

## Investigating the Feasibility of Establishing the Kabul Stock Exchange

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#### Abstract:

The stock market, as a symbol of the capital market, is one of the most important sectors of the economy of any country and, unlike the money market, is responsible for the long-term financing of corporate capital. The capital market collects funds from surplus sectors and channels them to institutions that need financing. This study investigates the feasibility of establishing a market for the Kabul Stock Exchange. It is a survey in terms of nature and descriptive method and is applied in relation to the purpose. For the feasibility study of the present study, six platforms were identified using Delphi method. Non-random and purposive sampling was used, and according to Morgan's table, 180 people were selected from three groups of university professors, experts from the ministries of Finance, Economy, Trade and Industry, the Central Bank and a number of people in Kabul. The validity and reliability of the questionnaire was confirmed by Delphi method and Cronbach's alpha test. SPSS statistical software was used to analyze the data. From the results of one-sample t-test, it can be seen that all H1's sub-hypotheses were confirmed in relation to the six platforms, which means that in the current situation, Kabul city is not in a favorable situation in terms of infrastructure and requirements for legal, economic, technical and technological, cultural, social and human capital platforms for the establishment of the stock market, and the conditions for the establishment of Kabul Stock Exchange do not exist. The Friedman test showed that the degree of readiness for the establishment of Kabul Stock Exchange depended on the human capital, economic, legal, cultural, technical and technological or social platforms.

### 1. Introduction

The improvement and expansion of financial markets and, in particular, the creation and development of new financial instruments to equip, regulate and direct the financial resources of money and capital market

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institutions to a coherent place such as the stock market are all objectives and priorities of developing countries. In other words, there are few developing countries today that are not thinking about reforming their financial markets. Global theories and experience have shown that there is a strong link between the development of the financial sector of the economy and economic development.

One of the problems faced by developing countries is the dominance of the money market over the capital market. This has led to the inefficiency of the capital market and the stock market at its center. In contrast, developed countries have overcome this problem for many years and have been able to base their financial system on the capital market (Enayat, 2001: 141).

In developed and developing countries, the capital market is the main source of financing and attracting savings. This market has created a logical link between the middle-income group and the economy and has enabled the presence and attachment of the masses to the economies of the countries. The share of capital market and stock market in the national economy in the developed countries is considerable and according to the World Exchange Federation, the share of capital market in the gross national product (GNP) in the industrialized developed countries is more than 100%. The share of this market in developing countries is also on the rise and accounts for more than 50% of GNP on average (Heybati et al., 2008: 31).

In many developed countries today, governments are looking for ways to increase productive capacity, reduce unemployment, increase tax revenues, control liquidity, etc. in order to create opportunities for economic growth and development and improve the welfare of society. One of these strategies is the creation of appropriate markets such as stock exchanges where many companies are present and reap the benefits (Takrousta, 2008: 78).

The main challenge for the capital market in Afghanistan is the lack of favorable conditions for investment in the manufacturing sector, which also accounts for the largest share of national income and job creation. Unfortunately, due to the lack of investment in productive sectors, more capital in Afghanistan is attracted to non-performing sectors such as land, real estate and foreign exchange, which is due to the flight from inflation and is referred to as malinvestment.

One of the ways out of the malinvestment in Afghanistan and switching the flow of capital from land, real estate and foreign exchange to the flow of production is the creation of a stock market (Mohammadi, 2017: 70).

Therefore, this study investigates the feasibility of establishing the Kabul Stock Exchange Market is investigated. The main question of the study is: "Is it possible to create a market for the Kabul Stock Exchange or not?"

The present paper examines the feasibility of creating a Kabul Stock Exchange in terms of infrastructure and requirements of six platforms, including legal, economic, technical and technological, cultural, social and human capital.

The remainder of this paper is organized as follows. Section 2 presents the theoretical foundations and research background. Section 3 deals with the research methodology and Section 4 provides the analysis of the research data and findings. Finally, Section 5 concludes the paper and gives some recommendations.

## **2. Theoretical Foundations and Research Background**

This section first briefly states the necessary platforms for the introduction of the stock market. Then, the current capital market activities in Afghanistan, financing systems, infrastructure and economic indicators related to the business environment are discussed, and finally, the research background is presented.

### **2-1. Capital Market Infrastructure and Requirements**

The capital market has many needs to stand on its own feet and meet the expectations of the country's economy. The most important and basic needs of the capital market are briefly mentioned below.

#### **2-1-1. Legal Infrastructure and Its Requirements**

One of the most important requirements for a capital market is the legal system and the national regulatory authority (legislative and executive) (Journal of Culture and Cooperation, 2005: 31). Compliance with laws based on transparent legal principles and meeting international standards are the prerequisites for the development of the capital market (Heybati et al., 2008: 40). Due to the importance of financial markets in the economic growth and development of countries, the role of governments in the supervision of these markets has been gradually emphasized. The emergence of capital markets law in the world systematically dates back to 1933 when the Securities Act was passed in the United States (Soltani, 2016: 6). The stock exchanges and capital markets in the world have not

formulated and developed the regulations in accordance with the activities of the capital market, but by continuing to operate prepared and compiled laws for various dimensions of the capital market according to the expansion of the capital market and the needs of the time (Kadkhodaei, 1999: 29).

### **2-1-2. Economic Infrastructure and Its Requirements**

Privatization and observance of the benefits of privatization, observance of relevant laws and regulations, and fulfillment of obligations arising from privatization by the government in various industries are the prerequisites for the development of the capital market (Heybati et al., 2008: 41). Financial instruments and financial institutions also represent the needs and requirements of the capital market. (Journal of Culture and Cooperation, 2005: 31). In addition, permission for brokers operating in the financial market and permission to establish credit rating agencies are institutional requirements in the capital market (Mohiuddin, 2016: 81-86).

### **2-1-3. Infrastructure and Technical and Technological Requirements**

One of the technical requirements for the creation of a capital market is the provision of the structure of information technology in the market (Mohiuddin, 2016: 91). It can also be said that technology is one of the most important and significant requirements of the capital market (Journal of Culture and Cooperation, 2005: 31).

In today's age of capital markets, the trading process is mechanized. Computers, the Internet and the infrastructure of IT are now important prerequisites for the development of the capital market. Undoubtedly, if there is a law, it is accepted by Sharia, we have financial knowledge, we have legal authority, and we know the subject, but we do not have electronic infrastructure, the capital market will not develop; therefore, one of the important infrastructures in the capital market is IT software infrastructure (Salehabadi, 2012: 24).

Infrastructure is the framework for implementing, communicating and using networks. Unfortunately, companies in developing countries do not have the right communication infrastructure. Individuals and companies in developing countries cannot participate without technical infrastructure. According to the World Bank (2001), there are 3.3 and 12.2 PCs per 1,000 population in developing countries such as India and China, respectively. In developed countries such as the United States, there are 510.5 PCs per 1,000 population. Providing and implementing appropriate and desirable infrastructures is very costly (Ebrahimi & Mahdieh, 2006: 111-112).

#### **2-1-4. Infrastructure and Cultural Requirements**

The lack of awareness of the capital market by micro investors and other investors reduces the quality of the market and creates limitations for the development of the capital market (Donyaei, 2010: 61). The long-term success of the capital market depends on attracting the public to participate in market activities (Mirmotahari, 1998: 6).

In order to attract public participation, capital accumulation and the achievement of the desired development and level of prosperity, a mechanism should be created in which this participation is institutionalized, the necessary incentives are created, and capital accumulation is carried out with the greatest acceleration (Abdeh Tabrizi & Radpour, 2011: 444).

One of the mechanisms to encourage the participation of individuals in the capital market and their active participation in it is promoting it. The development and promotion of an equity culture and the observance of this culture through its introduction in schools, universities and households is one of the essential conditions for the development of the capital market (Heybati et al., 2008: 40).

#### **2-1-5. Infrastructure and Social Requirements**

According to economists, one of the most important requirements for savers to participate in the capital market is to provide economic security and consequently investment security to holders of funds who want to invest in financial assets (Shahabadi et al., 2016: 4-5). Also, maintaining and strengthening national security to provide security for investment at home and abroad should be considered as a prerequisite for the development of the capital market (Heybati et al., 2008: 40).

Since security is very important for investment and, of course, for economic growth and social infrastructure development, great attention should be paid to ensuring security, reducing corruption and increasing social capital between the government and the people.

#### **2-1-6. Need for Infrastructure and Human Capital**

One of the most important needs and requirements of a capital market is the group of capital market experts (Journal of Culture and Cooperation, 2005: 31). Also, other requirements for the creation of a capital market is the rehabilitation and training of people in the field of investment (Mohiuddin, 2016: 89). To develop the capital market, it is necessary to use the active participation of thinkers, experts and specialists of the

capital market in policy making and decision making in the authorities (Heybati et al., 2008: 41).

The use of financial experts in the capital market has a great impact on improving the performance of the capital market. The presence of specialized forces in policy making, decision making and implementation of capital market policies is of particular importance, so expanding the use of specialists in the capital market will increase the efficiency of capital market performance (Pourebrahimi Rafsanjani, 2002: 97).

### **2-2. Current activities of the capital market**

Afghanistan currently has very informal and highly underdeveloped financial markets (United States Agency for International Development, 2010: 14). There is currently no official stock market in Afghanistan (Ibid: 9).

Communications and banking are the only two sectors that are listed as official shareholders. Stock exchanges are another important segment of the Afghan financial market that operate with an informal remittance system and rely on their own capital (Mohammadi, 2017: 71).

The current debt markets that finance private companies do so in an informal manner. The vast majority (72%) of private economic and business activities in the country rely on their capital, and mainly 23.2% of activities and businesses are financed by family and friends. Banks in Afghanistan account for only a small portion of capital market activities (4.9%), and 2.1% of private sector financing in the country is provided by bureaux de change (United States Agency for International Development, 2010: 13).

The demand for capital and credit varies across different sectors of the economy; it is most concentrated in the trade sector, which accounts for almost 90% of total credit, underscoring the business-related activities in the country. The remaining 10% of credit in the country is collectively accounted for by the housing, consumer, agricultural and other sectors, suggesting that other participants in the sector are either unaware or not using the appropriate instruments to avail facilities or are unwilling to borrow (ibid: 19).

At the national level, in addition to buying and selling foreign exchange, the central bank also uses securities as the main instrument to implement monetary policy in the country in order to stabilize the Afghani against the foreign currency. In order to control liquidity in the country until the end of the fiscal year 2013, the Central Bank issued once a week capital securities with different maturities of 28 days, 182 days and for the first

time one year (364 days) securities (Tavassoli Gharjestani, 2015: 283-284).

## **2-3. Financing Markets**

### **2-3-1. Informal Remittance System**

Most of people's monetary transactions involving the transfer, payment and sale of money are carried out through the informal remittance system. According to Thompson (2007), the remittance system is very important for the survival of the Afghan economy and is the system for foreign exchange and cash payments and transfers. The main money transactions in Afghanistan are handled by bureaux de change. One of the most important money markets in Afghanistan is Prince's House in the heart of Kabul. This market has about 400 bureaux de change and is a center for sending and exchanging money and currency, guaranteeing transactions, remittances and investments, and disbursing loans. This market enjoys a good reputation nationally and internationally. Persons operating in this market must have an official license based on the terms of Central Bank of Afghanistan and are under the supervision of Monetary Supervision Authority (Mohammadi, 2017: 71).

### **2-3-2. Banking Sector**

The banking sector is an important part of Afghanistan's formal financial system and plays an important role in the real sectors of the economy. The last decade in which Afghanistan has experienced rapid economic growth and development has had a significant impact on the financial sector, especially the banking sector.

The Afghan banking system was completely dormant after the internal conflict until new banking laws based on international best practices were adopted in 2003 and early 2004.

In 2004, the total assets of commercial banks were less than \$300 million, and by March 2008, the total assets of 16 banks had reached about \$1.7 billion, a significant increase. Currently, there are 17 banking and financial institutions in the country that provide financial services and are divided into three categories: public, private and foreign. These banks include two state-owned banks, 9 private banks and 6 representative offices of foreign banks, which are listed below:

- National Banks: Afghan National Bank, Pashtani Bank;
- Domestic Private Banks: International Bank of Afghanistan, Afghan United Bank, Azizi Bank, Barak Bank, Bakhtar Bank, First

Microfinance Bank, Kabul Bank, Maiwand Bank and Ghazanfar Bank;

- Foreign private banks: Standard Charter Bank (United Kingdom), Arian Bank (Iran), Al-Fallah (United Arab Emirates), Habibi Bank (United States), National Bank of Pakistan, National Bank of Punjab (India) (Ibid:71-72).

#### **2-4. Afghanistan Legal Infrastructure**

Article 10 of the 2003 Afghan Constitution leaves the legislature free to enact laws relating to the mechanisms of private sector activities. Article 10 of the Constitution explicitly states that “the government shall encourage and support private investment and enterprise based on the market economy system and in accordance with the provisions of the law, and shall guarantee their immunity” (Constitution, adopted in 2003).

This article is a valid legal basis to give space to the private sector and expand ownership by creating a capital market (stock market) in the country. Based on this article, the government can establish the capital market in the country in the manner that is common in the world (in the form of a joint stock company).

In addition, based on Article 10 of the Constitution, the Afghan government may consider various incentives (such as subsidies, tax and customs exemptions, etc.) to encourage the participation of the private sector, especially joint stock companies, in the economic life of the country. Based on Article 10 of the Constitution, the legislature may draft a law to protect investors and shareholders and to safeguard shareholders’ investments and property.

The legislature can also rely on the Afghan Banking Law, particularly Article 33, which gives banks the freedom to regulate many matters related to the capital market and the financial market. Article 33 of Banking Law explicitly states that “a bank may engage in the following activities in accordance with the provisions of this law and the conditions stipulated in its banking license:

1. Receiving monetary deposits such as on demand deposits and other deposits or repayable funds, whether or not a single interest is due thereon.
2. Granting credit, whether or not the credit is secured by a mortgage or the right to seize property, including the granting of consumer and mortgage credit without restriction, the financing of commercial transactions, including the purchase of documents that can be traded at a discount and without the endorser's right, the purchase of the right to



receive debt at a discount or without the right from the seller, and the leasing of equipment and supplies, provided that the price is paid through the end of the lease term and the lessor is not responsible for repairs and other related costs.

3. Purchase and sale of future items for own benefit or for the benefit of customers, including the purchase of customer shares to resell and provide brokerage services:

- Money market documents including checks, drafts, proofs and certificates of deposit;
- Foreign currencies;
- Precious metals and precious stones;
- Documents relating to foreign exchange and interest rates;
- Stocks and other securities;
- Pre-emption contracts, forward contracts, option contracts and other derivatives relating to currencies;
- Exchange Agreements;
- Bonds.

4. Signing contingent liabilities, including guarantees and L/C certificates in favor of themselves or customers.

5. Provision of liquidation or money transfer services, securities and payment documents, including checks, credit and debit cards and other payment cards, traveler's checks, bank drafts, electronic wire transfers, direct debits and pre-authorized credits.

6. Intermediation of money.

7. Protection and safekeeping of valuables, including securities.

8. Provision of securities selector, financial advisory or financial agency services.

9. Provision of financial and credit information, including general information on the market economy.

10. Other sub-activities arising from components 1 to 9 of this Article" (Banking Law, approved in 2003).

In addition, the Private Investment Law, adopted in 2005, which provides the necessary facilities for domestic and foreign investment in the country, can facilitate the process of forming the Afghan capital market.

An insurance law has been adopted in Afghanistan to reduce the risks of investment and economic activities. One of the objectives of Article 2 of Insurance Law adopted in 2008 is the immunity of life and economic and social activities in the country (Insurance Law, adopted in 2008). Also, in

the insurance sector in Afghanistan, the Afghan Deposit Insurance Office was established with the aim of supporting people's deposits in commercial banks, maintaining banking stability, creating credit, and promoting public confidence in the banking system. The banking sector and the financial system of the country are increasing. In the fiscal year 2015, 14 commercial banks in the country were members of Afghan Deposit Insurance Office (Afghanistan Bank Annual Report 2015: 118).

In addition to the above-mentioned legal provisions, the "National Public-Private Partnership Policy" adopted in 2016, which has the status of law, will also help shape the Afghan capital market. The National Policy of Public-Private Partnership was developed and adopted to consolidate private sector capital, reduce government investment pressure, attract private sector capital and skills, etc., and one of the objectives of this policy is to strengthen and develop Afghan capital markets as a financing institution for the following projects: Construction and provision of services in the country (National Public-Private Partnership Policy of Afghanistan, approved in 2016).

From the legal point of view, there is no independent stock market law in Afghanistan, but there are requirements such as Commercial Law, Money and Banking Law and Tax Laws to extract the Kabul Stock Exchange Law, which are mentioned in various articles of the Afghan Constitution, the Banking law, Private Investors Protection Law, Insurance Law and Public-Private Partnership Policy in matters related to the activities of the private sector and matters related to the stock market, which can be a valid legal basis for the development of market-related laws. They are capital and the legal requirements of the capital market can be derived from them.

## **2-5. Economic Infrastructure of Afghanistan**

In 2003, for the first time, the Constitution of Afghanistan defined a specific economic system for the country. Article 10 of this law accepted the market-based economic system rather than the state-owned and managed economy (Habil, 2017: 138).

In order to promote and regulate the activities of domestic and foreign investors in Afghanistan, the government passed the new law "Afghanistan Private Investment" according to which all domestic and foreign investors were allowed to invest in the country (Mohammadpour, 2006: 181). According to Article 117 of Afghan Commercial Code, commercial companies are divided into different types:

1. Cooperative Company (Collective)

2. Joint Stock Company (Commandite)
  3. Limited Liability Company (Limited)
  4. Joint Stock Company (Anonymous)
  5. Cooperative Company (Cooperative) (Commercial Law, Vol. I, 2009: 87).
- Under the Afghan Limited Liability and Stock Company Law, a joint stock company is considered a commercial company regardless of its object (Hosseini, 2015: 25).

From 2003 to the second quarter of 2016, 45,996 companies obtained licenses from the AISA office to operate in the construction, services, agriculture, industry, energy, and mining sectors. Of the 45,996 companies registered with the AISA Office, 43,093 companies were established and registered by domestic investors, and another 2,902 companies were established and registered by foreign investors. These companies have invested more than \$10 billion in Afghanistan. Moreover, these companies were able to create jobs for 848942 people in Afghanistan (Mohammadi, 2017: 145).

## 2-6. Business Indicators and Micro-Investor Support

The World Bank has ranked countries based on various indicators to compare the 190 economies of the world in terms of business environment. The ranking of these indicators ranges from 1 to 190. According to the World Bank Report 2018, Afghanistan is ranked differently in terms of indicators for doing business (see Table 1).

Number	Indicators	Rated from 1 to 190
1	Starting business	107
2	Transaction with the permission for construction	185
3	Get electricity	163
4	Property registration	186
5	Get credit	105
6	Supporting micro-investors	189
7	Paying tax	176
8	Trade across borders	175
9	Execution of contracts	181
10	Debt settlement	161

Source: <http://www.doingbusiness.org>

As can be seen from the above table, Afghanistan is above 100 in 10 indicators of doing business, which indicates that the situation in Afghanistan is low in terms of the above indicators.

According to the World Bank's report on the level of legal protection of countries for the property rights of micro-investors, at least the following three indicators are suggested as criteria for assessing the level of protection of micro-investors. These indicators are: the duty of disclosure and explanation, the limits of managerial responsibility, and the facilitation of investor complaints (Mohammadi, 2017: 76).

Table 2 shows the ranking of support for micro-investors in Afghanistan compared to other countries in 2018. The indicators of support for micro-investors range from 0-10.

**Table 2: Micro investor support ranking in Afghanistan in 2018**

Indices and rankings from 0-10	Countries						
	Afghanistan	India	Iran	Kyrgyzstan	Pakistan	OECD High Income	South Asia
Corporate Transparency Index	1	8	2	7	7	7.3	6.1
Managers' level of responsibility index	1	7	4	5	7	5.6	5.9
Information disclosure rate index	10	8	7	7	6	6.5	5.6
Ownership and control index	0	8	3	6	9	5.2	5.8
Shareholder Salary Index	0	10	3	4	8	6.3	6.5
Shareholder share index	3	7	1	8	6	7.4	6.4

Source: <http://www.doingbusiness.org>

As can be seen from the above table, Afghanistan ranks below other countries in the region on the indicators of protection of micro-investors and has the highest score only on the index of disclosure of information, i.e. it ranks 10<sup>th</sup>.

Based on the indicators and parameters examined, it was found that Afghanistan has a weak position in terms of economic indicators and matters related to private sector companies and activities compared to neighboring countries and the region, and is far from international standards. This complicates the conditions for the establishment of a stock market.

## 2-7. Research Background

In Tables 3 and 4, first the internal and then the external background is presented. In this classification, the research conducted by national or international researchers based in Afghanistan or abroad for applied purpose in Afghanistan is considered as internal background and the

research conducted by researchers with applied purpose in other countries is considered as external background, which we briefly discuss.

**Table 3: Domestic research background**

Number	Name	Year	Title	Result
1	Mohammadi	2017	Study of the strengths, weaknesses, opportunities and threats of the Afghan economy in order to present a strategy to establish a stock exchange in Afghanistan	Identification of the strengths, weaknesses, opportunities and environmental threats of the Afghan economy at the national and international levels and provide strategies for establishing a stock market in Afghanistan.
2	The Office of Economic Growth (OEG) and the United States Agency for International Development (USAID) in coordination with the Afghanistan Financial Services (AFS)	2010	Assessment of Afghanistan Capital Market	There are currently experiencing very informal and highly underdeveloped financial markets in Afghanistan. There is currently no formal stock market in Afghanistan. Identify a number of elements for the underlying capital market infrastructure, including (currency control, import dependence / domestic capacity, taxation, electricity, security, and legal framework)
3	Rezaei	2009	The need to create a capital market in Afghanistan (stock exchange)	Existence of informal transactions in buying and selling currencies or exchanging currencies in Prince's House and other foreign exchange markets of Afghanistan and solicitation of funds of citizens under the name of "lucky accounts", installments etc. by banks in an unrestricted and even illegal manner in the country; there is a need to create a capital market in Afghanistan.
4	Hart	2009	Reviewing the legal infrastructure and environmental regulations of market in order to develop Afghanistan's financial markets	Since 2004, the Afghan financial sector has developed significantly and the financial infrastructure is being expanded. Due to constraints from factors such as security concerns, political instability, corruption of financial systems, insecurity of banking activities, lack of economic laws related to rent, bankruptcy and liquidation, unclear land and property documents, lack of security system for secure transactions and rental properties, lack of information offices credit, the traditional nature of the activities of private sector companies (willingness to trade, import and export), lack of confidence in the commercial courts, lack of recognition of the value creation system and the advantage of accounting, auditing and legal services, and lack of transparency, the creation of a stock exchange is not possible in the short-term (at least in the next three years).

**Table 4: External background of the research**

Number	Family	Year	Title	Result
1	Mohiuddin	2016	Essays on the composition of financial markets in the Republic of Yemen	He listed the factors that prevented the emergence of the Yemeni financial market in the past, and listed the following requirements for the creation of a financial market: institutional requirements of the capital market, legal requirements, technical requirements, and requirements for managers in the establishment of a financial market.
2	Babazadeh Farahzan, Khayyam Bashi & Alavi	2013	Feasibility study of creating a platform for creating an electronic stock exchange in Isfahan province	The results show that the correlation coefficient between cultural, technological, legal, security and banking platforms and the establishment of electronic exchanges are 0.750, 0.748, 0.788, 0.817 and 0.815 respectively, i.e. there is a significant relationship between the factors of different platforms and the establishment of electronic exchange.
3	Legesse	2012	Establishing financial markets in Ethiopia: the environmental foundation, challenges and opportunities	He identified potential challenges and opportunities. This paper focuses on the role that financial markets can play in accelerating economic growth in Ethiopia.
4	Akhundi	2011	A Study of Feasibility of Electronic Exchange Implementation (Case Study: Tehran Stock Exchange Organization)	In this research, the factors affecting the adoption of electronic exchange were identified and classified. This research shows that the exchange and Securities Organization are currently not ready to implement the electronic exchange in any of the above dimensions. In addition, the implementation requirements based on readiness level were identified as follows: organizational and operational factors, resource and timing factors, legal factors, system and technology factors, marketing and economic factors, financial and cultural factors.
5	Walle	2008	Establishment of Capital Markets in Least Developed Countries (LDCs), the case of Ethiopia	The creation and development of capital markets can lead to economic growth and prosperity in less developed countries, including Ethiopia.

6	Barzegar	2006	Feasibility Study of Establishing Oil, Gas and Petrochemical Commodity Exchange in Iran	It is concluded that there is no economically, financially and operationally suitable platform and structure for the establishment of an oil exchange in Iran and that this exchange is not capable of accommodating a significant volume of oil and product exchanges.
7	Jafari Samimi, Yahyazadehfar, & Tehranchian	2004	Feasibility and Priority of the Stock Exchange Market in the Provinces of the Country	The results show that the provinces of Isfahan, Khorasan, Mazandaran, Fars and Khuzestan had priority in establishing a stock exchange compared to other provinces in the country in terms of 20 indicators. Therefore, the researchers recommended the expansion of the financial market in the above provinces in the form of establishing a stock exchange according to the obtained results.
8	Nosrati	2000	Study of stock market ancillary markets and feasibility study of its design in the Iranian capital market	The researcher studied the stock ancillary market of over-the-counter (OTC) trading in different countries and pointed out the need to form ancillary stock market in Iran. He used the experiences of developed and Islamic countries as a source for designing this market in Iran.

### 3. Research Methodology

The present research is methodologically applied, but in terms of the type of study or analysis criterion (internal purpose of the research), it is a descriptive-analytical research and a survey. In this research, non-probability sampling and purposive selection method was used. The sample size was selected using Morgan table as 180 people from three groups including university professors, experts from Ministries of Finance, Economy, Trade and Industry and the Central Bank and a number of people in Kabul. The validity and reliability of the questionnaire was confirmed by Delphi method and Cronbach's alpha test. SPSS statistical software was used to analyze the data.

### 4. Research Findings

The Delphi method was used to identify the feasible platforms. For this purpose, legal, economic, technical and technological, cultural, social and human capital platforms were determined in three stages with the involvement of the relevant experts according to the conditions in Afghanistan by Afghan and Iranian experts.

To develop a questionnaire, the components that play an important role in establishing Kabul Stock Exchange were identified according to the six platforms and 45 questions were asked. These questions were sent to Afghan and Iranian experts in three phases, and with the suggested changes in each phase, the 25 questions that have the most impact on the establishment of Kabul Stock Exchange were finally completed and approved.

To analyze the data and test the research hypotheses, we used a one-sample t-test and then run Friedman test to rank the infrastructure and requirements of the six platforms studied to determine the readiness of each platform to establish the Kabul Stock Exchange.

#### 4-1. One-Sample T-Test

The one-sample t-test is used when we have a sample of a population and want to compare its mean to a common, standardized state, or even a hypothetical and expected number.

At this stage, the mean of the responses received (current situation) is compared with the expected mean (desired minimum level). The expected mean is assumed to be 3, which is the numerical value of the average option in the response. In this case, if the test result of any of the hypotheses is higher than 3, the null hypothesis is confirmed, otherwise  $H_0$  is rejected. The hypotheses in this study are as follows:

**Main hypothesis:** it is possible to set up the Kabul Stock Exchange.

It is possible to set up the Kabul Stock Exchange.

It is not possible to set up the Kabul Stock Exchange.

$$\begin{cases} H_0 : \mu \geq 3 \\ H_1 : \mu < 3 \end{cases}$$

**Sub-hypotheses:**

1. There are legal infrastructure and requirements for establishing the Kabul Stock Exchange.



- 1)  $\left\{ \begin{array}{l} H_0 : \mu \geq 3 \\ H_1 : \mu < 3 \end{array} \right.$  There are legal infrastructure and requirements for establishing the Kabul Stock Exchange.  
There are not legal infrastructure and requirements for establishing the Kabul Stock Exchange.

2. There are economic infrastructure and requirements for the establishment of the Kabul Stock Exchange.

- 2)  $\left\{ \begin{array}{l} H_0 : \mu \geq 3 \\ H_1 : \mu < 3 \end{array} \right.$  There are economic infrastructure and requirements for the establishment of the Kabul Stock Exchange.  
There are not economic infrastructure and requirements for the establishment of the Kabul Stock Exchange.

3. There are technical and technological infrastructure and requirements for the establishment of the Kabul Stock Exchange.

- 3)  $\left\{ \begin{array}{l} H_0 : \mu \geq 3 \\ H_1 : \mu < 3 \end{array} \right.$  There are technical and technological infrastructure and requirements for the establishment of the Kabul Stock Exchange.  
There are not technical and technological infrastructure and requirements for the establishment of the Kabul Stock Exchange.

4. There are social infrastructure and requirements for the establishment of the Kabul Stock Exchange.

- 4)  $\left\{ \begin{array}{l} H_0 : \mu \geq 3 \\ H_1 : \mu < 3 \end{array} \right.$  There are social infrastructure and requirements for the establishment of the Kabul Stock Exchange.  
There are not social infrastructure and requirements for the establishment of the Kabul Stock Exchange.

5. There are cultural infrastructure and requirements for establishing the Kabul Stock Exchange.

- 5)  $\left\{ \begin{array}{l} H_0 : \mu \geq 3 \\ H_1 : \mu < 3 \end{array} \right.$  There are cultural infrastructure and requirements for establishing the Kabul Stock Exchange.  
There are not cultural infrastructure and requirements for establishing the Kabul Stock Exchange.

6. The resources (human capital) for the operation of the Kabul Stock Exchange are available.

$$6) \begin{cases} H_0 : \mu \geq 3 & \text{The resources (human capital) for the operation of the Kabul Stock Exchange are available.} \\ H_1 : \mu < 3 & \text{The resources (human capital) for the operation of the Kabul Stock Exchange are available.} \end{cases}$$

**Table 5: One-sample t-test results**

Platforms	Number of replies	Experimental mean
Legal	180	2.7352
Economical	180	2.7896
Technical and technological	180	2.6056
Cultural	180	2.6319
Social	180	2.0296
Human Capital	180	2.8556
Total platforms	180	2.6079

Test value = 3				
Platforms	t	The significance level	95% confidence interval values	
			Lower limit	Upper limit
Legal	-5.684	0.000	-0.3567	-0.1729
Economical	-4.900	0.000	-0.2952	-0.1257
Technical and technological	-6.687	0.000	-0.5108	-0.2780
Cultural	-7.158	0.000	-0.4695	-0.2666
Social	-18.219	0.000	-1.0755	-0.8653
Human capital	-2.129	0.035	-0.2783	-0.0106

From Table 5, it can be seen that there is a significant difference between the experimental mean and the theoretical mean for the six platforms. Moreover, if we consider the upper and lower limits, we can conclude that the upper and lower limits in law, business, technical and technological, cultural, social and human capital platforms are both negative, the experimental mean is lower than the theoretical mean and there is a significant difference between them. That is, these platforms are below the average.

From the hypotheses, it can be concluded that Kabul city is not in a good condition with respect to any of the conditions discussed in this study. As a result of H0, the hypotheses are rejected and H1 is accepted which can be summarized in the form of Table 6:

**Table 6: Results of research hypotheses test**

Hypothesis number	Maximum mean	Minimum mean	Total mean	Result
The main hypothesis	-	-	2.6079	H1 accepted
Sub-hypothesis 1	2.86	2.56	2.7352	H1 accepted
Sub-hypothesis 2	3.47	2.26	2.7896	H1 accepted
Sub-hypothesis 3	2.72	2.52	2.6056	H1 accepted
Sub-hypothesis 4	3.02	2.22	2.6319	H1 accepted
Sub-hypothesis 5	2.29	1.83	2.0296	H1 accepted
Sub-hypothesis 6	2.86	2.86	2.8556	H1 accepted

#### 4-2. Friedman Test

The Friedman test, also known as two-sided analysis of variance, is equivalent to the F-test and is used when the measurement scale is at least at the sequential measurement level. This test compares multiple groups in terms of their mean scores to determine whether or not these groups can belong to the same community. In general, the two-sided Friedman analysis of variance tests the hypothesis that the K group of peers comes from a single continuous distribution or from multiple distributions with the same median (Akhundi, 2011: 104).

**Table 7: Friedman test results**

Platforms	Average rating
Legal	3.84
Economic	4.06
Technical and technological	3.43
Cultural	3.49
Social	2.10
Human Capital	4.08
Number of replies	180
Significance level	0.000

As can be seen from Table 7, the highest mean rank refers to the human capital platform and the lowest mean rank refers to the social platform. It can be concluded that the human capital platform has the most suitable feasibility aspect according to the respondents. The social platform is also ranked last.

Considering that the significance level is below 0.05, it can also be concluded that at least two platforms are statistically significantly different from each other and not the same.

## 5. Conclusion and Recommendations

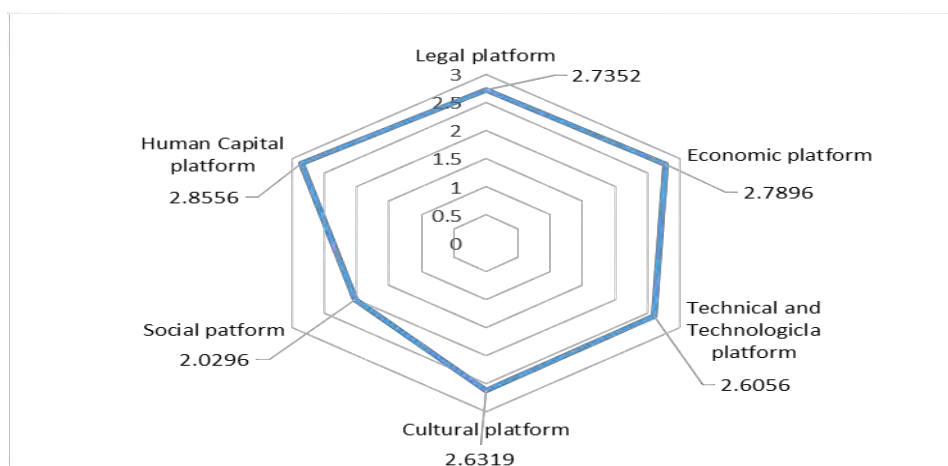
This research is an attempt to answer the questions such as to what extent is it possible to establish a market for Kabul Stock Exchange in relation to the platforms studied in this research? And how is the availability of these conditions prioritized?

By applying statistical tests, the following results were obtained in relation to the feasibility study of establishing the Kabul Stock Exchange market in six platforms. The results are connected to the research hypotheses:

- H1s of all six platforms are accepted and their H0s are rejected; As a result, it can be said that Kabul city is not in a favorable position in terms of conditions (infrastructure and requirements) including legal, economic, technical and technological, cultural, social and human capital for the establishment of a stock market.
- All hypotheses including infrastructure and requirements in the areas of legal, economic, technical and technological, cultural, social and human capital were rejected. As a result, the main H0 of this research is also rejected. In other words, it can be considered that Kabul city is not in a favorable position in terms of infrastructure and requirements for the six platforms, and it is not possible to create a market for the Kabul Stock Exchange in the current situation.

Based on the results in Table 7, it can also be seen that the conditions for the establishment of the market Kabul Stock Exchange are prioritized as follows:

Human capital platform, economic platform, legal platform, cultural platform, technical and technological platform, and social platform. Based on the test results used for the research hypotheses, Figure 1 can be extracted.



**Figure 1: Results of one-sample t-test**

Based on the research results, the following policy guidelines can be formulated:

1. Policy guidelines related to H1 (legal platform):

- To establish an expert committee of lawyers, economists and high-level government experts to develop the country's trade laws and financial sector according to the conditions in Afghanistan; reform and update and formulate new rules for the creation of a stock exchange;
- To amend and revise laws and regulations for financial market supervision and adopt effective measures in the area of control and supervision.

2. Policy guidelines related to H2 (economic platform):

- Require economic enterprises, especially trading enterprises, to use a standardized accounting system and accounting software to produce accurate and transparent financial reports;
- To electronize companies' financial reports of companies and consider specific formats for this purpose to increase transparency and speed up access to information and financial reports;
- To support the private sector through tax exemptions and provide necessary subsidies and facilitation to give more space to the private sector;
- To simplify the procedure and conditions for the establishment of

public joint stock companies in the country.

3. Policy guidelines related to H3 (technical and technological platform):

- To increase internet speed and expand telecommunications services and information technology in all urban and rural areas of the country to facilitate access and reduce costs;
- To provide the necessary technologies for public access to the Internet and online transactions.

4. Political guidelines related to H4 (cultural platform):

- Planning to improve financial literacy and people's familiarity with the capital market through mass media, universities and the organization of seminars and conferences;
- Raising people's awareness of the benefits and advantages of the stock market and encouraging them to invest in the stock market in order to redirect society's unproductive liquidity into productive economic activities.

5. Policy guidelines related to H5 (social platform):

- To increase salaries of employees and increase supervision in departments to reduce corruption in administration and finance;
- To provide as much security for life, financial and public investment as possible for both domestic and foreign investors.

6. Policy guidelines related to H6 (human capital platform):

- The conditions should be created for master's and doctoral programs in the country to increase the scientific personnel and professionals;
- In order to create Kabul Stock Exchange, a number of professionals in the financial and legal fields of the capital market receive scholarships for master's and doctoral studies abroad.

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## بررسی امکان‌سنجی تأسیس بازار بورس اوراق بهادار کابل

### چکیده

بازار بورس اوراق بهادار به‌عنوان نماد بازار سرمایه از مهم‌ترین بخش‌های اقتصادی هر کشور بوده و در مقابل بازار پول؛ جایگاه تأمین مالی بلندمدت سرمایه شرکت‌ها را به عهده دارد. بازار سرمایه وجوه را از بخش‌های دارای مازاد جمع‌آوری نموده و به سمت نهادهای که نیازمند تأمین مالی هستند هدایت می‌کند. در این پژوهش به بررسی امکان‌سنجی تأسیس بازار بورس اوراق بهادار کابل پرداخته شده است. این تحقیق از نظر ماهیت و روش توصیفی پیمایشی بوده و از نظر هدف یک تحقیق کاربردی است. برای امکان‌سنجی پژوهش حاضر شش بستر از روش دلفی شناسایی شد. روش نمونه‌گیری غیر احتمالی و هدفمند مورد استفاده قرار گرفت و بر اساس جدول مورگان ۱۸۰ نفر از سه گروه؛ اساتید دانشگاه‌ها، کارشناسان وزارتخانه‌های (مالیه، اقتصاد، تجارت و صنایع)، بانک مرکزی و تعدادی از مردم ولایت کابل انتخاب گردید. روایی و پایایی پرسش‌نامه از طریق روش دلفی و آزمون آلفای کرونباخ مورد تأیید قرار گرفت. برای تجزیه و تحلیل داده‌ها از نرم‌افزار آماری SPSS استفاده گردید. از نتایج آزمون  $t$  تک نمونه‌ای تمامی فرضیات  $H_1$  مربوط به شش بستر مورد تأیید قرار گرفت و این بدان معناست که در شرایط فعلی ولایت کابل از نظر زیرساخت‌ها و الزامات بسترهای (حقوقی، اقتصادی، فنی و تکنولوژیکی، فرهنگی، اجتماعی و سرمایه انسانی)، جهت تأسیس بازار بورس اوراق بهادار در وضعیت مطلوب قرار نداشته و شرایط تأسیس بازار بورس اوراق بهادار کابل فراهم نیست. آزمون فریدمن نشان داد که میزان آماده بودن شرایط جهت تأسیس بازار بورس اوراق بهادار کابل به ترتیب؛ بستر سرمایه انسانی، بستر اقتصادی، بستر حقوقی، بستر فرهنگی، بستر فنی و تکنولوژیکی و بستر اجتماعی است.

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