financial depth by this amount will cut per capita growth by 1 percent a year.

Putting these pieces together, the net benefits of this to begin with “opportunity” are -0.7 per cent of creating nation GDP per annum. To precise this as a share of worldwide GDP, review that creating nations account for somewhat less than one-half of worldwide GDP (42.9 per cent in 2000) when the last mentioned is computed at obtaining control equalities. The finding is a loss of just over \$100 billion per year in 2003 U.S. dollars as an annual flow, a sum which will rise as the world economy keeps up to expand.

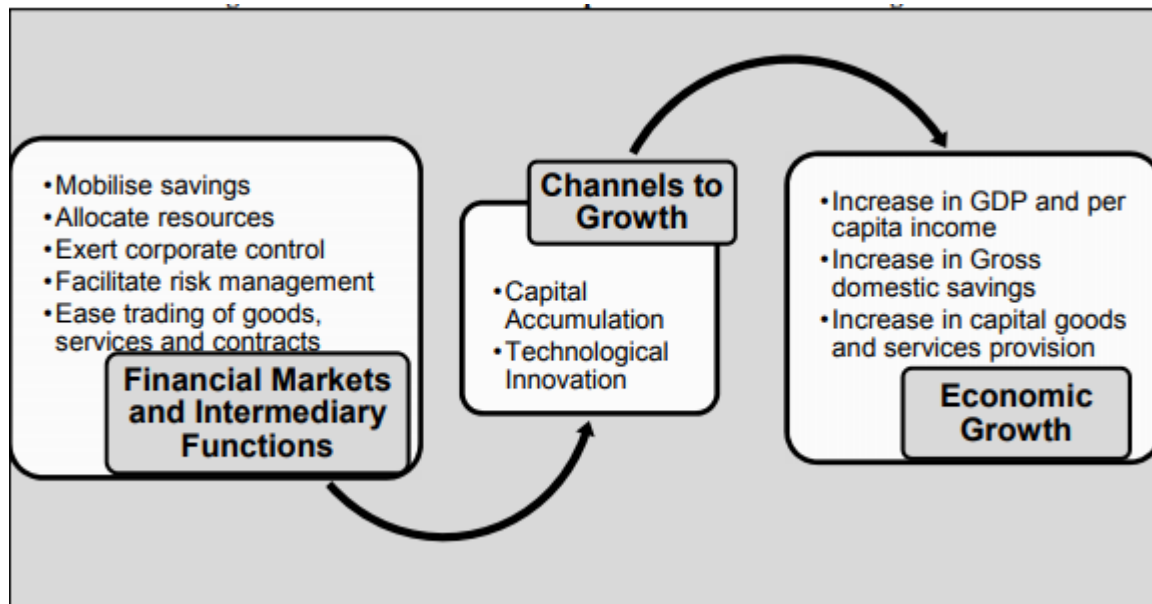


Fig. 2.1: Theoretical link of Capital markets to Economic growth

Source: Adopted and adjusted from Levine (2015)

Summary

It also appears that the association between capital market development and economic growth is more of a mutually causative and inclusive one, although more studies found a unidirectional association from the perspective of capital market

leading to economic growth. Following the views of Alghamedi (2012) who stated that the role capital markets play in an economy is colloquial and thus has a knock-on effect on everything else, the first 2 study objectives have now achieved in the critical analysis of existing literature and evaluation of the capital markets and economic growth of the MINT with historical data. In generally therefore, let it be noted and recorded that capital market development effects varies by specific country markets and economic systems based on the position of Ghimire and Giorgoni and several others.

3. Electronic Trading

Electronic Trading in Financial Markets is an extensive and comprehensive study of the influence and impact of modern technology on financial market systems.

While open outcry is yet took advantage today to a limited and restricted degree, it has almost thoroughly and entirely been substituted by electronic systems that enable and offer faster execution, fewer errors and better efficiency. Electronic trading dominates and holds control of the financial world, and it can be useful and helpful for investors and traders to comprehend and understand how it works. To assist you get started, here's a fast look at electronic trading – containing the exchanges and key technology.

Since the progress and development of electronic trading systems, their implementation and execution upon the marketplace has been a hotly and enthusiastically debated topic. Financial industry specialists and professionals are largely divided on the subject, but it is undeniable fact that electronic trading rules

and dominates or holds sway the financial landscape and open outcry has been displaced to be a thing of the past.

For the relegated pit traders of old, the prospects of making a living in the electronic marketplace are very bleak and not attractive. Skills made use of in open outcry are often classed with those used in poker, while achievement, success and attainment on the "screen" are linked and attributed to probability. It has been calculated and estimated that just 5% of established pit traders that have made the transition to the screen have been successful.

Advocates or supporters for electronic trading assert and claim that technology has increased the overall efficiency of the marketplace. Some of the most powerful and strongest arguments in favor of electronic trading are as follows:

- Lower commissions and fees
- Greater liquidity
- Ease of market access
- Tighter bid/ask spreads

Opponents and critics of the electronic trading claim and assert that the exact opposite and anti-pole are true, with an unfair playing field being created through the fast proliferation of the digital marketplace. Popular arguments claimed in the case against electronic trading are:

- Market fragility associated with technology failure
- The creation of enhanced market volatility
- Ease of market manipulation

- Lack of transparency

It doesn't matter what one's opinions are on the digital market or the open outcry system, electronic trading looks to be here to stay. All in all, the marketplace is a dynamic environment that is constantly developing, evolving, improving and progressing. It is possible that the trading environment of tomorrow or future will be unrecognizable to the market participants of present.

3.1. The role and functions of Electronic Trading

Electronic trading is only another name of forex trading. It is electronic exchanging stages which empowered and enabled various brokers over the world to meet up and exchange with an alternate pair of currencies. It is likewise one of the most straightforward approaches to connect with the web benefits and incorporate resource dealings.

As per exchanging specialists, electronic exchanging is presently a standout amongst the most well-known methods of exchanging as it is useful in spilling live market costs. These live costs are useful as it enables the dealer to exchange with live-from-market costs, extra exchanging instruments, similar to news sources, accounts the board capacities, and so on.

In the present developing FX markets, banks need adaptable exchanging stages and apparatuses that give power over electronic evaluating, circulation, and supporting to satisfy the developing needs of their customer base and improve inner proficiency through robotization.

Electronic trading enables more brokers to get more information on more items in more markets. A tick of the mouse from anyplace on the planet can right away send an assortment of extraordinary request types to different agents and trades far and

wide. Hazard supervisors and controllers can screen the progression of market data and requests progressively for infringement or undue hazard taking. The steady weight of rivalry powers costs down and moves upgrades in each segment of the exchange cycle, from robotized exchanging applications to coordinating motors to clearing administrations. Each part of the exceptionally old floor-exchanging model has been changed, unrecognizable even to the individuals who have spent a lifetime in the business. The uproarious and disorderly clique of floor brokers has been supplanted by the chilly productivity of PCs murmuring delicately in a server farm.

How Electronic Trading Works

Millions of individuals exchange billions of offers of stock each day on a tremendous collection of computer systems that are unimaginably solid and, exceptionally about, error-free. There are so numerous things happening at once that system gets to be troublesome and compelling to comprehend, and the truth that it works so well is genuinely an accomplishment.

Risks

Electronic trading is indispensably to the financial markets. Everything from mechanical glitches to by and large extortion can impede the smooth and effective working of those markets, costing brokerage firms' cash and calling into address the validity of the financial system. Indeed minor glitches, such as the "flash crash" of May 6, 2010, can wreak ruin. The streak crash was a brief exchanging glitch that caused the Dow Jones Mechanical Normal to dive 998.5 focuses in fair 20 minutes. More than \$1 trillion in market esteem vanished. To amend the circumstance and make financial specialists entire, 21,000 exchanges were canceled—all since of a single glitch, activated by an arrange put within the futures market on a brokerage

firm's computer system, which caused freeze exchanging to spill over to the value markets.

Benefits of electronic trading

The most benefits of electronic trading inside the markets presently include merchants being allowed to grow their speculator clients and as a result, decrease the expense combined with exchange cancellations and changes. This has driven to the market performing more proficiently and reasonably. Mechanized handling has moreover diminished the sum of exchange blunders. As a result, this has cut the ascribed costs to activity the rectifications.

3.2. The impact of electronic trading on financial stability

The past portion appeared how ET has the potential to diminish exchanging costs for market members, both straightforwardly as a result of lower express costs of exchanging and by implication by empowering changes to market structure. This portion considers whether the market advancements related with ET have suggestions for financial stability, which is able be upgraded on the off chance that markets are:

- efficient: prices level underlying supply and demand and adjust as seamlessly as possible, without extreme volatility unrelated to changes in fundamentals;
- liquid: transactions are executed swiftly and quickly without unduly moving prices;
- orderly: equivalent orders are performed at broadly equivalent prices;
- stable and resilient: the above proceed to hold at times of uncertainty and market stress.

This portion to begin with examines the results of ET for effectiveness and liquidity. Along these lines an investigation of the suggestions of the current fracture watched in a few markets is displayed, taken after by an appraisal of the strength of markets in times of stretch. At last, the potential operational dangers related with ET are surveyed.

Consequences of ET for efficient price formation and liquidity

All in all, electronic trading ought to enable requests to achieve the market quicker on account of higher preparing speeds than with manual procedures. Costs should in this manner consolidate data all the more rapidly. By bringing down trading expenses and extending access to market data, ET ought to likewise support more noteworthy trading movement by existing financial specialists and more extensive cooperation in business sectors (for instance, by retail speculators). It ought to likewise decrease the expense of exchange trading. ET encourages the centralization of business sectors by permitting both remote access and multilateral trading. These variables may – from a certain perspective – help liquidity. Expecting that more profound liquidity in business sectors implies progressively productive price discovery, market costs should better reflect accessible data about basics, and consequently costs alter all the more rapidly to (even little) changes in these essentials. Some market members recommend this expanded productivity may likewise prompt more expensive rate unpredictability, particularly if costs fuse news all the more rapidly in the short run. Then again, it tends to be contended that, if costs were slower to respond, they would need to demonstrate greater moves to make up for lost time with the news. A few market members have shown that unpredictability has turned out to be increasingly unmistakable on account of improved straightforwardness, yet that it has not really expanded.

Market fragmentation and consolidation across trading systems

Above we describe how ET has encouraged the development of new trading patterns. At present, some markets appear in a state of flux, with trading spread across several platforms supplied by competing providers and across different market types. Fragmentation may have both benefits and costs. The benefits contain:

- Improved pricing efficiency. Prices from the more transparent electronic order books can be used as benchmarks or reference points for trades in existing markets.
- Improved efficiency in existing markets. Competition with novice, more transparent electronic markets may compel existing markets to decrease costs and enhance their own level of service. For instance, dealers may be compelled to offer greater transparency to their own customers.
- Easy access for end-users. ET systems may allure new types of end-users, and in the end benefit some markets through increased liquidity. Specially, retail customers may find it easier to participate in certain securities markets due to increased transparency and lower trading costs.

However, there are also potential costs of coexistence:

- Fragmentation of order flow. Liquidity may be adversely affected due to fragmentation of the order flow into electronic and non-electronic markets. Naturally, this is a potential or future problem whenever multiple market centers coexist, irrespective of whether some of them are electronic or not. After all, the relative ease of setting up new electronic systems means that multiple systems are likely.
- Costs from the duplication of systems. These may result from expenses on systems required to allow and enable investors and intermediaries to keep track of prices

being quoted and traded in various market centers and from expenses arising from delivering an order from one market center to another for possible execution.

Centralization of clearing and settlement

This part proposed ET may urge markets to move towards concentrated trading. This may urge activities to offer focal clearing of business sectors, so as to manage counterparty credit chance. The developing job of focal counterparty clearing houses in budgetary markets has more extensive ramifications for financial stability which are past the extent of this report. From a narrow trading perspective, in any case, the expulsion of worries about counterparty credit hazard may make trading systems stronger in light of the fact that market members would never again be conceivably discouraged from trading by those worries, which are probably going to increment in the midst of stress. It ought to be noticed that in upsetting occasions, the vigor of the focal more clear turns into an exceptionally indispensable issue.

ET encourages solidification in the financial industry prompting a lower number of sellers, particularly market-makers. The versatility made conceivable by ET implies that more clients and exchanges can be served by less middle people. The decrease in the quantity of market-makers could prompt a net withdrawal of hazard capital from the business sectors. This could have suggestions for the capacity of market-makers to give liquidity, particularly in the midst of worry, with hazard for financial stability. Nonetheless, it isn't so evident from past instances of market disturbance that market-makers provided liquidity when it was required. There have been cases in different unstable markets where market makers just quit noting their telephones. Extreme liquidity might be given by those end-users ready a longer-term view because they are neither utilized nor subject to day by day marking to market. Electronic order books may expand market liquidity in the midst of stress if these

financial specialists have more prominent direct access to the market. For instance, they can post limit orders so as to search for deals as opposed to requiring the intermediation of vendors. The conceivability of these orders may then help price discovery in the rest of the market: for instance, by setting a stop to value decay. In this manner, the arrival to ordinary trading conditions might be quickened. Then again, it tends to be contended that order books may experience the ill effects of decreased liquidity under pressure in the event that they include a focal counterparty whose financial soundness goes under inquiry in unpleasant occasions.

3.3. What are advantages and disadvantages of electronic trading platforms?

An electronic trading stage, otherwise called an online trading stage, is a site or PC program with a graphical UI used to exchange financial assets by means of an electronic correspondence organize, stock trade, elective trading system, crossing network, or dark pool with a financial intermediary, for example, a stockbroker, investment bank, or broker-dealer, or legitimately with market makers or different members. Financial products normally exchanged include stocks, securities, cash, trade exchanged assets, wares, and subsidiaries. Such stages enable exchanges to be executed from any area and are as opposed to trading by means of open clamor.

Electronic trading stages ordinarily give trading instruments, for example, market information, graphing, news, account the board, investigator examine, and altered back-testing. They may likewise be intended to consequently execute exchanges dependent on a trading procedure, for example, those utilizing specialized investigation, central examination, algorithmic trading, or to do high-recurrence trading and day trading.

Direct access trading

Direct access trading permits for exchanging straightforwardly with a market maker or pro through an electronic communication arrange. This strategy of trading, which is offered by as it were a couple of stockbrokers, such as Intuitively Brokers permits for a speedier arrange execution; in any case, commissions from these brokers on bigger trades may be higher since these brokers don't get installment for arrange stream..

Single dealer platform

A single dealer platform, commonly utilized for trading in the foreign exchange market, is a portal by which traders are given access to prices from one dealer.

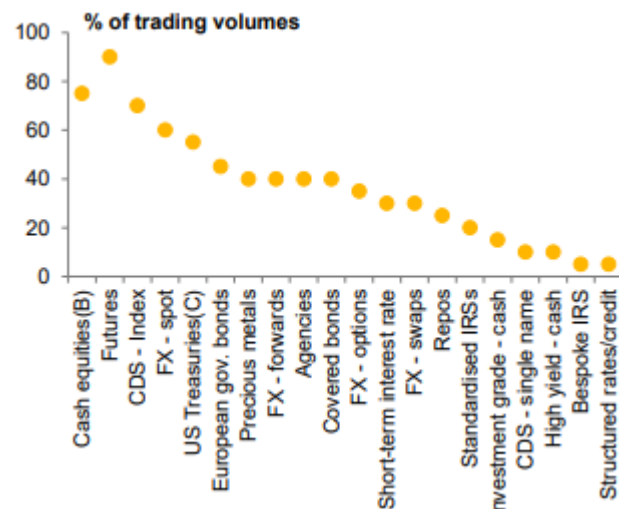
Impact of electronic trading platforms

An electronic trading platform (ETP) enables merchants to put orders for financial products over a PC organize. ETPs are elective method to exchange markets which have been ruled by progressively customary techniques, for example, open objection and phone trading through vendors. Electronic trading has been grown outstandingly so as to support customers at a lower cost. An ETP can be a solitary or multi-seller platform, where the system is associated with one or numerous budgetary establishments. Hypothetically, by expelling geological restrictions and permitting multilateral collaboration, ETPs can improve liquidity by coordinating purchasers and merchants all the more adequately. There is some proof to recommend that ETPs decline spreads, increment trading volumes and lessening instability. Electronic trading can encourage the dispersal of trading data and improved straightforwardness.

In any case, a few variables limit the effect of ETPs on market liquidity, especially in statement driven markets.

Structural market factors

Trading platforms are optimal suited to standardized items and littler estimate exchanges for which an adequately expansive number of orders can be coordinated on a standard premise; this is often the case for spot FX markets for the most liquid currencies. The request for differing qualities in issuance in fixed income markets implies that it is less suited to electronic exchanging than other resource classes such as cash equities and futures. Afterward in this portion we moreover examine the benefits for adaptability in bond issuance. As a result, ETPs have by and large fizzled to pick up footing in fixed income markets and the bulk of the trading is executed over the phone. There's noteworthy variety within the utilization of ETPs in exchanging over resource classes. Figure 5.5 appears the improvement of the electronic market by resource course, with a clear relationship of tall levels of electronic exchanging for more standardized items and lower levels of electronic



exchanging for more customized items.

Fig. 5.5: Electronic market development by asset class, 2012

Source: FEMR245

Note: includes multi-dealer RFQ

As set out in Figure 5.5, with the special case of US Treasuries exchanging, the utilization of ETPs in fixed income and bespoke subsidiary markets remains less than 50%. While electronic exchanging of US treasuries is around 55% of add up to exchanging, this falls to around 10% for high-yield corporate obligation. Usually steady with our talks with market members. Dealer-to-dealer exchanges in fixed income are overwhelmingly electronic whereas dealer-to-client exchanges are less so. Discussions with market members proposed Treasuries and a few real estate financing rebellious were those rebellious inside fixed income with most potential for electronic exchanging. Agreeing to the Treasury Market Practices Group:

- E-trading represents more than half of the overall trading volume in the US Treasury securities.
- Automated trading strategies account for more than half of the trading activity in on-the-run US Treasury securities that happens on e-platforms.
- The improvement and development of automated trading came together with a concentration of volumes (the top 5 dealers accounting for more than 55% of dealer-to-client volumes according to Greenwich Associates).

Over the longer term market members anticipate the share of electronic exchanging to continuously rise. In any case, there's still anticipated to stay a need for exchanging to require put OTC for the predictable future, given backer request for adaptability in financing choices. A think about by ICMA (2014) too proposes that in spite of the fact that the electronification of the credit market is making an affect in Europe, it isn't a substitute for OTC liquidity.

One proposed answer for accomplishing more noteworthy institutionalization, especially in corporate securities, is to gather market action in fewer securities with

more prominent issuance volumes and comparable highlights. This has jumped out at some degree in government bonds, futures contracts and CDS that profit by much better liquidity and the capacity to be trade exchanged as an outcome of bigger and progressively institutionalized highlights. There are additionally a few instances of structures used to total obtaining prerequisites for extensively comparable loan specialists however reception of such structures has not been across the board.

In any case, we have discovered little proof of help for more noteworthy institutionalization in the corporate security market. As showed in the Bank of England's Fair and Effective Markets Review, guarantors esteem the adaptability of having explicit development and coupon structures to coordinate their hidden money streams. Treasurers will in general issue obligation for a particular reason and term, and they esteem the adaptability of rising financing as and when it is required. More prominent institutionalization may likewise prompt more noteworthy fracture, in that banks and multinationals are in a superior position to issue institutionalized corporate securities, while littler guarantors may finish up issuing obligation by means of private situations (which are ineligible for list consideration), which will additionally sustain the bifurcation of liquidity among vast and little backers.

An examination by the International Capital Markets Association (ICMA) demonstrates that guarantors were likewise worried about the ramifications of institutionalization on development focus and move over hazard. A lot of obligation due for reimbursement in the meantime would focus renegotiating hazard for backers, and make it progressively troublesome and trying for financial specialists to make relative qualities between bonds with various tenors. A centralization of institutionalized developments may likewise produce and make extra instability, which would not be the situation under stunned developments, which offer to financial specialists with various investment strategies and skylines.

Notwithstanding that, while banks and financial specialists saw that institutionalization could understand liquidity benefits, a progressively homogenous corporate security market could make portfolio the executives increasingly troublesome and convincing from a broadening point of view. **Liquidity fragmentation**

Second, the development of ETPs, which has been halfway determined by administrative changes, has offered ascend to liquidity discontinuity, where the liquidity of principle markets is diffused crosswise over elective trading settings. This outcome in increasingly focused however less profound markets, with any less capacity for an individual setting to assimilate extensive exchanges, scaled down cost disclosure and decreased productivity. For instance, there are 13 distinct trades and 40+ dull pools in US value markets, and it is indistinct whether these platforms give a one of a kind offering to financial specialists.

Dialogs with market members were likewise suspicious as of now about the capability of ETPs to draw in adequate "minimum amount" of trading volumes and to hold liquidity moving forward without any more union in platforms. Numerous members remarked that the vast scope of security trading platforms made it hard to tell where liquidity is concentrated and in this manner which merited putting resources into. Albeit bigger firms were in a situation to test the practicality of various trading platforms, littler firms are probably going to postpone their selection until they can recognize the trading platform that is probably going to meet their trading needs, with adequate volumes, into the long-term.

Respondents were also skeptical of whether ETPs would succeed with a 'buy side to buy side' model, with dealers excluded as they felt this undermined a vital additional source of liquidity.

Liquidity in a stress event

At long last, there is some distrust right now over the capacity of ETPs to keep up market liquidity in stress circumstances.

In synopsis, the introduction of ETPs is impossible with result in a stage change in liquidity conditions in financial markets in the short-term. The advancement of ETPs is still in its beginning periods, and could conceivably positively affect future liquidity and improving business sector productivity. As confirmed by SIFMA's Asset Management Group, the advancement of new ETP conventions that conquer any hindrance between the RFQ and focal breaking point request books (CLOB) could help diminish reliance on seller capital by conveying dormant liquidity to the market.

Electronic trading platform which is likewise called an online trading platform is said a product that is utilized to put in and get requests over a system for financial products through a financial intermediary like dealers. This platform enables dealers to complete electronic trading at various areas.

Electronic trading platforms permit financial specialists and forex merchants to screen trading records and spot different exchanges, it includes market examination programming in its highlights which empowers its clients to graph the market and perform screen stocks.

ADVANTAGES OF USING AN ELECTRONIC TRADING PLATFORM

- LESS EXPENSIVE

Trading forex using an electronic trading platform helps to reduce the cost of transaction and increased fees associated with other forms of trading. Typically, an

electronic platform user pays way less and sells exchange traded funds at a discount brokerages.

- GREATER CONTROL AND FLEXIBILITY

Time is ordinarily an obstruction to traders when trading forex. Electronic trading platform works at a high speed and trades are executed as quickly as conceivable. Other trading platform usually requires a part of time and works at a moderate rate which can lead to loss of investment and money and cash in most noticeably awful scenarios.

- ABILITY TO AVOID BROKERAGE BIAS

One fundamental viewpoint of this trading platform is that it permits its clients to form choice and make trading on their own. This feature dispenses with brokerage bias which happens when a financial broker gives counsel on forex trading that generally benefits the broker. This energizes making bias choices that will be exclusively useful to the broker but not to the client or trader.

- ACCESS TO ONLINE EQUIPMENT

When utilizing Electronic trading platform, the trader is overflowed with equipment, materials and online trading instruments that will offer assistance to optimize his trades. These instruments may come inform of valuable information and trading performance charts.

DISADVANTAGES OF USING AN ELECTRONIC TRADING PLATFORM

- TOO FAST FOR TRADING

Utilizing electronic trading platforms for trading makes trading as well simple so, traders fair push the button thereby making quick and poor investment choices.

Indeed in the event that the platform has a reputation of making trades in seconds, satisfactory investment choices take time. This mistake makes them loose a lot of money in their trading.

- NO PERSONAL RELATIONSHIPS WITH BROKERS

Everything done in this platform from the creation of an investment strategy or technique and the total understanding of how the strategy utilized influences the market is carried out by the online trader. The dealers can't get physical help from brokers to help them investigate the dubious market and price movements.

- IT REQUIRES A GOOD AND STEADY INTERNET CONNECTION

Trading with an electronic trading platform is basically an online trading which implies that as a trader and client, u must have a very reliable source of internet association. In the event that the network connection gets to be slow, dealers can experience tremendous loses on a promising trade. Internet connections are also very costly to procure and a few dealers may not have all the money needed.

In conclusion, electronic trading platforms were fundamentally built up for instant order executions and utilizing the network to carry out trades in this manner making

location

less

necessary.

	Advantages	Drawbacks
General	Increases market liquidity	- Only standard instruments; - Only relatively small tickets; - Low adaptability to market volatility; - Risk of technical glitches or malfunctioning
For dealers	- Reduces some trading costs and risk of trading; - Creates new profit opportunities	- Has start-up costs; - Requires a certain critical mass of trading to be cost-effective
For customers	Reduces some trading costs and risk of trading	Benefits are usually limited to institutional investors
For DMO	- Lowers funding cost - Enables DMO to monitor PDs' compliance	

The advent and adoption of electronic trading has changed genuinely the scene of trading and has presented essential changes to the securities markets with noteworthy trading possibilities. Electronic trading has dispensed with the need for exchanges as physical places and reduced to an incredible degree human intermediation in carrying out trade as orders are communicated and executed electronically.

In addition to that, electronic trading has numerous benefits to securities market, in specific in terms of cost of transactions for all the parties concerned, transparency of information, greater liquidity, wider access to markets, and more competition.

4. The role of Electronic Trading System in increasing effectiveness of operations in the financial markets

An electronic trading system is a facility which provides or gives some or all of the following services: (i) order routing (from computer to computer); (ii) order execution (“click-and-trade”); (iii) credit risk management (central counterparty trading); (iv) automated trade settlement (straight-through processing); and (v) dissemination and spreading of pre-trade and post-trade information.

The adoption of electronic trading systems has changed the economic landscape of trading venues and is demonstrating a force for alter in market architecture and noteworthy trading possibilities. Electronic trading both evacuates geographical restrictions and permits continuous multilateral interaction (while telephone trading permits as it was the previous and floor trading only the latter). It permits much

higher volumes of trades to be dealt with, and in customized ways that until recently would have been technically impossible or prohibitively expensive.

Electronic trading systems can improve operational efficiency through two primary channels. The first is the diminish in transaction charges reflecting the lower staffing costs coming about from the broad utilize of computers, and the decreases within the costs related to keeping up a branch network made conceivable by the utilization of internet technology. The second is enabling the integration of all processes from the front-office to the back-office, or Straight Through Processing (STP), beginning with electronic order transmission, taken after by the confirmation of transactions, observing of positions, and last settlement. In arrange to realize STP and take full advantage of electronic trading systems, however, advance is additionally essential within the standardization of confirmation, settlement, and data management processes. Meanwhile, electronic trading offers cost efficiencies to customers as well, by bringing down search costs for the optimal price accessible at the time of placing orders.

Electronic trading systems have two remarkable and significant features. One is declining average cost, which implies that costs caused from extra trades would be marginal. The other is network externality, which implies that once an adequate number of trades are directed through a particular system, the system gains reputation for liquidity, which in turn results in more orders being directed through the system. These two highlights contribute to the concentration of trading into dominant winner systems.

4.1. Current use of electronic trading systems

Electronic systems are right now utilized to shifting degrees for exchanging within the markets for foreign exchange and fixed income. Entrance varies between

markets, between market segments, between rebellious, between sorts of exchanging and between the different stages of the exchanging prepare. Additionally, the circumstance is changing quickly; a dominant system can donate way to another in as quickly as a couple of months. The most effect of ET so distant relates to the inter-dealer (voice) broker, who is progressively being supplanted by electronic systems. This does not essentially suggest that brokerage firms are going out of commerce as they may rehash themselves by advertising an electronic benefit. Besides, electronic exchanging makes the coordinate managing connections excess, i.e. the interaction within the inter-dealer market is getting to be progressively multilateral. The dabbed lines in Figure 2 show the decreased significance of the coordinate exchanging channels and the conventional inter-dealer broker channels.

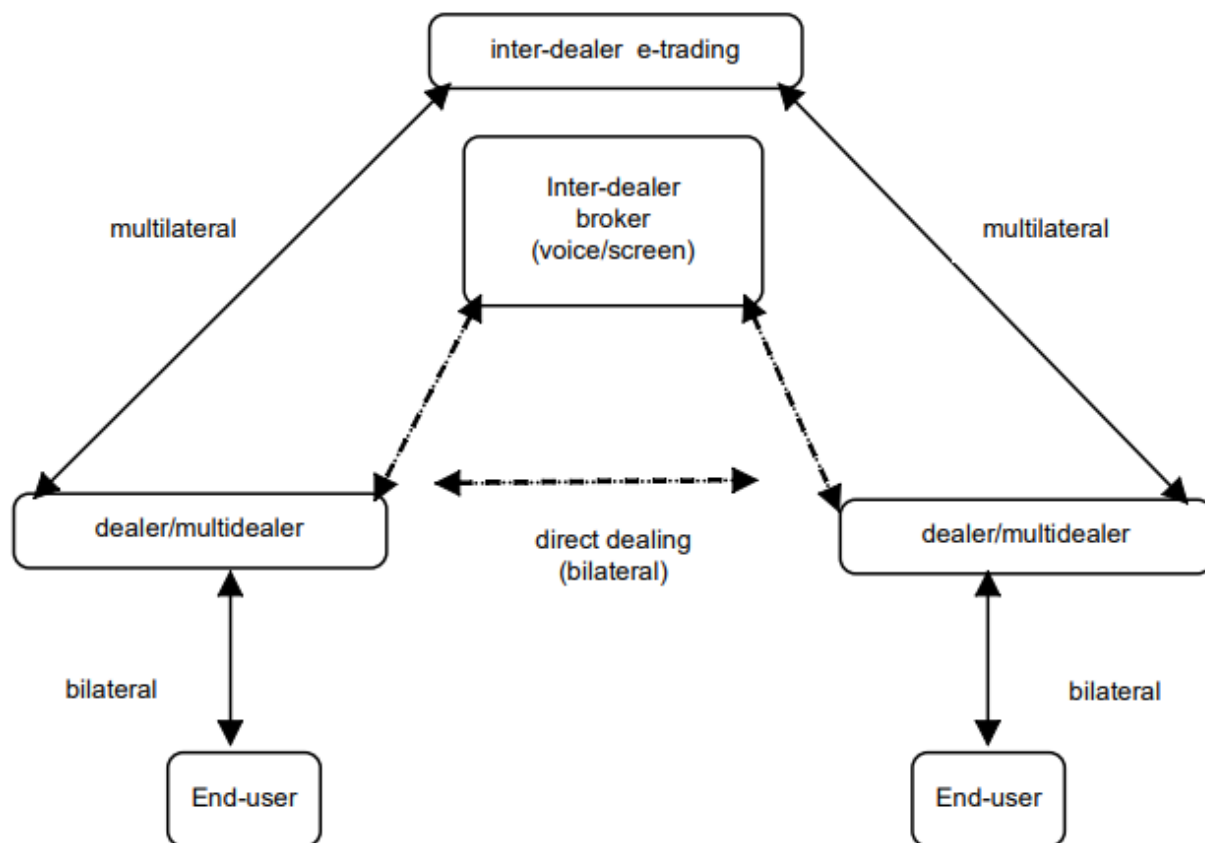


Fig. 2. Interaction between market participants after the introduction of electronic trading

In the foreign exchange market, the inter-dealer market is ruled by ET. There are two systems (EBS and Reuters) each being prevailing in certain cash sets (see Box D). Both voice broking and direct managing between sellers have turned out to be significantly less vital.

The infiltration in the dealer to-customer market is far less progressed at this stage. Numerous middle people have set up their very own single-vendor destinations, supplanting (or enhancing) phone contacts with clients. A few marketable strategies for multi-dealer sites have been reported (for example Atriaux and FxAll), yet are not yet usable on a noteworthy scale. There is as yet a reasonable partition between the between vendor and the seller to-client markets. Despite the fact that the innovation is accessible, particularly due to the counterparty credit chance associated with foreign exchange dealing, so far the market has not moved to an open system in which end-clients and mediators have equivalent access. Firms still need to know before execution of an exchange with whom they are managing.

In the between seller G10 government security markets, ET systems are making strides quickly (names regularly referenced include BrokerTec, eSpeed and EuroMTS). A few systems are seeking a similar business. Since it isn't clear which systems will win, middle people are endeavoring to be included, as proprietor or potentially client, in a few of these systems. Once more, in the seller to-client market, the degree to which ET systems are utilized is less articulated than in the between vendor markets, yet it is developing quickly. Various multi-seller systems (precedents are Bondclick and Trade-web) are working/reported whereby clients can demand cites from a few vendors in the meantime, placing them in direct challenge with one another. These systems are especially valuable for end-clients, since a large number of them are obliged to request various costs before they can execute. At first,

sellers begun by offering single-vendor destinations, however these were not ready to take into account the majority of the clients' needs. The consequent move to multi-seller destinations was in this way mostly persuaded by the longing to hold their clients and maybe to pre-empt outsider suppliers, who were probably going to fill the hole.

In the OTC derivatives markets, the utilization of ET systems has been restricted. Once more, the counterparty credit chance engaged with these instruments is a fundamental purpose behind its restricted infiltration. Trades don't confront this issue in the event that they utilize focal counterparties, which moderate the credit chance. Along these lines, and as a result of more prominent institutionalization, electronic trading systems are increasingly across the board in return exchanged subordinates markets.

Next to its applications to auxiliary trading, ET can possibly change the essential market (Box B). Guarantors may utilize ET systems to target speculators straightforwardly, in this way removing the middle people. Be that as it may, the vendors give different administrations than simply discovering end-clients. They now and again "ensure" partially the essential issue, implying that, with deficient interest, they will incidentally take the rest of the securities on their books, and they go about as market-makers in the optional markets. Up until this point, in the administration security markets, vendors have remained the essential vehicle through which backers achieve end financial specialists.

At last, electronic trading systems mechanize the gathering of pre-exchange and post-exchange data, e. g getting cites and mentioning execution. By extraordinarily expanding the sum and practicality of data, the new systems give more noteworthy proficiency and lessen look costs, i.e. the expenses of hunting down the optimal cost.

Price formation

The fundamental effect of ET on the idea of price formation in foreign exchange and fixed income markets is through concentrating trading on a typical platform, as can be seen in the between vendor outside trade and government security markets. All the more by and large, electronic trading systems allow price discovery, in the case of following from quote- or order-driven price formation. The main special cases are purported "crossing networks" (utilized so far just in the equity markets) that coordinate requests utilizing costs from outside the systems (e. g values are crossed at trade shutting costs). In spite of the fact that price discovery is normally given by ET systems, it might be divided in a market where a few contending electronic trading systems work, except if these systems are electronically connected.

ET systems may improve price discovery in conventional markets. As electronic trading systems are ordinarily more straightforward than conventional OTC markets, the costs they produce may fill in as a benchmark for related markets where price discovery is less straightforward due to fracture or constrained liquidity for instance, the persistently refreshed costs of the profoundly liquid bond futures and "on the run" government securities will in general be utilized in evaluating motors that give statements to a wide scope of less liquid fixed income instruments.

Transparency and anonymity

As examined in this part, straightforwardness has two viewpoints. Pre-exchange straightforwardness alludes to the accessibility of data about offers and offers. In an OTC market, this implies firm or characteristic statements by the vendors. On a request book, it might mean only the optimal offer and offer requests accessible, the full profundity of the book appearing at each cost, or something in the middle. Post-exchange straightforwardness alludes to the general population and auspicious

transmission of data on past exchanges, which may include value, volume and execution time. ET systems consequently catch all parts of both pre-and post-exchange data, hence making a more noteworthy degree of straightforwardness conceivable than in conventional trading. Value data is conceivably more effectively open and accessible all the more rapidly. Additionally, in light of the fact that data innovation empowers the concurrent packaging of different data sources, it makes interfaces between related markets express to market members. Besides, the pooling of market data on joint platforms empowers market members to make a superior evaluation of the profundity of the market. Regardless of whether electronic trading systems really do give more data (counting to whom they give it) relies upon the structure of the system and is fundamentally a regulatory and business choice by the supplier. These choices mirror the requirements and requests of the expected clients of the systems just as the business interests of the proprietors of the system. Business interests are indispensable in this regard as the key non-divulgence of data can be a fundamental component of the plan of action basic the system that is given. Better access to exchange related data is commonly viewed as an important resource. Thusly market members that profit by data asymmetries, (for example, sellers) might need to avoid these from vanishing. At first sight, it creates the impression that the improved access to (or lower cost of getting) data - encouraged by data innovation and further upgraded if markets become increasingly incorporated - decreases asymmetries and along these lines disintegrates the upsides of the individuals who profit by them. All things considered, it has been recommended that one reason why sellers have been dynamic in advancing systems in which they as opposed to outsiders are included is that these systems give them increasingly restrictive access to exchange related data. In the event that arrange impacts and first-mover points of interest result in seller claimed systems getting to be overwhelming, at that point the taking part vendors will in any case have the capacity to profit by data asymmetries.

For the most part, electronic trading systems utilized in between vendor markets are structured so that they give little data with regards to the personality of who is expecting/ willing to exchange. Many market members trust that as business sectors become progressively multilateral, it will wind up simpler to accept and loosen up positions secretly in electronic systems. In the event that multilateral trading platforms develop into focal request books with focal clearing, at that point trading could be totally unknown, pre-and post-exchange. Expanded straightforwardness does not just identify with price discovery. Electronic trading systems likewise catch data on the different members in the systems. For example, in multi-seller systems it is conceivable to record the hunt and trading movement of clients just as the responses of vendors (regarding value quality and speed and as far as "hits and misses", i.e. whether a statement demand at long last outcomes in an exchange). It has been proposed that the entrance to stream data is an essential motivator for go-betweens to offer electronic trading to their clients, regardless of whether this outcomes in declining net revenues for actual trading. On a basic level, sellers just have data all alone business directed by means of the system. System providers, be that as it may, approach all the exchange related data, which can be very profitable. Regardless of whether and how this data will be spread remains an open inquiry.

Concentrating on the dimension of the trading system structure, electronic systems are building up various approaches to draw in liquidity and search it out from dissimilar sources. For instance, systems link to institutions' order management systems to interrogate potential requests on their blotting surfaces of planned exchanges to search out conceivable intersection matches. At the appropriate time, dealers might almost certainly use "smart agents" to look crosswise over systems to find different wellsprings of liquidity. Electronic trading systems may urge and encourage backers to institutionalize their contributions (which can focus liquidity),

especially in progressively heterogeneous securities, for example, fixed salary. There has been some proposal of this in government security markets with the propensity to decrease the quantity of discrete issues. Least size cutoff points on issues to be qualified for certain trading systems comparably urge issues to be made in bigger size or revived to boost liquidity. Despite the fact that electronic trading has ordinarily come later to less liquid resources courses are being created to empower their financially savvy trading. Here, the optimal robotization arrangements may not be those which replicate conventional strategies. For instance, in fixed income markets, there is a desire that little, less liquid issues could get cleared up into mechanized trading of portfolios which offer certain attributes, instead of being exchanged respectively without anyone else merits. This sort of advancement offers the possibility to collect independently dissimilar, illiquid securities and pull them into a bigger liquidity pool - for instance, see the talk in Fan et al. Another manner by which electronic systems are empowering the more powerful trading of illiquid securities is by restoring the utilization of occasional call barbers (investigated in Schwartz et al). Various financial exchanges currently exchange less liquid securities call barbers, generally one to three times each day, concentrating liquidity that generally would have been daintily scattered over a more drawn out period. Such securities may not exchange adequately in the constant closeouts that normally structure primary markets - for instance, Steil portrays and indicates how the Warsaw Stock Exchange, restored in 1991, at first exchanged stocks a week after week call, moving to every day calls and later (for certain stocks) to ceaseless trading as volumes developed to give adequate liquidity.

Electronic trading systems still have further to go in catching the nuances and knowledge of trading - and a similar comment applies to market structure research and its application to policymaking process. Notwithstanding, while innovation's

belongings and impacts raise numerous troublesome and extreme issues in business sectors, innovation can likewise add to arrangements:

It tends to be connected to empower progressively productive and successful grouping of information on market execution and practices - helping both oversight and comprehension of business sectors. For instance, the satisfaction of market-creator commitments could be checked consequently, or whimsical market developments, regardless of whether because of dealer blunders or progressively central reasons, could be distinguished quickly.

It might legitimately offer answers for issues, for example, the way to manufacture data systems or connection divided pools of liquidity.

It can enable or empower members to settle on better educated choices, for instance by empowering progressively proper straightforwardness courses of action, giving more noteworthy data about request steering and highlights of the assets.

There were 11 electronic trading systems in 1997, 40 in 1999, and more than 80 by 2000.

Some electronic trading systems decide exchange costs by unequivocally alluding to other markets' estimating and deals action. We allude to such trading systems, which have no autonomous value revelation instrument and whose costs are taken legitimately from an essential market, as uninvolved or subsidiary evaluating systems. A few systems permit and empower at the likelihood of cost improvement by surveying economic situations in the hidden market and after that estimating their exchanges at a value superior to anything the best statement on the fundamental market accessible at the season of the request passage. Costs may fluctuate and vary through the trading session—if the system works in the meantime as its related essential market—or might be fixed at a solitary dimension, for example, the end

cost for a nightfall trading session. A system may put together exchange execution with respect to unexpected optional needs in comparison to those present in the essential market. The brokerage and trading services company ITG operates the largest passive pricing system —called POSIT—which exchanged 7.7 billion offers 2002 and has been developing at a yearly rate of around 50 percent. Set likewise costs its exchanges at the midpoint of the offer/offer spread (the contrast between the most minimal asking cost by a vender and the most elevated offer from a purchaser) in the stocks essential market right now the match is run. Multiple times day by day—at 9:40 a.m., 10 a.m., and 10:30 a.m., and on the hour from 11 a.m. to 3 p.m. — POSIT thinks about and coordinates all purchase and sell arranges privately. On the off chance that awkwardness is in presence among purchase and sell arranges, the system arbitrarily chooses arranges on the overabundance side to coordinate the quantity of requests on the littler side. Requests that the system does not choose don't execute.

The Securities and Exchange Commission (SEC) characterizes the greatest electronic trading systems, electronic correspondences systems (ECNs), as "electronic trading systems that naturally coordinate purchase and sell orders at indicated costs". The SEC portrays ECNs as necessary to the cutting edge securities markets, and in August 2002 ECNs represented around 40 percent of volume in Nasdaq securities. The most well-known ECN structure is like as far as possible request book examined before. A few ECNs are as of now enrolled in the NASDAQ system: Attain, Archipelago, Brass Utility, Bloomberg Tradebook, Instinet, Island, NexTrade, and Track.

Replacing Basic Broking Services

Electronic trading systems upgrade efficiencies in handing-off and handling data. Accordingly, electronic trading systems can possibly supplant fundamental broking administrations, handing-off client requests to other market members or trades. Then again, market making services of dealers to include vendors taking dynamic part in the price discovery process, by giving liquidity through dispatching clients' requests, and accepting the subsequent positions, contingent on their market viewpoint. Such administrations require a specific measure of hazard taking by vendors, in light of their perusing of stock and market advancements, and such esteem included capacities - giving liquidity to the market and guaranteeing promptness of execution - are less inclined to be supplanted by electronic trading systems. In any case, certain pieces of market making are currently being supplanted with new innovation, as found in the utilization of valuing motors for producing cites. Like what's going on in the broking business, productivity of market making administrations is said to be experiencing tension as rivalry heightens with the presentation of electronic trading. The broking business presently faces auxiliary changes, and market creators would most likely face comparable difficulties when lower productivity of market making administrations turns out to be increasingly obvious.

Blurring of Distinctions between the Interdealer Market and the Dealer-Customer Market

The more extensive utilize of electronic trading systems empowers clients to specifically get to a bigger number of markets, which in turn obscures the refinements interdealer markets and dealer-customer markets. Indeed where clients may not have coordinate get to interdealer markets, they may still appreciate benefits. For occasion, higher straightforwardness in dealer-customer markets, and exchanging at costs closer to interdealer market costs, reflecting higher straightforwardness within the interdealer market and the presentation of electronic

exchanging systems for clients that cite costs closely connected to the interdealer-market costs.

Concentration of Trading in “Winner Systems”

Electronic trading systems have two outstanding and notable features. One is declining average cost, which implies that costs caused from additional trades would be marginal. The other is network externality, which means that once an adequate number of trades are directed through (or routed through) a specific or particular system, the system gains reputation for liquidity, which in turn comes about in more and more orders being directed through the system. These two notable features contribute to the concentration of trading into dominant winner systems.

Institutions that offer electronic trading systems ought to guarantee and make sure that those systems are strong or robust and have satisfactory controls and security features. Any material breach of security to those systems such as through hacking or other interruptions, which influence other market members or the institution's customers, ought to be instantly communicated where essential to the relevant regulators and the affected parties.

Electronic trading systems may too positively influence and affect or impact financial stability by empowering and permitting more heterogeneous players to get to the markets. It ought to be noted and recorded, however, that markets where electronic trading has only been recently accepted have not withstood the test of acute stress. These markets ought to be closely observed to see if they would keep on working even under stress conditions where concerns over counterparty credit risk are increased and expanded.

**Chart 1 Share of Electronic Trading Systems in the Foreign
Market: Spot Trading in the Tokyo Interbank Market**

Exchange

	1995	1996	1997	1998	1999	2000
USD/Yen	27.4%	55.0%	70.1% 81.5% 85.7% 85.4%	81.5%	85.7%	85.4%
USD/DM	52.6%	63.1%	77.3%	87.4%	89.0%*	94.9%*

Source: Kinyu Jouhou Systems No.231. Figures for 2000 were compiled from information available at the Bank of Japan and provided by the Money Brokers' Association. *The USD/DM calculations for 1999 and 2000 are based on Euro/US dollar figures

4.2. Issues surrounding Electronic Trading Systems in the Foreign Exchange Market

As we know, **the foreign exchange market** is an over-the-counter (OTC) marketplace that settles the exchange rate for global currencies. Participants are able to purchase, sell, exchange and speculate on currencies. Foreign exchange markets also consist of banks, commercial companies, forex dealers, retail forex dealers, central banks, investment management firms, hedge funds and investors.

Currency trading and exchange first occurred and took place in ancient times. Money-changers (people helping others to change and convert money and also taking a commission or charging a fee) were living or populating in the Holy Land in the times of the Talmudic writings (it happened in Biblical times). These ancient people (sometimes called "kollybistēs") put to use some city stalls, and at feast and fete times the Temple's Court of the Gentiles instead. We can also say that, money-changers were also the goldsmiths and/or silversmiths of more recent ancient times. It is proved by historians.

Historically, during the 4th century AD, the Byzantine government put a monopoly on the exchange of currency. Papyri PCZ I 59021 (c.259/8 BC), shows the occurrences and emergence of exchange of coinage in Ancient Egypt. During the

15th century, the Medici family was strongly and heavily required to open some banks at foreign locations in order to exchange currencies to act and behave for the benefit of textile merchants and traders. To facilitate and simplify trade, the bank also made the *nostro* (from Italian language, this means to "ours") account book which embraced two columned entries demonstrating and illustrating number of local and foreign currencies; information belonging to the holding of an account with a foreign bank.

Currency and exchange were very important elements and components of trade in the ancient world, enabling and allowing people to buy and sell items such as food, pottery, and raw materials. If a Greek coin held more gold than an Egyptian coin because of its size and dimensions or content, then a merchant or commercial man could barter fewer Greek gold coins for more Egyptian ones, or for more material goods. This is why, at some specific point in their history, most world and global currencies in circulation today had a value fixed and determined to a specific quantity of a recognized standard like silver and gold.

The foreign exchange market – also called and titled forex, or shortly FX, or currency market – was one of the original financial markets created to bring structure to the quickly burgeoning global economy. In terms of trading volume it is, far and away, the largest and major financial market in the world. Aside from providing a venue and place for the buying, selling, exchanging and investment of special currencies, the forex market also allows currency conversion for international trade settlements and investments. According to the special information of Bank for International Settlements (BIS), which is possessed by central banks, trading in foreign exchange markets averaged \$5.1 trillion per day in April 2016.

All the time currencies are traded in pairs or doubly, so the "value" of one of the currencies in that pair or double is relative to the value of the other currency. This

determines and fixes how much of country A's currency country B can buy, and vice versa. Establishing this special relationship (price) for the global markets is the main and special function of the foreign exchange market. This also greatly and almost perfectly enhances liquidity in all other financial markets, which is essential to overall stability.

The value of a country's currency depends on whether it is a "free float" or "fixed float". Free floating currencies are those whose relative value is determined and set by free market forces, such as supply / demand relationships. This is the special and particular rule of Foreign Exchange Market. It should be followed during the transactions. A fixed float is where a country's governing body sets its currency's relative value to other currencies, often by pegging and determining it to some special standard. Free floating currencies involve the U.S. Dollar, Japanese Yen and British Pound, while examples of fixed floating currencies involve the Chinese Yuan and the Indian Rupee.

One of the most unique and special features of the forex market is that it consists of a global network of financial centers that transact 24 hours a day, closing solely on the weekends. As one major forex hub closes or heals up, another hub in a different part of the world remains open for business transactions. This enhances the liquidity available in currency markets, which adds and supplements to its appeal as the largest asset class available to investors. Few examples about currency types are given below.

The most liquid trading pairs are, in descending order of liquidity:

1. EUR/USD
2. USD/JPY

3. GBP/USD

Forex Leverage

The leverage available and accessible in FX markets is one of the highest that traders and investors can find anywhere in the world we live. Leverage is a loan given to an investor by their own, self and mainly personal broker. With this special and particular loan, investors are able to increase their trade size, which could also translate to greater profitability. A word of caution, attention and notice, though: losses are also amplified.

For instance, investors who have a \$1,000 forex market account can trade \$100,000 worth of currency with a margin of 1 percent. This is also referred to as having a 100:1 leverage. Their own and personal profit or loss will be also based on the \$100,000 notional amount.

Benefits of Using the Forex Market

There are some key, essential and necessary factors that make different the forex market from others, like the stock market or any.

- There are fewer but main rules, which mean investors aren't held and captured to the strict, tight, dense, concerted and firm standards or regulations found in other markets.
- There are no clearing houses and no central bodies that oversee and follow the forex market.
- Also most investors won't have to pay the traditional fees or commissions that you would on another market.

- Because the market is open 24 hours a day, you can make a trade at any time of day, which means there's no determined and set cut-off time to be able to participate in the market.

- Finally or in the end, if you're so much worried about risk and reward, you can get in and out whenever you want a wish and you can buy as much currency as you can afford or need.

In the foreign exchange market, electronic trading is a mature technology in the interbank spot market, whereas it is still in its infancy or babyhood in the customer market. Consequently, issues facing the systems are different in each segment.

One significant issue in the interbank market is the declining number of market members that straightforwardly partake in the interbank market and the impacts this may have. Review the contracting edges in the client business, littler banks which can't exploit economies of scale in their FX businesses may choose to channel any requests starting from their client business to electronic managing systems offered by bigger foundations, as opposed to keep putting resources into trading systems and staff to keep up their remaining in the interdealer market. Against this foundation, some bigger financial institutions have just focused on littler budgetary establishments, as the potential clients of their single-seller electronic trading systems. In the event that the bigger establishments secure a sizable number of market members as their clients, a critical extent of request streams might be gotten out inside the organizations. This may, thus, relieve the requirement for covering positions (coming about because of uneven request streams) by the bigger foundations in the interdealer market. How the subsequent decrease in liquidity in interbank markets may influence the working of the foreign exchange market is an issue that would justify further examination.

As respects the client market, it is normal that with the entrance of electronic trading, banks will lessen their business staff and spot need on giving data to clients identifying with venture methodology, and on "information base promoting" using exchange logs.

Gathering, putting away, and examining exchange information will be encouraged with the more extensive utilization of electronic trading systems. Such data is fundamental in satisfying the expanding needs of clients for administrations relating to position the executives and market investigation. Thus, this will impact the intensity of a mediator.

Middle people can offer some benefit included administrations moderately modestly through electronic trading systems, contrasted and making a branch organize, which involves high fixed expenses. Therefore, electronic trading systems decrease the section cost into the go-between business. In USA and Europe, a variety of electronic trading systems have developed. Then, approved trades are like never before effectively seeking after union and associations with different trades and electronic trading systems. These improvements are inspired by the acknowledgment that liquidity, at the end of the day, the quantity of requests piped into a system, is the way to achievement in an exceptionally focused condition. System providers are, consequently, all endeavoring to catch ever bigger quantities of clients for their systems. The potential for new businesses in the JGS market is significant, considering its market estimate. The structure of the budgetary business may be reshaped as increasingly remote and residential players begin to offer electronic trading systems.

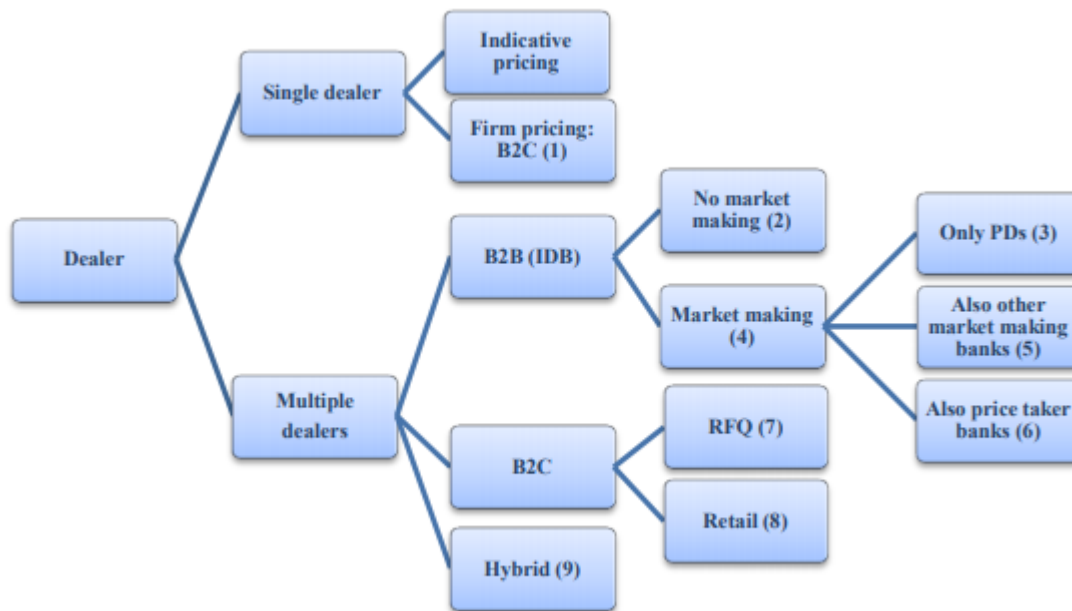
Electronic trading is expected to develop and improve further reflecting these market forces. However, it should be noted that there are some conditions for progress. In

the JGS market, higher liquidity in the cash market, standardization of operational procedures with a view to integrating the operations from trading to settlement, and higher accountability in trade execution services are pre-requisites for sustaining the development of electronic systems. Furthermore, it is necessary to ensure markets for trading services are contestable, where nascent electronic trading systems can, without constraints from conventional market design concepts, effectively challenge traditional market structures centering on exchanges.

In addition, as the CGFS Report points out, there are special and particular issues that need and require further examination. This involves, for instance, understanding how the blurring of distinctions between the dealer-customer and interdealer market, and the lower liquidity in the interdealer market will affect and influence market functioning, such as efficient price discovery and resiliency in times of stress.

ETP is an electronic trading system which provides or gives a matching engine to pair buyers and sellers as a computer ranks orders by price levels and timing of inputs, which further facilitates trading between multiple parties. When orders are matched, the execution of a trade can either demand a manual intervention (click and trade) or be automatic (cross-matching). In any event, an ETP requires a market regulation, detailing who can access the ETP, which instruments can be traded, the trading rules and the supervision of the market. An ETP is often meant to as a multilateral trading facility (MTF). ETPs are generally self-regulated organizations.

The diagram below includes single dealer platforms which are actually electronic trading systems.



The difference and differentiation between OTC, ETPs and Organized Exchanges is narrowing and tightening in mature markets. On the infrastructure side, many traders on the OTC market have particular access to screens with bid and offer prices and to electronic trading systems. The exploitation of these electronic trading systems has assisted to enhance degree and the level of pre- and post-trade transparency.

Electronic trading systems should be considered as indispensable and imperative building blocks of the infrastructure of financial markets, as volume of trading is projected to grow into the future. There is anticipation that the market will see ever more diverse and various market participants trading larger and larger volumes at an increasing speed. For this reason, it is essential to develop and enhance integrated electronic systems that process and handle not only trading but also back and middle office operations, such as trade confirmation, settlement, and risk management.

Conclusions and recommendations

Finishing the dissertation I would like to summarize all main concepts mentioned previous parts and to provide some suggestions for future development of this area. As mentioned in introduction part of my dissertation, the main purpose of the research was finding answer to the question: Will the ETS encompass all the fields of financial markets in the future? Each possible scenario is profoundly, fully and deeply discussed and final result was that the progress of the ETS makes this trend possible.

There are indispensable differences between current state and previous state in the stock exchange and financial markets. Because of the technology era all operations are made through online system. Additionally, ETS is so wide that, its scope is not only limited with The New York Stock Exchange and the Nasdaq, it is applied so many exchanges with ignoring any difficulties and challenges it faces. We can mention here London Stock Exchange, Bombay Stock Exchange and Shanghai Stock Exchange. The importance and role of ETS in these huge and prominent stock exchanges are extremely large and obvious. There are a lot of logical reasons here. First of all it reduces the costs of operating. The investors trade here by using ETS without any trouble and low costs. Second and essential reason or cause it provides transparency. All the investors receive necessary information in time and without any modification. Also ETS play an important and crucial role in every type of financial markets. Moreover, we can talk about the positive effect of ETS in commercial markets, money markets, derivatives markets, capital markets, future markets, insurance markets, mortgage markets and Foreign Exchange Markets .

Generally, I think that I profoundly encompassed the role, functions, key features and importance of Electronic Trading Systems and Electronic Trading Platforms. Additionally, this field is very deep and should be investigated properly. It is obvious for all of us that future Trading Systems will be created and current systems will

develop and increase its importance and functions. In time, technological progress, for example, the Internet will allow and permit market participants to integrate and enhance more advanced trading systems and applications.

List of references

Articles:

- *From a book/ collection of books:*

1. Alfaro, L., Chanda, A., Kalemli-Ozcan, S., and Sayek, S. (2017). How Does Foreign Direct Investment Promote Economic Growth? Exploring the Effects of Financial Markets on Linkages.

2. Iram, S. and Nishat, M. (2018). *Sector Level Analysis of FDI-Growth Nexus: A case Study of Pakistan*.
3. Jalloh, M. (2016). The Role of Financial Markets in Economic Growth. *Waifem Regional Course on Operations and Regulation of Capital Market Accra, Ghana*.
4. Merton, R.C. and Bodie, Z. (2015). A Conceptual Framework for Analyzing the Financial Environment. *The global financial system: a functional perspective*. Boston.
- *From a working paper*
5. Winkler, A. (2016). The Dual Role of Financial Markets in Economic Development: Engine of Growth and Source of Instability. A Survey of Economic Theory with Reflections on the East Asian Financial Crisis. *IPC working Paper No. 18*
- *From a journal:*
6. Borensztein, E., J. De Gregorio, and J-W. Lee, 2015. "How Does Foreign Direct Investment Affect Economic Growth?" *Journal of International Economics* 45, 115-135.
7. KING, R. & LEVINE, R. 2015. Finance and growth: Schumpeter might be right. *The Quarterly Journal of Economics*, 108, 717-737.

Books:

8. Marc Levinson. (2017). *GUIDE TO FINANCIAL MARKETS* Marc Levinson

Internet source entries:

9. <https://www.investopedia.com/terms/f/financial-market.asp>
10. <https://www.toppr.com/bytes/financial-markets/>
11. <https://www.thebalance.com/an-introduction-to-the-financial-markets-3306233>
12. <https://corporatefinanceinstitute.com/resources/knowledge/trading-investing/financial-markets/>
13. <http://www.binarytribune.com/forex-academy/types-of-financial-markets>
14. <https://londoneconomics.co.uk/blog/practice-area/financial-markets-and-institutions/>
15. <https://www.investopedia.com/terms/f/financialinstitution.asp>
16. <https://www.myaccountingcourse.com/accounting-dictionary/financial-institution>

17. <https://www.investopedia.com/ask/answers/061615/what-are-major-categories-financial-institutions-and-what-are-their-primary-roles.asp>
18. https://en.wikipedia.org/wiki/Financial_institution
19. https://www.economicsonline.co.uk/Competitive_markets/Financial_markets.html
20. <https://www.frbsf.org/education/publications/doctor-econ/2005/january/financial-markets-economic-performance/>
21. <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sp092806>
22. <https://ukdataservice.ac.uk/media/263122/noureen-paper.pdf>
23. <https://www.copenhagenconsensus.com/sites/default/files/cp-financialinstabilityfinished.pdf>
24. <https://pdfs.semanticscholar.org/ab94/20d75af9878b05816a7b2c41d1dd9dbcce4c.pdf>
25. <https://www.refinitiv.com/en/products/electronic-trading>
26. <https://www.sciencedirect.com/topics/economics-econometrics-and-finance/electronic-trading>
27. <https://money.howstuffworks.com/electronic-trading1.htm>
28. <https://www.investopedia.com/articles/investing/110713/basics-mechanics-behind-electronic-trading.asp>
29. <https://www.information-age.com/main-benefits-electronic-trading-within-markets-123468961/>
30. <https://www.bis.org/publ/cgfs16.pdf>
31. https://en.wikipedia.org/wiki/Electronic_trading_platform
32. <https://www.pwc.se/sv/pdf-reports/global-financial-markets-liquidity-study.pdf>
33. <https://www.liteforex.com/trading/electronic-trading-platform-meaning/>
34. <https://www.cma.gov.lb/etp/>

35. http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/ETP_Background_Note.pdf
36. <https://www.bis.org/publ/bppdf/bispap07d.pdf>
37. https://www.boj.or.jp/en/research/wps_rev/mkr/data/kmr01e02.pdf
38. <https://www.investopedia.com/terms/forex/f/foreign-exchange-markets.asp>
39. https://en.wikipedia.org/wiki/Foreign_exchange_market
39. <http://faculty.haas.berkeley.edu/hender/itpro.pdf>
40. <https://www.fxcm.com/uk/insights/evolution-of-the-marketplace-from-open-outcry-to-electronic-trading/>
41. <https://www.investopedia.com/university/electronictrading/>