The Role of Financial Crises Management Implementing on Investment Development in Kurdistan Region – Iraq during Financial Crises (ISIS war crisis and COVID-19 pandemic crisis) An Analytical and Comparative Study

A Thesis
Submitted to the Council of the Erbil Technical Administration College at Erbil Polytechnic University - as Part of the Requirements for Obtaining a Master's Degree in Technical Business Administration Science

By
Lavin Luqman Khudhur
B.Sc. Technical Business Administration - EPU – 2018

Supervised by
Dr. Aras Qader Khoshnaw

Kurdistan, Erbil, Iraq
June 2023 A.D.   Dhu'l-Hijjah 1444 H   Pushpar 2723K

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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Student Name: **Lavin Luqman Khudhur**

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Signature:

Name: **Rfaai/Rashid Mohammad**

Date: / / **2023**

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This thesis has been written under my supervision and has been submitted for the award of the degree of Master of Technical Administration in Technical Business Administration with my approval as supervisor.

Signature:

Name: **Dr. Aras Qader Hamdamin**

Date: / / 2023

I confirm that all requirements have been fulfilled.

Signature:

Name: **Raqeeb Abdullah Omer**

Head of   Department of Business Administrative Technique

Date: / / 2023

I confirm that all requirements have been fulfilled.

Signature:

Name: **Kosar Najmadeen Mohammed**

Postgraduate Office

Date: / / 2023

IV

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We certify that we have read this thesis, entitled (**the role of Financial Crises management implementing on Investment Development in Kurdistan Region – Iraq during financial crises (ISIS war crisis and COVID-19 pandemic crisis)**. An analytical and comparative study; and an examining committee examined the student Lavin Luqman Khudhur in its content and what is related to it. We approve that it meets the standards of a thesis for the degree of master's in business management.

Signature:

Name: **Asst. Prof. Dr. Daroon Faraidoon Abdullah**

Member

Date: / / 2023

Signature:

Name: **Asst. Prof. Dr. Shirzad Mohammed Mahdi**
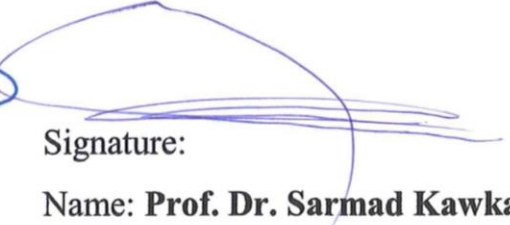
Member

Date: / / 2023

Signature:

Name: **Dr. Aras Qader Hamdamin**

Supervisor

Date: / / 2023
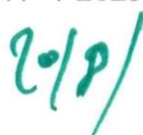
Signature:

Name: **Prof. Dr. Sarmad Kawkab Al-jameel**

Chairman

Date: / / 2023

Signature:

Name: **Asst. Prof. Dr. Azad Ahmed Mahmood**

Dean of Erbil Technical Administrative College

Date: / / 2023

Dedication

It is dedicated to my adorable son (Meer Muhammed). And it is dedicated to all dear learners. Also, I dedicate my master's degree to polytechnic university. I also offer my master's degree to the Board of Investment. Furthermore, my master's degree is dedicated to Kurdistan Region. I hope my master's degree will serve my country and benefit foreign and local investors in a modern way to change their work for a better future.

Lavin Luqman Khudhur

Acknowledgment

First of all, I would like to thank God for giving me the ability to complete my thesis successfully. Then, I thank my beloved husband (Muhammed Rashid) who always encouraged me to complete my thesis and he inspired me. Also, I would like to appreciate my mother, my sisters, and the entire my family for always helping and supporting me. I would like to thank my supervisor (Dr. Aras Qader Khoshnaw) who guided and helped me in completing my master's thesis also, he was pushing and wanted me to research and strengthened me. I have to express my sincere thanks and abundant gratitude to all the sincere ones who have helped me to complete my work, and I thank all the professors from whom I learned during my studies, and to everyone who helped me, even with a kind word.

Lavin Luqman Khudhur

Abstract

This study aims to examine the role of crisis management in managing and handling the financial crises (ISIS war crisis and COVID-19 pandemic crisis) on investment development. As well as the study examined the influence of the crises on investment development. An analytical and comparative study in the Kurdistan Region-Iraq. This study tries to determine the role of crisis management depending on the Mitroff's-five stages model, depending on the regulation and decisions made during the occurrence of the crises. As well as the study compared the government's reaction at each stage in both crises' eras. In addition, the study tries to analyze and explore the reality of the investment situation during the occurrence of crises in the region, also comparing the crises' influence on each investment sector. A conceptual study theme was designed, and a set of hypotheses was developed. To verify the validity of the hypotheses. for that purpose, the financial analysis and SPSS version 28.0 was used. The study implemented the hypothesis on twelve investment sectors such as (trading, health, industry, service, tourism, transportation, education, agriculture, housing, sport, bank, and art) for ten years from 2012 until 2022.

The study reached a set of conclusions, the most important of which are the KRG has more effective and better crisis management to handle and manage the COVID-19 pandemic crisis than the ISIS war crisis on investment projects depending on the scientific criteria. Thus, the damage caused by financial crises on projects can be reduced. And the government can react quickly by applying scientific crisis management principles to minimize the bad effects of the crisis. On another hand, the crises themselves there were different from each other. ISIS is a war crisis and external threat, and the projects in the region had a bad drop. The focus of the KRG is on border protection, internal security, and war armies. Thus, the ISIS war crisis has a great negative influence on investment projects. capital in dollars dropped from the

appearance of ISIS in the crisis stage by (65.20%). As well as the number of projects dropped from (108) to (70) projects. However, the COVID-19 crisis was a global epidemic spread all over the world but for the region it was an internal threat. Causing the delay or stoppage of the projects temporarily rather than that fall projects. Thus, The COVID-19 pandemic has a limited influence on investment projects. Thus, capital in dollars decreased slightly from the appearance of COVID-19 in the crisis stage by (18.76%). However, the number of projects increased slightly from (66) to (76) projects.

The researcher suggested that manage the crisis according to scientific criteria. And Implementing (Early warning system) to inform the projects of the occurrence of any unwanted events. And Installation of a response team (crisis management team) to prepare an organization to respond to potential crises. And attempting to rely on local products, and raw materials and strengthen local employees. Also, Diversify and develop investment sectors to avoid financial deficits during crises. Also, set a (strategic investment map) as a tool for investors to invest in that sector which is the most useful for the KR-I.

Keywords: financial crises, crisis management, investment, ISIS war crisis, COVID-19 pandemic crisis, KRG.

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Acronyms and Abbreviations

FC	Financial Crisis
CM	Crisis Management
KRG	Kurdistan Region Government
KR-I	Kurdistan Region-Iraq
COVID-19	Corona Virus Disease 2019
ISIS	Islamic State of Iraq and Syria
CoM	Council of Ministries
BOI	Board of Investment
GDP	Gross Domestic Product
IDP	Internally Displaced Persons
EIA	Energy Information Administration

Introduction

Financial crises and their subset, from financial scandals, failures, epidemics, and terrorist attacks, these crises have become a worldwide phenomenon in recent years. A crisis is a phenomenon that could occur at any time and is unexpected. It may cause harm to firms, organizations, and countries. In a way that can happen every ten years in the financial field. Thus, it is essential to manage crisis and find opportunities in crisis to reach the organization's or and countries success in the competitive global market. Therefore, crisis management is an essential management activity in the field of business management and financial management in particular. As (Giorgetto, 2021:6) states that crisis management (CM) can be defined as the intervention or coordination by individuals or teams before or during, or after a crisis to resolve the crisis and decrease damages and protect the organization.

Also, the Kurdistan Region of Iraq (KR-I) is not far from a different crisis situation. The KR-I has faced many ups and downs and suffered many crises from 2012-2022. The first crisis begins in the year 2014 by the same time KR-I faced four sudden shocks this year. Includes budget cuts, the ISIS war crisis, the humanitarian crisis, and the declines in oil prices. These factors pushed the region into a hard financial crisis. The KR-I faced another financial crisis due to suffering COVID-19 pandemic crisis in early 2020 and the decline of the oil price. The dropping in the oil price can harm the region because the main financial resource of the region depends on oil. And this study investigates the impact of these crises (ISIS war, COVID-19 pandemic) on investment development in each sector of investment sector. Besides, it studies the Kurdistan region's government (KRG) steps to manage these crises by using scientific principles of Crisis Management (CM), with an aim to minimize the negative impacts of crises (ISIS war, COVID-19 pandemic) on sectors of investment and investment developments in the KR.

The study included the period between 2012-2022 to know the two years before the ISIS war crisis and two years before the COVID-19 pandemic crisis even two years after the crisis. Moreover, the study provides an overall picture of the investment situations in the region by Analyzing the reality and developments of the investment sectors in the region. In addition, the study aims to find the influence of the financial crises (ISIS war & COVID-19 pandemic) on investment development in the region. As well as it aims to find the role of government in managing a financial crisis in investment projects.

Furthermore, the research method used the comparative approach It is based mainly on making a comparison between the way of KRG's financial crisis management during the ISIS war crisis period and COVID-19 pandemic crisis period. On the other hand, a comparison between the influence of the ISIS war crises and the COVID-19 pandemic crises on investment sector developments. And the analytical approach is based mainly on analyzing the data of investment sectors, to observe the developments of projects in each sector before, during, and after the crisis period. furthermore, the statistical analysis used to prove them.

In addition, the research contains four main parts. The first part is the theoretical background and literature review to describe variables and review the previous studies. Then, in part two research method and methodology explains the research furthermore, part three is about the practical approach and examines the results and data analysis. Finally, the conclusion and recommendations to conclude the result in part four. After that, there are references behind all of them, and data and addition information which mentioned in the study is in the appendix (by the researcher).

Part One

Theoretical Background

1.1 Chapter One: Financial Crisis Management

Chapter one contains three sections as shown below:

1.1.1/ fundamentals of crisis

1.1.2/ financial crisis

1.1.3/ crisis management

1.2 Chapter Two: investment

Chapter two contain three sections as shown below:

1.2.1/ fundamentals of investment

1.2.2/ objectives and importance of investment

1.2.3/ investment instruments and types

1.3 Chapter Three: Literature Reviews

Chapter three contain three sections as shown below:

1.3.1/ the studies related with (financial crisis and investment)

1.3.2/ the studies related with (crisis management)

1.3.3/ discuss previous studies

1.1 CHAPTER ONE
FINANCIAL CRISIS MANAGEMENT

Introduction

This chapter aims at describing the research variables, the crisis, and the financial crisis. To provide overall background information about the variables, also these chapter contain three sections, fundamentals of crisis, financial crisis and crisis management.

1.1.1 Fundamentals of crisis

1.1.1.1 Concept and Definition of Crisis

The crisis is defined by many different researchers as (Al - Fadl,2011:128) stated that the word "crisis" is of Latin origin and means the point of transition to the worst of an acute, the word "crisis" in the English language is derived from the Greek word "Krisis" which means the emergence of a new situation or situation or a turning point or a critical moment related to the fate of an organizational entity, a group of individuals or a single.

But (Coombs, 2015:3) from another perspective defined as a crisis might be unpredictable, but it is not unexpected. Smart organizations are aware that crises will occur; they simply do not know when. It is possible to forecast crises. Crises arise at any time, adding to the element of surprise and unpredictability.

(Bouchareb, 2015:10) said that the original term of crisis derived from the Greek word (KIPVEW) which means (to decide) decision.

(Nogueira, 2016: 29) used the six most frequent key elements for a crisis such as an indeterminate event with a low possibility of happening and high effect, which threatens the individual, organization, community, or else nation, surpassing its response capability and demanding fast decision-making.

From the view of (Al-hafni, 2017:204) the crisis is a defect that has a material impact on the whole system that can threaten the main assumption on which this system is based. The crisis is often characterized by elements of surprise, lack of time, and lack of information, in addition to physical and human threat factors.

From an organizational perspective (Bundy et al, 2017:1662) pointed out that an organizational crisis, defined as an event that is highly visible, unanticipated, and probably troublesome mostly can be perceived by managers and stakeholders, also crisis can threaten an organization's purposes and have far-reaching outcomes for its relationships with stakeholders.

(Zamoum and Gorpe, 2018:6) According to Coombs, a crisis is a main threat to operations that, if not dealt with appropriately, can have negative consequences. The threat in crisis management is the potential harm that a crisis may do to a corporation, its stakeholders, and the industry as a whole. A crisis may pose three risks: (1) public safety, (2) financial loss, and (3) reputational harm.

From an administrative perspective (Al-Samarrai, 2019:14) stated that a crisis can be defined as a serious threat that can harm the goals, values, beliefs, and property of individuals, organizations, and countries whether the danger is expected or unexpected.

Depends on (Maghdid, Din, Hasan, and Othman, 2019:775) Crises are antithetical states that are exclusively used in negative situations.

Crises have become an unavoidable part of existence. They have an impact on people, communities, and businesses. Tragedies, natural disasters, and other crises that occur across the world pose a threat to the public's welfare, people's emotional and physical well-being, organizational profitability, and operational viability, and impose incalculable costs (Lositska, 2020:12).

In the Chinese language (Canyon, 2020:5) said the word 'crises from the Chinese language are composed of two characters (危机 wēi jī) -one meaning of wēi is (threat) and the second word jī is meaning opportunity.

The term of crisis from a political perspective (Al -Shehri ,2021:829) said it's the political situation that needs for decision-making to face the challenge, and the routine response is not enough for the matter that requires government renewal if the government does not want to sacrifice its position.

(Purnomo et al, 2021: 8) defined crisis as an unusual, unpredictable, and complex circumstance that poses a danger to a company's strategic aims, reputation, or existence. Whether physical, financial, or emotional, it can result in financial loss and harm to the organization's reputation.

From the viewpoint of the researcher, a crisis can be defined as a phenomenon that could happen at any time and cause harm for many organizations while could make opportunities for a few organizations. Also, Crises are series of events that have a serious and sharp results. In another hand crisis definition can be, it is the disappearance or lack of one of the sources such as (raw materials, information, technology, and finances) that due to their disappearance, the works cannot run as before, the reason for the crisis could be whatever, even human or natural disasters.

1.1.1.2 Crisis and relate concepts

There are many other concepts close to the crisis and these confusions can have a negative impact on how to handle the crisis or in diagnosing a situation, so it matters to make difference between them to manage a crisis in the right way, there is a brief discussion on the other connects near to crisis.

1- Problem: it expresses the main motive that can be the cause of an undesirable situation, and it usually needs an organized exertion to deal with and resolve it, and it may cause a crisis, nevertheless it is not itself a crisis (Bouchareb, 2015:14).

2- Conflict: In which each party seeks to inflict destruction or defeat, in whole or in part, on the other, as it is noted that One of the factors that distinguish crisis from conflict is the length of time for each, whether it is related to the age of the conflict, or the amount of time available to resolve the conflict, the chronological age of the conflict is characterized by a long time It may reach more than half a century (Al-Yousifi, 2015:37).

3- Accident: The accident, such as the accident, expresses something (command) that is sudden, not unraveled, then quickly, its effect would have passed, the thought of completing it. There is no relaxed circumstance that motivates this continuation, but it leads to material or human losses, both of which lead to threatening the system, for example, the factory system, as well as the entire industry (Al-Samarrai, 2019).

4- Disaster: disasters are unexpected events that interrupt system routines, need new courses of action to deal with the disruption, and endanger values and societal goals (Coombs,2015:3).

1.1.1.3 Characteristics of crisis:

Crisis has characteristics and qualities to be clearer through the symptoms that can be summarized as follow:

1- According to (Hale et al, 2005:113) crises are events characterized by high importance, low possibility, uncertainty, and decision-making time pressure.

2- Its surprise is a violent and difficult surprise that is a direct and explicit threat to the entity of the group or individuals (Al -Fadl, 2011:129).

3- Lack of information and lack of clarity of vision for the decision maker (Al-Asadi and Kazem, 2016).

4- The necessity of rapid decision-making: One of the factors that determine the seriousness of a crisis is how long that takes; the shorter the crisis lasts,

the more serious it becomes. It extends the time of crises so that he is able to make rational decisions (Al-Khatib, 2020:158).

5- Crisis characteristics can be classified into five characteristics such as uncertainty in reaction, time pressure, the element of surprise, the necessity of resolution, and the frequency of occurrence are all factors to consider (Ahmad and Al-Khrabsheh, 2014:50).

By analyzing the above, the researcher found out that a crisis is a serious situation that needs an urgent solution, and rapid reaction with scientific research, and any organization or countries that suffer a crisis will lose something valuable as a consequence of the crisis.

1.1.1.4 Types of crises:

The crisis is an event but each event has a different characteristic, when an organization is facing a potential crisis, it is an important point to determine the type of crisis to understand the crisis and be aware of its harm. Types of crises classified by many authors that each author has classified in a different way but the researcher mentioned the most common types of crises by different researchers:

1- Nature disasters: this crisis includes sudden weather phenomena such as earthquakes, floods, wildfires, hurricanes, and droughts (Giorgetto, 2021:6).

2- Technological crisis: this type can occur as a result of hardware failure, software compromise, or an industrial disaster. To cope with such actions, management must aim to minimize losses and confirm that a strategy is in place to return things to normal as rapidly as probable (Bhasin, 2019:2).

3- Informational: this type includes a lack of important information or lack of computer information of customers and wrong information (Larsson and Rudwall, 2010:6).

4- Economic: this type can affect an individual's property and income or an economic crisis is a time of deterioration in a long period of stable growth (Koutsoukis and Farantos, 2015: 40).

5- Human breakdown crisis: this kind is caused by human mistakes, which might result in an accident or a defect or potentially harmful product (Crayton, 2017:17).

6- Physical: includes loss or breakdowns of key equipment, plants & material supplies (Jabeen, 2018:35).

Another classification of crisis depending on (Hale et al, 2005:117) and (Coombs, 2004:270) crisis can be classified into three boards. The victim cluster, accidental cluster, and international cluster. Victim cluster is those crises caused through out of control and external forces in the organization. The victim cluster contains natural disasters, rumors, workplace violence, and product tampering. In the Accidental cluster, crisis is seen to occur without organizational malice or misdeed. Accidental cluster crisis contains technical error accidents and product recalls or stakeholders claiming that the organization does not operate in an appropriate manner. International cluster crisis is the most severe one it is considered to occur due to organizational fault. This cluster contains human error accidents, human error recall, and organizational misdeeds.

1.1.1.5 Stages of crisis

Every crisis when appeared its passes of some common stages from its birth until ending and the lifecycle of the crisis is defined by some different researchers each of them has a different theory as shown below:

According to (Al-Serafi, 2007:25) crisis stages can be divided into four stages as follows below:

(1)   the warning stages

(2)   crisis emergence

(3)   crisis explosion

(4)   Regression

Another author classified crisis stages into five stages (Ramadan et al, 2009:21) as presented below:

(1)   the stage of the birth of the crisis

(2)   the stage of growth

(3)   Expansion of the crisis

(4)   The crisis receding

(5)   The crisis disappearing.

Depending on (Chandler, 2010:3) crisis stages are classified into six stages as shown below:

(1)   warning

(2)   risk assessment

(3)   response

(4)   management

(5)   resolution

(6)   recovery.

According to the authors, the researcher counted crisis stages as below:

1- The stage of the birth of crises: this stage expresses a vague feeling and anxiety that something is threatening, and this comes from the accumulated experience and the ability of the decision-maker to deal with crises and take appropriate means for that, by studying the signs of these crises in depth and trying to access the driving forces as well as the crises for the overthrow of all elements and sources of conflict of rights and interests (Al-Khatib, 2020: 158).

2- The stage of growth and expansion of the crisis: As a result of not addressing the first stage in time so the crisis is growing through other catalysts that grow during it (Al-Hadrawi and Al-Khafaji, 2010:197).

3- Stage of crisis growth: If the organization cannot investigate in the previous stage or fails to take action The right decision is that the organization will be exposed to a crisis of high degree of strength and intensity (Misk. 2011:19).

4- The stage of crisis receding: This stage indicates the beginning of the fading of crises and their end due to decisions (Al-Khatib, 2020:159).

5- The stage of crisis disappearing: The crisis arrives at this stage when it is lost in a way The full momentum generated for it and its elements where its appearances fade and end (Al-Hadrawi and Al-Khafaji, 2010:197).

1.1.2 Financial Crisis

1.1.2.1 Concept and definition of financial crisis:

Many writers and researchers have touched upon the concept of financial crisis such as (Kurtel and Rizeq, 2009:278) conceptualize it as deep fluctuations that affect, in entire or in part, all financial variables, including the volume of issuance and prices of shares and bonds, total loans and bank deposits, and the exchange rate, and express a complete collapse in the financial and monetary system.

Another definition by (Khoshnaw, 2009:66) noted that the sharp deterioration in the financial markets of a country or a group of countries, the utmost prominent of which is the failure of the local banking system to perform its major tasks, which is negatively reflected in an important deterioration in the value of the currency and stock prices, which results in negative belongings in the production and employment sector, and the consequences thereof. Redistribution of income and prosperity amid international financial markets.

Another researcher (Muhammad, 2011:50) defined it as its instability in financial markets and failure of the banking system to perform its main tasks as a result of a sharp and sudden decrease in the price of the currency and stock prices. Therefore, there are fluctuations that impact the overall financial changes, such as the amount of issuance, the prices of shares and bonds, bank deposits, and the exchange rate, in whole or in part.in short financial crisis is a situation resulting from a change in the internal or external environment.

But in the viewpoint of (Bhatia, 2011:4). Financial crisis can occur from the overvaluation of institutions or assets, and it can be aggravated by investor behavior. A series of fast sell-offs might lead to lower asset values or increased savings withdrawals. If the situation is not addressed, the economy may enter a recession or depression.

Also (Goldstein and Razin, 2013: 2) noted that A financial crisis - characterized by bank failures, dramatic decreases in credit and trade, and/or the collapse of an exchange rate regime, among other things – causes severe disturbance of the financial and monetary systems' regular activities. So, it causes the hurting of efficiency of the economy.

(Guerschanik Calvo, 2013: 4) affirms that financial crises and their resolution have been shown to be substantial drivers of revenue drops, higher unemployment, and decreased public service quality. As a result, they've been linked to a decline in the well-being of the poor and a failure to meet the Millennium Development Goals.

(Abdl-Moneim, 2016: 23) defines a financial crisis as a sudden reduction in the prices of one or more types of assets. The assets here are either physical capital employed in the manufacturing process, such as machines, equipment, and buildings, or financial assets that contain property rights to physical capital or commodity stocks, such as stocks and savings accounts.

Furthermore (Abdl-Hadi, 2020:180) defined the financial crisis as fluctuations in all financial variables, the volume of issuance, stock prices, and bonds, as

well as, or partially or completely affecting bank deposit credits, and the exchange rate and expresses a partial collapse in the financial and monetary system.

(Zafer and Tayachi, 2021:789) stated that overpricing of the assets, people's irrational investment, and excessive market selloffs thereby lowering the price of the assets This has resulted in significant problems that occur suddenly and affect the whole economy and financial institutions causing the entire meaning of finance and its associated terms.

In the viewpoint of the researcher, a financial crisis can be a sudden change of finance from a good situation to worse, due to the changes in the financial environment in the internal or external organization. Also, a financial crisis can be expected but cannot be predicted, when it occurs.

1.1.2.2 The History of Financial Crisis

Since the existence of humanity as well as there is crisis growth and development with them, especially in the late nineteenth-century history, had witnessed many different global crises for many reasons until today the world confronting many different crises, thus it is essential to have a look at the past crisis to take precautions for next crisis because crisis such an unwanted phenome can again happen in any time, therefore, the most common financial crisis illustrated below:

1. The crisis of the year (1866):

The crisis of the year 1866 was the bankruptcy of Overend Gurney and the crisis was a watershed moment in British financial history it was the last time the London money market was seriously disrupted till 2007-08 (Flandreau and Ugolini, 2014:5). Significant turning point for the UK financial system the crisis of 1866, which formed one of the It begins with the

collapse of the Overend Gurney bank. This is also called the Overend Gurney Crisis (Karabulut and Saraç, 2020: 385).

Many people intended to boost their returns by investing short-term capital in long-term or illiquid assets. In the early 1860s, over ends rejected the trend and increased their holdings of speculative-grade bills. As one investment after the next failed, they accumulated non-performing assets, reducing their cash. In an effort to acquire new funds, the partnership was converted into a limited liability corporation and listed on the stock exchange in 1865. (Flandreau and Ugolini, 2014: 7).

Additional shocks included the stock market crash in late 1865 and early 1866, a protracted period of high-interest rates in London that made it tougher for the organization to refinance, and the failure of several clients. In early May, the Bank of England was contacted after attempts to contact other lenders had failed. However, the governor felt that the bank could only help one company if it was also willing to help several others that were known to be in a similar situation (Flandreau and Ugolini, 2014: 8).

2. The great depression (1929):

Bernanke defined the Great Depression as a catastrophe due to its long duration, depth, and consequences. The Depression continued for more than a decade, beginning in 1929 and ending in 1941 during World War II. The crisis in this depression such as Industrial production descended, soaring unemployment rate, families suffering, and marriage rates dropping. At the first, the contraction was beginning in the United States and then spreading all around the world. The Great Depression was the country's and the modern industrial economy's longest and worst depression (Bernanke, 2002:2).

The United States overall wealth more than doubled between 1920 and 1929, a period called "the Roaring Twenties". The stock market expanded rapidly stock prices were much higher than their real value. The American economy

suffered a mild recession. Millions of shares were rendered valueless, and investors who bought stocks "on margin" (with lent funds) were completely wiped out (History.com, 2009).

The American economy collapsed between 1929 and 1933. The real gross domestic product (GDP) has dropped by half. Between 1930 and 1932, more than 5,000 banks shut down, accounting for more than $ 3 billion in deposits (about 7% of total deposits). The unemployment rate increased from 3.2 percent to more than 25% of the workforce. Industrial output production had plummeted to 20% of 1929 levels by March 1933. In all, roughly a third of the national banks ceased operations between 1930 and 1940 (Tavlas, 2016:7).

3. Oil Crisis of (1973):

In October 1973, during the day of the Yom Kippur War, started the fourth Arab-Israeli conflict. The implications that followed would have shaped the global economic and political scenario for the incoming years. Few events have produced such enduring economic consequences on the trajectory of the global economy as the first oil shock (Covi, 2014:15).

By 1973 The outbreak of the Arab-Israeli War brought further tension Request. The largest oil content to Saudi Arabia, Israel, and prohibits the sale of gasoline. Oil prices are fast increasing and four common interests at once (Koşaroğlu and Erik 2016: 132).

Six Middle Eastern oil-producing nations, led by Saudi Arabia, announced a 5% reduction in oil output on October 17, 1973. They pledged to cut prices by an additional 5% each month until the US stopped blocking a comprehensive resolution to the Israel-Palestine issue. Gasoline costs increased with each reduction that was reportedly made. The event provided whole Western populations with an uncomfortable object lesson in neoclassical economics (Mitchell, 2010:190).

4. Stock Market Crash of (1987):

The majority of our financial crises occurred concurrently with previous economic downturns. The 1987 Black Monday disaster, on the other hand, was a pure stock market disaster that had little to do with any other problem (Glässer, 2020: 8).

This date would be remembered as Black Monday because in the 1980s by new investors demands equities has been sharply increased and resulting in the stock market rising nearly 40%. However, came to an end in September, and the market crashed in October. The S&P 500 dropped and lost its value by 20% on Monday (Nygaard, 2020: 121).

Global stock markets fell in a couple of hours because of a snowball consequence of market turmoil. The Dow Jones Industrial Average (DJIA) in the United States saw a loss of 22.6 % during a single trading session, which continues to be the worst one-day stock market drop in history (Bernhardt and Eckblad, 2013:15). The cause for occurring this crisis was the usage of "program trading" approaches, where computers were set up to rapidly trade specific quantities of a large number of stocks, for example those in a certain stock market index, had increased significantly on the financial markets (Carlson, 2007:4).

Not only was the 1987 stock market crash a shock to the stability of the financial system in terms of price decline, but it was also a shock in terms of how badly the market was working. At times, the amount of sell orders overwhelmed NYSE experts, forcing them to shut trading in several equities. The temporary suspension of trading in some option and futures agreements on other exchanges was influenced by the stoppage of the stock trade. Concerns regarding the clearing operations were raised because of problems securing the requisite credit extensions and payment, movements to settle margin balances. The difficulties brought up by the catastrophe encouraged

exchanges and clearinghouses to update their infrastructure and systems (Carlson,2007:21-22)

5. The Asian Financial Crisis of (1997):

Asian economies in the 1900s were described as tiger economies because of having good economies and counties rapid growth with stable investment, also during these years the value of the US dollar was relatively low, and most Asian nations tied their currencies to the dollar in order to benefit from favorable exchange rates (Ranta, 2017:25). But in June 1997, the collapse of the currency the Thai baht throughout Asia caused waves of contagion effects. Following the collapse of the Thai baht, the currencies of Indonesia, the Philippines, and Malaysia were all hit hard (Chua Bun Pho, 2017). Thailand's currency lost value in relation to the US dollar. This event signaled the beginning of a severe financial crisis over much of East Asia. It came after months of speculative pressures that had significantly reduced Thailand's official foreign exchange reserves (Carson and Clark, 2013:22).

A significant, abrupt reversal in capital flows was the core of the crisis. Large-scale removals of short-term credit lines, a flight of portfolio capital, and an outflow of local investors from international markets all affected economies that had been enticing significant amounts of foreign capital. Net private capital inflows into the (5) Asian economies that are utmost pretentious (South Korea, Indonesia, Thailand, Malaysia, and the Philippines) hopped from an influx of $97 billion to a discharge of $12 billion, which is equivalent to around ten percentages of the pre-crisis GDP (Gross domestic product) of these (5) countries (Radelet and Sachs, 1999:2).

6. Financial crisis of (2008):

The collapse of the One Hundred Fifty Years old investment bank Lehman Brothers in September 2008, which caused the world's greatest financial

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crisis. Lehman Brothers declared bankruptcy, shocking the globe and leaving well over $600 billion in debt and 25,000 staff in shock (Merle, 2018:4). September 15 marks the beginning of the worldwide financial crisis. The crisis was caused by a decrease in house prices, mostly in the United States and Europe. Borrowers evaded on loans and mortgages because they comprehended that selling their homes would not be sufficient to pay them back (Orsholits, 2014:5).

The basis for the aggravation of this crisis is through the repercussions of the mortgage crisis that surfaced in 2007. The reason is the failure of millions of borrowers to purchase housing and property in the United States of America to pay their debts to the banks after they had obtained these debts on easy terms and the cancellation of many basic guarantees in the lending process (Khoshnaw, 2009:73).

Table (1): The most famous financial crisis in history.

Year	The place where the country which crisis begins	Crisis's type	Crisis's reason	Crisis's effect
1866	Bank of Overend Gurney in London	Credit crisis	The bankruptcy of Overend Gurney	Cause of the firm's Eventual fall.
1929	United States	Economic crisis	Stock prices are much higher than their real value due to millionaire, tycoons exchanging their savings for stocks.	The American economy collapsed, GDP dropped, the unemployment rate increased, banks shutdowns, etc.
1973	Middle East	Oil Crisis	Arab- Israel war	Caused increasing in oil prices, gasoline cost increased and

				Long-term effects on global politics and the global economy
1987	United State	Stock Market Crash	The usage of "program trading" strategies	The temporary suspension of trading in some choice and futures agreements on other exchanges was influenced by the stoppage of the stock trade.
1997	Thailand	Currency Crisis	The collapse of the Currency of Thai baht	Wreaking havoc on economies
2008	United State	Bank Crisis	Lehman Brothers Bankruptcy	Caused financial crisis From all over the world

Source: Prepared by the researcher.

1.1.2.3 Different types of a financial crisis

1- **Debit crisis**: A debit crisis occurs either when borrowers stop paying the principal and interest of the loan, or when lenders believe that a default is possible and then they stop offering new loans and try to liquidate existing loans. The debt crisis may be linked to commercial (private) debit, or a sovereign debt (public), and the expected risks that the government will stop paying its obligations may cause a sharp drop in private capital influxes and to a foreign exchange crisis (Al-Muradi, 2012:15-16).

2- **Currency Crises**: a currency crisis might lead to bank insolvency for banks with significant foreign currency-based liabilities and local currency-denominated assets (Bordo and Meissner, 2016:7). According to (Chen, 2019:10) A currency crisis is a currency devaluation of more over 25% in nominal terms. A large amount of external debt makes the country to be vulnerable to capital outflows then confronting this type of crisis will be easy, and gross external debt is the unsettled quantity of current

liabilities that are payable to nonresidents through inhabitants of an economy. (Nguyen,2021:36) stated that it occurs when the exchange rate change very quickly that affecting the ability of the currency to perform its tasks. Depending on existing research currency crisis can occur due to the degree of currency devaluation in the exchange markets, speculative is the main reason for a currency crisis this can happen because of sudden and massive selling of domestic currency. (Ishihara, 2005:3) said that a country can prevent Currency crises by defending itself by raising interest rates and/or interfering in the markets by selling international reserves.

3- **Bank crisis**: bank crisis is one of the types of a financial crisis that defined by (Al-Khatib, 2020:160) as customers submit a request to withdraw their deposits largely and surprisingly, the banking system is not sufficient to cover its obligations and the banking crisis is divided into insolvency and liquidity crisis (Hussein, 2011:55). Banking crises are likely to be connected with low levels of economic growth, foreign reserves on the central bank's balance sheet, and liquidity in the banking system, as well as high levels of inflation, public debt, private credit, and credit growth). (Hlaing,2018:25). As for the banking contagion, it means the failure of one big bank that leads to very large damages in the field of the overall economy. Governments should allow individual banks to build and put budget statements that are greater than the total GDP of the country (Al-Saydiya and Taj Al-Din,2020).

4- **Capital market crisis:** the reason for this crisis is increasing the price of assets or stocks more than their actual value and without justification for this rise just for businesses to make a profit as well as this phenomenon called by bubble (Taher and Al-Saadi, 2018).

5- **Trust Crisis:** this occurs when the plaintiffs' confidence in the business and activities of a bank or a group of banks decreases, and sometimes even low confidence in the shares of some large corporations, which causes

cases of withdrawal of funds from banks (the herding trait) and the inability to pay. In the second case, selling the shares of companies and increasing their supply leads to the collapse of the financial indicators in the stock market and the resulting chain of events that ultimately leads to the creation of a real financial crisis, which takes a long time to return to its normal state (Khoshnaw, 2009:68).

1.1.2.4 Reasons and causes of financial crisis

A crisis can occur at any time and it's the nature of the crisis, we cannot determine the specific factor of crisis occurrence. (Claessens, Kose, Laeven, and Valencia, 2013:10) said that there are a lot of commonalities point between the crisis factors but also it can be different depending on the type of crisis. For example, the cause for currency crisis and foreign debt crises could be the changes in trade, capital flows, and international interest rates, however, basics policy failures, and domestic or exterior shocks have been identified to be significant reasons for triggering banking crises.

Also, (Kurtel and Rizeq, 2009:280) claim that there are various hypotheses explaining the onset of financial crises that differ in terms of the type of these crises as well as their intensity, impact, and time duration. Some of them may be the consequence of panic banking, which causes a recession or reduction in economic activity; meanwhile, others may be the result of a dramatic crash. Following the presence of the Bubble, in the values of various assets - as previously noted especially, in the stock markets of the negative consequences on the development path Or because of a currency crisis and the collapse of the exchange rate, resulting in a number for the national economy.

Moreover, (Al-Yousifi, 2015:39) and (Bernanke, 2018:255) agreed that poor perception can cause of the financial crisis as they stated Perception represents the stage of obtaining the information, and the judgment. That means if the perception is improper, this leads to an improper orientation. The

unexpected cave-in of a bridge makes us to rethink about bridge improvements and redesign, instead of rethinking basic physics. According to this, the solution to our failure to forecast or avoid the crisis should be to develop a regulatory and risk-management system Rather than rebuilding economics at a fundamental level.

Another researcher (Taher and Al-Saadi, 2018) affirms that Macroeconomic instability can through fluctuations in international interest rates, which is one of the external causes of financial crises in developing countries, in addition to fluctuations that occur in real exchange rates.

In addition (Al-Khatib, 2020:162) divided the reasons into two types. A. External variables, such as natural disasters, economic crises, and trade wars. B. Internal variables, related to the country itself, such as the rate of inflation, which affects the bond markets, variable Exchange rates, which relate to the free currency markets, stock prices, and interest rates.

(Taher and Al-Saadi, 2018:234) said that technological changes cause the financial crisis for example new products and discoveries, shifting requests for products, and portfolio structures investment.

1.1.3 Crisis Management
Introduction

When a crisis happens or during a financial crisis companies confront liquidity problems and banks sharply restrict loans to borrowers in response to a run by short-term bank creditors, leaving companies with liquidity issues and raising their business risk, firms also prefer to forecast bigger budget cuts, which has a negative impact on auditors' fees (Almeida and Silva, 2020:7-8). The organization or government should respond to this crisis to deal with it, crisis management aims to improve an organization's ability to respond flexibly and rapidly to various types of crises (Aljuhmani and Emeagwali,

2017:50), hence good management of crisis can decrease loses and harms to least level as possible and survive this undesirable situation.

1.1.3.1 Concept and definition of Crisis management

There is a quotation by Norman Augustine said "After planning for a crisis, it is instructive to recall that Noah started building the Ark before it ongoing to rain.'' (Zech, 2016:25). This quotation illustrates the essential and proactive stage of predicting potential crisis events before occurrence to reduce their negative impacts.

According to (Crayton, 2017:26) Crisis management refers to the steps that companies take to avoid or minimize the negative effects of a crisis, therefore protecting the business, its stakeholders, and the industry from harm.

(Aljuhmani and Emeagwali, 2017:52) states the importance of crisis management as any organization can be hit by a crisis. It is essential to have a clear plan of action in place in case of a crisis. In a crisis, this strategy may make or destroy the organization. It's not a matter of "whether" an organization will face a crisis; it's a question of "where" and "when" An organization's survival depends on how well they are prepared to deal with it.

(Jabeen, 2018:10) considered Crisis management as a set of criteria meant to fight the crisis and then limit the real harm inflicted, it is a set of tools that shield the company and stakeholders against the negative consequences impact of a crisis. (Kamei, 2019:148) highlighted that theory of finance in relation to crisis management evades insolvency and balances the cost and result of crisis management.

By (Vašíčková, 2019:65) defined all crisis management actions should be viewed as a permanent continuous process that begins with corporate prevention and ends with organizational learning.

Reviews of (Lositska, 2020:11) Organizations' from before the actions and guidelines for preparing and responding to significant disastrous events or

incidents (i.e., fires, earthquakes, powerful storms, violence in the workplace, kidnappings, bomb threats, terror attacks, and so on) in a safe and effective manner are referred to as crisis management.

Another researcher (Purnomo et al, 2021:8) argued that Crisis management builds on and supports emergency management processes and structures, and also allows for choice modification to the specific circumstances or individual conditions of a crisis or disaster.

(Giorgetto, 2021:6) state that Crisis management also can be defined as the intervention or coordination by individuals or teams before or during or after an incident to resolve the crisis and decrease damages or otherwise protect the organization.

In the viewpoint of the researcher, crisis management contains managing the occurred crisis by using different tools, rethinking, urgent decisions, innovation, and new ideas. To confront or escape the occurred crisis.

1.1.3.2   Stages of crisis management

Crises are unwanted and undesirable events in businesses, crisis management is an essential management activity, and virtually every firm should have crisis management systems in place work. Crisis management to be done in an effective way there are some stages that need to be passed, these stages are mentioned by different researchers each of them have a different theory as shown in the table below:

Table (2): Shows the stages of crisis management as the authors mentioned

Authors	(Fink, 1986)	(Mitroff, 1994)	(Hansson and Vikström,2010)	(Coombs,2015)	(Crayton, 201 Model PPRR
Stages of crisis management	1.Prodromal	1.Signal detection	1.The prevention phases	1.Pre-crisis	1.Prevention
	2.Acute	2.Probing and prevention			2.Preparation
	3.Chronic		2. The response phases	2.Crisis	3. Response
	4.Resolution	4. Damage containment			
		5.Recovery	3.The recovery phases	3.Post crisis	4.Revision
		6.Learning			

Source: Prepared by the researcher based on the sources

Table (2) shows the five differences in the stages of crisis management from different authors from different periods. The first one is fink in 1986 divide the stages of crisis management into four stages, the first stage prodromal stage the prodromal stage, which occurs before the crisis, the second stage, which occurs after a triggering event, the chronic stage, which occurs as the crisis continues, and the resolution stage, which occurs after the crisis has ended (Xu et al, 2019:700).

Also, the table (2) shows that in 1994 the stages of crisis management is redefined by another author Mitroff that classified crisis into five stages, in the first stage crisis manager should be aware in the organization that a crisis occurs and, in this stage, it sends continual warning signals that the crisis will

occur (Crayton, 2017:29). And the second stage is probing and prevention this stage was considered to be two different activities but Mitroff combined them in one stage to manage a crisis organization should be prepared with a plan, however, a crisis-prepared business can effectively manage to fully avoid a disaster by thorough personnel preparation (Jabeen, 2018:28). The actual management of crisis occur in the containment damage stage after that recovery stage meant efforts are made to return activities nearly to normal or better than before of crisis, it can be short term and long-term recovery. The final stage includes acts of reflection in which lessons from the crises are learned to prevent future ones (Crandall & Parnell and Spillan, 2013:11).

As pointed out in the table other stages of crisis management by (Hansson and Vikström, 2010:8-10) are the prevention stage, response stage, and recovery stage. Prevention phase before the crisis happens there are some warning signals of crisis it can be prevented from happening, otherwise, if this phase is ignored maybe cause difficulties for the organization. The second stage is the response phase which means prevention exertions have failed and a crisis event already happens, by responding to the crisis, the organization's essential attempt is to reduce and limit the harm caused to stakeholders, property, the environment, and the organization itself. The crisis management team of the corporation must quickly define how the organization will respond to the issue. Due to time restrictions, the organization will be forced to choose between information collecting and action as a result, early communication, and actions will most likely be based on insufficient knowledge and characterized by ambiguity and misunderstanding. The organization enters the recovery phase when there is no longer any risk of future harm to stakeholders or the organization. During this stage, the organization tries to learn from the incident, control public opinion, and limit damage to its legitimacy and reputation.

Coombs reorganized crisis management in 2015, dividing it into three main stages: pre-crisis, crisis, and post-crisis. The pre-crisis stage includes crisis prevention and preparedness to limit organizational harm. The crisis phase represents the multinational's and its stakeholders' reactions to the problem (Coombs and Laufer, 2018:201). The post-crisis phase improves preparedness for future crises and records the flow of information that occurred during the crisis and makes use of any upcoming future crisis (Amuna, Shobaki, and Abu Naser, 2017:30).

As shown in the table (2) by (Crayton, 2017:27-28) Crisis management is classified into four stages (PPRR model). Prevention is the first stage of a crisis management process where an organization looks for and acts to eliminate potential risks or hazards through events in the organization. A county fair-related example would be if a fair manager sees that a hazardous weather event is coming and they decide to close the fair to ensure public safety. And the preparation stage holds one of the most important aspects of crisis management which is the creation of a crisis management plan (CMP). A CMP is a communication tool that offers information on who to call and the processes for certain policies to help in the case of a crisis. Additionally, it contains instructions on how to document a crisis scenario and the contact information of people who can help. Furthermore, the response stage should be practiced to prepare for an actual crisis event. When the response is used in a crisis event, it can be quite scrutinized by the public through the media. This step should be practiced to ensure that the management team members are aware and equipped to carry out the strategy successfully. Lastly, the last stage in crisis management is revision. This stage is focused on evaluating crisis management during an organizational crisis. Based on that assessment, the crisis preparation materials are modified and updated to meet the needs of the organization in the event of a future crisis of a similar nature.

All the types of the crisis management stage we can shorten in one cycle (UNIT, 2009:8)

1- Reparation – dealing with issues for example planning, simulations, and training.

2- Management – dealing with issues for example allocation and placement of resources, command systems then communications.

3- Evaluation – dealing with issues for instance; post-crisis lesson learning, debriefing, and accountability.

Figure (1): shows the crisis management cycle.

Source: by (UNIT, 2009:8)

Steps to deal with the crisis:

According to (Jafri and Yahya, 2021:8) Both Barton (2001) and Coombs (2006) document some steps to deal with the crisis which organizations should do to better handle the crisis such:

A. Having a crisis management plan that is updated at least annually.

B. Has a designated crisis management team.

C. Conducts exercises to test the plans and teams at least annually.

D. Pre-draft some crisis messages.

1.1.3.3 Mitroff's five-stage model:

By understanding the crisis management stages above from the viewpoint of the researcher we can make the stages dimension and the best stage we rely on is Mitroff's five-stage model to complete the empirical approach. Mitroff's five-stage model is one of the most widespread models and frameworks in the literature and science surrounding crisis management. This model helps in measuring and evaluating the stages of crisis management that the organizations go through. Therefore, it's the more appropriate for the study field.

1. Signal detection

Long before it occurs, a crisis sends a "repeated and persistent trail of early warning signals" that can be detected while there is still time to prevent it from occurring or take efforts to mitigate its damage. These early warning or crisis signals are pieces of information that indicate a divergence from normalcy (Paraskevas and Altinay, 2013:158). It includes monitoring both the internal and external work environments, developing an organizational culture that supports early warning signals detection, and utilizing the analysis and forecasting capabilities of information systems. The goal of this assignment is to take activities and make decisions that will prevent or postpone the crisis' actual occurrence. This duty is crucial because failure to recognize early warning signs and showing little desire in doing so would almost certainly result in the crisis occurring (Dalloul et al, 2023: 24).

2. Probing and prevention

The second point of contact is when organizations actively look for and evaluate risk variables to distinguish between crises that originate inside the organization and those that are outside the organization. The reaction will depend on what is occurring both inside the organization and outside of it, as well as how that information is received, thus making this difference is crucial

(Gashi and Maharaj, 2022:12). An organization in the prepare phase needs to develop a systematic plan for managing the crisis, identifying critical personnel and other resources, and allocating actions during a crisis situational, also, effective crisis plan includes these components a cross-functional crisis team, business continuity plans that address both technology and human resource challenges, a crisis communication strategy, and crisis training (Wang and Hutchins, 2010:555-556).

3. Damage containment

The third contact point is that it is obvious that a current crisis in the organization is taking place. At this point, the aim is to take all necessary precautions to limit the crisis and prevent it from spreading across the organization's eco-system (Gashi and Maharaj, 2022:13). Effective phase management would include plans for limiting a localized crisis from spreading to other parts of the company or its surroundings that haven't been contaminated (Bhaduri, 2019). These tasks show how a crisis will be handled if and when it arises. In order to do this objective, the crisis must be stopped, isolated, prevented from spreading, reduced, and dealt with rapidly. This is primarily possible with a comprehensive understanding, awareness, and examination of the reasons, practices, and causes that contributed to the problem. In order to tackle the crisis and turn preparations into actual action to limit the crisis and decrease its damages, it, therefore, forms a collection of actions that must be carried out. This includes using all efforts, resources, and methods available to do this (Dalloul et al, 2023: 25).

4. Recovery

It has to do with the return to normal operations, which is the phase during which appropriate steps are made to recover from the harm caused by the crisis that happened in all aspects of the business, including organizational,

psychological, behavioral, and even financial aspects. In other words, it is an effort to restore some of the value of an organization's tangible and intangible resources. This is accomplished by putting pre-made training programs into use that have passed testing to verify that they can fulfill the desired purpose (Al Thani and Obeidat, 2020:313). Organizations start putting procedures in place to resume normal business operations. Both short- and long-term business continuity is part of recovery efforts. The recovery plan and assuring stakeholders that operations will resume as normal (Wang and Hutchins, 2010:556).

5. Learning

These are the last tasks in crisis management and signify the end of the crisis. The goal is to conduct a thorough review of the crisis management process on two levels: the tactical and technical evaluation, which looks at crisis management techniques, means, and executive and administrative processes, and the strategic evaluation, which looks at crisis management plans. Thus, it comprises a series of actions through which the crisis and earlier events are evaluated and the crisis management's good and negative characteristics, strengths, and weaknesses are identified (Dalloul et al, 2023: 26). It has to do with learning, specifically the stage of learning moral lessons and using the knowledge gained from dealing with the previous crisis to establish experiences that can prevent crises from occurring in the future. It also has to do with knowing the organization's weaknesses and strengthening them through the process of development and improvement (Al Thani and Obeidat, 2020:313).

The five tasks can be divided into three basic levels based on a thorough review of the crisis management literature. As shown in figure (2) The level of pre-crisis management includes the tasks of detecting early warning signals and the tasks of preparedness and prevention; the during-crisis management

level includes containment and damage e limitation tasks, while the post-crisis management level includes recovery and learning (Dalloul, Ibrahim and Urus, 2023:24).
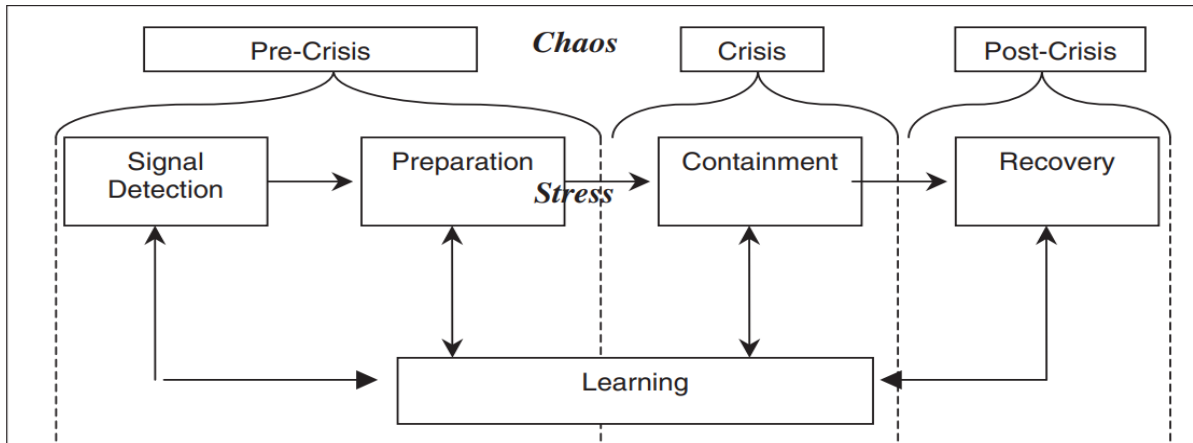
Figure (2): Overview of crisis management stages

Source: (Hensgen et al,2003:72)

1.2 CHAPTER TWO

1.2.1 Fundamentals of Investment

Introduction:

Investment is a field that has an important and essential role in the economic, financial and management. For social growth and country development. Money does not have any value till it is invested. If a person has an amount of funds but does not invest just keep it then it will not grow, money should be invested in a way to grow and get return. In this chapter, we will discuss the term of the investment.

1.2.1.1 Concept and Definition of Investment

According to (Abdul-Karim, 2008:4) Investment in the language is a fruit, and the fruit is increase and growth, so the word (invest) means to grow – that is to increase – and growth is usually in money, whether it is in its final monetary, financial or commercial form, or in its various other forms that man has known through history and civilizations, whether they are in the form of real estate or movable property.

Depending on (Khoshnaw, 2009:80) investment, in general, is a national or non-national contribution, whether natural or moral, to the economic, social, technological, or local development of the state through money, experience, or consultation in a specific project with a view to obtaining returns in accordance with the law.

According to another researcher (Al-Naqshbandi, 2011:41), investment is about directing the available resources in order to maximize the benefit inherent in these resources, because the available resources satisfy the basic and luxurious needs of the human being. When the use of these resources is postponed at the present time to another time called the investment period, it is expected that greater satisfaction of these needs will be obtained.

Furthermore, (Reilly and Brown, 2012:45) defined investment as the present commitment of dollars for some time in order to derive future payments that will compensate the investor for (1) the time the funds are committed, (2) the predicted rate of inflation, and (3) the uncertainty of the future payments.

According to (Virlics, 2013:172), the aim of investment expenditures is to create money, and there are two ways to do it. Assets include both fixed investments such as buildings, machinery, and plants, and monetary investments such as stocks, bonds, and other securities. Both sorts of funding can help a company grow.

Al-Shabib (Mahmoud, 2017:4) conceptualizes investment from an economic perspective as "productive employment of capital by directing savings towards uses that lead to the production of goods or services that satisfy the economic needs of society and increase welfare".

(Ahmed, 2019:18) defined investment as a source of the verb (invest), actually investment derived from fruit. So investing is to use or operate money in order to achieve the fruit of this use, so it abounds money grows over time.

However, (Al-Saadi and Al-Mohammadi, 2020:350) review that investment definition can be developed as the employment of funds in economic and social projects in order to raise the country's productive capacity, and increase production capacity to achieve spatial development.

Also (Laopodis, 2020:13-14) said that the effective management of your money (or financial assets) today in the hopes of earning more money (or returns) in the future is what investments are all about. (Tanndon, 2020:10) noted an important definition of Investment by WILLIAM F. SHARPE: "Sacrifice of confident present value for some indeterminate future value"

(Rachmawati, 2021:362) highlighted that a suggested investment would make use of already available resources while also generating greater resources in the future. Investment is understood differently by economists and financial experts. Such as (Halage, 2021:15) noted that Economic investment is described as a rise in a society's capital assets. The products used in the production of other items comprise society's capital stock. In economic terms, an investment implies an increase in the size of the facility, equipment, and inventory. Factories, construction equipment, retail outlets, and so on.

In the view point of the researcher, investment term can be understood as the plant of today's seeds to eat tomorrow's fruits.

(Panpaliya and Bajaj, 2020:1530) defined investors as investors are those who put their small savings into different investment avenues, for example; gold, land, fixed deposits, debt funds, bonds, and equities, with the aim of making a large profit. As defined by another researcher (Padmavathi and Saranya, 2018:1620) an investor is someone who invests money in the hopes of earning more money in the future.

In the view point of the researcher investors are those who invest in his extra money to earn in another source of funds.

1.2.1.2 Financial and Economic Meaning of Investment

According to (Kevin, 2011:11) investment has a different meaning for each financial and economic aspect:

In the financial sense, investment is the dedication of one's money to generate future income in the form of interest, dividends, premiums, pension benefits, or capital appreciation. Purchasing shares, debentures, post office savings certificates, and insurance policies are all financial investments. These investments produce monetary assets.

Investment, in the economic sense, refers to net additions to the economy's capital stock, which consists of products and services that are utilized to produce additional goods and services. In this context, investment refers to the creation of new and productive capital in the form of new buildings, machines, and inventories, among other things. Physical assets are created by such investments.

However, the two types of investments are linked and interdependent. Investments in financial assets are eventually turned into physical goods. Consequently, all investments outcome in the acquisition of some financial or physical assets.

1.2.1.3 Investment and other concepts

There are some related concepts of investment. Investors confuse and do not make difference between them and do invest in these fields but they are different from investment. The most common concepts are as shown below:

Gambling: The concept of gambling is used to distinguish between investment and speculation. Gambling is defined as "betting on an uncertain income when a person has a strong desire to take on a high degree of risk, including the pursuit of profit when that person becomes a gambler." Uncertainty about the outcome" (Barquq et al, 2016:19).

Speculation: Speculation is defined as "the use of funds in diversified assets with the aim of obtaining a high return in return for a high degree of risk." Speculation as involving the individual's willingness to bear a high degree of risk in order to obtain a high return (capital profits) resulting from fluctuations in the prices of securities or commodities, and this individual is called a speculator (Alwan, 2009:31).

Saving: Saving can be defined as "deferred consumption in which an individual or group abandons the satisfaction of a present consumer desire

with the intention of securing the funds necessary to satisfy a potential consumer desire in the future, without being prepared to bear the slightest degree of risk. His "money" should, in turn, not aspire to increase the value of these savings (Moussa et al, 2012:19).

1.2.1.4 Investment process

According to (Hornsby and Blumberg, 2013:5), this process can be an initial guide to investors for investment opportunities, through setting a plan, screening, and analyzing this plan, then making decisions and deals about investing, monitoring and assessing them, and reporting upon the influence achieved.

1. Planning
2. Screening and Mapping
3. Analysis
4. Investment Decision and Deal-Making
5. Monitoring and Evaluation
6. Reporting A Book of Best Impact

1.2.1.5 Characteristics of Investment

The characteristics or elements of investment can be understood in four terms such as return, risk, safety, and liquidity.

1- **Return:** any sort of investment has one primary goal to generate a profit. Regular income (interest dividends, rent, etc.) Or a growth in the value of the investment/capital appreciation, i.e., the difference between the selling and purchasing prices of assets, are both examples of expected returns (Singh, 2021). The different between the sale price and the purchase price is capital appreciation, but the dividend or interest received from the investment is yield (Kevin, 2011:11).

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2- **Risk:** any investment includes some level of risk. This risk might be related to capital loss, capital payback delays, interest non-payment, or return fluctuation. While certain assets, for example, government bonds and bank deposits, are nearly riskless, while others are riskier.

While certain assets, for example government bonds and bank deposits, are nearly riskless, while others are more risk.

The following elements influence the hazard of an investment.

a) The longer the maturity period, means the greater risk.

b) The worse the credit quality of the borrower makes the risk higher.

c) The risk level varies depending on the type of investment. Debt instruments such as debentures and bonds in less risker, however, investments in ownership securities such as equity shares carry a larger risk. An investment's risk and return are linked, in most cases, the larger the risk means the higher the return (Kevin, 2011:12).

3. Safety: An investment's safety refers to the assurance of a capital return without loss of money or time. Another aspect that an investor seeks in his investments is safety. Every investor expects to receive his capital on maturity without loss and back on time (Kevin, 2011:12).

4. Liquidity: A well-developed secondary market for securities improves investment liquidity. Liquid investments can be converted into cash without losing value or time. An investor aims to maximize return while minimizing risk, fund security, and investment liquidity (Panpaliya and Bajaj, 2020:1532).

1.2.2 Investment objectives and importance

1.2.2.1 Objective of investment

Investment has some important objectives according to (Alwan, 2009:35) (Murithi, Narayanan, and Arivazhagan, 2012:166) (Barquq et al, 2016:24) (Singh, 2021:4) objectives of investment can be concluded in six points below:

1. Maximizing Return: Investors always want a high rate of return on their investments. The rate of return has defined as the total income earned by the investor during the holding time represented as a percentage of the purchase price at the start of the holding period (Murithi, Narayanan and Arivazhagan, 2012:171).

2. Minimizing the Risk: Risk refers to the probability that the actual return from security throughout its holding period will be less than the predicted return. If the rate of return on investment fluctuates significantly from one period to the next, it is considered riskier than if the rate of return does not vary enough. However, all investors aim to lower their investment risk (Singh, 2021:4).

3. Preserving the value of the real assets, i.e., preserving the value of the original capital invested in the project, and in order to preserve the value of the capital, the investment alternative must be chosen from among several proposed alternatives, so that the investment alternative that achieves the greatest return and the lowest degree is chosen of risks. The investor can also preserve his investment assets by diversifying investments (forming an investment portfolio) (Alwan, 2009:35).

4. Working continuously to increase and develop the return on investment (Alwan, 2009:31).

5. Exemptions from taxes: Some investors put their money in financial instruments only to reduce their tax bill. Some investments give tax advantages while others provide tax exemptions (Singh, 2021:4).

6.   These objectives may be for the public benefit (such as public projects undertaken by the state) or in order to achieve a return or profit, such as private projects. Among the objectives is also: - Achieving an appropriate return that helps the project's continuity. Maintaining the value of real assets. Continuity of obtaining income and working to rise it. Ensure the essential liquidity (Barquq et al, 2016:24).

1.2.2.2   Investment importance:

Investment has many important from different aspects even from the national perspective or from an economic or from an individual's life perspective.

1. Investment importance at the national level:

As well as (Alwan, 2009:33) illustrate the importance of investment at the national level can help to increase the country's national income, create new jobs opportunities in the national economy, support the process of economic and social progress and rise production and support trade balance and the balance payments. As well as (Khoshnaw,2009:24) states that investment has helped the transfer of technologies between countries, for example, technology transfers included providing new products, developing production methods, transferring experiences and skills, and the best aspect of technology transfer is the transfer of administrative experiences.

2.   Importance of investment at the economic level:

(Al-Shakaki, 2008:14) said Investment is considered the core of economic development, because it adds to the energies and compound productivity in the national economy, thus creating a sufficient industrial base for the developmental launch and the continuation of economic progress. As well as, (Moussa et al, 2012:20) point out the importance of investment because it is the reason for rising production and productivity which causes an increase in national income thus improving the standard of living of citizens

and providing job opportunities, reducing joblessness. And (Murithi, Narayanan, and Arivazhagan, 2012:175) said that Investing helps in the development of financial markets where businesses may raise funds. This too helps to boost economic growth and prosperity.

3. Importance of investment at the individual's level:

An important point in the view of (Singh, 2018:8-9) such as the increase in life expectancy of a person because they are able to have a stable income, also planning for additional income because of high rates of taxation and inflationary pressure in an economy, the hope of having a stable and continuous revenue. But (Alwan, 2009:33) said that the importance of investment at the individual's level: the investment contributes to increasing the return on capital and its development by increasing the retained earnings realized from the investment.

1.2.3 Investment instruments and types

1.2.3.1 Investment instruments:

There are many different alternatives or channels to invest in this era for investors, some investments can be suitable for a particular type of investor, while others can be appropriate for another one. Also, there is another terminology for investment used by researchers such as investment tools, investment vehicles, and investment avenues. But, the most common ways for investing such as securities, real estate, economic projects, and speculative investment. As followed below.

1. Securities: one of the most important investment tools in our time is securities. Because of the advantages it provides to the investor, they are not available in other investment tools, and the securities differ among themselves from several angles. In terms of the rights, it arranges for its holder, some of them are Equity Instruments such as Stocks of all kinds and Warrants, as well

as Debt Instruments such as Bonds and Certificates of Deposit. Certificates of Deposit et al. In terms of the expected income, there are variable income securities such as the stock whose share of the dividends changes from year to year, and some of them are fixed income such as the bond whose coupon is determined by a fixed percentage of its nominal value (Matar, 2009:80).

2.   **Real estate as an investment:** One of the selections for investing in household savings is investment real estate. Real estate that can afford an estimate for its owner is referred to as investment real estate. Investment real estate is often larger homes with a smaller amount of floor space (about 60 m2) that are meant for rental purposes (Krulický and Horák, 2019:3).

Invested in two ways: either directly when the investor buys real property (buildings, land) or indirectly when he purchases a real estate bond, for example, issued through a real estate bank or else through participating in a financial portfolio of one real estate investment fund. Investment in real estate obtains great interest from investors, whether in the local market otherwise in the foreign market. In most countries, real estate banks specialized in granting real estate loans have been established (Barquq et al, 2016:116)

3.   **Economic projects**: investing in economic projects are considered one of the most widespread investment tools, and their activities vary between industrial, commercial and agricultural...etc. Some of them are specialized in trade or the manufacture of goods, and others are specialized in trade or the service industry. The economic project is one of the real investment tools because it is based on real assets such as buildings, machinery, equipment, means of transportation, working individuals, etc. The operation of these assets together leads to the production of an added value that increases the wealth of the owner and is reflected in the form of over the national product (Matar, 2009:86).

4.   **Speculative investment:** can be defined as investing that has both a high risk and high investment return. Speculators attempt to buy cheap and

sell high using these investment instruments; their main goal is to predict and benefit from predicted market changes. The main benefit from such investments comes from the price difference between buying and selling. Speculative investment for instance Options, Futures, and Commodities, traded on the exchange (coffee, grain metals, other commodities) (Levišauskaite, 2010:16-17)

1.2.3.2 Types of investment:

The term investment can be associated with many different activities and there are many types of investment that classified differently depending on each of the authors:

Public sector investment and private sector investment:

A. Public sector investments: is carried out by the state such investments are usually for profit. Social goals are at the forefront. These are usually roads, schools, hospitals, dams, waterways, for infrastructure such as bridges, and these investments are indirectly made by the private sector facilitates investments (DAĞDELEN, 2001:28-29).

B. Private sector investment: private investment is the private sector's support of gross fixed capital creation, which is defined as the purchase of a capital asset that is projected to earn profits and/or increase value in the future. Private investment has a significant influence on the growth of economic activity since it enhances the standard of life of the population and provides employment opportunities (Marcos, 2019:1).

According to (Al-Shakaki, 2008:26) put investment types in a chart below.

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types of investment

according to the investment period | according to the type of of the asset | according to physical characteristics | according to the investment areas | according to the geagraphical location

short term | realestate and economic | material | realestate | local

long term | finance | mankind | tourist | foreign

industrial

agriculture

commercial
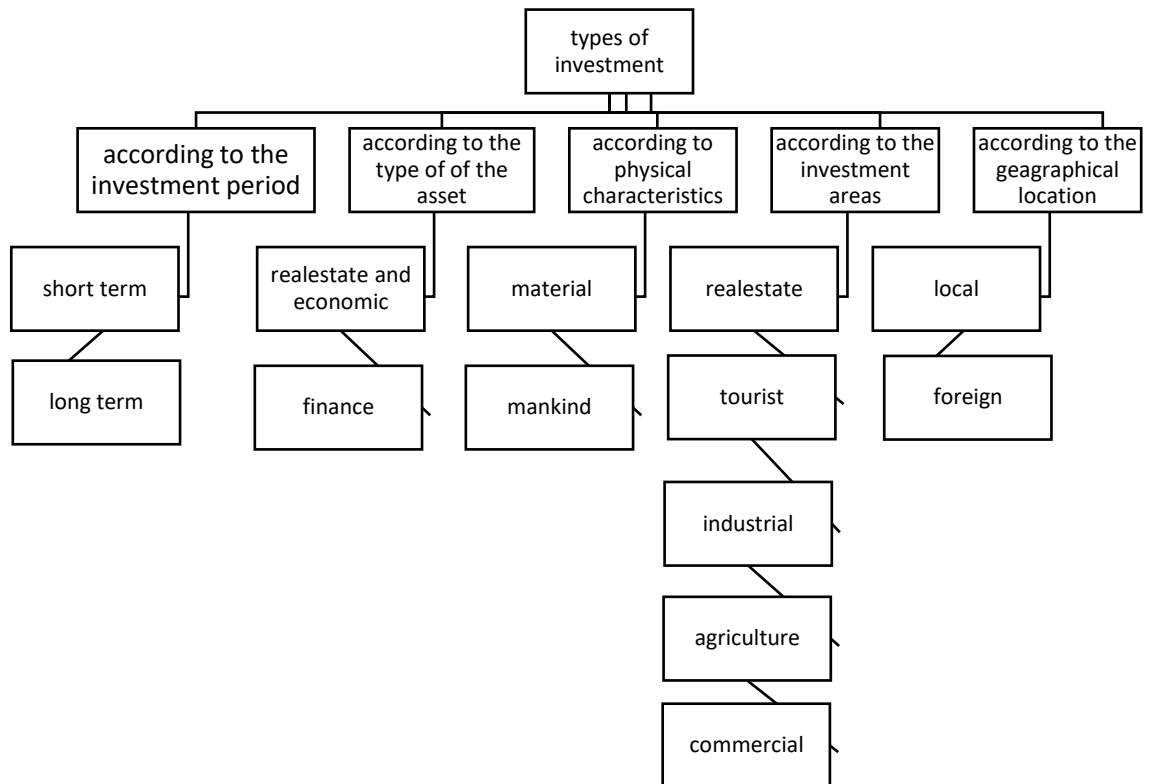
According to an Arabic book by (Moussa et al, 2012:25) types of investment are categorized into eight points below:

1.   Local investment and foreign investment.

2.   Direct or indirect investment.

3.   Financial investment and real estate investment.

4.   Short-term investment and long-term investment.

5.   High-risk investment and low-risk investment.

6.   Investment without risk.

7.   Human investment.

8.   Investment with a quick return and an investment with a slow return.

According to the book of the authors (Smart, Gitman, and Joehnk, 2017:32-35) types of investment can be classified into six following points:

1.   Securities and property investment.

2.   Direct or indirect.

3.   Debt, equity, or derivative securities.

4.   Low or high-risk investment.

5.   Short- or long-term investments.

6.   Domestic or foreign.

1.2.3.3 Types of investors

Types of investors are classified differently by different researchers. Here are two classifications of investor types from different researchers as depicted below:

Individual investors: are individuals who are investing on their own and have a small amount of money to invest. Sometimes individual investors are called retail investors (Levišauskaite, 2010:9).

Institutional investors: institutional investors can invest millions or more dollars. Institutional investors consist of mutual funds, banks, insurance corporations, and other financial institutions. Institutional investors are businesses that deal in financial assets and manage billions of dollars around financial instruments. These investors consist of mutual funds, investment banks, money managers, insurance firms, and other financial institutions. They are net money borrowers or in need of receiving financing (Laopodis, 2020:6-7).

According to (Matar, 2009:41) divided investors into three types depending on taking risks such as:

The Conservative Investor: is an investor who gives priority to the element of safety over everything else, and thus the pattern of this investor is reflected in his investment decisions, as he is very sensitive to the element of risk. We often find this pattern in the elderly, and those with limited income.

The Speculator Investor: This pattern, unlike the previous one, gives priority to the element of profitability over everything else. Therefore, his

sensitivity to the element of risk is low, so he is ready to enter risky investment areas in the hope of obtaining high rates of return on investment. This category of speculators can be found among young people or among adults who are dealing with large investment portfolios.

The Balanced Investor: He is the prudent or rational investor who directs his interests to the elements of return and risk in a balanced amount, and thus his sensitivity to risk is within reasonable limits that enable him to make carefully studied investment decisions that take into account the diversification of investments in a manner that maximizes return and low risk.

1.3 CHAPTER THREE

LITERATURE REVIEW

1.3.1 The studies related to (financial crisis and investment)

Scientific research usually starts from the point reached by previous scientific research and with directly related studies or indirect in terms of the conclusions, recommendations, and suggestions that I came out with. There is a review of some studies which related to the two variables of financial crisis and investment:

1. The study of (Ucal et al,2010)

(Relationship Between Financial Crisis and Foreign Direct Investment in Developing Countries Using Semiparametric Regression Approach).

This study examined that foreign direct investment (FDI) is significant to several emerging economies. Both economic theory and empirical indication suggest that FDI benefits developing host countries. This research investigates if and to what extent FDI inflows into developing nations are exaggerated before and after the emergence of a financial crisis. Using panel data from the World Bank's World Development Indicators (WDI) (2008) and UNCTAD (main FDI indicators: WIR, 2008c) for 148 developing countries between 1995 and 2007, we tested the suitability and effectiveness of the financial crisis in the FDI regression model. The consequences designate that FDI influxes decline in the years after a financial crisis and an upturn in FDI inflows the year previously a financial crisis hit the country.

2. The study of (Ksantini and Boujelbène, 2014:35-38)

(The impact of the financial crisis on economic growth and investment).

The study spans 25 nations from 1998 to 2009, with annual observations. The majority of the data is derived from the World Bank's World Development Indicators database (2010). The methodology entails employing

the dynamic panel technique to assess the influence of the financial crisis on economic development and investment. As a consequence, the researcher confirms that, when it comes to the influence of the financial crisis on development and investment, the financial crisis is detrimental to growth. As a result, the projected sign of this variable is negative, as the financial crisis disturbs this sector and makes acquiring credit more difficult. Indeed, in the event of a crisis, states are implementing harsher credit-granting restrictions, decreasing investment. Subsequently, the effect of the crisis on investment will maximum likely be negative. Also, in the conclusion the researcher noted that the duration and depth of the crisis differ relying on the nature of the crises and also across countries (advanced countries, developing countries, and countries in early progress). Indeed, the financial crisis negatively affects growth and investment.

3. The study of (Giebel and Kraft, 2019)

(The impact of the financial crisis on investments in innovative firms).

The study spans twenty-five nations from 1998 to 2009, with annual observations.

The key of data has been derived from the World Bank's World Development Indicators database (2010). The methodology entails employing the dynamic panel technique to assess the influence of the financial crisis on economic development and investment. As a consequence, the researcher confirms that when it comes to the influence of the financial crisis on progress and investment, the financial crisis is detrimental to development. As a result, the projected sign of this variable is negative, as the financial crisis disturbs this sector and makes acquiring credit more difficult. Indeed, in the event of a crisis, states are implementing harsher credit-granting restrictions, decreasing investment.

In the findings, innovative firms are more likely to face financial constraints in their investment operations than non-innovative firms. As a result of these

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restraints, innovative enterprises are reducing their investment activity. Following that, we employ difference-in-differences estimations to ascertain the causes of decreased investment during the crisis. Estimates of differences in differences lead to the conclusion that revenue growth evolved similarly for innovators and non-innovators. The impact of the crisis on investment by innovative enterprises, on the other hand, is substantially greater. As a result, while the market's influence on revenues has been equal for both business types throughout the crisis, investment behavior has not. The swings in investment growth in innovative enterprises are substantially larger.

4.the study of (Naji, Mahmood and Mohammad, 2019:15)

(The Impact of Financial Problems Related to Investment Projects in Iraq).

The research methodology began with a series of interviews with government workers working in the investment sectors to collect data on the research topic. In addition to interviews with Iraqi and foreign investors, a form including questions about financial issues concerning investment in Iraq will be distributed. The questions are scored on a five-point scale using two adjectives with a neutral point (e.g., '1=totally disagree and 5=totally agree). Then, alongside the investors, use the brainstorming process to come up with some answers to the difficulties at hand.

According to the survey results, the key investors share similar views on the impact of these issues on the investment process in Iraq. The top two issues are the accumulation of financial benefits on loans taken by the private sector and its companies from banks and public and financial institutions due to delays in repaying these loans (4.6), and government delays in paying dues to private sector companies (4.5), which means that these two issues are having a significant and negative impact on the investment process because any investment project cannot continue without money.

Following that, other problems occurred, including (the dismissal of tens of thousands of members of these companies due to their inability to pay their salaries, the reputation of the private sector within and outside of Iraq has been tainted by distortion, abuse, and a loss of corporate, financial, and community trust as a result of non-payment of machines and equipment. The Iraqi government and its institutions are vulnerable to a breach in the international trust wall for the safety and security of Iraq's investment environment, the accumulation of financial benefits on loans taken from the private sector and its companies from banks and public and private financial institutions due to late repayment).

To address the previous issues, several decisions and actions must be taken. Once completed, the problems that impede the investment process can be reduced by simply finding a formula to pay the investor's dues, which can be accomplished by supporting the Iraqi economy with non-oil products, fighting corruption in government departments, encouraging foreign investment to associate with the Iraqi investor by providing an attractive investment climate, and lastly, the government must support the particular investment banks to finance investment projects.

5. the study of (Omer and Yeşiltaş, 2020).

(The impact of financial crises on macroeconomic indicators such as GDP, exports, inflation, and exchange rates in several developing nations, including Iraq, Iran, and Turkey) From 1980 to 2017.

This study investigates the effect of financial crises on macroeconomic variables that include the gross domestic product (GDP), export, inflation, and exchange rates, in some developing countries, namely Iraq, Iran, and Turkey, from 1980 to 2017. The study attempted to examine the respond of the variables for each country to the 1997–1998 Asian financial crisis, the 2007–2008 global financial crisis, and the corresponding financial crisis that

occurred in each country. To obtain accurate results, we used two types of econometric methods: the time series estimation (OLS and ARDL) models for individual countries, and the panel regression (EGLS and DOLS) methods for all countries taken together as a group. The results of this study show that the examined financial crises have negatively influenced GDP, exports, exchange rates, and inflation in Iraq, Iran, and Turkey. However, the effects were of different levels. The evidence from the time series models shows that the Asian financial crisis posed a significant negative effect on GDP, especially for Iran and Iraq. Likewise, the global financial crisis caused a considerable negative influence on export in all counties. Nevertheless, both crises negatively affect inflation, representing a desired outcome since inflation is a key macroeconomic problem that all governments attempt to minimize it. As for the estimated panel regression models, the results from the EGLS and DOLS slightly differed. While the exchange rate exerts a negative effect on GDP in the former, it has a positive effect in the latter. However, in both models, export positively affected GDP, whereas inflation is negatively influenced GDP. The study might suggest several policy implications. First, fiscal stimulation is an important approach to conducting local countercyclical policy efforts. In times of good economic conditions, hard fiscal policy generates defenses to use countercyclical position during crises. In addition, supervision and prudential regulation are necessary to prevent an increase in the types of vulnerabilities that are specifically correlated with credit booms.

6. The study of (Faiq, 2021:110-115):
(The Effect of the Financial Crisis on Investment Projects).

These studies investigate (The Effect of the Financial Crisis on Investment Projects) in the Kurdistan region which is implemented by domestic and foreign investors through the Board of Investment which is licensed under law No: 4 of 2006. Also, determine the trend of investment projects and the

investment climate in the Kurdistan area by analyzing and comparing how financial crises affect Kurdistan's economic development. Because they are meaningful dimensions of growth over time, the data and information analysis are based on the compound annual growth rate (CAGR) Gordon growth model and model estimation using the Autoregressive Distributed Lag (ARDL) approach with the stationary test. The key of this research discovered a negative relationship between crises and both growth and investment; as a result, the impact of investment projects on economic development is influenced by fluctuation and instability. Furthermore, the duration of crises varies by type and between developed, developing, and emerging economies. Furthermore, the current study shows the cooperation of two unique financial crisis times in the Kurdistan region: eight years before and four years after the financial crisis. The financial crisis has had a significant effect on investment approaches in a variety of areas, including capital trends, industries, governorates, investment types, and several licensing projects.

1.3.2 The studies related to (crisis management)

There is a review of some studies which include the moderate variable (crisis management). Because of the importance of the CM, it is used in a different study in every subject as discussed in these studies below:

1. The study of (Aljuhmani and Emeagwali, 2017):
(The Roles of Strategic Planning in Organizational Crisis Management: The Case of Jordanian Banking Sector).

This research aimed to identify the roles of strategic planning in organizational crisis management in Jordanian banks in Ramtha. The main goal of conducting this research is to measure the external and internal orientation in strategic planning and crisis management from four different perspectives: Signal detection, preparation and prevention, crisis recovery,

and learning on Jordanian banks in Ramtha. The research provides a substantial and original contribution in the fact that it deals with the economic sector, the banking sector, which is one of the most vulnerable sectors of the crises, especially in light of the political conditions, and economic instability. This study is descriptive-analytical research that uses a questionnaire survey design to gather and analyze a variegated array of information on Jordanian banks in Ramtha and identify the level of the strategic planning exercise in crisis management. this research tested hypotheses using multiple linear regression analysis to test the stages of crisis management effects on the four dependent variables (signal detection, preparation and prevention, crisis recovery, and learning). It also testes the interrelationship among the one independent variable (attention to internal and external environments) to test the role of strategic planning in crisis management covered by our study. The research concluded that strategic planning can contribute to the development of both operational capabilities and an enhanced capacity to learn both during and after the crises. This study reveals that Jordanian banks in Ramtha as a corporate body has a clear strategic plan to face and avoid crisis when they occur, which is articulated to all of its employees at various levels and departments within the bank. It reveals that there is an existence of strategic planning exercise in crisis management and there is a strong relationship between strategic planning and crisis management in Jordanian banks in Ramtha adopted by employees of the bank and hence affects the banks performance positively.

2. The study of (Rajprasad, Thamilarasu, and Mageshwari, 2018):
 (Role of Crisis Management in Construction Projects)

The study explores the Crisis management method which is formed by the organization to overcome the crisis. Crisis management is important, which helps in the completion of the construction project on time. The research

gives a theory of how to manage the crisis management with the factors which lead to a crisis in the construction project. However, only when the work flow continues without any interruption even during the crisis that crisis management method is effective. For forming an effective crisis management technique, the probability of crisis in construction projects must be identified as each factor have its unique effects. Depending upon major factors like technical, labor, organizational, material, time, equipment, communication, financial and other factors which are responsible for the cause of the crisis in projects are considered. The research is carried out through a survey questionnaire which was introduced to project managers at the sites. The interview was conducted face-to-face with the concerned personnel and the response was recorded. The collected responses were documented and the same were analyzed. Construction companies use different approaches to crisis management to prevent crises. The research reached that Crisis that affects construction projects either periodically or suddenly. On considering the major factors Men, Materials, Money and Machinery, Financial and other factors which are responsible for the crisis in the construction projects. By considering the Solving approach with SWOT analysis and Proactive the construction companies should solve the crisis in the construction projects with minimal loss by establishing an early warning system.

3. **The study of (Kapucu and Ustun, 2018):**

   (Collaborative crisis management and leadership in the public sector)

   The goal of this article is to discover how leadership competencies affect the perceived effectiveness of crisis management. The study, based on a self-reported survey of executive public leaders in Turkey, found that the core leadership competencies have a positive relationship with the effectiveness of crisis management. Amongtask–oriented,people–oriented, and organization-oriented categories of leadership behaviors, task-oriented leadership behaviors

were found with the highest level of impact on the effectiveness of crisis management. The study demonstrated the importance of the core leadership competencies in the effectiveness of crisis leadership. The hypothesis testing with the covariance structure model supported the positive impact of the core leadership competencies on the effectiveness of crisis management. This study contributes to the literature on leadership during crisis situations and also provides proposals for public managers and practitioners to increase their effectiveness in leading their organizations during crises. Also, the study recommended that Education and training programs are the main tools to inform the governors properly. an education and training program needs to be arranged for governors in order to provide them with the required skills and competencies for crisis leadership. Again, these competencies can be a framework for such a curriculum that aims to provide necessary training and preparedness for future governors.

4. The study of (Alves, J.C., Lok, T.C., Luo, Y. and Hao, W., 2020):
(Crisis Management for Small Business during the COVID-19 Outbreak: Survival, Resilience and Renewal Strategies of Firms in Macau).

This study examined that small firms are vulnerable to crises, but little is yet known about how they respond to long crises like the COVID-19 epidemic. This research used a qualitative analysis of small businesses in Macau, China, in the months following the outbreak. The study collected interview data from six local small firms. The study found that the sudden decline in demand has the strongest impact on small firms. As compared with large firms, new startups, and small firms show high flexibility in their reactions to the crisis, partly due to the low level of bureaucracy and limited social responsibility compliance. Thus, this study identified some issues in terms of crisis planning, management, resilience, and renewal. As crisis management is an ongoing process, continuous improvement by embedding

lessons learned can minimize the risk of the next crisis. Local small businesses should strive to enhance their resilience and renewal strategies to survive and recover from this public health disaster rather than relying on assistance from the government. Lastly, the research suggests that firm size, crisis experience, history of the firm, and government regulation are factors that may impact the crisis management, survival, and resilience strategies adopted by the firms. Thus, the study defined survival strategies for small firms in five areas: operations, financial, human resources, products, and networks. also propose a resilience model for local small businesses consisting of five constructs: customer relations, products, financial, dynamic learning, and hardware.

1.3.3 Discuss previous studies

In view of these studies, it seems that each of the studies uses different methods to define the impact of the financial crisis. Thus, the researcher gets benefit ideas to measure financial crises. Furthermore, the similar point of this study with the previous study is financial crises come with investment development, FDI, economic growth, macroeconomic indicators, and investment projects. However, the researcher distinguished the moderate variable CM because it is used in different aspects and with different concepts. It is used with strategic planning, and leadership, even with construction projects and small businesses. The distinguishing features of this study has combined these variables, financial crisis and crisis management and investment in one study and determined the crisis and determine the way of managing theses crises.

1.3.4 The benefits from previous studies

1. The researcher gets benefits from the theoretical background.

2. The researcher gets benefits from historical developments and changes in the subjects.

3. The idea of choosing the stages of crisis management originated by reading previous studies.

4. Brainstorming due to reading previous studies to combine the variables.

5. The researcher gets benefits from statistical tools and methods.

6. The idea of using interviewing method for finding some results about managing   the   crises.

PART TWO

Research Method and Methodology

2.1 The Research Problem and questions

2.2 The Research Objective

2.3 The Research Importance

2.4 The Research Hypothesis

2.5 The Research Model

2.6 The Research Methodology

2.7 Study design

2.8 Data Collection and Method

2.9 Data analysis

2.10 Research Limitation

2.11 Difficulties and Obstacles

PART TWO

Research Method and Methodology

2.1 The research problem and questions

A crisis is a phenomenon that could occur at any time and is unexpected. It may cause harm to firms, organizations, and countries so it's essential to manage crisis and find opportunities in crisis to reach the organization's success in the competitive market. The research problem which applies in the Kurdistan region in the board of investment to realize how to handle investment projects during a different crisis by implementing the scientific criteria of crisis management on the reality of the situation. As well as the crisis can have a negative impact on whole entities, particularly in the investment field. Which causes harm to the growth and development of countries and the KR in particular as well.

We can have formed the research problems in the questions below:

RQ1.Is the crisis management done by the KRG according to scientific criteria to deal with the ISIS crisis of investment projects?

RQ2. Is the crisis management done by the KRG according to scientific criteria to deal with the COVID-19 pandemic crisis of investment projects?

RQ3. Has the KRG managed the financial crises better during the ISIS war crisis or COVID-19 pandemic crisis on the investment projects?

RQ4. Is there a negative influence of the ISIS war crisis on investment projects?

4.1 Is there a negative influence of the ISIS war crisis on the trading sector?

4.2 Is there a negative influence of the ISIS war crisis on the health sector?

4.3 Is there a negative influence of the ISIS war crisis on the industry sector?

4.4 Is there a negative influence of the ISIS war crisis on the service sector?

4.5 Is there a negative influence of the ISIS war crisis on the tourism sector?

4.6 Is there a negative influence of the ISIS war crisis on the transportation sector?

4.7 Is there a negative influence of the ISIS war crisis on the education sector?

4.8 Is there a negative influence of the ISIS war crisis on the agriculture sector?

4.9 Is there a negative influence of the ISIS war crisis on the housing sector?

4.10   Is there a negative influence of the ISIS war crisis on the sport sector?

4.11   Is there a negative influence of the ISIS war crisis on the bank sector?

4.12   Is there a negative influence of the ISIS war crisis on the art sector?

RQ5. Is there a negative influence of the COVID-19 pandemic crisis on investment projects?

5.1 Is there a negative influence of the COVID-19 pandemic crisis on the trading sector?

5.2 Is there a negative influence of the COVID-19 pandemic crisis on the health sector?

5.3 Is there a negative influence of the COVID-19 pandemic crisis on the industry sector?

5.4 Is there a negative influence of the COVID-19 pandemic crisis on the service sector?

5.5 Is there a negative influence of the COVID-19 pandemic crisis on the tourism sector?

5.6 Is there a negative influence of the COVID-19 pandemic crisis on the transportation sector?

5.7 Is there a negative influence of the COVID-19 pandemic crisis on the education sector?

5.8 Is there a negative influence of the COVID-19 pandemic crisis on the agriculture sector?

5.9 Is there a negative influence of the COVID-19 pandemic crisis on the housing sector?

5.10 Is there a negative influence of the COVID-19 pandemic crisis on the sport sector?

5.11 Is there a negative influence of the COVID-19 pandemic crisis on the bank sector?

5.12 Is there a negative influence of the COVID-19 pandemic crisis on the art sector?

RQ6. Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the investment projects?

6.1 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the trading sector?

6.2 Is there an equal influence of the crises on (ISIS war crisis or COVID-19 pandemic crisis) in health sector?

6.3 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the industry sector?

6.4 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the service sector?

6.5 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the tourism sector?

6.6 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the transportation sector?

6.7 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the education sector?

6.8 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the agriculture sector?

6.9 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the housing sector?

6.10 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the sport sector?

6.11 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the bank sector?

6.12 Is there an equal influence of the crises (ISIS war crisis or COVID-19 pandemic crisis) on the art sector?

2.2 The Research Objective

1- Discuss the reality of the situation of the crises (ISIS war crisis or COVID-19 pandemic crisis) from the year 2012 until 2022 in the KR.

2- The definition of the global crises and how it turns into financial crises in the region and their repercussions on investment developments.

3- Highlight the role of the governments reaction in managing investment projects while there is the existence of a crisis.

4- Comparison between the method of crisis management by the KRG depending on the scientific criteria of crisis management.

5- Analyze the reality and developments of the investment sectors in the KR during pre-crises and crises.

6- Analyze the influence of the financial crises (ISIS war crisis and COVID-19 pandemic crisis) on investment developments for each sector separately.

7- Comparison of the influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on investment development.

8- Provide an overview picture of the investment situation in the region.

2.3 The Research Importance

the importance of research can be embodied through the following aspects:

2.3.1 The importance of the study from the academic aspect:

The importance of research in terms of financial crisis management, after it became clear from a review and a large number of previous theoretical and applied studies that there is a scarcity of studies in the region. Furthermore, this study is a new method of research in the region that the future study can be used to diversify the ways of study.

2.3.2 The importance of the research from the region aspect:

It is the first study that discusses the way of managing the crisis and finds solutions to minimize the damage of the crisis, also brings the scientific principles of crisis management to the reality of KR. It also does not stop there, the study comparing the management method at the occurrence of the different crises (ISIS war crisis and COVID-19 pandemic crisis) shows which of the way of management crisis was more effective. It also reads the crisis carefully and shows its effects on the development of investment sectors. From two time periods of crisis. And comparing the influence of the (ISIS war crisis and COVID-19 pandemic crisis) on investment projects.

2.3.3 The importance of research at the professional level:

the study such a guidance for the foreign and local investors who want to invest in the region by studying the study can obtain information about the situation of investment in the region, and which sectors are best to invest. As well as, the study such a guidance for confronting the crisis that the investors how can handle the crises.

2.4 The Research Model
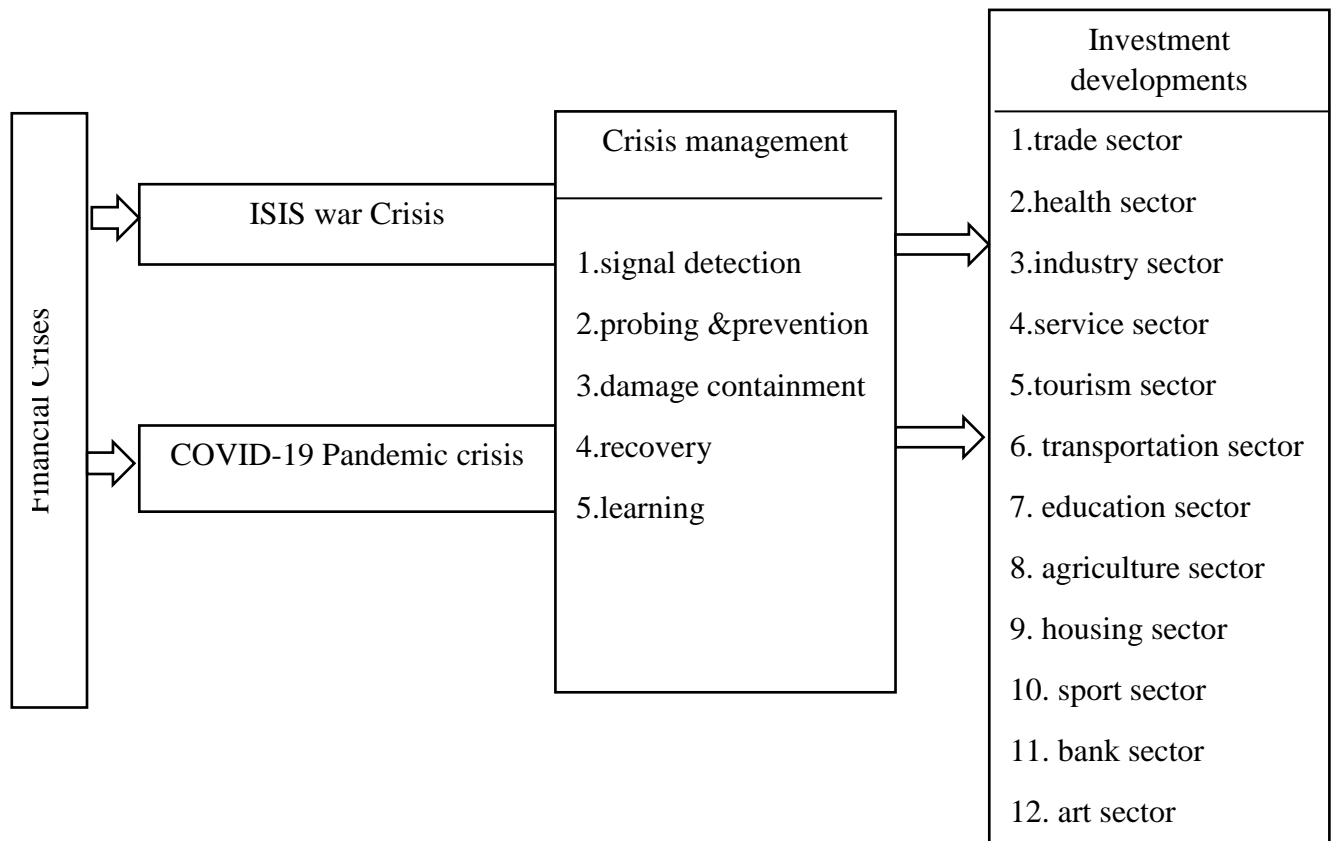
Figure (3): The research model

Source: prepared by researcher

The model illustrates that the Independent variable is (financial crises) with two dimensions. Besides, the model has a moderate variable (crisis management) which through implementing the crisis management stages at the time of the occurrence of different crises (ISIS war crisis and COVID-19 pandemic crisis) can the influence of the investment developments for all the sectors of the investment. Also, (investment development) is the depended variable.

2.5 The Research Hypotheses

In order to answer the questions raised in the research questions and in agreement with the objectives of the research, the research seeks to test the following hypotheses:

1. **First main hypothesis:** KRG used the scientific criteria to handle and manage the ISIS crisis of investment projects.

2. **second main hypothesis**: KRG used the scientific criteria to handle and manage the Covid-19 crisis of investment projects.

3. **Third main hypothesis:** Managing the financial crises done by KRG was better during the COVID-19 epidemic crisis on investment projects.

4. **Fourth main hypothesis:** there is a negative influence of the ISIS war crisis on investment projects.

The main hypothesis includes sub-hypothesis as below:

4.1 There is a negative influence of the ISIS war crisis on the trading sector.

4.2 There is a negative influence of the ISIS war crisis on the health sector.

4.3 There is a negative influence of the ISIS war crisis on the industry sector.

4.4 There is a negative influence of the ISIS war crisis on the service sector.

4.5 There is a negative influence of the ISIS war crisis on the tourism sector.

4.6 There is a negative influence of the ISIS war crisis on the transportation sector.

4.7 There is a negative influence of the ISIS war crisis on the education sector.

4.8 There is a negative influence of the ISIS war crisis on the agriculture sector.

4.9 There is a negative influence of the ISIS war crisis on the housing sector.

4.10 There is a negative influence of the ISIS war crisis on the sport sector.

4.11 There is a negative influence of the ISIS war crisis on the bank sector.

4.12 There is a negative influence of the ISIS war crisis on the art sector.

5. **Fifth main hypothesis:** There is a negative influence of the COVID-19 pandemic crisis on investment projects.

The main hypothesis includes sub-hypothesis as below:

5.1 There is a negative influence of the COVID-19 pandemic crisis on the trading sector.

5.2 There is a negative influence of the COVID-19 pandemic crisis on the health sector.

5.3 There is a negative influence of the COVID-19 pandemic crisis on the industry sector.

5.4 There is a negative influence of the COVID-19 pandemic crisis on the service sector.

5.5 There is a negative influence of the COVID-19 pandemic crisis on the tourism sector.

5.6 There is a negative influence of the COVID-19 pandemic crisis on the transportation sector.

5.7 There is a negative influence of the COVID-19 pandemic crisis on the education sector.

5.8 There is a negative influence of the COVID-19 pandemic crisis on the agriculture sector.

5.9 There is a negative influence of the COVID-19 pandemic crisis on the housing sector.

5.10 There is a negative influence of the COVID-19 pandemic crisis on the sport sector.

5.11 There is a negative influence of the COVID-19 pandemic crisis on the bank sector.

5.12 There is a negative influence of the COVID-19 pandemic crisis on the art sector.

6. **sixth main hypothesis:** There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on all sectors.

The main hypothesis includes sub-hypothesis as below:

6.1   There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the trading sector.

6.2   There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the health sector.

6.3   There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the industry sector.

6.4   There is a different influence of the crises on (ISIS war crisis and COVID-19 pandemic crisis) service sector.

6.5   There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the tourism sector.

6.6   There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on transportation sector.

6.7   There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the education sector.

6.8   There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the agriculture sector.

6.9   There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the housing sector.

6.10 There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the sport sector.

6.11 There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the bank sector.

6.12 There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the art sector.

2.6 Research Methodology

in view of the data that we referred to in the previous paragraphs related to the subject of this thesis, has relied mainly on two approaches that complement each other with the aim of reaching the goal of the research. These two approaches are as follows:

1- The analytical approach: the analytical approach is based mainly on analyzing the data of investment sectors, to observe the developments of projects in each sector before, during, and after the crises period.

2- The comparative approach: It is based mainly on making a comparison between the way of KRG's financial crisis management during ISIS war crisis period and COVID_19 pandemic crisis period. on the other hand, a comparison between the influence of ISIS war crises and COVID_19 pandemic crises on investment sector developments.

2.7 Study design

This study has utilized Secondary research is frequently known as desk research since it includes combining material from the internet, peer-reviewed publications, textbooks, government archives, and libraries.

The study used Quantitative method and Qualitative methods. The researcher used a quantitative method for primary Data to investigate the crisis influence which was estimated statistically by SPSS, moreover, financial analysis was used to read the number of capitals in dollars and a number of projects to observe the changes. for that purpose, Microsoft Excel was used for organizing, and arranging the tables and figures.

On the other hand, the study used a qualitative method as an interview method in which the researcher used an open-ended question so that in-depth information will be collected. The aim of the interview method is to collect data about (how the KRG managed financial crises using the scientific criteria of crisis management). Furthermore, fifteen questions were asked to the

individuals who are expertise and have an exceptional knowledge about the subject for that purpose the researcher direct interviewed four general directors in the Board of investment and General Directorate of Investment in Erbil.

2.8 Data Collection and Method

Data has been obtained entirely from primary sources to achieve the study's specific goal. The primary data comes from the following sources:

- The Board of Investment (BOI) in the KR.

- The (BOI) annual reports

All the data is realistic and reliable and the data is derived from the Board of Investment. The sample of data such as the investment projects with twelve different sectors such as (trading, health, industry, service, tourism, transportation, education, agriculture, housing, sport, bank, and art) randomly. with several projects and the capital of this project in dollars. Entire projects are license projects. Also, the nationality of investment such as (foreign investment, joint venture investment, and local investment) all derived from BOI in the KR.

Whole the information was gathered in Kurdistan Region-Iraq from the year 2012 until 2022. To investigate the impact of financial crises (ISIS war crisis and COVID-19 pandemic crisis) on investment projects from the year 2012 until 2022.

Also, the researcher has visited the BOI and Directorate of Investment in Erbil. For the interview method to collect data about the research. Interview questionnaire forms were prepared depending on financial crisis management principles about the understanding of the reality of the situation and to distinguish the government's reaction from each stage of crisis management stages pre-crises, during, and post-crisis period.

2.9 Data analysis

1. The findings were analyzed to determine the role of KRG to manage the financial crisis, depending on Mitroff's five-stage model. The analysis used a content analysis method in which the individual responses were compared to reveal the common response presented by participants. And these variables are highly supported with documents.

2. Comparing the answers of the participants with the reality of data.

3. Data was analyzed statically by using SPSS to investigate the crisis influence on the investment development for all sectors.

4. Financial analysis is used to read the number of capitals in dollars to observe the changes, for all the investment sectors.

5. Quantity analysis of the number of projects for all the investment sectors.

6. Financial analysis for each sector during both crises.

7. Static deviation and average arithmetic are used for comparing the capital in dollars at two different times.

8. Comparing between both crises with each other.

9. Collecting whole the decisions, regulations, and injunctions which issued during both crises period by local government. Showed in the appendix to make the answers reliable with documentation.

2.10 Research Limitations

The research data included two borders time and place borders as shown below:

2.10.1 time Limitations:

The study will investigate the data and information from 1-1-2012   till 31-12-2022. This period was taken because the ISIS war crisis occurred between the year 2014-2017 and the COVID-19 pandemic crisis between

2020-2022. Thus, the research took two years before the ISIS crisis of 2012-2013 and two years before COVID-19 pandemic crisis of 2018-2019.

2.10.2 Place Limitations:

The study investigates in Kurdistan region as a sample which contains three governorates (Erbil, Sulaymaniyah, and Dohuk). and collect data from the Board of investment in the Kurdistan region.

2.11 Difficulties and Obstacles

The researcher faced several obstacles from the beginning of writing the thesis to the end of the written:

1. Due to the lack of transparency and lack of primary data about the factors that are the main motivation for the occurrence of financial crises, it was difficult to find financial data.

2. Visiting the BOI many times with an aim of obtaining data and doing an interview with managers.

3. The data which derived from the BOI was taken at different times, and the numbers changed so it was difficult to re-correct all the numbers.

4. Lack of similar research about that title. This title is a new subject that combined three variables in one study. This reason made a lack of clarity and created more difficulties.

5. The researcher had to rewrite the hypotheses and the title of the study many times to obtain the best title which can suit the study design.

6. The statistical analyses were need more data to analyze the data, and always there is difficulties to analyze all the data.

PART THREE

Implementations, Results, and Data Analysis

Chapter One: Research Sample Description

Chapter Two: Financial crises in the KR-Iraq

Chapter Three: Direct visiting and Interviews

Chapter Four: data analysis for the investment projects

Chapter Five: Testing Research Model and Hypothesis

Chapter One
Research Sample Description
3.1.1 Board of investment (BOI) in the KR-I

KR is a part of north Iraq with the neighborhood of Turkey, Iran, and Syria. The region has a stable security situation in which it operates. This region compared to other regions in Iraq is known to be the safest region in the area. Which can be a good environment for investing. the peaceful security situation in the region has had a positive effect on investment by foreign investors in the region as feel reassured that their investments are safe in the region. Also, it is rich in natural and human resources. They do not have this sense of safety and security in other parts of Iraq which has hindered investment in the rest of Iraq.

The regional government has made a lot of determined efforts to provide an attractive investment environment in the region and from all sides, where The Kurdistan board of investment (BOI) is established on 1/Aug/2006, and the Investment Law No. (4) of 2006 was issued, which has great privileges for investors and established the Investment Commission with the degree of a ministry and gave it great attention as well as the establishment of the Supreme Council for Investment headed by the Prime Minister, they are responsible for promoting and supporting investment opportunities in the Kurdistan region, assisting investors, and authorizing licenses across all sectors. with continuous emphasis on the support of the private sector and local and foreign investors. The main reason for issuing this rule is to pay attention to all the sectors except oil and gas, providing an investment environment in the region as well as to remove administrative, technical, and legal barriers to the private sectors.

3.1.2 Area of investment in KR:

1. Manufacturing industries, electric power, and related services

2. Agriculture, whether crop growing farms or animal farms, forests, and related services

3. Hotels, tourist and recreational projects, funfairs, and amusement parks

4. Health and environment

5. Scientific and technological research, and information technology

6. Modern communication and transportation

7. Banks, insurance companies, and other financial institutions

8. Infrastructure projects, including construction, reconstruction, and housing projects, roads and bridges, railways, airports, irrigation, and dams

9. Free zones, modern commercial markets, and relevant advisory services

10. Education at all levels, within the framework of the educational policy of the Region

11. Any project in any other industry which the Council agrees that it is covered by the provisions of this Law

Chapter Two

Financial Crises in the KR-I

3.2.1 Financial crisis in Kurdistan region

The financial crisis has had many negative impacts on the overall investment process in the world and the Kurdistan Region of Iraq as well. This chapter is specialized to describe the crises and their factors in the region.

The region had a hard situation in that period because KRG suffered two main financial crises from 2012 until 2022. These crises have different distinctive therefore they need different tools to handle them. The study separates the crisis into two groups depending on the time of crisis occurrence. Also named the crisis as the first crisis which occurred in the summer of the year 2014 and named the second crisis which occurred in late 2019.

3.2.2 First crisis:

The first crisis was the ISIS war crisis that happened and affected the region but this crisis brought several other disasters, four main factors pushed the region into a financial crisis each of them deliberated as below:

1. **Cutting the KRG budget from the Iraqi federal government.**

   The KRG receives the annual budget from the federal government for KRG and investment projects at the end of every financial year, and the budget for the next year is prepared and approved by the Iraqi Council of Ministries (COM). federal government's refusal to allocate the regional budget in early 2014 was the biggest challenge that the government of Kurdistan faces.

   The number in the table (3) retrieved from parliament site also these numbers exist in the law of Iraqi budgets and depending on the table (3) from 2009

KRG received its budget from Iraqi federal by (8,857,263,000,000) Iraqi dinar but only (2,303,338,000,000) used for investment projects. The budget from 2010 that KRG received from the Iraqi federal was increased to (11,432,176,000,000) as well as the amount for investment projects was increased to (3,543,074,000,000). And from 2011 the total budget for KRG was raised up to (13,950,670,000,000) and the amount budget for investment projects a little bit climbed to (3,852,000,000,000). Also in 2012, the total budget for KRG increased to (15,245,797,000,000) but otherwise, the budget for investment projects in KRG decreased slightly to (3,678,437,000,000). In the year of 2013, the increasing amount continued to (16,942,749,000,000) Iraqi dinars as well as the budgets spent on investment projects climbed in this year to (4,419,492,600,000). after 2014 there were no more budgets for KRG, the COM was unable to approve and resolve the budget, since the Kurdistan ally protested during the reading of the budget law, and thus the COM could not agree on the federal budget (Ramazan: 2016). Thus, due to the lack of an approved economic policy, the federal government was unable to finalize the budget for 2014, and the country was left without a fiscal policy until now.

Table (3): KRG budget

year	Total budget for KRG	budget for investment projects
2009	8857263000000.00	2303338000000.00
2010	11432176000000.00	3543074000000.00
2011	13950670000000.00	3852000000000.00
2012	15245797000000.00	3678437000000.00
2013	16942749000000.00	4419492600000.00
Total	66428655000000.00	17796341600000.00

Prepared by the researcher based on the reports of the budget laws of the Kurdistan Parliament site.

1. ISIS war crisis

ISIS (Islamic State in Iraq and Syria) it was threatened the whole world in 2014 and many countries affected by them, especially Iraq and Syria as well as Kurdistan Region, according to (Wilson center, 2019) ISIS, also known as ISIL or Daesh, in origin, it comes from the remnants of al Qaeda in Iraq (AQI), which at first created by Abu Musab al Zarqawi in 2004. but because of US soldiers in Iraq, they faded until 2011, because of instability in Iraq and Syria it took advantage to bolster its ranks and carry out attacks. (Khan and Estrada, 2016:1650) stated that ISIS is a terrorist organization that has taken control of territory in eastern Syria and Iraq. The major goal of this group is to create a state based on Islamic principles, governed by a religious leader known as the "Caliphate.". (Luna and Zoltan, 2015) highlighted that ISIS recruits from all over the world, including North Africa and Europe, but mostly from the Arab world. But the most affected country which affected that argued by (Omer and Yeşiltaş, 2020) the top five economies severely affected by terrorism, according to the Global Terrorism Index (GTI) and database, are emerging nations, Iraq has been rated as top since 2013. Though the Kurdistan region is part of the north of Iraq, that is hardly affected. Reviews of (Faiq ,2021:109) Previously, the KRG had to face a military campaign against ISIS, a humanitarian crisis as a result, of central government budget cuts, lower oil prices, a major impact on the trade of goods and services, and local political instability. As a result of the war against ISIS the Kurdistan region's economy has been affected badly and instabilities begin the KR has been engaged in a serious financial crisis since 2014, harming the economy and people, particularly in the private sector and investment projects.

2. Receiving a huge number of refugees.

The shock begins for KR due to the attack of the Islamic State of Iraq and Syria (ISIS) on Iraq and Syria caused the ISIS crisis, the advance of ISIS has forced many people from Syria to leave their cities and settle in the Kurdistan region. (Kulaksiz et al, 2015) affirms that due to Syrian civil war and the ISIS insurgency caused thousands of people to flee their houses and countries and these people came to the Kurdistan region as a refugee from Syria to choose relative safety, this situation is famed as a humanitarian crisis. KRG is facing an economic and humanitarian crisis as a result of the influx of Syrian refugees (starting in early 2012) and more recently the Internally Displaced Persons (IDP) in 2014. A key priority of the KRG has thus been to bolster internal and external security, diverting an increasing share of public finance towards defense and security spending a large number of refugees from Syria came to the region and this put a lot of pressure on the region. Thus, the KR's population increased and unemployment rates increased. At the beginning of 2015, a large number of refugees came to the region, there were (1,478,143) persons of Syrian refugees and Iraqi IDPs in the KR as shown in the table (4). In addition, there were (1,641,843) persons in the year 2016. As a result, the population of KRI has grown by 28% (World Bank, 2015:2). and according to a newly completed KRG – World Bank report, economic growth contracted 5 percentage points in the Kurdistan Region of Iraq (KRI), and the poverty rate more than doubled increasing from 3.5 percent to 8.1 percent (world bank, 2015).

Table (4): Number of IDPs and refugees in KR.

Year	Number of IDPs and refugees
2015	1,478,143
2016	1,641,843
2017	1,463,686
2018	1,479,967
2019	1,509,373
2020	1,052,425
2021	926,018

Prepared by the research based on humanitarian situation reports from Joint Crisis Coordination Centre.

3. The decline of the oil price.

The KR is facing a multifaceted and complex crisis compounding concurrent and mutually aggravating security, political, economic, and social risks. The critical concern in the KR's macroeconomic measures is complete dependency on oil revenues, and the distribution of wealth, which triggered drawbacks in economic growth rather than healthy progress for the region.

The world economy experienced one of the biggest oil price shocks in modern history between mid-2014 and early 2016. As shown in figure (4) in late 2014 and early 2015 the price of Brent crude oil and West Texas Intermediate sharply decreased. crude oil prices per barrel have fallen from around 112 USD to 97 USD in September and 62 USD by December.

Factors for this shock, Supply factors appear to have played a predominant role, particularly during the first stage of the price drop, from mid-2014 to early 2015. Rising production and efficiency gains in U.S. shale oil, diminishing supply disruptions in the Middle East, and OPEC's decision in November 2014 to abandon price controls amplified the market perception of a significant supply glut. However, disappointing global growth during the

second stage, from mid-2015 to early 2016, meant that demand factors also played a significant role during this period (Stocker et al, 2018: 13).

The decline in prices has hit the KRG economy hard, the lack of diversification in the economic sectors and the heavy dependence on the oil sector have made the economy of the Kurdistan region vulnerable to the recent crisis. brought adverse impacts on the economic growth in the region and then on financial that made a financial crisis in Iraq and particularly in the KRG. 100 thousand foreign and local workers have lost their jobs since the beginning of this year because of the financial crisis in Kurdistan. A combination of factors has been adversely affecting domestic economic activity in 2014. The impact of These crises remained till the years 2015, 2016, and 2017.
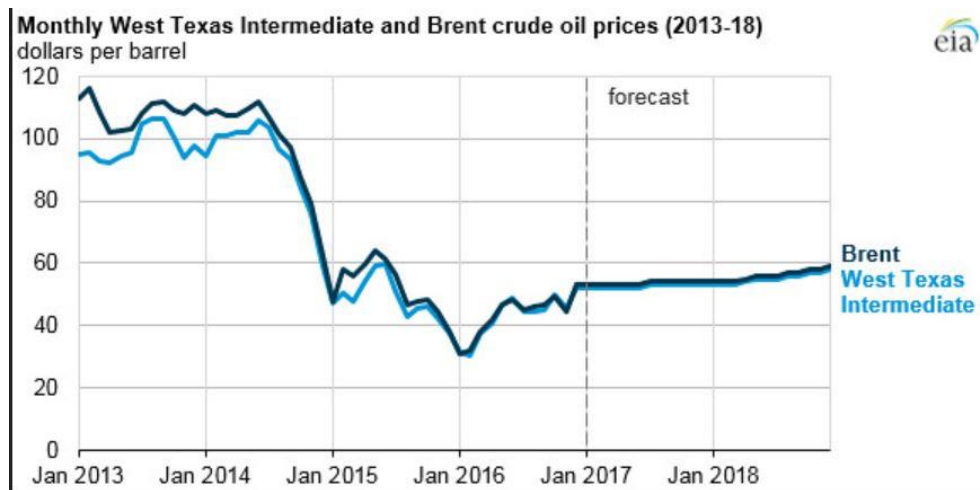
Figure (4): Crude oil prices from (2013-2018)

Source: Energy Information Administration (EIA).

3.2.3 Second crisis: COVID-19 and Crisis in KR

The COVID-19 pandemic began in December 2019 in the city of Wuhan, which is located in the Hubei region of China. The virus is still spreading over the world (McKibbin and Fernando, 2020:45). Hospitalizations for pneumonia with the multiorgan disease have abruptly increased significantly as a result of the coronavirus disease 2019 (COVID-

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19) pandemic. COVID-19 is caused by the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The SARS-CoV-2 infection may be asymptomatic or it may result in a variety of symptoms, including sepsis and mild upper respiratory tract infection symptoms. When a cluster of patients in Wuhan, China, was diagnosed in December 2019, COVID-19 first became known. SARS-CoV-2 has affected more than 200 countries as of July 1, 2020, resulting in more than 10 million cases that have been identified and 508 000 deaths that have been confirmed (Wiersinga et al, 2020: 783).

The pandemic affected the whole world and disrupted the country's development, The COVID-19 virus has caused previously unheard-of limitations on both human and economic activity, as well as the proclamation of national emergencies in most European and North American nations. National healthcare systems are under pressure due to an increase in the demand for urgent treatment and growing death rates. International trade and supply systems are being disrupted by the epidemic. The movement of people and tourism flows have come to an immediate halt because of roughly 100 nations closing their borders. In these nations, millions of employees are cruelly facing the risk of losing their employment. There is a general consensus among economists that the worldwide COVID-19 new coronavirus pandemic would cause economic harm (Mishra, 2020:5).

The pandemic affected the whole world and disrupted the country's development, countries are implementing a variety of precautions, including lockdowns, reducing crowds, school closures, nonattendance at work, transportation stoppage, halting educational institutions, etc. Most governments throughout the world took these precautions to prevent the spread of the COVID-19 pandemic (Tarkar, 2020).

The crisis of the COVID-19 virus has had a large impact on the world, also KRG does not far from the crisis of COVID-19 virus at the beginning of the year 2020 faced to this crisis. When Iraq's Kurdistan Regional

Government discovered about the first few cases of COVID-19, it made the decision to initiate a lockdown. In this unprecedented situation, the government took rapid measures to stop the infection's spread, including canceling gatherings and religious rites, closing schools and educational institutions, closing airports and borders, and announcing state-imposed community-wide containment that could successfully stop the infection's spread (Hussein, 2020). Kurdish borders were fully closed with its neighbors (with Iran on 21 February; Syria on 1 March; Turkey on 29 February 2020) and the rest of Iraq by mid-March. A complete lockdown was imposed on 13 March, with movement restrictions between and inside governorates, and the prohibition of land and air travel. (Taha, Beaujouan, and Rasheed, 2021:3). Between 5 march 2020 and June 2020, the regional government ordered people to stay at their homes and not go out except for emergencies (Abdullah et al, 2021: 370). The majority of community centers had been shut down, educational institutions had stopped visiting outside of their own cities, and land and airport operations had been curtailed or halted. the regional government of Kurdistan has applied a robust transportation restriction system. Moving between provinces has been limited and controlled (Abdullah et al, 2021: 377). determined that people must stay at their homes. This did not go well for people whose income relies on going out and finally, it deteriorated the internal economy, the lockdown was loosened at the beginning of June (Abdullah et al, 2021). the total $9.6 billion (2010 estimate) KRG public budget, an equivalent of over $14 million was spent to combat the spread of the new coronavirus disease. These funds were dedicated to boosting the performance of health personnel, COVID-19 testing capabilities, the number of medical supplies in all provinces in the region, and redesigning major public hospitals into specialized COVID-19 centers (Shehata D et al, 2021).

As of 5 May 2021, there have been 152,777 confirmed cases with 130,249 recoveries, 4,057 deaths, and 18,471 active cases. Duhok has had the highest number of confirmed cases with 58,100, followed by Erbil and Sulaymaniyah (Shehata D et al, 2021).

COVID-19 has strongly affected and slowed down economies worldwide, limited transportation, reduced travel and tourism, shuttered holy places, and dramatically decreased the price of oil.

The oil price is volatile due to disruptions caused by the COVID-19 outbreak. Iraq's economic issues have been made worse by the COVID-19 pandemic and the drop in oil prices as a result of Iraq's voluntary reduction in crude oil output in (2020) as part of the OPEC+ agreement, which also includes Federal Iraq and KRG under the control of the Kurdistan Regional Government (Asaad, 2021:562).

In Iraq, oil is the only way to gain foreign exchange to the country since (2003) and more than (90%) of total government revenues come from crude oil export revenue (Asaad, 2021:562). The region of Kurdistan's economy is mostly dependent on net exports from the oil sector. Oil prices and demand have been affected by the pandemic-induced worldwide recession. Smaller producers, such as Iraqi Kurdistan, have little choice except to wait till the price rises again (Abdullah et al, 2021: 380-381).

KRG has been hit particularly hard, with oil prices falling. The region's oil price and production crashed due to the spread of COVID-19 in 2020. KR's oil and gas sector audit was performed by the international auditing firm Deloitte. According to Deloitte annual reports, the sales of KR's oil decreased to its half by % 48.1.

Table (5): Gross value of crude oil in KR

year	Net cash balance received by the KRG
2017	$3,891,513,211
2018	$4,343,741,250
2019	$4,515,421,625
2020	$2,345,477,711
2021	$3,964,814,502
2022	$2,915,826,507

Prepared by the research based on the data of Deloitte annual reports.

As shown in table (5) the region's total exported and consumed oil for the year 2019 stood at ($4,515,421,625), after global markets crashed during the year 2020 the sold rate of crude oil decreased, and the rate of crude oil sold became ($2,345,477,711).

3.2.4 Global GDP and Iraq GDP.

Figure (5) proves the GDP growth rate of the world. to know the health of the world during the crisis period. The world GDP growth rate for 2018 was 3.28% but the World GDP growth rate for 2019 was 2.61% in comparison with 2018 declined percentage is 0.66%. however, the World GDP growth has dramatically deteriorated because of COVID-19 in 2020, GDP rate dropped to -3.27%, a 5.89% decline from 2019. this crisis has substantially reduced economy activity across the world. Nonetheless, the World GDP growth rate climbed in 2021 to 5.80%, a 9.07% increase from 2020. It indicates the year after COVID-19 world economic state turned better.
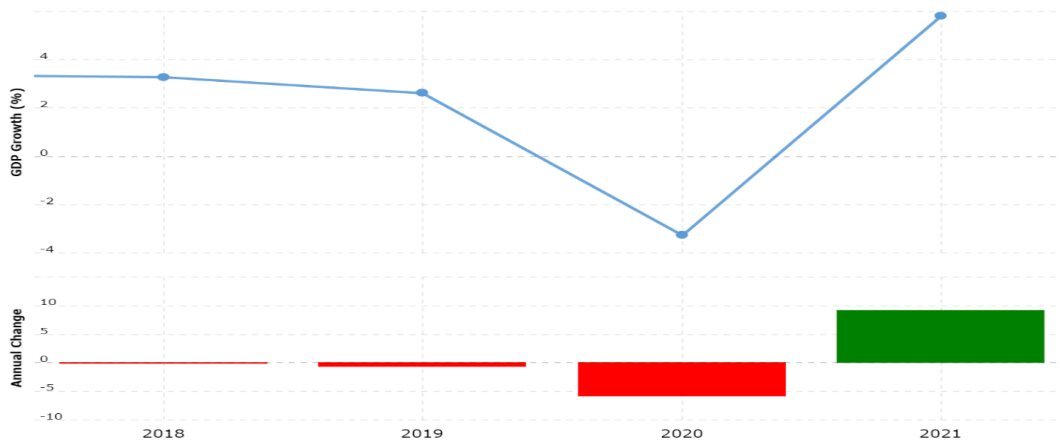
Figure (5): World GDP growth rate

Source: word bank

Figure (5) illustrate Iraq's GDP growth rate between the year 2018 till 2021. to some extent, Iraq's GDP has gone parallel in line with the world's changes. Iraq's GDP growth rate for 2018 was 2.6 % then Iraq's GDP growth rate for 2019 was 5.5 %. however, Iraq's GDP growth has sharply weakened in 2020 it has fallen to -11.3% financial and economic conditions have dramatically worsened because of COVID-19. However, followed by a modest recovery in this year the Iraq GDP growth rate climbed in 2021 to 2.8 %.
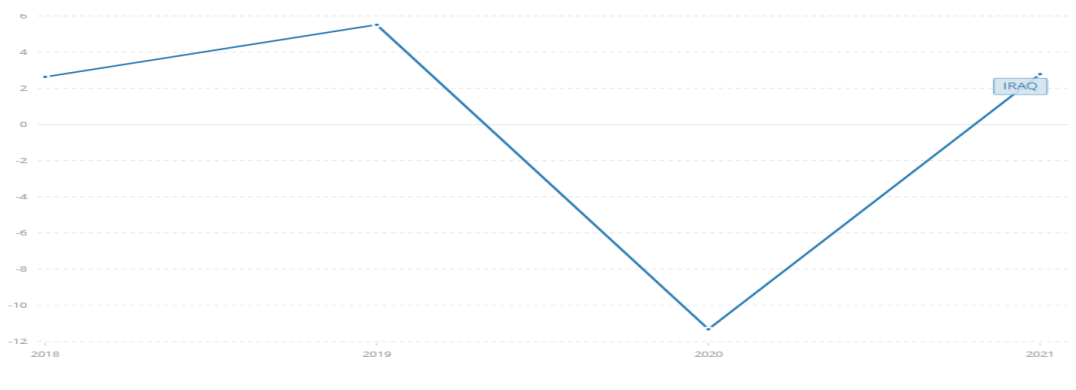
Figure (6): Iraq's GDP growth rate

Source: World Bank national accounts data

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The KR has the worst situation in the year 2014 until 2021. the region struggling to face many challenges such as suffering from terrorism ISIS emergence in (2014), budget deficits, oil price volatility, the COVID-19 pandemic, local conflict, and political instability. All these factors create a major obstacle to economic development and a major cause of crises and problems in the business and investment environment in KRG.

3.2.5 Financial crisis comparison

In the period 2014 to 2021 there is two main crises occurred in the region. The cries have different distinctive. The researcher makes a different between them and compares the crises in the table (6).

Table (6): Financial crisis comparison between ISIS and COVID-19

	ISIS	COVID-19
Duration of the crisis	Begins in the year 2014 it continued until 2017 (3 years)	Begins in early 2020 it continued until 2022(2 years)
Cause of	the deterioration of the people's economic situation, a decline of the oil price, Increased poverty, increased unemployment, and a decline in the region's revenue.	leads to the crisis spreading of the epidemic COVID-19 due to protection issues the region Lockdown its borders and shut down the region's activity, caused to delay in citizens' work. the decline of the oil price makes Economic deterioration and financial crisis.
Threat	External threat	Internal threat
The reason	The reason for the hard situation and suffering crisis in the region can be concluded in five points: 1. attacking ISIS in the region.2. humanitarian crisis. 3. Cutting the KRG's budget from the federal government. 4. Decline of the oil price.	spreading of the coronavirus disease 2019 (COVID-19) pandemic and the decline of the oil price.
Types of the crisis	Conflict and war	Pandemic, contagious disease
The place	It largely affected the Middle East	Spread all over the world

Source: Prepared by the researcher

Chapter Three

Interview and Direct visiting

3.3.1 Introduction:

In the purpose of finding the research independent variable (financial Crisis Management). interview questionnaire method was used with the four general directors in the board of investment and General Directorate of Investment in Erbil. to reach the reality of how the local government managed the crisis for that purpose some of the procedure was conducted by the researcher such as:

1. Visiting the Board of investment and General Directorate of Investment in Erbil.

2. Interview questionnaire forms are prepared depending on financial crisis management principles as has been pointed out from the theoretical framework to comparison with the reality of the situation and to distinguish the government's reaction from each stage of crisis management stages. These stages such as:

   A. signal detection

   B. probing and prevention.

   C. damage containment

   D. recovery

   E. learning.

3. To verify the evidence about handling and managing the crisis in the field of investment data and information was collected such as (decisions, and instructions).

4. determine overall decisions, regulations, and injunctions which issued during both crisis periods by local government.

5. Illustrate the facilities and procedures that provide to investors during the crisis period by the local government.

6. the interview form consists of 15 questions asked by the researcher to four Director generals in two different organizations. appendix (1) shows the manager's information about the date of the interview day, the names, carrier, and their workplace. As well as the study used (A, B, C, D) codes to recognize each person's speech.

3.3.2 Interview questions and answers

The form of interview questionnaire contains fifteen questions prepared by the researcher to reach answers about how the government managed the ISIS and COVID-19 crisis. The questions were openly directed to the four general managers from BOI and the General Directorate of Investment in Erbil. The answers of each manager summarized for each question by the researcher as shown below:

1. How has the financial crisis of 2014 affected the investment sectors?

Investment requires a peaceful environment, which could not be provided because of the war against ISIS, so many foreign investors who intended to come to the Kurdistan Region or invest in Iraq stopped or suspended their businesses Until they know that the situation in Iraq is changing, so it has had an impact on attracting foreign investors and domestic investors as well. A

The amount of production in investment projects decreased, in addition to the arrival of foreign investors and even foreign visitors and tourists to the region and Iraq in some ways decreased. The arrival of ISIS had a negative impact on the investment process from 2014 to 2018 so that in 2012 the Investment Board licensed (129) projects, in 2013 (109) projects, in 2014 (69) projects, and in (30) projects, in 2016 to (32) projects and in 2017 to (34) projects. Here we clearly feel the weakness of the investment movement after ISIS. B

Foreign investment also affected it and continues to do so. C

The arrival of ISIL terrorists had a direct impact on all service sectors and government sectors. After 2014, the arrival of ISIL terrorists had a direct impact, especially on projects owned by foreigners or in partnership with investment projects We can say that most of our projects could not be implemented as planned, i.e., the impacts were directly affected by the implementation of the project. D

2. How has the financial crisis of 2020 affected the investment sectors?

It caused the stoppage of the projects that were under implementation and the projects that people intended to request, they stopped, that is, it caused the postponement of investment projects for a period of more than six months to a year, which will affect investment. A

The coronavirus generally stopped and weakened trade, investment, and economic growth around the world. During the outbreak of the coronavirus, the entire process of life and movement was suspended for several months in the Kurdistan Region and most of the world. B

Some of these projects stopped 100% and some of these factories relied on raw materials imported from outside the Kurdistan Region. and the suspension of trade movements the trade relations that existed between the government and the neighboring countries and the countries of the world were suspended. D

3. What were your plans and strategies when each of the ISIS crises and coronavirus crises existed?

Answers: According to the summary of those who have been engaged, we can say that these were the KRG's plans and strategies during the ISIS crisis in 2014.

Facilitation for investors whose projects were near Makhmoor and in areas were

ISIS was fighting or the type of project was a venture with foreign investors who were trying to delay the implementation of the project or the projects that were growing tried to shrink their projects or capitals. A

Regarding reducing the impact of the crisis on the investment process, it has been easy for investment, whether in facilitating the granting of permission, extending the duration of the implementation of their projects, giving customs and waste, and building markets for the goods and products of the projects. B

In the context of the ISIS crisis, we will inevitably, and the budget cuts by the central government have been discussed with banks that can rely more on ourselves, partly for this project which the finance sources outside of the Kurdistan Region. D

But at the time of the Corona crisis in 2020, the plans that existed included: the main plan was planned in 2020, which was to permit the general directorates of investment, meaning the general administration. The ones in Erbil, Duhok, Zakho, and Soran in the independent administrations of the provinces can evaluate a project and allow it to reduce the routine and the investor can get permission as soon as possible and this is important for the administrative issue. C

as well as in time Corona gave them time to give them the opportunity and implement their projects in this field. A

Receiving traffic approvals at the time of the curfew, we sent several letters to the Interior Ministry and the Ministry of Health to allow investors to work on their projects, as part of projects that were more in the field of investment in the production of oxygen for hospitals than the needs that health departments needed. D

4. **How have you tried to reduce the negative effects of the ISIS crisis on the investment sectors?**

Answers: They have tried to reduce the negative effects of helping foreign investor projects during the ISIS crisis to create more opportunities for investors to implement their projects. A

and they also tried to support the private sector to come and build projects themselves and gave permission for the housing project. C

5. **How have you tried to reduce the negative effects of the coronavirus crisis on the investment sector?**

Answers: permission was given to projects directly related to the corona crisis Such as health care projects in the construction of hospitals, centers, research, and factories for the construction of supplies, medicine, handcuffs, minorities, and sterilization. Until now, these projects are continuing and have products. This provided opportunities for several projects, for example, an oxygen factory established in Erbil that covers all of Iraq, so what we learned in Corona is part of our work to protect the lives of citizens. D

Due to the lack of traffic due to corona, these projects have been delayed, and they have been facilitated to compensate for this period. A

In the 2022 plans, we have drafted several projects so that investors can receive them and permit them. C

6. **how have you used the concept of crisis management in solving both the ISIS crisis and the coronavirus crisis?**

Answers: During the ISIS crisis, the KRG's main plan was to protect and defend the Kurdistan Region. Therefore, projects that help the battlefield, such as military clothing and combat supplies, were allowed. And many necessary decisions were made in terms of security, cooperation, and Peshmerga. D

ISIS did not announce the situation as an unseen crisis, but during the Corona epidemic, we faced it as a concept of crisis. A

7. What were the ways and decisions that were taken to manage the 2014 crisis?

Answers: These decisions were to facilitate banks to extend the duration of the projects, facilitating investors to finance projects when there is a financial crisis through international banks. That the government helped to complete the projects in terms of funding the project. The role of banks was important the government made several decisions in the financial exchequer by giving checks to contractors. D

The government's decisions and actions have generally been to support the investment process and investment projects in such a way that it supports projects in facilitating the import of raw materials abroad, marketing of their products, reducing routines, and facilitating the payment of customs and duty exemptions. B

8. What were the ways and decisions that were taken to manage the 2020 crisis?

Answers: To protect ourselves from the corona epidemic, project affairs, governments, and agencies have all stopped for us, we have seen this period as a period of work stoppage, so we have given investors more time to have more opportunities to complete their projects in the best way. A

We also warned investors not to pressure citizens to give their instalments and to reduce their instalments. D

9. Have facilities and reforms been made to ensure that projects do not stop working and continue during crises, what were the facilities and reforms?

Answers: During all the crises, the KRG has facilitated projects, particularly in giving investors more time to implement their projects, while facilitating transactions and reducing routines and donations. As well as reforms within the framework of the KRG's general reforms, particularly in the nine cabinets, the investment process, and investment projects have benefited and many obstacles have been removed, particularly by overthrowing power and implementing a decentralized system. B

10. Can investment projects grow when there is a crisis?

Answers: The crisis creates major problems, but we can adapt to the crisis, for example, before the crisis, raw materials were exported to the region in neighbouring (Turkey- Iran). But in time of crisis and closing borders, we are thinking about local raw materials. Recently, we have given licenses to three investment projects in the field of the (Recycle, Reuse) project, which has not been thought of before. Also, the project of shish and cement production depends on the local raw materials They also received permission for other projects in the field of agriculture, which now have a lot of local production. So because of this crisis, we reviewed ourselves so that we could rely more on our raw materials. D

In general, in times of crisis, all sectors will be weakened, but if there is a plan to overcome the crisis, the government must develop sectors that will increase local production to reduce the impact of the crisis. such as the importance and development of the industrial and agricultural sectors. B

Of course, our projects didn't stop, and no investor of ours withdrew, but the growth won't be like that in a normal time. A

11. Before the crisis broke out, there were signs that we were heading for a crisis. What were your tools for this purpose?

Answers: The instructions that have been issued are the subject of the independence of the free market in the Kurdistan Region so that we can bring the private sector with the government sector. when the private sector is strong, then the government will be strong. this load on the government will be decreased by making partners with the private sector such as in terms of employment and in terms of providing services. These projects were good projects that we had before the crisis. D

The preparations were to establish a strong infrastructure in partnership with the private sector, the law was an important step to service the country and in order to put financial security in that country, to be the help of the government and to some extent, I can say that before 2014 they achieved their goals but it was not with that strategy and in the way that we can rely on ourselves when closing the border or having a problem or plague. D

As an investment Board, because it is specialized in investing in the private sector, and it is not an institution, a lot of budget and government capabilities to be spent on it, so supporting investment and making the market for their projects and facilitating the work of projects, whether in the pre-crisis era, during the crisis or later, is the only way. B

12. One of the earliest and most important stages of crisis stage is the shock stage. What was your reaction at this stage?

Answers: At this difficult stage, the government decided that protecting citizens' lives was more important than completing an investment project in the ISIS war. One of these tools was used to quickly control some of these problems by alerting investors and project owners to find quick funding and create more job opportunities and reduce burdens on citizens and extend instalments. D

In order to reduce unemployment when granting permission, we set conditions that local employment opportunities should not be less than 75 percent. C

13. Another stage is crisis occurrence or crisis response. What has your response been at this stage?

Answers: Responding to the crisis by the KRG has been directed at reducing its expenditures and reducing the burden of people, investors, and capitalists in providing investment opportunities, working, and developing local products. B

At the time of the crisis, a part of the government's arrangements was to invent a short-term plan to remove the traces of the crisis. Mr. Prime Minister, ministers, and provinces were meeting urgently to set a strategy. D
We encourage investors to create projects that solve crisis problems. C

14. The third step, known as the post-crisis phase, is to return to normal. What was your reaction at this stage?

Answers: After this, we tried to present more projects during the aftermath of the crisis, if compared to the years before the crisis, the number of our projects increased a lot, which means we doubled and tried to fill the gap. A

With the normalization of the ISIS crisis in the Kurdistan Region, the ninth cabinet was formed, and the cabinet announced a comprehensive program to eliminate the traces of the crisis, but after a short period of crisis, the Corona crisis emerged, which was difficult to work with. therefore, since the Corona era, the have reacted by issuing reform laws, developing domestic projects and their products internally, reducing routines, corruption, and decentralizing power. B

We tried to draw up an investment plan with the Ministry of Agriculture, the Ministry of Tourism, and the Ministry of Municipality. The purpose of the investment plan is to allocate some land for us and to study what project this land fits for. It means having a prepared project to attract foreign and local investors again. C

15. How can we learn from these past crises facing the region so that we can have a clear vision in the future when the crisis occurs again?

Answers: - The KRG has taken several steps in all fields after these crises, which are related to investment, and has now directed investments to develop industrial sectors. Agriculture, tourism, and the importance of increasing local products and projects that will become infrastructure projects and steps towards self-reliance and self-sufficiency economy, job opportunities, and increased local products. B

Indeed, these crises have caused us to be able to review the expenditures in terms of ease in terms of how many other things we can care about in which sector as the health sector after corona, we see that the health sector has seen more growth. in other areas of life which are the necessary subjects either in the food product and food security strategy of those subjects that were important and made We can develop all sectors of industry, agriculture, health, education and areas that are very important to these issues. A

What we learn from these crises is not to rely on one source of income, but to support these projects which have a great role on countries infrastructure. so that we can face any crises that are coming forward. For example, creating a big project in the field of industry and preparing for investors. C

3.3.3 Frist crisis (ISIS crisis):

Relying on the manager's responses interviewed by the researcher. we can determine how the KRG has dealt with each of these crises, compared to the scientific principles and crisis management steps that find themselves in five steps, as discussed theoretically.

These steps and methods that the Kurdistan Regional Government has taken in the ISIS crisis at each stage we can display them as follows:

1. Signal detection stage: This is a very early stage in which there are some signs and opinions that we are heading towards crisis, for example, when ISIS emerged in Syria and small groups around the border between Syria and Iraq- Mosul, which is the neighbour of the Kurdistan Region, which is located in the western part of the region, which is a sign of war, so of course, the existence of war in any country means that the country's economic and financial situation is unstable, so it is considered a threat to the region. In early of the year 2014.

   We can say that in this context, the region government did not have an efficiency and tangible reaction but before this stage, the government has a plan to create an environment to encourage foreign investors and the private sector to have a stronger government through the issue of free market independence (meaning that the government would not be involved in pricing), The market for goods and more employment opportunities. for example, has given greater importance to housing projects aimed at creating strong and important economic infrastructure for better services for the region.

2. Probing and prevention stage: This stage is considered an important stage before the crisis grows and spreads, and it is prevented from spreading at this stage. so we, as the Kurdistan Region, have done what we have to prevent the crisis at this stage.

Further protecting the lives of citizens and preparing Peshmerga, in this way, efforts have been made to prevent the crisis, but as the Board of Investment and projects at this stage, investors have been warned to find quick funding to complete their projects.

3. Containment damage: At this stage, the concept of managing crises will be implemented by making short-term and long-term plans. Those projects that are located in the war zone were stopped and that's why they were given more time with these projects and their completed permission was extended and the implementation of the project was postponed. but no new projects have been produced recently.

4. Recovery: At this stage, the crisis will calm down and everything is going to be normal. but in the Kurdistan Region, the ISIS crisis and the negative impact of the crisis remained until 2017. Generally, the ninth cabinet was formed in 2018, working to improve the economic and financial situation in the Kurdistan Region.

5. Learning: This is an important stage to learn from this crisis and prepare ourselves for the next crisis. Kurdistan region has faced a lot of hardships that's why we learned a lot from this crisis. Such as paying attention to these sectors that are needed for the region's income. Also, if any similar crisis and oil crisis occurs again, they can have other sources of income by investing in the necessary projects and priorities for the region's income.

3.3.4 Second crisis (COVID-19)

The second crisis (epidemic covid-19) faced and harmed to the whole world, especially the Kurdistan region. The study investigates at the government's reaction and steps in handling the crisis and compares them with scientific principles of the reality of crisis management. By examining each crisis, the study shows that KRG learned from the past crisis, and the KRG is able to face and deal with the epidemic coronavirus.

1. Signal detection: At the time of the outbreak of the epidemic, it was a significant phenomenon that spread around the world and was expected to reach the region, so all the region's borders with countries were closed to protect against the coronavirus.

2. Probing and prevention: This stage also prevents to spread of the crisis. The Kurdistan Region, like most countries around the world, has declared a halt to life for citizens' safety. In terms of investment, most projects have stopped to help with these projects more time has been granted as well as extended licenses to complete projects. These decisions do not good for projects but they should have been made for safety purposes.

3. Containment damage: This is the most important stage because you can face it or adapt to it. Therefore, the KRG's role is imperative in this point, the government makes efficient decisions on projects to make it easier to adapt to the crisis, including issuing decisions to apply the decentralized system to hand over power to investment directorates in Erbil, Sulaymaniyah, Duhok, Zakho, and Soran provinces to reduce routines and run administrative transactions in this way the investors can accomplish the license permits.

   Also, another decision of the government's solution was extending the time for the projects, customs forgiveness and tax forgiveness periods were lengthening.

   The Board of investment used crisis communication in addition contacted the Ministry of Interior and the Ministry of Health to receive the approval circulation for these projects specialized for medical services to continue production. besides facilities were made in every way for these projects that can benefit in suffering from the crisis.

4. Recovery: At this post-crisis stage, the corona's epidemic was normalizing. In terms of investment, the projects have begun to be produced more effectively and commendably. The KRG has intensified its efforts to focus

on (industry, agriculture, and tourism) projects. These three sectors have become the region's priority to revitalize and grow and invest more in them in order to rely on local products, increase local products, rehabilitate products, and build markets for them. In addition, a special section for foreign investors has been established in the investment board, which aims to facilitate foreign investments and attract foreign investors to the region. Also, the government makes a decision to increase job opportunities in the private sector to employ 75 percent of local employees to diminish the government's duties and reduce unemployment as well.

5. Learning: The importance of the role of health sectors and health services sectors has been taken into account after the corona epidemic crisis ended due to border closures, loss of relations with surrounding countries, and the lack of imports of goods. Also, what the KRG has realized recently was that we need to rely more on ourselves to diversify our incomes and rely on many resources for income and to care about the health and health services sectors. To be ready to face any other sudden epidemic crisis.

3.3.5 Comparison between the first crisis and second crisis:

In table (7) the study compared the regional government's decision between the crises in the five stages of managing crises.

Table (7): Compare the first crisis with the second crisis

Stages of CM	First crisis	Second crisis
1. Signal detection	did not have an efficiency and tangible reaction	all the region's borders with countries were closed for protection aims.
2. Probing and prevention	investors have been warned to find quick funding to complete their projects with more facilities.	a halt of projects for safety purposes all over the region.
3. damage Containment	the permission was extended and the implementation of the project was postponed for those projects that are located in the war zone.	the decentralized system to hand over power and Extension of project completion permits as shown in appendix (3).
4. Recovery	establishment of the ninth cabinet, reforms were carried out, and the priorities of investment projects were reviewed	Planned to focus on three sectors (industry, agriculture, tourism) projects. During the 2020 strategic plan of BOI.
5. Learning	investing in the necessary projects and priorities for the region's income.	Diversifying the source of the region's income

Source: Prepared by the researcher

Table (7) shows all the decisions that the government has issued on investment projects. In the signal detection stage in the first crisis government does not steps toward projects similarly the region's government does not step toward projects. But the region's government in both crises focused on the citizen's safety.

Also, in the Probing and prevention stage of the first crisis region's government sends warning signals to the projects that the crisis will occur and

is aware of them to have a plan. But in the second crisis because of a different situation, the government aware projects to halt and stop their projects.

Moreover, the actual management of crisis occurs in the containment damage stage, and the region's government provides permission to extend for those projects that are located in the war zone. But, in the second crisis, government made a useful decision by the decentralized system to hand over power to give facilities and decrease routines. Besides, providing the permission extending for projects.

In the recovery stage meant efforts are made to return activities nearly to normal or better than before of crisis. government at the first crisis established the ninth cabinet, reforms were carried out and the priorities of investment projects were reviewed as a compliment to this reform at the second crisis the ninth cabinet made a decision for planning to focus on three sectors (industry, agriculture, tourism) projects.

Finally, the learning stage for the first crisis was important to the region's government due to the big harm of financial by the ISIS war crisis, government take a lesson and learned to prevent a future crisis by investing in the necessary projects and priorities for the region's income. As a compliment to this learning in the second crisis, the government determined to diversify the source of the region's income by a focus on (industry, agriculture, and tourism) sectors.

Chapter Four

Data analysis for the investment projects

Introduction:

In this part, the study investigates the impact of financial crises (ISIS war crisis and COVID-19 pandemic crisis) on investment projects. The research studied the period between 2012-2022 to know the two years before the ISIS war crisis and two years before the COVID-19 pandemic crisis even two years after the crisis. Also, observing the investment states and fluctuations in each sector separately. The researcher studied all sectors during the BOI in KR except (the communication) sector because no projected invested during that period thus the researcher studied twelve sectors such as (trade, health, industry, service, tourism, transportation, education, agriculture, housing, sport, bank, and art). Whole the data derived from the Board of Investment, data visualization such as tables and figures used to organize the data and information, and to demonstrate the developments and shriveling of projects during and after the crises stage. The whole tables show the years with a number of projects which invested in this year as well as the capital of this project in dollars, the researcher named each year depending on the circumstance and occurrence of crises. On the other hand, the figures confirm the years (2012-2022) for the project's capital.

The study describes the investment situation and fluctuation and compares project's situation in the years in which there are crises and in which there are none. by using financial analysis, quantity analysis, and statistical analysis. In the purpose of finding the reality of the negative and positive effects of the crisis.

3.4.1 Investment developments in the KR.

The investment process developed and dropped due to the hard situations that the region passed during this period. Each year the investment state was different from another year and this is explained in the table (8) below.

Table(8): Investment developments (2012-2022)

Year	No. of projects	Capital in dollars	Stages
2012	128	$6,102,673,151	pre-crisis stage
2013	108	$10,373,070,879	pre-crisis stage (Golden year)
ISIS war crisis			
2014	70	$ 3,620,927,189	ISIS war crisis stage
2015	31	$ 3,190,349,090	decline stage
2016	32	$ 2,871,724,407	decline stage
2017	33	$ 740,563,329	decline stage
2018	51	$ 3,145,864,752	post-crisis stage (recovery stage)
2019	66	$ 2,733,952,264	Stable stage (pre-crisis stage)
Covid-19 pandemic crisis			
2020	76	$ 2,018,271,500	COVID-19 pandemic crisis (new crisis)
2021	72	$ 8,509,765,986	crisis continue stage
2022	94	$ 2,176,043,119	Post-crisis stage
total	761	$ 45,483,205,666	

Prepared by the researcher based on the data of BOI

Table (8) shows the investment projects from the year (2012) until (2022). As well as the number of projects and capital in dollars. as shown in table (8) The year 2012 the number of projects was on the top with 128 projects invested in this year, the year 2013 was a golden year for the capital in dollars for investment projects on the top by (10,373,070,879$). The ISIS war crisis in 2014 significantly affected the investment projects and the development of the projects deteriorated, the capital in dollars sharply dropped to (3,620,927,189$). This declined stage continued until the year

2017 when the capital in dollars became less than one million dollars and the number of projects became only 33 projects. This difference is due to the ISIS crisis that appeared in late 2014, but their subset affects became obvious the years after. For that reason, the researcher named the year 2015, 2016, and 2017 as the declined stage.

In the year 2018, the ISIS war crisis was faded and destroyed. Besides, the number of projects starts to progress and reached 51 projects. As well as the capital in dollars' reforms began and increased to (3,145,864,752$). thus, the study combined two stages in one year a post-crisis stage and a recovery stage. In the year 2019 investment projects continued to develop the number of projects reached 66 projects. In the year 2020, another crisis emerged and the COVID-19 pandemic crisis reached the area but the effect of this crisis was different from the previous crisis. It caused the halt of business functions, but it does not cause the deterioration of investment developments. Therefore, from the year 2019 and 2020 capital in dollars stayed stable at around two billion dollars, and the number of projects increased from 66 to 76 projects.

The year after 2021 there is still the crisis but it does not affect the investment projects, the capital in dollars significantly climbed to (8,509,765,986$) the main reason being the Chinese mega projects invested (4,906,110,000$). While the number of projects decreased slightly to 72 projects, this decline was limited. Remaining the investment projects stable and developed is a sign of good management of crisis by the KRG in the crisis era. In the year 2022, the number of projects progressed to 94 projects this number is the number of the height after the occurrence of crises this is a sign of improvement, and the capital in dollars for this year was (2,176,043,119$) this amount is near to the years 2019 and 2020, except the year 2021 which means the investment projects progressed in these late years even with the existence of crisis or absent of the crisis.

After the COVID-19 pandemic crisis, the projects of investment developed. For the first time after the ISIS war crisis investment projects developed and increased from 2020 to 2021 by (2,010,170,000$) to (8,518,400,864$). This amount is near the pre-crisis of the ISIS war crisis stage. And the number of projects reached 97 projects this is the highest amount after the occurrence of the ISIS war crisis.

The total number of projects which invested during that period is 761 projects by (45,483,205,666$).

3.4.2 The Statistical Analysis

In order to test the research hypotheses, we used Simple Regression Analysis in order to find the influence of the ISIS war crisis and the influence of the COVID-19 pandemic crisis on the Capital in dollars. For this purpose, SPSS version 28.0 was used.

A. The influence of the ISIS war crisis on Capital in dollars:

Table (9): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars.

Coefficients [a, b]			
	Standardized Coefficients		
Model	Beta	t	P-Value
1 ISIS Crisis	0.702	3.120	0.011
a. Dependent Variable: capital in dollars			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the ISIS war crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable, the simple regression analysis was used. Model (1) is expressed as follows:

Capital in dollar = 0.702 * Crisis

The estimated value of the coefficient is (0.702) of the variable Crisis is significant (P-Value = 0.011) as shown below in table (9)

This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (10) below:

Table (10): The regression model of the ISIS war crisis affecting the Capital in dollars significantly using ANOVA

Model		Sum of Squares	df	Mean Square	F	P-Value.
		ANOVA[a, b]				
1	Regression	135894212876712000000.000	1	135894212876712000000.000	9.732	.011[c]
	Residual	139629342969753000000.000	10	13962934296975300000.000		
	Total	275523555846465220000.000[d]	11			
a. Dependent Variable: capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.011) in the above ANOVA, which is significant means that the chosen model above is significant and well-constructed with R-Square = 0.493 (49.3%). In other words, R Square measures the proportion of the variability in the Capital in dollars' variable explained by the Crisis variable in the above regression model No. (1). the model is confirming our analysis that as long as the ISIS war crisis exists, the Capital in dollars of projects will be less invested.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars

Table (11): Regression Parameter Estimation of the influence of the COVID-19 pandemic crisis on the Capital in dollars.

Model		Standardized Coefficients Beta	T	Sig.
		Coefficients[a, b]		
1	COVID 19 Crisis	0.818	4.504	0.001
a. Dependent Variable: Capital in dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

The following simple regression analysis was done to ascertain the impact of the COVID-19 pandemic Crisis as an explanatory (independent) variable on the No. of Capital in dollars as the response (dependent) variable: the model number (2) is expressed as below:

Capital in dollars = 0.818* Crisis

The estimated value of the coefficient is (0.818) of the variable Crisis is very highly significant (P-Value = 0.001) as shown below in table (11). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (12) below:

Table (12): The regression model of the COVID-19 pandemic Crisis affecting the Capital in dollars' significance using ANOVA

Model		Sum of Squares	df	Mean Square	F	P-Value
		ANOVA[a, b]				
1	Regression	18454466820191000000.000	1	18454466820191000000.000	20.284	.001[c]
	Residual	9097888764455540000.000	10	9097888764455540000.000		
	Total	27552355584646522000.000[d]	11			
a. Dependent Variable: number of projects						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.001) in the above ANOVA, which is very high significant means that the chosen model above is high significant with R-Square = 0.670 (67%). R Square measures the proportion of the variability in the Capital in dollar variable explained by the COVID-19 crisis variable. the model shows that the result was a statistically (very highly significant) effect of the crisis on the number of projects. This result is confirming our analysis by the existence of the COVID-19 crisis, Capital in dollars will decrease.

3.4.3 Canceled projects

Table (13): Canceled projects

years	No. of canceled projects	capital in dollars for canceled projects
2012	11	642,298,444
2013	24	2,110,861,088
2014	22	1,395,437,054
2015	5	812,204,700
2016	4	261,639,683
2017	7	72,950,606
2018	3	290,111,700
2019	5	294,647,604
2020	4	131,628,500
2021	1	6,496,000
2022	0	0
total	86	6,018,275,379

Prepared by the researcher based on the data of BOI

Table (13) shows that the most canceled projects were in the years 2013 and 2014 which (24) projects in the year 2013 and (22) projects in the year 2014. It proves that due to the ISIS war crisis most investors renunciation to their projects. Even if this project stops in the year 2015 or 2016 but they will cancel in the year of taking the license. Also, the tables show that the canceled projects were not increased in the crisis year, it was as the previous years before the COVID-19 crisis. Because the COVID-19 was the reason for the stoppage overall the work for temporary. In general, the

total amount of canceled projects is 86 projects by (6,018,275,379$) this amount is a large amount which indicates there are the impacts of crises.

3.4.4 The investment nationalities in the KR

The sectors of investment all contain the three types of investment nationality, three investment nationalities invested in KR such as (foreign, local, and venture) investment as shown in table (14).

Table (14): investment nationalities in the KR

investment nationality	No. of projects	capital in dollars
foreign investment	23	$8,114,232,507
local investment	724	$36,789,239,535
venture investment	11	$617,387,878
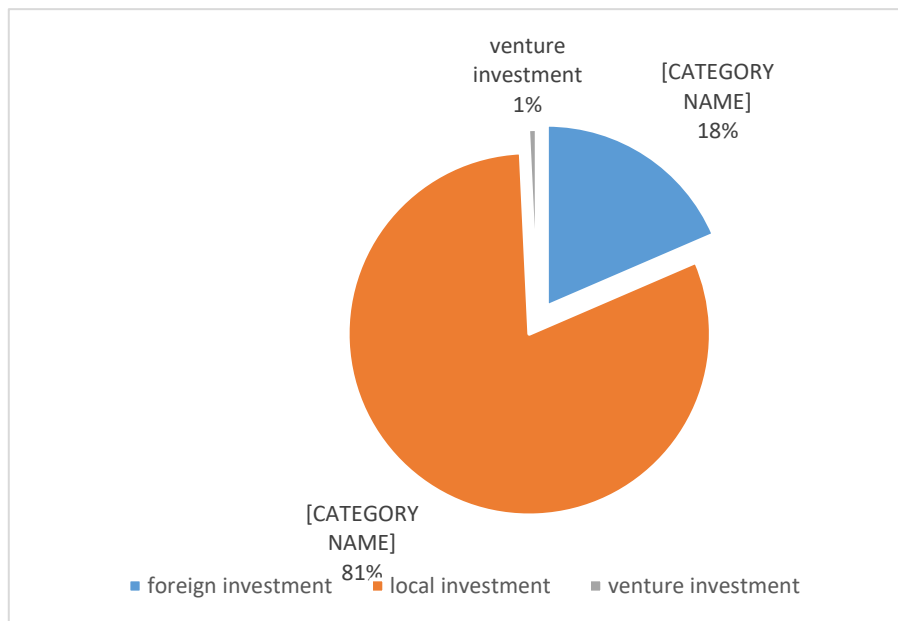
Figure (7): the different nationalities of investment in KR

Figure (7) shows three nationalities of investment invested in KR from 2012 to 2022. Local investment is the biggest part of the chart (81%) projected was invested in the region, foreign investment by (18%) was invested and venture investment only (1%) was invested.

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3.4.5 Investment sectors

This part is specialized to explain and analyses the whole twelve investment sectors one by one (trade, health, industry, service, tourism, transportation, education, agriculture, housing, sport, bank, and art) and investigate the developing or shrinking of investment projects by using financial analysis, quantity analysis, and statistical analysis.

1. Trade sector

Table (15): the investment developments in the trade sector.

Trade sector			
Years	**No. of projects**	**Capital in dollars**	**Stages**
2012	17	175,554,201	pre-crisis stage
2013	22	175,724,427	pre-crisis stage
2014	20	960,457,417	ISIS war crisis stage
2015	3	188,526,262	decline stage
2016	5	35,292,352	decline stage
2017	7	72,950,606	decline stage
2018	10	49,984,399	post-crisis stage (recovery stage)
2019	19	245,012,008	Stable stage (pre-crisis stage)
2020	12	143,676,000	COVID-19 pandemic crisis (new crisis)
2021	19	356,225,146	crisis continue stage
2022	26	216,046,811	post-crisis stage
total	160	2,619,449,629	

Prepared by the researcher based on the data of BOI
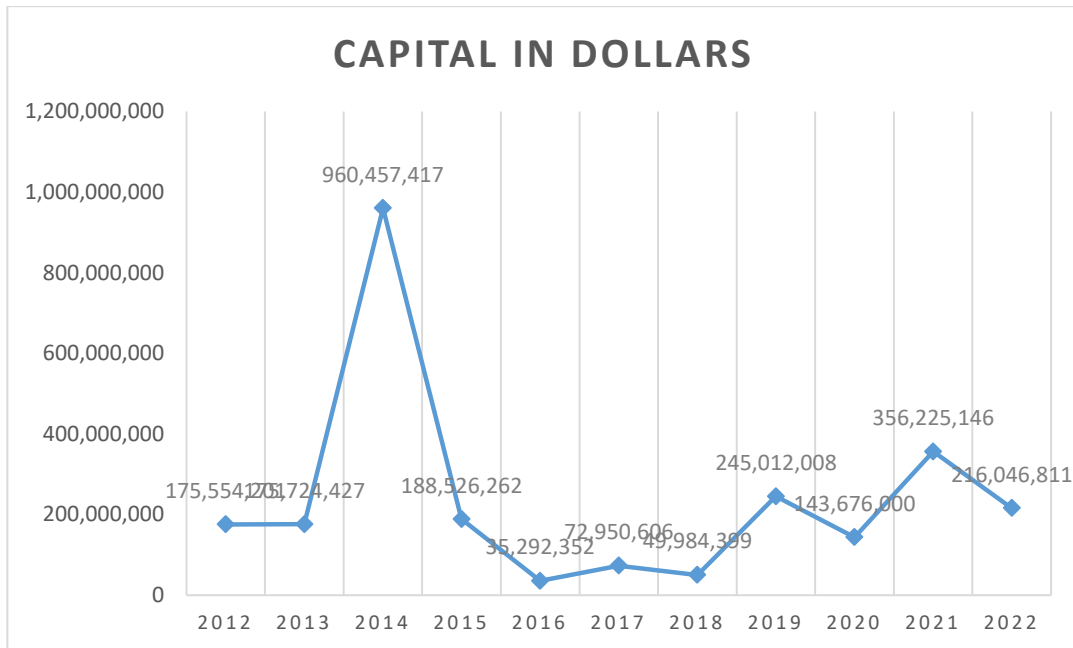
Figure (8): The investment developments in the trade sector.

Table (15) shows the investment developments in the trade sector. In the years 2012 to 2021, with the projects numbers from each year and their capital in dollars as well, by considering figure (8) researcher can see that in the years 2012 and 2013 trade sector was stable. In the year 2012 capital in dollars was (175,554,201$) it remained in the year 2013 (175,724,427$) while the number of projects increased from 17 projects in 2012 to 22 projects in 2013. In the year 2014 trade sector was at the top by (960,457,417) dollars with (20) projects in the same year. in the year 2015, capital in dollars for the trade sector decreased significantly and abruptly to (188,526,262$) by 80.37 percent which means from this year the ISIS war crisis has a big negative impact on the trade sector it continued to go down in the year 2016 till reached a low off to (35,292,352$) with 5 projects. So, depending on figure (8) above the researcher can see that the impact of the ISIS war crisis continued on this sector until 2016. In the year 2017 trade sector climbed slightly to (72,950,606$) with 7 projects. Also, in the year 2018 capital in dollars fall slightly to (49,984,399$) but otherwise, the number of projects

increased to 10 projects. That means in 2018 compared to 2017 more projects were invested with less capital.

Investment developments in the trade sector climbed considerably to (245,012,008$) in 2019 and the number of projects increased from 10 to 19 in that year. But it does not take too long after suffering a second crisis (COVID-19) in 2020 trade sector drops steadily to (143,676,000$) with 12 projects. Finally, in 2021 developments in the trade sector increased slightly to (356,225,146$) with 19 projects and increased by 62.19 %. For 2022 the number of projects continued to increase and reached 26 projects, this is good progress while the capital in dollars became (216,046,811$).

The trade sector was at its peak in the year 2014, by studying the table and figure above ISIS war crisis has had a huge negative impact on trade. Also, the COVID-19 pandemic crisis has had a slight negative impact on the trade sector in KR. Hopefully, the trade sector has always been in progress for all the years.

Statistical analysis for the trade sector:

A. The influence of the ISIS war crisis on Capital in dollars for the trade sector

Table (16): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the trade sector

Coefficients[a, b]			
Model	Standardized Coefficients Beta	t	Sig.
1 ISIS Crisis	0.714	3.222	0.009
a. Dependent Variable: Trade Sector Capital			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

The following basic regression analysis was done to ascertain the impact of the ISIS war Crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable, the model number (3) is expressed as follows:

Capital in dollars = 0.714 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0.714) significant (P-Value = 0.009). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (17) below:

Table (17): The regression model of the ISIS war Crisis affecting the Capital in dollars for trade significance using ANOVA

ANOVA[a, b]						
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	653418211798596000 0.000	1	653418211798596000 .000	10.378	.009[c]
Residual	629612778663669000 0.000	10	62961277866366900. 000		
Total	1283030990462264830.000[d]	11			
a. Dependent Variable: Trade Sector Capital						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.009) in the above ANOVA, which is highly significant means that the chosen model above is significant and well-constructed with R-Square = 0.509 (50.9%). In other words, R Square measures the proportion of the variability in the Capital in dollars for the trade sector variable explained by the ISIS war Crisis variable in the above regression model No. (3). the statistic shows that there is a significant effect of the ISIS war crisis on capital in dollars for the trade sector. This result is confirming our analysis that the ISIS war crisis can highly influence capital in dollars.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the trade sector

Table (18): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the trade sector

Coefficients[a, b]				
Model		Standardized Coefficients Beta	t	Sig.
1	COVID Crisis	0.668	2.838	0.018
a. Dependent Variable: Trade Sector capital				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

The following basic regression analysis was done to ascertain the impact of the COVID-19 pandemic Crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable. The model number (4) is expressed as follows:

Capital in dollars = 0.668 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0.668) significant (P-Value = 0.018). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (19) below:

Table (19): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for trade sector significance using ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	572373485734888000.000	1	572373485734888000.000	8.054	.018[c]
	Residual	710657504727376000.000	10	71065750472737600.000		
	Total	1283030990462264830.000[d]	11			
a. Dependent Variable: Trade Sector capital						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.018) in the above ANOVA, which is significant means that the chosen model above is significant and well-constructed with R-Square = 0.446 (44.6%). In other words, R Square measures the proportion of the variability in the Capital in dollars variable explained by the COVID-19 pandemic crisis variable in the above regression model No. (4). the statistic shows that the result was a statistically (high significant) effect of the COVID-19 crisis on the n Capital in dollars of the trade sector. This result is confirming our analysis by the existence of the COVID-19 pandemic crisis, Capital in dollars will decrease.

2. Health sector

Table (20): shows the investment developments in the health sector.

Health Sector			
Years	No. of projects	Capital in dollars	Stages
2012	5	62,569,991	pre-crisis stage
2013	10	437,710,370	pre-crisis stage
2014	4	57,495,848	ISIS war crisis stage
2015	3	22,815,575	decline stage
2016	1	8,000,000	decline stage
2017	3	27,894,050	decline stage
2018	3	22,125,543	post-crisis stage (recovery stage)
2019	4	50,040,000	Stable stage (pre-crisis stage)
2020	5	45,238,000	COVID-19 pandemic crisis (new crisis)
2021	6	25,877,000	crisis continue stage
2022	10	76,797,187	post-crisis stage
total	54	836,563,564	

Prepared by the researcher based on the data of BOI
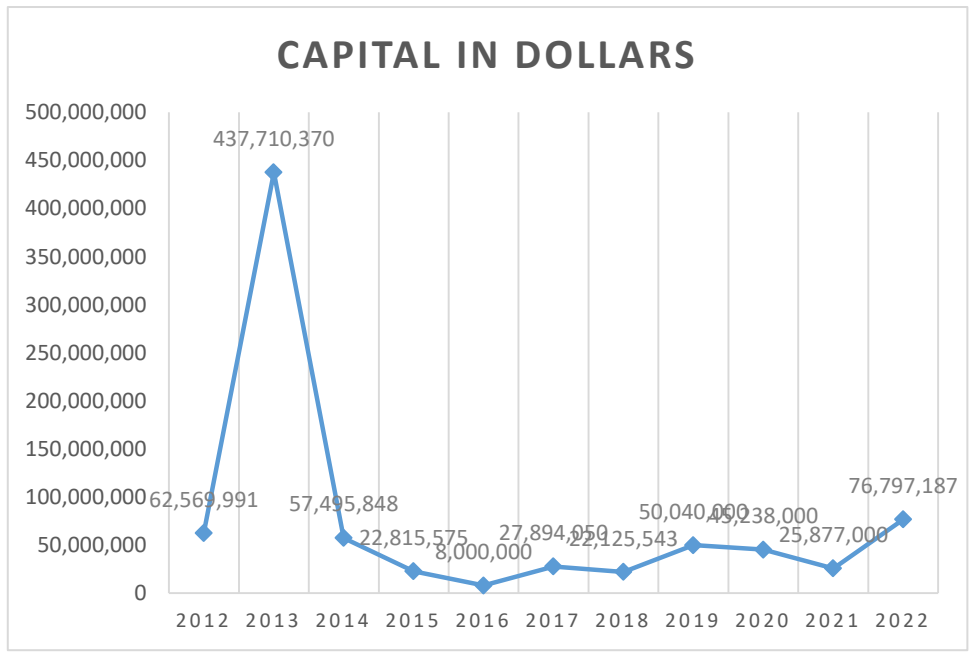
Figure (9): The investment developments in the health sector.

By studying the table and figure above, the health sector hardly fluctuated from the year 2012 until 2014. In the year 2012 climbed from (62,569,991$) to (437,710,370$) in 2013 also from the number of projects climbed from 5 projects to 10 projects. The health sector falls in the year 2014 to (57,495,848$) and only 4 projects were left. The capital in dollars for the health sector declined sharply from 2014 to 2015 (57,495,848$ to 22,815,575$) but only one project was disappearing. In 2016 Capital in dollars continuously decreased steeply to 8 million dollars as well as the number of projects decreased to only one project. in 2017 investment developments in the health sector have raised quickly to (27,894,050$). Investment developments in the health sector of KRG have decreased gradually from (27,894,050$) in 2017 to (22,125,543 $) in 2018 and the number of projects stayed stable. In the year 2019, the capital in dollars grows up steeply to around 50 million dollars, and only with one more project in that year.

In the year 2020 capital in dollars for the health, sector drops gradually to nearly 45 million dollars. The number of projects in the years 2020 and

2021 increased from 5 to 6 but the capital in dollars sharply decreased from (45,238,000 to 25,877,000$). As a learning from the previous crisis and the needs for this sector, thus investors paid attention to this sector as an important sector therefore in 2022 capital in dollars increased to (76,797,187$) with 10 projects. The total amount invested in this sector is (836,563,564$) with 54 projects from 2012 until 2022.

By concluding the graph, it proves the health sector in the region was at its peak in the year of 2013 but was negatively affected by the ISIS war crisis, the impact of ISIS nonstop until the year of 2016. The study calls the years 2015 and 2016 decline stages because they decreased by (60.32%) and (86.1%). in the year 2017 health sector started to recover and increase. Also, the effect of the COVID-19 pandemic crisis on the health sector was limited.

The Statistical analysis for the health sector:

A. The influence of ISIS war crisis on Capital in dollars for the health sector

Table (21): Regression Parameter Estimation of the influence of the ISIS war crisis on Capital in dollars for the health sector

Coefficients[a, b]			
	Standardized Coefficients		
Model	Beta	t	Sig.
1 Crisis	0.450	1.595	0.142
a. Dependent Variable: Health Capital in Dollars			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the Crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable, the simple regression analysis was used. The model number (5) is expressed as follows:

Capital in dollars = 0.450 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0.450) non-significant (P-Value = 0.142). This model

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verification was made using the F-test in ANOVA (Analysis of Variance) as shown in table (22).

Table (22): The regression model of Crisis affecting the Capital in dollars significance using ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
		ANOVA[a,b]				
1	Regression	42939934562817200.000	1	42939934562817200.000	2.543	.142[c]
	Residual	168841283198840000.000	10	16884128319884000.000		
	Total	211781217761657024.000[d]	11			
2	Regression	0.000	0	0.000		
	Residual	211781217761657000.000	11	19252837978332500.000		
	Total	211781217761657024.000[d]	11			
a. Dependent Variable: Health Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.142) in the above ANOVA, which is non-significant means that the chosen model above is non-significant with R-Square = 0.203 (20.3%). In other words, R Square measures the proportion of the variability in the Capital in dollars variable explained by the Crisis variable in the above regression model No. (5)

B. The influence of the COVID-19 pandemic crisis on the Capital in dollars for the health sector

Table (23): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the health sector

Model	Standardized Coefficients Beta	t	Sig.
	Coefficients[a, b]		
1　COVID 19 Crisis	0.478	1.723	0.116
a. Dependent Variable: Health capital			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the COVID-19 pandemic as an explanatory (independent) variable on the Capital in dollars for the health sector as the response (dependent) variable, the simple regression analysis was used. The model number (6) is expressed as follows:

Capital in dollars = 0.478 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0.478) non-significant (P-Value = 0.116). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (24).

Table (24):The regression model of the COVID-19 pandemic crisis affecting on Capital in dollars for health sector significance using ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
		ANOVA[a,b]				
1	Regression	48463551502653100.000	1	48463551502653100.000	2.967	.116[c]
	Residual	163317666259004000.000	10	16331766625900400.000		
	Total	211781217761657024.000[d]	11			
a. Dependent Variable: Health capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: COVI-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

 **Prepared by the researcher based on the SPSS outcomes**

The P-Value of the F-test (0.116) in the above ANOVA, which is non-significant means that the chosen model above is non-significant and well-constructed with R-Square = 0.229 (22.9%). In other words, R Square measures the proportion of the variability in the capital in dollar variable explained by the COVID-19 Crisis variable in the above regression model No. (6). The statistics show that the COVID-19 crisis (is non-significant) and

has not influenced the capital in the dollar for the health sector, therefore there are other factors that influenced the capital in dollars.

3. Industry sector

Table (25): investment developments in the industry sector.

Industry Sector			
Years	No. of projects	Capital in dollars	Stages
2012	31	454,316,692	pre-crisis stage
2013	40	5,804,772,719	pre-crisis stage
2014	17	708,789,948	ISIS war crisis stage
2015	13	2,813,168,769	decline stage
2016	13	2,479,365,742	decline stage
2017	7	395,830,936	decline stage
2018	15	2,419,922,719	post-crisis stage (recovery stage)
2019	10	618,738,256	Stable stage (pre-crisis stage)
2020	25	694,396,500	COVID-19 pandemic crisis (new crisis)
2021	15	598,059,137	crisis continue stage
2022	30	622,975,001	post-crisis stage
total	216	17,610,336,419	

Prepared by the researcher based on the data of BOI
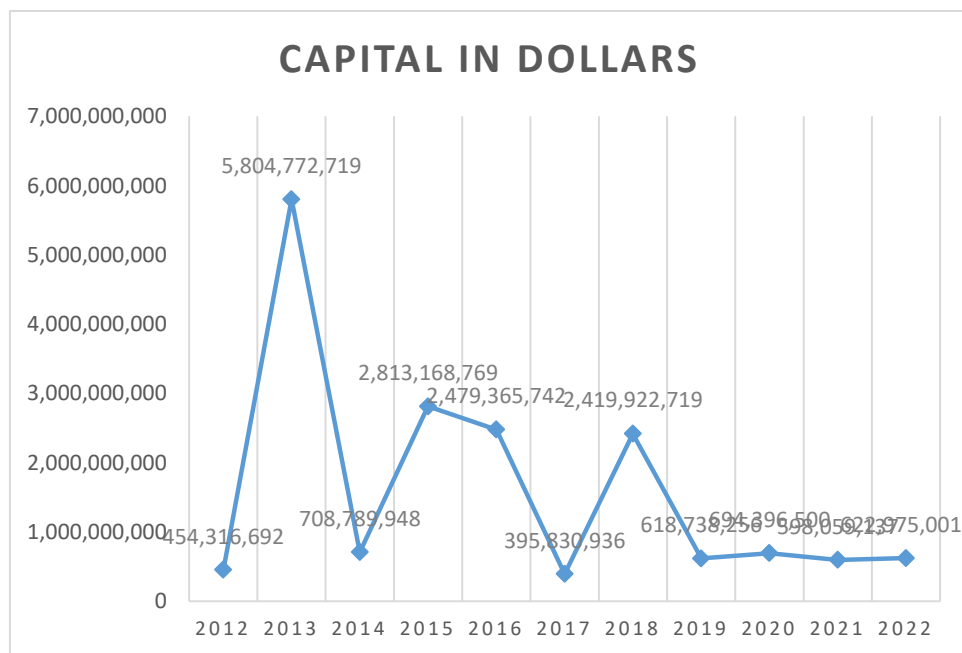
Figure (10): Investment developments in the industry sector.

By observing table (25) and figure (10) industry sector was always fluctuated and unstable sector. In the year 2012 the capital in dollars for the industry sector (454,316,692$) jumped rapidly to (5,804,772,719$) in 2013, it is the same for projects jumped from 31 to 40 projects. The industry sector in the year 2013 dropped off quickly to (708,789,948$) in 2014, The number of projects in the industry sector in 2014 was 17 projects but it decreased in 2015 to 13 projects. While the capital in dollars for this sector from 2014 to 2015 increased from (708,789,948$) to (2,813,168,769$). In 2016 a number of projects in the industry sector remained but capital in dollars drops slowly to (2,479,365,742$). in the years 2015 and 2016 industry sector is at its highest level ever at the crisis stage so which means the industry sector does not affect by the ISIS war crisis.

The industry sector in 2017 declined quickly to (395,830,936$) by 84.03 percent and only 7 projects remained in the post-crisis stage. that means the post-crisis has a massive negative impact on the industry sector. immediately the next year in 2018 returned to the top the number of capitals reached (2,419,922,719$) and the number of projects became 15 projects.

In 2019 the industrial sector experienced a rapid drop to (618,738,256$) by 74.43%. the industry sector in the capital in dollars remained stable between 2019 and 2020 while the number of projects changed from 10 to 25 projects.

From 2020 to 2021 drops slightly from (694,396,500$) to (598,059,137$).
The year 2022 progressed to 10 projects and capital in dollars increased to (76,797,187$).

In the year 2013 industry sector reached its top of around 6 billion dollars but the year after because of the ISIS war crisis industry sector was harmed scarcely. However, there is not a big change in the COVID-19

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pandemic crisis. The industry sector is sustainable and an important sector even if there is a crisis this sector continues.

The statistical analysis of the industry sector:

A. The influence of ISIS war crisis on Capital in dollars for industry sector

Table (26): Regression Parameter Estimation of The influence of the ISIS war crisis on Capital in dollars for the industry sector

Coefficients[a,b]				
Model		Standardized Coefficients Beta	t	P-Value
1	ISIS Crisis	0.668	2.842	0.017
a. Dependent Variable: Industry Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the ISIS war crisis as an explanatory (independent) variable on the Capital in dollars for the industry sector as the response (dependent) variable, the simple regression analysis was used. The model number (7) is expressed as follows:

Capital in dollar = 0.668 * Crisis

The estimated value of the coefficient is (0.668) of the variable ISIS war crisis is significant (P-Value = 0.017) as shown below in table (26). This model verification was made using the F-test in ANOVA (Analysis of Variance) as shown in table (27).

Table (27): The regression model of the ISIS war crisis affecting the Capital in dollars for industry sector significance using ANOVA

ANOVA^{a,b}						
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	25059115791272900000.000	1	25059115791272900000.000	8.076	.017^c
Residual	31029734588166900000.000	10	3102973458816690000.000		
Total	56088850379439776000.000^d	11			
a. Dependent Variable: Industry Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.017) in the above ANOVA, which is significant means that the chosen model above is significant and well-constructed with R-Square = 0.447 (44.7%). In other words, R Square measures the proportion of the variability in the Capital in dollars variable explained by the ISIS war crisis variable in the above regression model No. (7). The results demonstrations that there is (a significant) impact of the ISIS war crisis on capital in dollars for the industry sector. This outcome supports our hypothesis that if an ISIS crisis occurs, the capital in dollars will decrease.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the industry sector

Table (28): Regression Parameter Estimation of the influence of the COVID-19 pandemic crisis on the Capital in dollars for the industry sector

Coefficients[a, b]				
Model		Standardized Coefficients Beta	t	P-Value
1	Crisis	0.612	2.448	0.034
a. Dependent Variable: Industry capital in dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the Crisis as an explanatory (independent) variable on the number of projects for the industry sector as the response (dependent) variable, the simple regression analysis was used. The model number (8) is expressed as follows:

Capital in dollar = 0.612 * Crisis

The estimated value of the coefficient is (0.612) of the variable Crisis is significant (P-Value = 0.034) as shown below in table (28). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (29).

Table (29): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for industry sector significance using ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
	ANOVA[a, b]					
1	Regression	21018561618375100000.000	1	21018561618375100000.000	5.993	.034[c]
	Residual	35070288761064700000.000	10	3507028876106470000.000		
	Total	56088850379439776000.000[d]	11			
a. Dependent Variable: Industry Capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.034) in the above ANOVA, which is significant means that the chosen model above is significant and well-constructed with R-Square = 0.375 (37.5%). In other words, R Square measures the proportion of the variability in the capital in dollar variable explained by the COVID-19 pandemic crisis variable in the above regression model No. (8). The results demonstrate that there is (a significant) influence of the COVID-19 pandemic crisis on capital in dollars for the industry sector.

4. Service sector

Table (30): Investment developments in the service sector.

Services Sector			
Years	**No. of projects**	**Capital in dollars**	**Stages**
2012	1	25,000,000	pre-crisis stage
2013	0	0	pre-crisis stage
2014	2	46,231,000	ISIS war crisis stage
2015	0	0	decline stage
2016	0	0	decline stage
2017	2	69,472,233	decline stage
2018	0	0	post-crisis stage (recovery stage)
2019	5	117,117,000	Stable stage (pre-crisis stage)
2020	1	9,491,000	COVID-19 pandemic crisis (new crisis)
2021	1	48,351,000	crisis continue stage
2022	0	0	post-crisis stage
total	12	315,662,233	

Prepared by the researcher based on the data of BOI
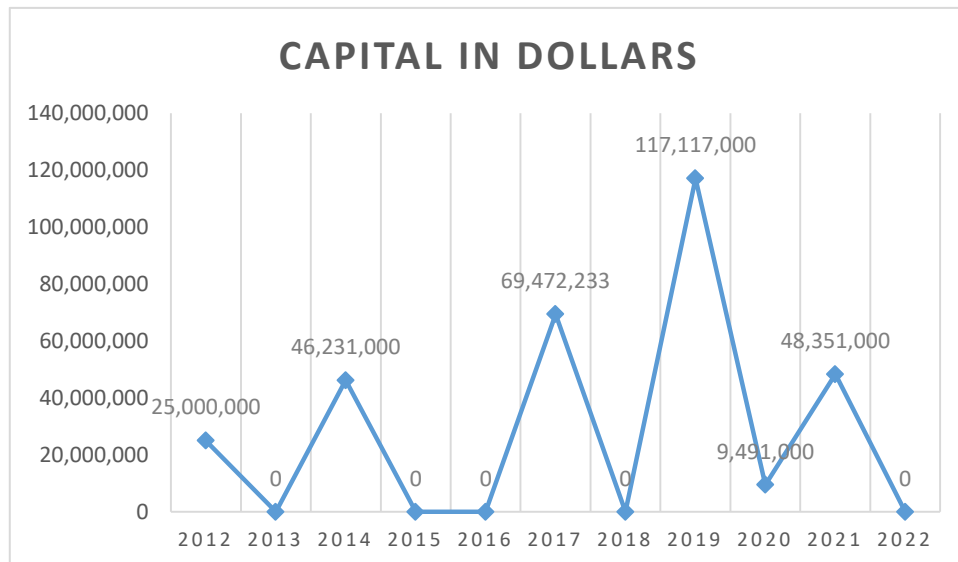
Figure (11): Investment developments in the service sector.

By reviewing table (30) and figure (11), it has been proven the service sector is a zigzagged sector which means has always been ups and downs. the service sector is one of the sections that is not given much importance in KRG. Also reviewing table (30) shows only one project was invested in the

year 2012 by (25,000,000$) next year no project was invested. In the year 2014, two projects were invested by (46,231,000$). The service sector drops immediately and there were no projects in the years 2015 and 2016 which means the ISIS war crisis has a big negative impact on the service sector. Otherwise, in the post-crisis stage in 2017 two projects were invested and the number of capitals went up to (69,472,233$). Also, the service sector plummeted steeply in 2018 there were not any projects. In 2019 service sector is at its peak 5 projects were invested in the proportion of (117,117,000$). but also, the COVID-19 pandemic crisis has negative impact on this sector because statistical data declined in 2020 to (9,491,000$) by 91.9% but with much effort after the crisis, it was able to increase its statistical in 2021 and reach its peak to (48,351,000$) with only one project.

The service sector is rare in the region. Service projects do not invest every year. Also, the service sector is a sensitive sector when there is a crisis the service sector will affect.

The statistical analysis for the service sector:

A. The influence of the ISIS war crisis on Capital in dollars for the service sector

Table (31): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the service sector

Coefficients[a, b]				
		Standardized Coefficients		P-Value
Model		Beta	t	
1	ISIS Crisis	0.584	2.274	0.046
a. Dependent Variable: Services Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To determine the relationship between the ISIS war crisis, an explanatory (independent) variable, and the Capital in dollars, an outcome (dependent) variable, the basic regression analysis was carried out and the model number (9) is expressed as follows:

Capital in dollar = 0.584 * Crisis

The estimated value of the coefficient is (0.584) of the variable Crisis is significant (P-Value = 0.046) as shown in the table (31), This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in the table (32) below.

Table (32): The regression model of the influence of the ISIS war crisis on the Capital in dollars for service sector significance using ANOVA

ANOVA[a,b]						
Model	Sum of Squares	df	Mean Square	F	sig.
1 Regression	8090268054669440.000	1	8090268054669440.000	5.172	.046[c]
Residual	15642718435336800.000	10	1564271843533680.000		
Total	23732986490006288.000[d]	11			
a. Dependent Variable: Services Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of ANOVA (0.046), which is significant means that the chosen model above is significant with R-Square = 0.341 (34.1%). R Square measures the proportion of the variability in the Capital in dollars variable explained by the ISIS war crisis variable, in the above regression model No. (9). The statistics demonstrate that the ISIS crisis has (a significant) influence on the capital in dollars for the service sector. This outcome supports our theory that a crisis can have an impact on capital in dollars.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the service sector

Table (33): Regression Parameter Estimation of the influence of the COVID-19 pandemic crisis on the Capital in dollars for the service sector

Coefficients[a, b]				
Model		Standardized Coefficients Beta	t	P-Value
1	COVID 19 Crisis	0.588	2.299	0.044
a. Dependent Variable: Services Capital in dollars				
b. Linear Regression through the Origin				

To determine the influence of the COVID-19 pandemic crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable, the simple regression analysis was used. The model (10) is expressed as follows:

Capital in dollar = 0.588 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0.588) significant (P-Value = 0.044). This model verification was made using the F-test in ANOVA (Analysis of Variance) as shown in table (34) below.

Table (34): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for service sector significance using ANOVA

| ANOVA[a,b]						
Model		Sum of Squares	df	Mean Square	F	sig.
1	Regression	8206200709936370.000	1	8206200709936370.000	5.285	.044[c]
	Residual	15526785780069900.000	10	1552678578006990.000		
	Total	23732986490006288.000[d]	11			
a. Dependent Variable: Services Capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

The P-Value of the F-test (0.044) in the above ANOVA, which is significant means that the chosen model above is significant and well-constructed with R-Square = 0.346 (34.6%). In other words, R Square measures the proportion of the variability in the Capital in dollars variable explained by the COVID-19 pandemic crisis variable in the above regression model No. (4). the statistic shows that the result was a statistically (significant) effect of the COVID-19 crisis on the Capital in dollars of the service sector. This outcome supports our theory that a crisis can have an impact on Capital in dollars.

5. Tourism sector

Table (35): The investment developments in the tourism sector.

Tourism sector			
Years	**No. of projects**	**Capital in dollars**	**Stages**
2012	22	294,029,853	pre-crisis stage
2013	23	3,317,266,630	pre-crisis stage
2014	15	783,362,108	ISIS war crisis stage
2015	4	68,916,000	decline stage
2016	5	15,129,877	decline stage
2017	7	38,885,827	decline stage
2018	13	101,722,614	post-crisis stage (recovery stage)
2019	13	1,029,363,000	Stable stage (pre-crisis stage)
2020	9	123,975,000	COVID-19 pandemic crisis (new crisis)
2021	19	6,995,631,299	crisis continue stage
2022	8	159,705,550	post-crisis stage
total	138	12,927,987,758	

Prepared by the researcher based on the data of BOI
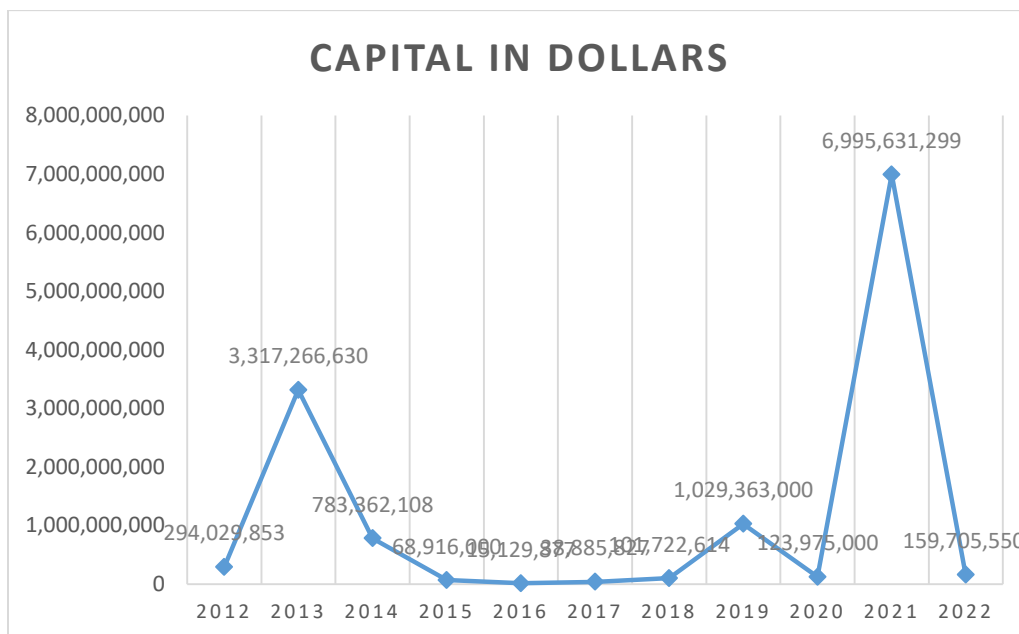
Figure (12): The investment developments in the tourism sector.

By studying the table and figure above, in the pre-crisis stage in 2012, the tourism sector was (294,029,853$) with 22 projects then climbed steeply in 2013 to (3,317,266,630$) with 23 projects. Suddenly in the year 2014 tourism sector dwindled sharply to (783,362,108$). The number of capitals in dollars in the tourism sector from 2014 to 2015 dipped from (783,362,108$ to 68,916,000$) by (91.20%) percentages and the number of projected slumped from 15 to 4 projects. In 2016 Capital in dollars continuously decreased steeply to (15,129,877$) although the number of projects increased to 5 projects. investment developments in the tourism sector in 2017 increased to (38,885,827$), and the number of projects has raised to 7 projects.

Investment developments in the tourism sector of KRG improved in the year 2018 and 2019 to (101,722,614$, 1,029,363,000$) and the number of projects was 13 each year. In the year 2020, the capital in dollars drops substantially to (123,975,000$) with 9 projects in that year. But in 2021 significantly and sharply jumped to nearly 7 billion dollars, with 19 projects. In the year 2022 capital in dollars became (159,705,550$) with 8 projects. All

the amount invested during this period is (12,927,987,758$) with 138 projects.

In finalizing the graph, the Investors paid great attention to the tourism sector every year but in 2015, 2016, and 2020 it was at it is lowest statistical point, from the year 2018 to 2019 tourism sector begins to develop but from the year 2020 due to of COVID-19 pandemic crisis and closing the region's borders with countries, the growth of this sector was faded than in the year 2021 reached to its peak and invested in this sector of nearly 7 billion dollars. the tourism sector is sensitive in the region because always affected by a crisis when a crisis occurs this sector will fall.

The statistical analysis of the tourism sector:

A. The influence of the ISIS war crisis on Capital in dollars for the tourism sector

Table (36): Regression Parameter Estimation of the influence of the ISIS war crisis on Capital in dollars for the tourism sector

Coefficients[a, b]			
	Standardized Coefficients		P-Value
Model	Beta	t	
1　ISIS Crisis	0.568	2.183	0.054
a. Dependent Variable: Tourism Capital in Dollars			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

To determine the influence of the ISIS war crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable, the simple regression analysis was used. The model number (11) is expressed as follows:

Capital in dollar = 0.568 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0.568) non-significant (P-Value = 0.054). This model

verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (37).

The ANOVA table below states the model significance as follows:

Table (37): The regression model of the ISIS war Crisis affecting the Capital in dollars for tourism significance using ANOVA

ANOVA[a, b]						
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	19936084848587000000.000	1	19936084848587000000.000	4.767	.054[c]
Residual	41824441839247700000.000	10	4182444183924770000.000		
Total	61760526687834690000.000[d]	11			
a. Dependent Variable: Tourism Capital in Dollars					
b. Linear Regression through the Origin					
c. Predictors: ISIS Crisis					
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.					

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test in the ANOVA above (0.241), which is non-significant, indicates that the above-mentioned model with R-Square = 0.323 (32.3%), is non-significant. R Square estimates the percentage of variance in the Capital in dollars of the tourism sector variable that can be explained by the ISIS crisis variable, in the above regression model No. (11). This statistic shows that the crisis (non-significant) effect the capital in dollars for the tourism sector. This result shows that there is also other factors affect the service sector.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the trade sector

Table (38): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the tourism sector

	Model	Standardized Coefficients Beta	t	P-Value
	Coefficients[a,b]			
1	COVID 19	0.619	2.490	0.032
a. Dependent Variable: Tourism Capital in dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To determine the influence of the COVID-19 crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable, the simple regression analysis was used. The model number (12) is expressed as follows:

Capital in dollar = 0.619 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0 .619) significant (P-Value = 0.032). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (39).

Table (39): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for tourism sector significance using ANOVA

| Model		Sum of Squares	df	Mean Square	F	Sig.
		ANOVA[a,b]				
1	Regression	23641531027897700000.000	1	23641531027897700000.000	6.202	.032[c]
	Residual	38118995659937000000.000	10	3811899565993700000.000		
	Total	61760526687834690000.000[d]	11			
a. Dependent Variable: Tourism Capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The chosen model above is significant with an R-Square of 0.383 (38.3%), according to the P-Value of ANOVA (0.032), which is significant. In the regression model below, the COVID-19 Crisis variable explains a certain percentage of the variance in the capital in dollars for the tourism sector variable, in the above regression model No. (12). the statistic shows that the crisis (significant) affects the number of projects for the tourism sector. This result supports our analysis that, if the crisis exists, fewer projects for the tourism sector will be invested.

6. Transportation sector

Table (40): The investment developments in the transportation sector.

Transportation Sector			
Years	No. of Projects	Capital in dollars	Stages
2012	1	70,000,000	pre-crisis stage
2013	0	0	pre-crisis stage
2014	1	34,204,000	ISIS war crisis stage
2015	0	0	decline stage
2016	0	0	decline stage
2017	0	0	decline stage
2018	0	0	post-crisis stage (recovery stage)
2019	1	26,500,000	Stable stage (pre-crisis stage)
2020	0	0	COVID-19 pandemic crisis (new crisis)
2021	0	0	crisis continue stage
2022	0	0	post-crisis stage
total	3	130,704,000	

Prepared by the researcher based on the data of BOI
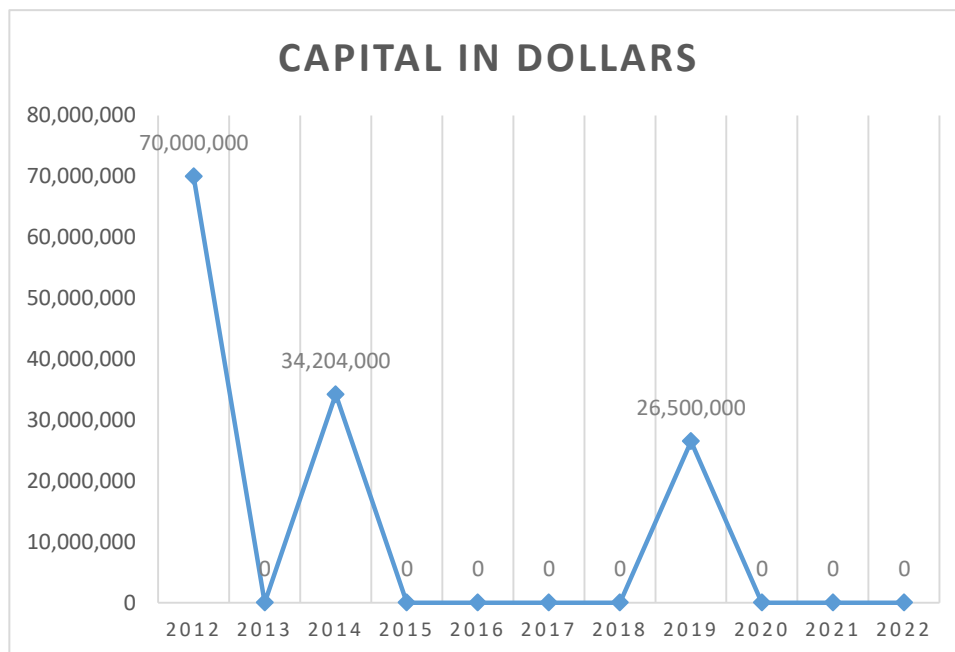
Figure (13): The investment developments in the transportation sector.

By examining the table and figure above it has been proven that investors do not pay much attention to the transportation sector, even during the crisis stage and recovery stage. But the transportation sector invested in the 2012 by (70,000,000$) with 1 project then in the next year there is no project. In the year 2014, one project was invested for the transportation sector by (34,204,000$) this number is the highest amount of investment during that period. There were not any projects in the transportation sector in the years 2015, 2016, 2017, and 2018 until 2019 Another project was invested in 2019 by (26,500,000$). The total amount was invested in the transportation sector was 3 projects by (130,704,000$).

The investment in the transportation sector has nothing to do with the existence or absence of a crisis. The government does not pay attention to this sector.

The statistical analysis of the transportation sector:

A. The influence of the ISIS war crisis on Capital in dollars for the transportation sector

Table (41): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the transportation sector.

Coefficients[a, b]			
	Standardized Coefficients		P-Value
Model	Beta	t	
1 ISIS Crisis	0.418	1.454	0.176
a. Dependent Variable: Transportation Capital in Dollars			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

The following simple regression analysis was done to ascertain the impact of the Crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable. The model number (13) is expressed as follows:

Capital in dollar = 0.418 * Crisis

According to the table below, the estimated value of the coefficient for the variable Crisis is (0.418) non-significant (P-Value = 0.176). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (42) below:

Table (42): The regression model of the ISIS war Crisis affecting the Capital in dollars for transportation significance using ANOVA

| ANOVA[a, b]						
Model	Sum of Squares	df	Mean Square	F	sig.	
1 Regression	1182376020173910.000	1	1182376020173910.000	2.115	.176[c]	
Residual	5589787595826090.000	10	558978759582609.000			
Total	6772163615999999.000[d]	11				
a. Dependent Variable: Transportation Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.176) in the above ANOVA, which is non-significant means that the chosen model above is non-significant and well-constructed with R-Square = 0.175 (17.5%). In other words, R Square measures the proportion of the variability in the Capital in dollars variable explained by the ISIS Crisis variable in the above regression model No. (13). This statistic proves that the crisis has a (non-significant) impact on the capital in dollars for the transportation sector. This outcome supports our idea that a crisis has no influence on capital in dollars for the transportation sector.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the transportation sector

Table (43): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the transportation sector

Coefficients[a, b]			
Model	Standardized Coefficients Beta	t	P-Value
1 COVID 19	0.385	1.320	0.216
a. Dependent Variable: Transportation Capital in dollars			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the COVID-19 crisis as an explanatory (independent) variable on the Capital in dollars for the transportation sector as the response (dependent) variable, the simple regression analysis was used. The model number (14) is expressed as follows:

Capital in dollar = 0.385 * Crisis

The estimated value of the coefficient is (0.385) of the variable Crisis is non-significant (P-Value = 0.216) as shown above in table (43). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (44).

Table (44): The regression model of the COVID-19 pandemic crisis affecting on the Capital in dollars for transportation sector significance using ANOVA

ANOVA[a, b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1004913859764700.000	1	1004913859764700.000	1.742	.216[c]
	Residual	5767249756235290.000	10	576724975623529.000		
	Total	6772163615999999.000[d]	11			
a. Dependent Variable: Transportation Capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.216) in the above ANOVA, which is non-significant means that the chosen model above is non-significant with R-Square = 0.148 (14.8%). In other words, R Square measures the proportion of the variability in the number of projects variable explained by the COVID-19 Crisis variable in the above regression model No. (14). This statistic shows that the impact of the crisis on the Capital in dollars for the transportation sector is (non-significant). This result confirms our analysis that a crisis has no impact on the Capital in dollars for the transportation sector.

7. Education sector

Table (45): The investment developments in the education sector.

	Education Sector		
Years	**No. of projects**	**Capital in dollars**	**Stages**
2012	6	206,178,324	pre-crisis stage
2013	5	44,301,993	pre-crisis stage
2014	2	18,406,750	ISIS war crisis stage
2015	2	16,785,689	decline stage
2016	1	3,000,000	decline stage
2017	3	15,121,531	decline stage
2018	4	31,202,521	post-crisis stage (recovery stage)
2019	5	67,613,000	Stable stage (pre-crisis stage)
2020	10	164,360,000	COVID-19 pandemic crisis (new crisis)
2021	2	11,459,000	crisis continue stage
2022	7	74,736,212	post-crisis stage
total	47	653,165,020	

Prepared by the researcher based on the data of BOI
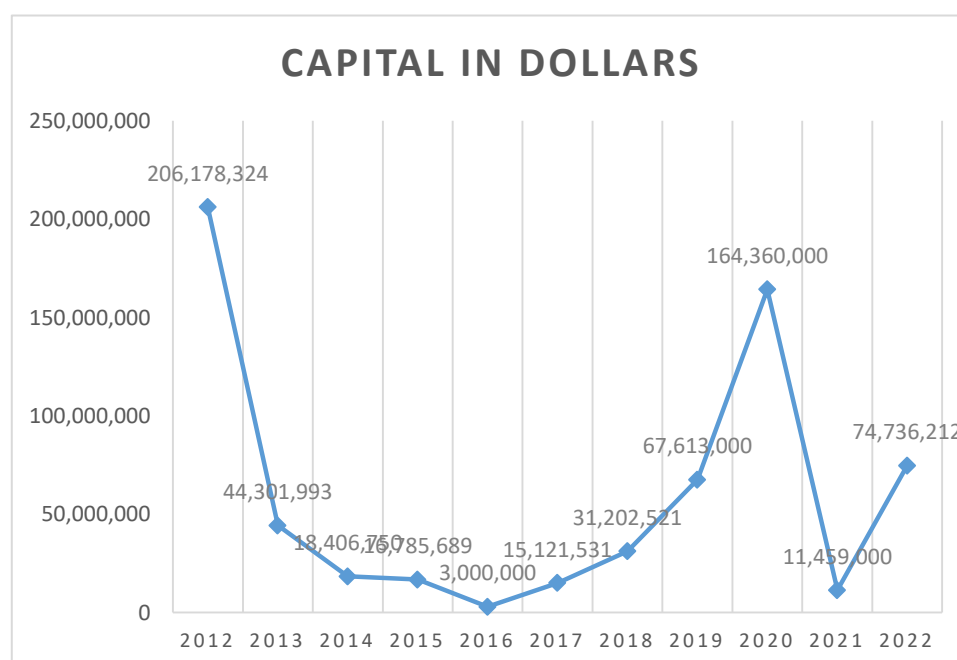
Figure (14): the investment developments in the education sector.

By reviewing table (45) and figure (14) the statistics prove that the education sector was at its highest level in the year 2012 the capital in dollars for this sector was (206,178,324$) with 6 projects but in the year 2013 before the crisis occurs in the pre-crisis stage this sector dropped sharply to (44,301,993$) with 5 projects the education sector continued to decrease from 2014 to 2015 decreased from (18,406,750$) to (16,785,689$) by %8.81 percent but the number of projects was unchanged. Also, from 2015 to 2016 continued to decrease till it reached a low of (3,000,000$) with one project. In the year 2017 grew up to (15,121,531$) as well as it doubled to (31,202,521$) in 2018, with only one more project from 3 to 4 projects. The education sector sustained an increase in 2019 and doubled to (67,613,000$) and 5 projects were invested. In the year 2020 climbed rapidly and steeply and reached its highest level (164,360,000$) and the number of projects was 10 projects. Development in 2021 in the education sector is towards weakness and it drops sharply to (11,459,000$) and 2 projects invested in this year.

The education sector revived in 2022 and become (74,736,212$) with 7 projects invested. The total amount of the education sector is (653,165,020$) with 47 projects.

By concluding this graph, the study gained that result, the education sector stops developing when crises occur which ISIS and COVID-19 crises negatively affected the education sector. From the top, it faded when the ISIS war crisis comes, but then in 2017 started to recover and increased before the next crisis come, but the education sector was harmed for another time by the COVID-19 pandemic crisis.

The statistical analysis of the education sector:

A. The influence of the ISIS war crisis on Capital in dollars for the education sector

Table (46): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the education sector

Coefficients[a, b]				
Model		Standardized Coefficients Beta	t	P-Value
1	ISIS Crisis	0.509	1.872	0.091
a. Dependent Variable: Education Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To figure out the impact of the ISIS Crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable, the basic regression analysis was used and the model number (15) is expressed as follows:

Capital in dollars = 0.509 * Crisis

The estimated coefficient for the variable Crisis has a significant estimated value of (0.509) (P-Value = 0.091), according to the table above (46). This model verification was made using the F-test in ANOVA (Analysis of Variance) as shown in table (47).

Table (47): The regression model of the ISIS war Crisis affecting the Capital in dollars for education sector significance using ANOVA

| ANOVA[a, b]						
Model		Sum of Squares	df	Mean Square	F	sig.
1	Regression	21700546230931300.000	1	21700546230931300.000	3.505	.091[c]
	Residual	61905984891705300.000	10	6190598489170530.000		
	Total	83606531122636560.000[d]	11			
a. Dependent Variable: Education Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.091) in the above ANOVA, which is non-significant, indicates that the above-mentioned model with R-Square = 0.260 (26%), is non-significant. In the regression model, R Square estimates the percentage of variance in the Capital in dollars for the education sector variable that can be accounted for by the ISIS Crisis variable in the above regression model No. (15). This statistic shows that the impact of the crisis on the capital in dollars for the education sector is (non-significant). In concluding, other factors is excepting the ISIS crisis which influenced the education sector. Furthermore, this sector starts to decrease the year before of coming ISIS crisis.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the education sector

Table (48): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the education sector

Coefficients[b]				
Model		Standardized Coefficients Beta	t	P-Value
1	COVID 19 crisis	0.695	3.060	0.012
a. Dependent Variable: Education No. of Projects				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

The following basic regression analysis was done to ascertain the impact of the COVID-19 pandemic Crisis as an explanatory (independent) variable on the Capital in dollars as the response (dependent) variable. The model number (16) is conducted as follows:

Capital in dollars = 0.695 * Crisis

The estimated coefficient for the variable Crisis has a significant estimated value of (0.695) (P-Value = 0.012), according to the table above (48). This

model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (49).

Table (49): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for education sector significance using ANOVA

ANOVA[a, b]					
Model	Sum of Squares	df	Mean Square	F	sig.
1 Regression	404243826714918000.00	1	404243826714918000.000	9.361	.012[c]
Residual	43182148451144800.000	10	4318214845114480.000		
Total	836065311226365600.000[d]	11			
a. Dependent Variable: Education Capital in dollars					
b. Linear Regression through the Origin					
c. Predictors: COVID-19 Crisis					
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.					

Prepared by the researcher based on the SPSS outcomes

The P-Value of the ANOVA (0.012) F-test, which is significant, indicates that the above-mentioned model with R-Square = 0.484 (48.4%), is significant. In the regression model below, R Square estimates the percentage of variance in the Capital in dollars variable that can be accounted for by the COVID-19 Crisis variable in the above regression model No. (16). The statistic shows that the impact of the crisis on the number of projects for the education sector is (significant). This result confirms our analysis that the COVID-19 pandemic crisis has an impact on the Capital in dollars for the education sector.

8. Agriculture sector

Table (50): The investment developments in the agriculture sector.

Years	No. of projects	Capital in dollars	Stages
			Agriculture Sector
2012	3	3,024,500	pre-crisis stage
2013	4	423,882,774	pre-crisis stage
2014	1	2,500,000	ISIS war crisis stage
2015	2	11,000,000	decline stage
2016	3	11,060,485	decline stage
2017	2	154,282,400	decline stage
2018	0	0	post-crisis stage (recovery stage)
2019	0	0	Stable stage (pre-crisis stage)
2020	4	183,044,000	COVID-19 pandemic crisis (new crisis)
2021	3	174,962,500	crisis continue stage
2022	5	96,268,900	post-crisis stage
total	27	1,060,025,559	

Prepared by the researcher based on the data of BOI
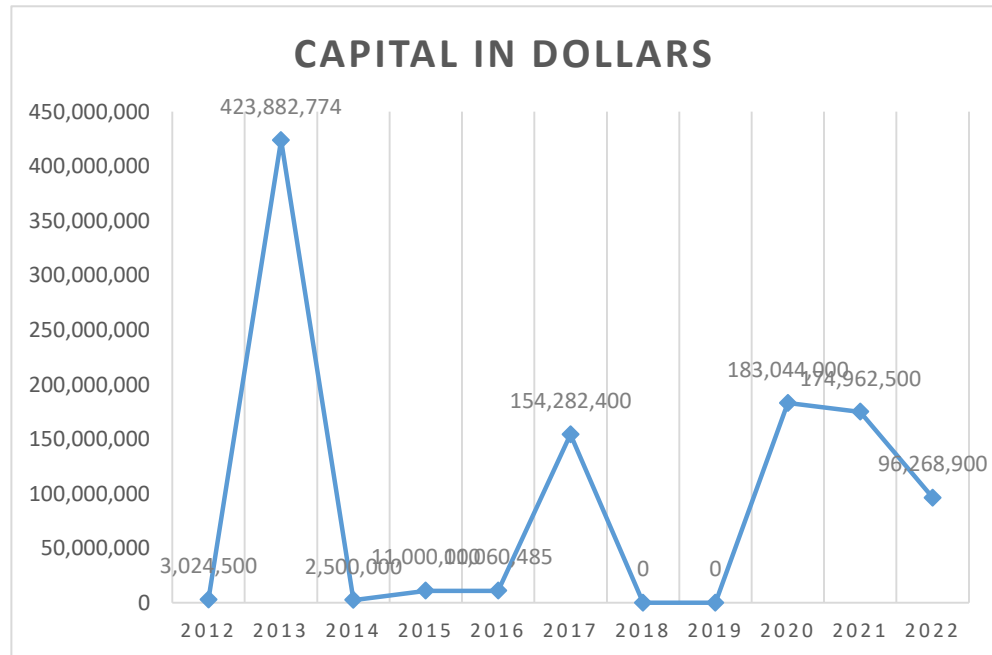
Figure (15): The investment developments in the agriculture sector.

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By examining table (50) and figure (15) prove to us investment developments in the agriculture sector in the year 2012 the capital in dollars for this sector was (3,024,500$) with 3 projects but in the year 2013, this sector climbed sharply to (423,882,774$) with 4 projects. Also, it falls sharply in 2014 and decreased to (2,500,000$) and only 1 project left. Also, between the years 2014 to 2015 increased gradually from (2,500,000$) to (11,000,000$) and the number of projects grew from 1 to 2 projects. Capital in dollars in the agriculture sector for the year 2016 was steady at about 11 million dollars though the number of projects grew to 3 projects. But the agriculture sector climbed rocketed to (154,282,400$) in 2017 however the number of projects in this year became 2 projects. In 2018 and 2019 there were no projects in the agriculture sector. Until 2019 the number of projects grew to 4 projects besides the capital in dollars was on top by (183,044,000$). As well as in 2021 the capital in dollars for that sector was (174,962,500$) and 3 projects were invested in this year. In 2022 the number of projects grew to 5 projects but the capital in dollars decreased to (96,268,900$). The total amount is (1,060,025,559$) with 27 projects.

By resulting of the graph above, in the year 2013 agriculture sector was on the top but in the year 2014 declined because of the ISIS war crisis, this crisis has an effect on the agriculture sector until the year 2017. However, the agriculture sector has a vice versa relationship with the COVID-19 epidemic crisis, because it does not affect by this crisis in 2020 and 2021 increased to (183,044,000$) and (174,962,500$).

The statistical analysis of the agriculture sector:

A. The influence of the ISIS war crisis on Capital in dollars for the agriculture sector

Table (51): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the agriculture sector

Coefficients[a,b]				
Model		Standardized Coefficients Beta	t	P-Value
1	ISIS Crisis	0.491	1.781	0.105
a. Dependent Variable: Agriculture Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To define the influence of the ISIS Crisis as an explanatory (independent) variable on the Capital in dollars for the agriculture sector as the response (dependent) variable, the simple regression analysis was used. The model number (17) is expressed as follows:

Capital in dollar = 0.491 * Crisis

The estimated value of the coefficient is (0.491) of the variable Crisis is significant (P-Value = 0.105) as shown above in table (51). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (52) below:

Table (52): The regression model of the ISIS war Crisis affecting the Capital in dollars for agriculture sector significance using ANOVA

| ANOVA[a, b]						
Model		Sum of Squares	df	Mean Square	F	sig.
1	Regression	66730218327781800.000	1	66730218327781800.000	3.172	.105[c]
	Residual	210392862094059000.000	10	21039286209405900.000		
	Total	277123080421840352.000[d]	11			
a. Dependent Variable: Agriculture Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.105) in the above ANOVA, which is non-significant means that the chosen model above is significant and well-constructed with R-Square = 0.241 (24.1%). In other words, R Square measures the amount of the variability in the Capital in dollars for agriculture variable explained by the ISIS Crisis variable in the above regression model No. (17). These statistics result shows that the crisis (non-significant) influences the capital in dollars for the agriculture sector. This outcome demonstrates that besides the crisis there in other factors that affected investment projects.

B. The influence of the COVID-19 pandemic crisis on the Capital in dollars for the agriculture sector

Table (53): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the agriculture sector

Coefficients[a, b]				
		Standardized Coefficients		P-
Model		Beta	t	Value
1	COVID 19 Crisis	0.653	2.729	0.021
a. Dependent Variable: Agriculture Capital in dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To define the influence of the COVID-19 Crisis as an explanatory (independent) variable on the Capital in dollars for the agriculture sector as the response (dependent) variable, the simple regression analysis was used. The model number (18) is expressed as follows:

Capital in dollar = 0.653 * Crisis

The estimated value of the coefficient is (0.653) of the variable Crisis is significant (P-Value = 0.021) as shown above in table (53). This model verification was made using the F-test in ANOVA (Analysis of Variance) as shown in table (54).

Table (54): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for agriculture sector significance using ANOVA

ANOVA[a, b]						
Model	Sum of Squares	df	Mean Square	F	sig.	
1 Regression	118283230608928000.000	1	118283230608928000.000	7.447	.021[c]	
Residual	158839849812912000.000	10	15883984981291200.000			
Total	277123080421840352.000[d]	11				
a. Dependent Variable: Agriculture Capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.021) in the above ANOVA, which is significant means that the chosen model above is significant and well-constructed with R-Square = 0.427 (42.7%). In other words, R Square measures the amount of the variability in the Capital in dollars for agriculture variable explained by the COVID-19 Crisis variable in the above regression model No. (18). the statistics show that the crisis (significantly) influence the Capital in dollars for the agriculture sector.

9. Housing sector

Table (55): The investment developments in the housing sector.

Housing Sector			
Years	No. of projects	Capital in dollars	Stages
2012	36	4,797,539,690	pre-crisis stage
2013	1	165,350,000	pre-crisis stage
2014	4	1,002,266,900	ISIS war crisis stage
2015	1	50,844,800	decline stage
2016	2	312,139,740	decline stage
2017	0	0	decline stage
2018	4	514,636,956	post-crisis stage (recovery stage)
2019	6	527,836,000	Stable stage (pre-crisis stage)
2020	7	639,399,000	COVID-19 pandemic crisis (new crisis)
2021	3	277,391,000	crisis continue stage
2022	6	922,383,905	post-crisis stage
total	70	9,209,787,991	

Prepared by the researcher based on the data of BOI
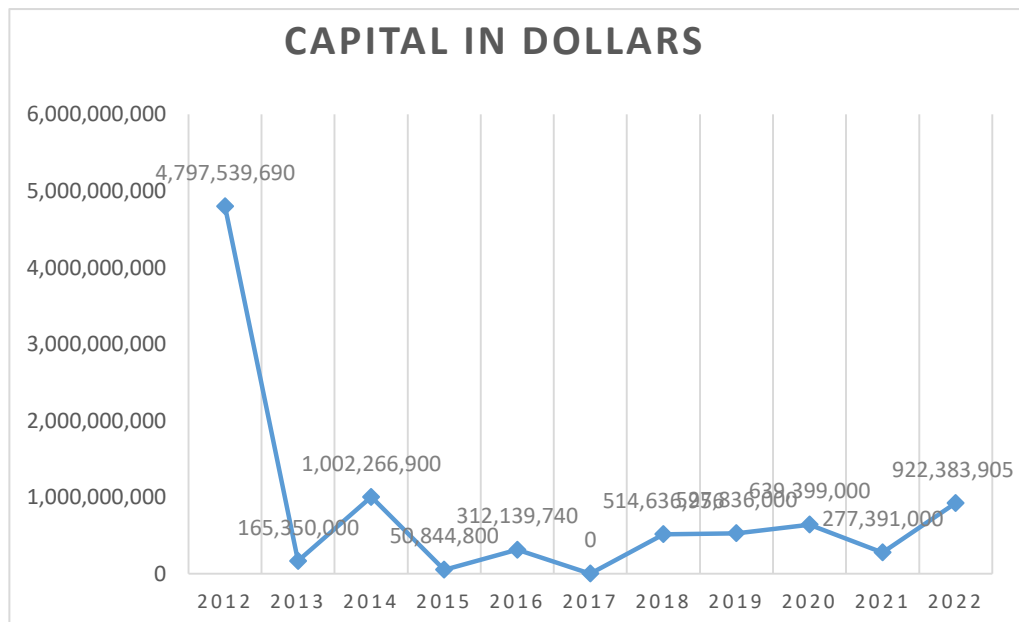
Figure (16): The investment developments in the housing sector.

depending on table (55) and figure (9) we can conclude that the housing sector was at its highest point in 2012 with an amount of nearly 5 billion dollars with 36 projects but in 2013 in the pre-crisis stage before the crisis coming housing sector declined severely to (165,350,000$) and only one project remained. Capital in dollars in the housing sector from 2013 to 2014 increased to (1,002,266,900$) with 4 projects. Also, from the year 2014 to 2015 dropped gradually to (50,844,800 $) and only 1 project remained. Then in the next year 2016 housing sector was able to increase its statistics to (312,139,740$) with 2 projects but there were no projects in 2017 in the housing sector. Next in 2018 the housing sector can go forward and invest 4 projects in the amount of (514,636,956$). Then the number of projects changed to 6 projects and capital in dollars grew slowly to (527,836,000$) in 2019. The housing sector in 2020 went up moderately and reached (639,399,000$) million dollars with 7 projects. the year after in 2021 the housing sector was affected by the crisis and dropped to (277,391,000$), and the number of projects decreased to 3 projects. The housing sector in 2022 climbed up moderately and reached (922,383,905$) million dollars with 6 projects. The total amount of the housing sector that invested during this period is (9,209,787,991$) with 70 projects.

in conclusion, the financial analysis proves to us that the housing sector has a direct relationship with the first crisis (ISIS), the ISIS war crisis has a big negative influence on the housing sector. While the COVID-19 pandemic crisis does not influence this sector.

The statistical analysis of the housing sector:

A. The influence of the ISIS war crisis on Capital in dollars for the housing sector

Table (56): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the housing sector

Coefficients[a, b]				
Model		Standardized Coefficients Beta	t	P-Value
1	ISIS Crisis	0.432	1.516	0.161
a. Dependent Variable: Housing Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

The basic regression analysis was utilized to ascertain the impact of the ISIS crisis as an explanatory (independent) variable on the Capital in dollars for the housing sector as the response (dependent) variable. The following is how the model number (19) is written:

Capital in dollar = 0.432 * Crisis

According to the table above, the estimated value of the coefficient for the variable Crisis is (0.432) significant (P-Value = 0.161) as shown above in table (56). The F-test in ANOVA (Analysis of Variance) was used to verify this model, as indicated in table (57) below:

Table (57): The regression model of the ISIS war Crisis affecting the Capital in dollars for housing sector significance using ANOVA

| ANOVA[a, b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4862237346400200000.000	1	4862237346400200000.000	2.297	.161[c]
	Residual	21166076658697000000.000	10	2116607665869700000.000		
	Total	26028314005097200000.000[d]	11			
a. Dependent Variable: Housing Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The significance of the P-Value of the F-test in the aforementioned ANOVA (0.161) indicates that the model chosen above is non-significant and, with R-Square = 0.187 (18.7%). R Square, then, represents the percentage of variation in the variable Capital in dollars for the housing sector that can be accounted for by the Crisis variable in the regression model No. (19) above. the statistics show that there is a (non-significant) effect of the crisis on capital in dollars for the housing sector. This indicates that other factors influenced the housing sector because even in the pre-crisis stage this sector declined.

B. The influence of the COVID-19 pandemic crisis on the Capital in dollars for the housing sector

Table (58): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the housing sector

Coefficients[a, b]				
Model		Standardized Coefficients Beta	t	P-Value
1	COVID 19 Crisis	0.481	1.737	0.113
a. Dependent Variable: Housing Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

The basic regression analysis was utilized to ascertain the impact of the COVID-19 crisis as an explanatory (independent) variable on the Capital in dollars for the housing sector as the response (dependent) variable. The following is how the model number (20) is written:

Capital in dollar = 0.481 * Crisis

According to the table above, the estimated value of the coefficient for the variable Crisis is (0.481) significant (P-Value = 0.113) as shown above in the table (58). The F-test in ANOVA (Analysis of Variance) was used to verify this model, as indicated in table (59).

Table (59): The regression model of the COVID-19 pandemic crisis affecting on the Capital in dollars for housing sector significance using ANOVA

ANOVA[a, b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6032210694576800000.000	1	6032210694576800000.000	3.017	.113[c]
	Residual	19996103310520400000.000	10	1999610331052040000.000		
	Total	26028314005097200000.000[d]	11			
a. Dependent Variable: Housing the Capital in dollars						
b. Linear Regression through the Origin						
c. Predictors: COVID-19 Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The significance of the P-Value of the F-test in the aforementioned ANOVA (0.113) indicates that the model chosen above is non-significant and, with R-Square = 0.232 (23.2%). R Square, then, represents the percentage of variation in the variable Capital in dollars for the housing sector that can be accounted for by the COVID-19 crisis variable in the regression model No. (20) above. the statistics show that there is a (non-significant) effect of the crisis on capital in dollars for the housing sector. This outcome indicates that other factors influenced the housing sector.

10. Sports sector

Table (60): The investment developments in the sport sector.

Years	No. of projects	Capital in dollars	Stages
Sports Sector			
2012	6	14,459,900	pre-crisis stage
2013	3	4,061,966	pre-crisis stage
2014	4	7,213,218	ISIS war crisis stage
2015	1	2,077,488	decline stage
2016	2	7,736,211	decline stage
2017	1	800,000	decline stage
2018	2	6,270,000	post-crisis stage (recovery stage)
2019	2	50,043,000	Stable stage (pre-crisis stage)
2020	2	5,458,000	COVID-19 pandemic crisis (new crisis)
2021	3	6,494,904	crisis continue stage
2022	1	3,029,553	post-crisis stage
total	27	107,644,240	

Prepared by the researcher based on the data of BOI
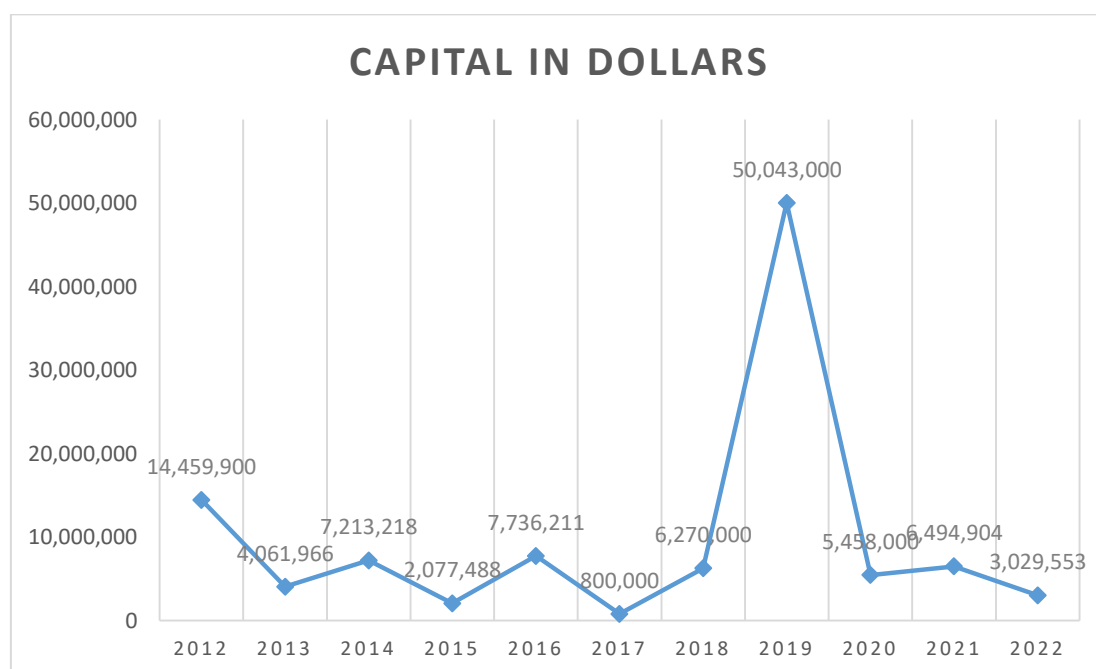
Figure (17): the investment developments in the sports sector.

Depending on table (60) and figure (17) sports sector zigzagged and the capital in dollars for the sports sector in the year 2012 was (14,459,900$) and the number of projects is 6 projects. then in 2013 sports sector declined largely to (4,061,966$) and 3 projects remained. From the year 2014 capital in dollars in the sports sector increased slightly to (7,213,218$) with 4 projects. but in 2015 it fluctuated to (2,077,488$) also the number of projects decreased from 4 to 1 project. In the year 2016, the sports sector climbed to (7,736,211$) with 2 projects. Moreover, in 2017 the amount of capital spent on the sports sector is (800,000$) for one project. However, the sports sector starts to develop in 2018 by (6,270,000$) with two projects, and in 2029 reached its highest level of (50,043,000$). But in 2020 declined sharply to (5,458,000$) and the number of projects remained stable. In 2021 sports sector grew slightly with one more project to (6,494,904$). But in 2022 declined again to (3,029,553$) and the number of projects decreased to 1 project.

By summarizing the graph, the sports sector invested in the small amount of capital and this sector fluctuated during that period the growth of this sector is stable even by the occurrence of the ISIS crisis which indicates that the ISIS war crisis has not influence on this sector. but the year before another crisis coming to the sports sector improved to its highest level however the year of the COVID-19 pandemic crisis this sector dwindled which means COVID-19 has a big negative impact on the sports sector.

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The statistical analysis for the sports sector:

A. The influence of the ISIS war crisis on Capital in dollars for the sports sector

Table (61): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the sports sector

Coefficients[a, b]		Standardized Coefficients		
Model		Beta	t	P-Value
1	ISIS Crisis	0.480	1.732	0.114
a. Dependent Variable: Sports Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To determine the influence of the ISIS crisis as an explanatory (independent) variable on the Capital in dollars for the sports sector as the response (dependent) variable, the simple regression analysis was used. The model number (21) is expressed as follows:

Capital in dollar = 0.480 * Crisis

The estimated value of the coefficient is (0.480) of the variable Crisis is significant (P-Value = 0.114) as shown above in table (61). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (62) below:

Table (62): The regression model of the ISIS war Crisis affecting the Capital in dollars for sports sector significance using ANOVA

| ANOVA[a,b]						
Model		Sum of Squares	df	Mean Square	F	sig.
1	Regression	684478749518202.000	1	684478749518202.000	2.999	.114[c]
	Residual	2282711439568170.000	10	228271143956817.000		
	Total	2967190189086370.000[d]	11			
a. Dependent Variable: Sports Capital in Dollars						
b. Linear Regression through the Origin						
c. Predictors: ISIS Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.114) in the above ANOVA, which is non-significant means that the chosen model above is non-significant and well-constructed with R-Square = 0.231 (23.1%). In other words, R Square measures the proportion of the variability in the Capital in dollars variable explained by the ISIS Crisis variable in the above regression model No. (21). This result illustrates that the crisis has had (a non-significant) impact on the capital in dollars for the sports sector. This outcome verifies our analysis that as long as the ISIS crisis remains, sports projects will not affect.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the sports sector

Table (63): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the sports sector

Coefficients[a, b]				
Model		Standardized Coefficients Beta	T	P-Value
1 COVID 19 Crisis		0.533	1.989	0.075
a. Dependent Variable: Sports Capital in dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the COVID-19 crisis as an explanatory (independent) variable on the Capital in dollars for the sports sector as the response (dependent) variable, the simple regression analysis was used. The model number (22) is expressed as follows:

Capital in dollar = 0.533 * Crisis

The estimated value of the coefficient is (0.533) of the variable Crisis is non-significant (P-Value = 0.075) as shown above in table (63) This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in the table (64).

Table (64): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for sports sector significance using ANOVA

ANOVA[a, b]						
Model	Sum of Squares	df	Mean Square	F	sig.
1 Regression	841380991350396.000	1	841380991350396.000	3.958	.075[c]
Residual	2125809197735970.000	10	212580919773597.000		
Total	2967190189086370.000[d]	11			
a. Dependent Variable: Sports Capital in dollars					
b. Linear Regression through the Origin					
c. Predictors: COVID-19 Crisis					
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.					

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.075) in the above ANOVA, which is non-significant means that the chosen model above is non-significant and well-constructed with R-Square = 0.284 (28.4%). In other words, R Square measures the proportion of the variability in the capital in dollars for the sports sector variable explained by the COVID-19 crisis variable in the above regression model No. (22). This result illustrates that the crisis has had a (non-significant) impact on the capital in dollars for the sports sector. This outcome indicates that there are other factors that affected this sector.

11. bank sector

Table (65): The investment developments in the bank sector.

Years	No. of projects	Capital in dollars	Stages
		Bank Sector	
2012	0	0	pre-crisis stage
2013	0	0	pre-crisis stage
2014	0	0	ISIS war crisis stage
2015	1	13,702,661	decline stage
2016	0	0	decline stage
2017	1	2,980,000	decline stage
2018	0	0	post-crisis stage (recovery stage)
2019	0	0	Stable stage (pre-crisis stage)
2020	0	0	COVID-19 pandemic crisis (new crisis)
2021	1	15,315,000	crisis continue stage
2022	1	4,100,000	post-crisis stage
total	4	36,097,661	

Prepared by the researcher based on the data of BOI
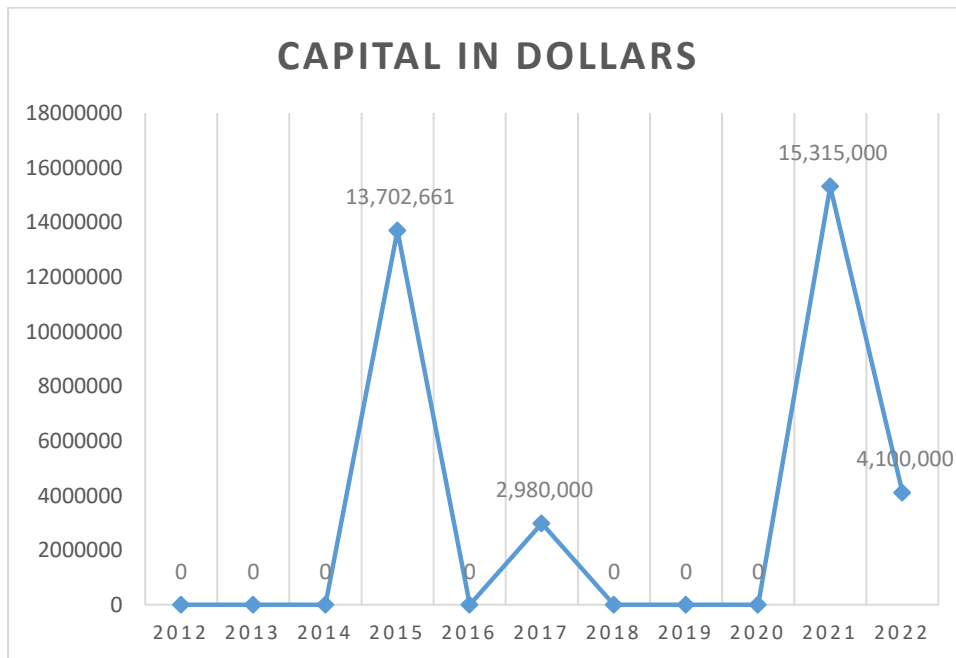
Figure (18): The investment developments in the bank sector.

By examining table (65) and figure (18) it has been proven that the Board of Investment does not pay much attention to the bank sector, even during the pre-crisis stage or the crisis stage and recovery stage. But the bank sector invested in 2015 by (13,702,661 $) with 1 project then in the next year there is no project. In the year 2017 one project was invested in the bank sector by (2,980,000 $). There were not any projects in bank sector in the years 2018, and 2019 until 2020 Another project was invested in 2021 and 2022 by 15,315,000 $ and 4,100,000 $.

The investment in the bank sector has nothing to do with the existence or absence of a crisis. This sector was not attractive to investors until the late years. While in the KRG there are many bank projects around 72 banks that licensed by central bank of Iraq (CBI). These banks except licensed from CBI they licensed by the BOI. The difference between these banks is they have permissions to invest in projects.

The statistical analysis of the bank sector:

A. The influence of the ISIS war crisis on Capital in dollars for the bank sector:

Table (66): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the bank sector.

Coefficients[a, b]		Standardized Coefficients Beta	t	P-Value
Model				
1	Crisis	0.559	2.133	0.059
a. Dependent Variable: Banking Capital in Dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

The basic regression analysis was utilized to ascertain the impact of the Crisis as an explanatory (independent) variable on the Capital in dollars for the bank sector as the response (dependent) variable. The following demonstrates how the model number (23) is written:

Capital in dollars = 0.559 * Crisis

According to the table above, the estimated value of the coefficient for the variable Crisis is (0.559) significant (P-Value = 0.059) as shown above in the table (66). The F-test in ANOVA (Analysis of Variance) was used to verify this model, as indicated in table (67) below:

Table (67): The regression model of Crisis affecting the Capital in dollars for bank sector significance using ANOVA.

ANOVA[a,b]						
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	140075251422769.000	1	140075251422769.000	4.549	.059[c]
Residual	307927292058152.000	10	30792729205815.200		
Total	448002543480921.000[d]	11			
a. Dependent Variable: Banking Capital in Dollars					
b. Linear Regression through the Origin					
c. Predictors: Crisis					
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.					

**Prepared by the researcher based on the SPSS outcomes**

The non-significance of the P-Value of the F-test in the aforementioned ANOVA (0.059) indicates that the model chosen above is non-significant and well-constructed, with R-Square = 0.313 (31.3%). R Square, therefore, represents the percentage of variation in the variable Capital in dollars that can be represented by the Crisis variable in the regression model No. (23) above. Depending on the statistical outcomes, it seems that the bank sector does not affected by the ISIS crisis.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the bank sector

Table (68): Regression Parameter Estimation of the effect of Crisis on the capital in dollars for the bank sector

Coefficients[a, b]				
		Standardized Coefficients		
Model		Beta	t	Sig.
1	Crisis	0.589	2.306	0.044
a. Dependent Variable: Banking capital in dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

The basic regression analysis was performed to ascertain the impact of the Crisis as an explanatory (independent) variable on the number of projects for the bank sector as the response (dependent) variable. The following is how the model number (24) is written:

Capital in dollar = 0.589 * Crisis

The estimated value of the coefficient is (0.589) of the variable Crisis is significant (P-Value = 0.044) as shown above in table (68). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (69).

Table (69): The regression model of Crisis affecting the number of projects for bank sector significance using ANOVA

ANOVA[a,b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	155485983005936.000	1	155485983005936.000	5.315	.044[c]
	Residual	292516560474984.000	10	29251656047498.400		
	Total	448002543480921.000[d]	11			
a. Dependent Variable: Banking No.of Projects						
b. Linear Regression through the Origin						
c. Predictors: Crisis						
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.						

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.044) in the above ANOVA, which is significant means that the chosen model above is significant and well-constructed with R-Square = 0.347 (34.7%). In other words, R Square measures the proportion of the variability in the capital in dollars for the bank sector variable explained by the Crisis variable in the above regression model No. (24). Depending on the statistical outcomes, it seems that the bank sector can affect by the COVID-19 crisis.

12. Art sector

Table (70): The investment developments in the art sector.

Years	N No. of projects	Capital in dollars	Stages
Art Sector			
2012	0	0	pre-crisis stage
2013	0	0	pre-crisis stage
2014	0	0	ISIS war crisis stage
2015	1	2,511,846	decline stage
2016	0	0	decline stage
2017	0	0	decline stage
2018	0	0	post-crisis stage (recovery stage)
2019	1	1,690,000	Stable stage (pre-crisis stage)
2020	1	9,234,000	COVID-19 pandemic crisis (new crisis)
2021	0	0	crisis continue stage
2022	0	0	post-crisis stage
total	3	13,435,846	

Prepared by the researcher based on the data of BOI
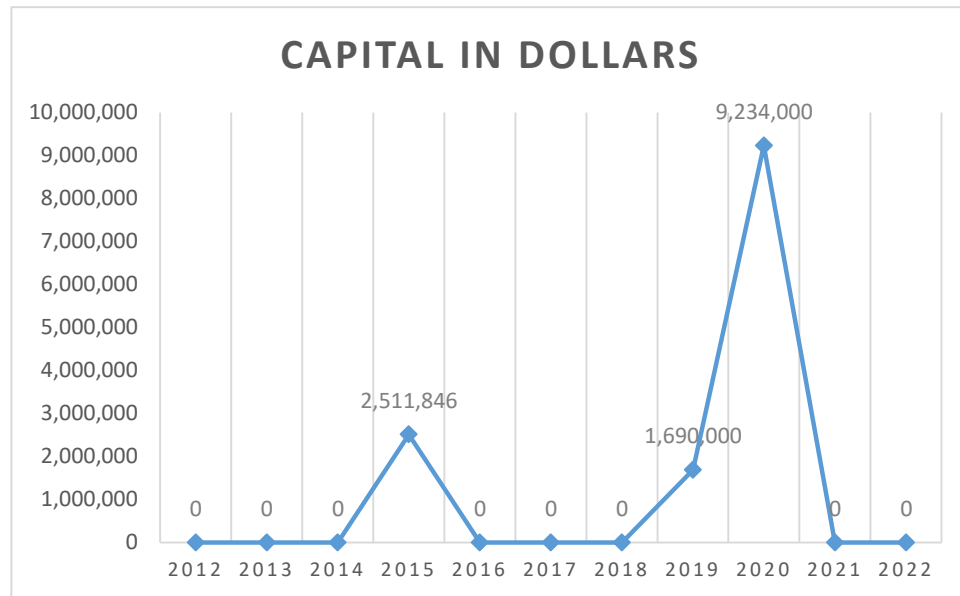
Figure (19): The investment developments in the art sector.

Depending on the table (70) and figure (19) It has been proven that the Board of Investment pays less attention to the art sector, even during the pre-crisis stage or the crisis stage and recovery stage. But the art sector invested in 2015 by (2,511,846 $) with 1 project. There were not any projects in the art sector in the years 2016 until 2019. In the year 2019, one project was invested in the art sector by (1,690,000 $).

As well as one project invested in the year 2020 by (9,234,000 $). There were not any projects in the art sector for both years 2021 and 2022.

The whole invested projects in that period for the art sector was only three projects by (13,435,846 $). The existence or absence of a crisis has nothing to do with investment in the arts sector. It seems that the art sector was not attractive to investors.

The statistical analysis of the art sector:

A. The influence of the ISIS war crisis on Capital in dollars for the art sector

Table (71): Regression Parameter Estimation of the influence of the ISIS war crisis on the Capital in dollars for the art sector

Coefficients[a,b]			
	Standardized Coefficients		P-Value
Model	Beta	t	
1 ISIS Crisis	0.481	1.736	0.113
a. Dependent Variable: Arts Capital in Dollars			
b. Linear Regression through the Origin			

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the ISIS crisis as an explanatory (independent) variable on the Capital in dollars for the art sector as the response (dependent) variable, the simple regression analysis was used. The model number (25) is expressed as follows:

Capital in dollar = 0.481 * Crisis

The estimated value of the coefficient is (0.481) of the variable Crisis is non-significant (P-Value = 0.113) as shown above in table (71). This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in table (72) below:

Table (72): The regression model of the ISIS war Crisis affecting the Capital in dollars for art sector significance using ANOVA

ANOVA[a,b]					
Model	Sum of Squares	df	Mean Square	F	sig.
1 Regression	63875518477377.600	1	63875518477377.600	3.013	.113[c]
Residual	212010256003544.000	10	21201025600354.400		
Total	275885774480921.100[d]	11			
a. Dependent Variable: Arts Capital in Dollars					
b. Linear Regression through the Origin					
c. Predictors: ISIS Crisis					
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.					

Prepared by the researcher based on the SPSS outcomes

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The P-Value of the F-test (0.013) in the above ANOVA, which is non-significant means that the chosen model above is non-significant and well-constructed with R-Square = 0.232 (23.2%). In other words, R Square measures the proportion of the variability in the Capital in dollars variable explained by the ISIS Crisis variable in the above regression model No. (25). This outcome supports our theories that the ISIS crisis has not effect on the Capital in dollars for the art sector.

B. the influence of the COVID-19 pandemic crisis on the Capital in dollars for the art sector

Table (73): Regression Parameter Estimation of influence of the COVID-19 pandemic crisis on Capital in dollars for the art sector

Coefficients[a,b]				
		Standardized Coefficients		P-Value
Model		Beta	t	Value
1 COVID 19 Crisis		0.494	1.799	0.102
a. Dependent Variable: Arts capital in dollars				
b. Linear Regression through the Origin				

Prepared by the researcher based on the SPSS outcomes

To determine the effect of the COVID-19 crisis as an explanatory (independent) variable on the Capital in dollars for the art sector as the response (dependent) variable, the simple regression analysis was used. The model number (26) is expressed as follows:

Capital in dollar = 0.494 * Crisis

The estimated value of the coefficient is (0.494) of the variable Crisis is significant (P-Value = 0.102) as shown above in table (73) This model verification was made using F-test in ANOVA (Analysis of Variance) as shown in the table (74) below:

Table (74): The regression model of the COVID-19 pandemic crisis affecting the Capital in dollars for art sector significance using ANOVA

ANOVA[a,b]					
Model	Sum of Squares	df	Mean Square	F	sig.
1　Regression	67443786079818.900	1	67443786079818.900	3.236	.102[c]
Residual	208441988401102.000	10	20844198840110.200		
Total	275885774480921.100[d]	11			
a. Dependent Variable: Arts Capital in dollars					
b. Linear Regression through the Origin					
c. Predictors: COVID-19 Crisis					
d. This total sum of squares is not corrected for the constant because the constant is zero for regression through the origin.					

Prepared by the researcher based on the SPSS outcomes

The P-Value of the F-test (0.102) in the above ANOVA, which is non-significant means that the chosen model above is non-significant and well-constructed with R-Square = 0.244 (24.4%). In other words, R Square measures the proportion of the variability in the capital in dollars variable explained by the COVID-19 crisis variable in the above regression model No. (26). This outcome illustrate that there is another factors has effect on the Capital in dollars for the art sector.

3.4.6 Ranking of the sector's development from 2012 till 2022
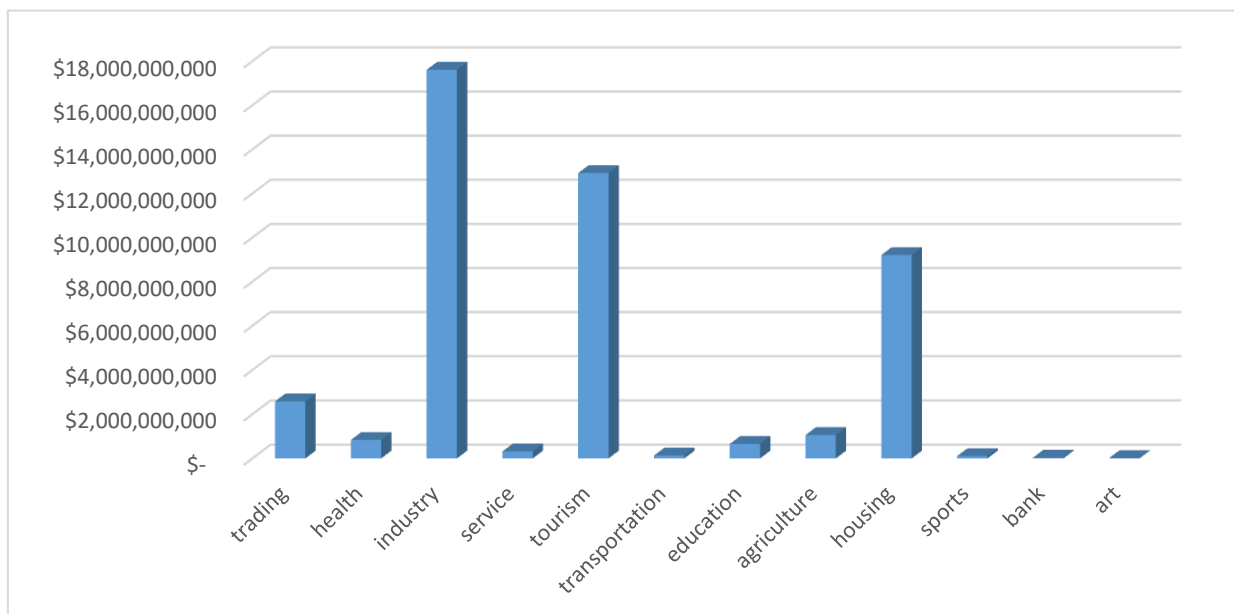
Figure (20): Ranking of the sector's development

By examining figure (20), it has been proven for us that from 2012 to 2022 the most investment projects in these sectors are the top five sectors in the region. in the industry sector invested by approximately $17 billion and half dollars. After that tourism sector is in the second position investment in capital for this sector approximately (13$) billion. Also, housing sector paid attention to it being in the third position in this queue by ($9,209,787,991) billion it has spent for this section. As well as trade sector is the fourth largest investment section that invested by $2 billion and a half. During that period of time, total of capital spent on the agriculture sector was (963,756,659 $).

Afterward, Other sections are less than one billion dollars invested, such as the health sector has the sixth rate by ($836,563,564). Moreover, the education sector is investing by ($653,165,020) during that period. Then service sector by ($315,662,233). And. The transportation sector invested by (130,704,000 $). Lastly, the minimum rate is the sports sector by ($107,644,240). The last two sectors are ignored sectors in the region, such as the bank and art sectors that invested by ($31,997,661) and ($13,435,846). The bank sector should pay more attention because it's the priority sector for the economic growth in each country's investment as well. The total amount of all sectors that invested in KRG from 2012 to 2022 is equal to ($45,479,101,666).

3.4.7 Compare the impact of crises (ISIS war crisis & COVID-19 pandemic crisis) on the investment sectors

The first crisis is a war crisis and the second crisis is a pandemic crisis they have different influences on each sector differently. Thus, the study compares their influence as shown in table (75) and (76) below:

Table (75): compare the investment sectors developments in the ISIS war crisis

Sectors	2013	2015	Amount	Percentage
	ISIS War Crisis			
tourism	3,317,266,630	68,916,000	-0.97923	-98%
agriculture	423,882,774	11,000,000	-0.97405	-97%
health	437,710,370	22,815,575	-0.94788	-95%
housing	165,350,000	50,844,800	-0.6925	-69%
education	44,301,993	16,785,689	-0.62111	-62%
industry	5,804,772,719	2,813,168,769	-0.51537	-52%
sport	4,061,966	2,077,488	-0.48855	-49%
trade	175,724,427	188,526,262	0.072852	+7%
service	0	0	0	0%

Prepared by the researcher depending on the data and results

Table (75) compares the capital in dollars for each sector. nine sectors of investment shown in the table such as (tourism, agriculture, health, housing, education, industry, sport, trade, and service) in the year (2013) and (2015), and the difference amount between them, with percentages. that can illustrate the most affected sector harmed by the ISIS war crisis, from maximum to minimum. While the other sectors such as (transportation, banking, and art) do not compare to each other in the table due to there is no influence of the ISIS crisis on these sectors.

Table (76): Compare the investment sector's developments in the COVID-19 pandemic crisis

COVID-19 pandemic crisis				
sectors	2019	2020	amount	percentage
service	117,117,000	9,491,000	-0.91896138	-92%
sport	50,043,000	5,458,000	-0.890933797	-89%
tourism	1,029,363,000	123,975,000	-0.879561438	-88%
trade	245,012,008	143,676,000	-0.413596088	-41%
agriculture	50,040,000	45,238,000	-0.095963229	-10%
industry	618,738,256	694,396,500	0.122278271	+12%
housing	527,836,000	639,399,000	0.21135921	+21%
agriculture	0	183,044,000	0	+100%
education	67,613,000	164,360,000	1.430893467	+143%

Prepared by the researcher depending on the data and results

The table shows the capital in dollars of the ten sectors of investment such as (service, sport, tourism, trade, agriculture, industry, housing, education, and agriculture) in the year (2019) and (2020), and the difference amount between them, with percentages. that can illustrate the most affected sector harmed by the COVID-19 pandemic crisis, from maximum to minimum. While the other sectors such as (transportation, banking, and art) do not compare to each other in the table due to there is no influence of the COVID-19 crisis on these sectors.

Table (77): comparing the impact of the ISIS war crisis with the COVID-19 pandemic crisis on the investment sectors.

Compare the crises		
Sectors	**ISIS war crisis**	**COVID-19 pandemic crisis**
Trade	+7%	-41%
Health	-95%	-10%
industry	-52%	-12%
Service	0%	92%
Tourism	-98%	-88%
education	-62%	+143%
Agriculture	-97%	+100%
Housing	-69%	+21%
Sport	-49%	-89%

Prepared by the researcher depending on the results

The trade sector is affected differently by the crises, it developed by (+7%) during the ISIS period while it was harmed by (+41%) during the COVID-19 era. The health sector is harmed by both crises but at different rates it was affected hard with a high degree by (-95%) at the ISIS period while it was harmed only by (-10%) at the COVID-19 era. The industry sector was affected by the ISIS war crisis by (-52%) and (-12%) by the COVID-19 crisis. Because there were no projects in these years the service sector remained without change and the service sector developed by (+92%). The tourism sector was harmed significantly in both crises by (-98%) from the ISIS crisis and (-88%) from the COVID-19 crisis. The education sector was harmed by (-62%) during the ISIS period, while developed significantly by (143%) at the occurrence of the COVID-19 crisis. The agriculture sector was harmed by (-97%) during the ISIS period, while developed significantly by (+100%) at the occurrence of the COVID-19 crisis, there were no projects in the year before but the year after the projects from zero became (183,044,000$) therefore the growth rate for agriculture sector became (+100%). The housing sector was

negatively impacted by (-69%) during the ISIS era while greatly growing by (+21%) during the COVID-19 crisis. The ISIS and the COVID-19 crises both had a negative impact on the sports sector by (-49%) and (-89%).

Examining the table demonstrates that there is no development of sectors in the ISIS era, except for trade with little amount while there are many sectors developed in the COVID-19 era sectors such as (service, education, agriculture, and housing).

Chapter Five
Testing Research Model and Hypothesis

By analyzing the results of the analysis, the reality of the investment situation in the region, as well as analyzing the answers to interview's questions and the final results that were reached on the field side, the hypotheses that were developed at the beginning of the research can be tested, which are as follows:

First hypothesis: based on the hypothesis (KRG used the concept of crisis management to handle and manage the ISIS war crisis). The research sample does not agree thus hypothesis rejected because the KRG does not use the concept of crisis management to handle and manage the ISIS crisis. And the government's reaction toward investment projects has not been effective and does not pay attention to investment projects. Because the main focus of the KRG is to protect its borders and fighting, therefore the KRG did not pay much attention to investments. The KRG do not make any important decisions in the third top crisis management stage, but after the crisis faded, in the recovery and learning stage KRG stepped toward making a better investment state. This ideology was achieved when the final result of the opinions of the research sample according to the answers to the interview's questions. Also, the data on investment development confirms it, while investment development harmed and decreased sharply by (65.20%) from the year 2013 to 2014. In the years after it continues to decrease by (11.76%) and (9.92%) until the year 2017 by (55.33%). The number of cancelled projects was also high, with (24) and (22) projects in 2013 and 2014. Furthermore, this is approved by the statistical analysis that the ISIS war crisis influenced the capital in dollars.

Second hypothesis: based on the hypothesis (KRG used the concept of crisis management to handle and manage the COVID-19 pandemic crisis). This hypothesis accepted. And, The total sample of the research agrees that local KRG used the concept of crisis management in the right way to handle and manage the COVID-19 pandemic crisis from the citizen's perspective as well as from the investment projects perspective. Because KRG has a react in each stage, the most important decision taken in the damage containment stage such as (the decentralized system to hand over power and the extension of project completion permits). These decisions helped projects to struggle with the crisis. As well as, the KRG has plan to give attention to three main sectors and make them priority such as (tourism, agriculture, and industrial) with the aim of diversification of KR income through the investment sectors except for the oil sector. This means the KRG learned from the crisis how to develop the region's economy through other different sectors. This hypothesis was achieved when the final result of the opinions of the research sample according to the answers to the interview's questions. Also, the data on investment development confirms it, while investment development decreased lightly from the year (2019) to 2020 by (18.76%) but investment projects developed in the year after by (76.40%). Furthermore, this is approved by the statistical analysis that the COVID-19 pandemic crisis influenced the capital in dollars.

Third hypothesis: based on the hypothesis (Managing the financial crises done by KRG was better during the COVID-19 pandemic crisis). This hypothesis accepted because by comparing crises with each other and observing the KRG's reaction during each period this hypothesis was achieved. Managing the financial crises done by KRG was better during the COVID-19 pandemic crisis.

Fourth main hypothesis: in the base of the hypothesis (There is the negative influence of the ISIS war crisis on the investment projects). There is a negative influence of the ISIS war crisis on investment projects. This hypothesis was achieved when the capital in dollars dropped from the appearance of ISIS in the crisis stage by (65.20%). Capital in dollars continues to decrease in the declined stage until the crisis faded by (11.76%) in the year 2015 and (9.92%) in the year 2016 until the year 2017 by (55.33%). As well as, the number of projects dropped from (108) to (70) projects, till reached (33) projects in the year 2017. Also, the statistical analysis approves that the ISIS war crises influenced the capital in dollars and a number of projects of investment projects.

The main hypothesis includes sub-hypothesis as below:

1. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the trade sector). The ISIS war crisis had a huge negative influence on the trade sector. This hypothesis was achieved by analysing and reviewing the table and figure of the trade sector which capital in dollars for this sector decreased from 2014 to 2015 by (80.37%) and (81.3%) it continues to decrease until the year (2016) by (81.2%). As well as the statistical analysis approves that the ISIS war crisis highly influenced the capital in dollars of the trade sector.

2. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the health sector). The ISIS crisis has a great negative influence on the health sector. This hypothesis was achieved by analysing and reviewing the table and figure of the health sector which capital in dollars for this sector decreased considerably during two years from 2014 to 2016 by (60.32%) and (64.94%).

3. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the industry sector). the ISIS crisis has a big negative

influence on the industry sector at the beginning of the crisis then in 2015 this influence decreased. This hypothesis is achieved, capital in dollars for the industry sector decreased sharply from the year 2013 to 2014 by (87.79%). But, otherwise, the industry sector climbed from the year 2014 to 2015 by (74.80%) but does not return to the actual amount. As well as the statistical analysis approves that the ISIS war crises influenced the capital in dollars of the industry sector.

4. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the service sector). The ISIS crisis has a great negative influence on the service sector. This hypothesis was achieved by analysing and reviewing the table and figure of the service sector which capital in dollars for this sector in the year 2014 was (46,231,000$) but it falls to no projects in the year 2015 and 2016. As well as the statistical analysis approves that the crises affect the capital in dollars of the service sector.

5. On the base of the hypothesis (There is the negative influence of the ISIS war crisis on the tourism sector). This hypothesis was achieved by analysing and reviewing the table and figures of tourism sector while the ISIS crisis negatively affected the tourism sector and capital in dollars for this sector dropped rapidly from the year 2014 to 2015 by (91.20%). Then capital in dollars for the tourism sector continues to decrease from the year 2015 to 2016 by (78.05%).

6. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the transportation sector). The ISIS crisis has no influence on the transportation sector, his sector ignored itself even with the occurrence or absence of a crisis. This hypothesis was achieved by analysing and reviewing the table and figures of the transportation sector. As well as the statistical analysis approves that the crises have not affected the capital in dollars of the transportation sector.

7. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the education sector). This hypothesis was achieved by analysing and reviewing the table and figures of the education sector. The ISIS crisis and other factors negatively affected the education sector because capital in dollars for this sector falls in the pre-crisis stage from the year 2012 to 2013 by (78.51%) then by coming to the ISIS war crisis it dropped again from the year 2013 to 2014 by (58.45%). And by (82.13%) from 2015 to 2016.

8. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the agriculture sector). the ISIS crisis and other factors have a huge negative influence on the agriculture sector. Capital in dollars for the agriculture sector declined sharply from 2013 to 2014 by (99.41%). But from 2014 to 2015 it climbed gradually by (77.27%).

9. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the housing sector). This hypothesis was achieved by analysing and reviewing the table and figures of the housing sector. The ISIS crisis and other factors has a great negative influence on the housing sector, because it decreased in the pre-crisis stage from the year 2012 to 2013 by (96.55%) then by coming to the ISIS war crisis it dropped again by (94.92%) from the year 2014 to 2015.

10. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the sports sector). This hypothesis rejected because the ISIS crisis has no negative influence on the sports sector, it has always been in steady highs and lows, capital in dollars for this sector dropped steadily from the year 2014 to 2015 by (71.2%) and increased in the next year by (73%). As well as the statistical analysis approves that the ISIS crisis has no influence on the capital in dollars of the sports sector.

11. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the bank sector). The ISIS crisis has no influence on the bank

sector. This hypothesis was achieved by analyzing and reviewing from the table and figures of the bank sector. When there is no change of capital in dollars for the bank sector even with the occurrence or absence of the crisis.

12. On the base of the hypothesis (There is a negative influence of the ISIS war crisis on the art sector). This hypothesis rejected because the ISIS crisis has no influence on the art sector. the statistical analysis approves that the crisis has not affected the capital in dollars of the art sector.

Fifth main hypothesis: in the base of the hypothesis (There is the negative influence of the COVID-19 pandemic crisis on investment projects). This hypothesis accepted because there is a limited influence of the COVID-19 pandemic crisis on investment projects. This hypothesis was achieved when the capital in dollars decreased slightly from the appearance of COVID-19 in the crisis stage by (18.76%). However, the number of projects increased slightly from (66) to (76) projects. Also, the statistical analysis approves that the COVID-19 pandemic crisis influenced the capital in dollars.

The main hypothesis includes sub-hypothesis as below:

1. On the base of the hypothesis (There is a negative influence of the COVID-19 pandemic crisis on the trade sector) The COVID-19 crisis negatively affected the trade sector. Capital in dollars for the trade sector decreased moderately from 2019 to 2020 by (41.36%). This hypothesis was achieved by analysing and reviewing the table and figures of the trade sector. Besides, the statistical analysis approves that the COVID-19 pandemic crisis influenced the capital in dollars of the trade sector.

2. On the base of the hypothesis (There is a negative influence of the COVID-19 pandemic crisis on the health sector). The COVID-19 crisis has a little negative influence on the health sector. Capital in dollars for the

health sector decreased slightly from 2019 to 2020 by (9.6%) and from the year 2020 to 2021 by (42.8%).

3. On the base of the hypothesis (There is the negative influence of the COVID-19 pandemic crisis on the industry sector). the COVID-19 crisis has a very limited negative influence on the industry sector. Capital in dollars for the industry sector increased slightly from 2019 to 2020 by (10.9%). And decreased by (13.87%) from 2020 to 2021. Besides, the statistical analysis approves that the COVID-19 pandemic crisis influenced the capital in dollars of the industry sector.

4. On the base of the hypothesis (There is a negative influence of the COVID-19 pandemic crisis on the service sector). The COVID-19 crisis has had a massive negative influence on the service sector. Capital in dollars for the service sector dropped sharply from 2019 to 2020 by (91.89%). Besides, the statistical analysis approves that the crises affect the capital in dollars of the service sector.

5. On the base of the hypothesis (There is the negative influence of the COVID-19 pandemic crisis on the tourism sector). The COVID-19 crisis negatively affected the tourism sector in the year 2020. Capital in dollars for the tourism sector dropped steeply from 2019 to 2020 by (87.96%). Besides, the statistical analysis approves that the crises affect the capital in dollars of the tourism sector.

6. On the base of the hypothesis (There is a negative influence of the COVID-19 pandemic crisis on the transportation sector). This hypothesis rejected because the COVID-19 crisis has not had a negative influence on the transportation sector. This sector itself is ignored. Also, the statistical analysis approves that the COVID-19 pandemic crisis has not affected the capital in dollars and a number of projects in the transportation sector.

7. On the base of the hypothesis (There is a negative influence of the COVID-19 pandemic crisis on the education sector). COVID-19 has a negative influence on the education sector. Capital in dollars for the

education sector climbed significantly by (58.86%) from 2019 to 2020. But education sector declined in 2021 by (93.03%). Besides, the statistical analysis approves that the COVID-19 pandemic crises affect the capital in dollars of the education sector.

8. On the base of the hypothesis (There is the negative influence of the COVID-19 pandemic crisis on the agriculture sector). This hypothesis rejected because COVID-19 has not had a negative influence on the agriculture sector. Capital in dollars for the agriculture sector climbed significantly from no projects in 2019 to 4 projects by around (183$) million in 2020.

9. On the base of the hypothesis (There is a negative influence of the COVID-19 pandemic crisis on the housing sector). COVID-19 and other factors have a negative influence on the housing sector, because Capital in dollars for the housing sector climbed from 2019 to 2020 by (21.14%). But COVID-19 affect the housing sector in the year 2021 because it decreased by (56.62%).

10. On the base of the hypothesis (There is a negative influence of the COVID-19 pandemic crisis on the sport sector). COVID-19 has a negative influence on the sports sector. Capital in dollars for this sector decreased significantly by (89.1%) from the year 2019 to 2020. Besides, the statistical analysis approves that the crises affect the capital in dollars and a number of projects in the sport sector.

11. On the base of the hypothesis (There is the negative influence of the COVID-19 pandemic crisis on the bank sector). This hypothesis rejected because the COVID-19 crisis has no influence on the bank sector.

12. On the base of the hypothesis (There is the negative influence of the COVID-19 pandemic crisis on the art sector). The COVID-19 crisis has no influence on the art sector. the statistical analysis approves that the COVID-19 pandemic crisis has not affected the capital in dollars of the art sector.

Sixth main hypothesis: There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on investment projects. This hypothesis accepted because the ISIS war crisis has a larger negative influence on investment projects than the COVID-19 crisis. this hypothesis was achieved by comparing the influence of the crises on investment projects.

The main hypothesis includes sub-hypothesis as below:

1. Based on the hypothesis ((There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the trade sector)). There is a different influence of the crises on the trade sector, this hypothesis achieved by comparing the influence of the crises on the trade sector. When the trade sector increased by (7%) at the ISIS war crisis era. While the trade sector decreased by (41%) during the COVID-19 pandemic crisis era.

2. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the health sector)). There is a different influence of the crises on the health sector, this hypothesis achieved by comparing the influence of the crises on the health sector. When the health sector decreased by (95%) at the ISIS war crisis era. While the health sector decreased by (10%) during the COVID-19 pandemic crisis era.

3. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the industry sector)). There is a different influence of the crises on the industry sector, this hypothesis is achieved by comparing the influence of the crises on the industry sector. When industry sector declined by (52%) during the ISIS war crisis era. While the trade industry decreased by (12%) during the COVID-19 pandemic crisis era.

4. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the service sector)).

There is a different influence of the crises on the service sector, this hypothesis is supported by comparing the influence of the crises on the service sector. There were no projects for the service sector during the ISIS war crisis. However, the service sector developed by (92%) during the COVID-19 pandemic crisis.

5. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the tourism sector)). There are different influences of the crises on the tourism sector, this hypothesis supported by comparing the influence of the crises on the tourism sector. tourism sector experienced a (98%) decline during the ISIS war crisis. While the tourism sector shrank by (88%) during the COVID-19 pandemic crisis.

6. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the transportation sector)). The hypothesis does not achieve because in the origin the crises have no influence on the transportation sector, therefore, they cannot be compared to each other.

7. Based on the hypothesis ((There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the education sector)). There is a different influence of the crises on the education sector. This hypothesis is supported by comparing the influence of the crises on education sector. This sector experienced a (62%) decline during the ISIS war crisis. While this sector grows and developed by (143%) during the COVID-19 pandemic crisis.

8. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the agriculture sector)). There is a different influence of the crises on the agriculture sector, this hypothesis is supported by comparing the influence of the crises on the agriculture sector. agriculture sector experienced a (97%)

decline during the ISIS war crisis. While the agriculture sector grows and developed by (100%) during the COVID-19 pandemic crisis.

9. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the housing sector)). There is a different influence of the crises on the housing sector, this hypothesis is supported by comparing the influence of the crises on the housing sector. housing sector experienced a (69%) decline during the ISIS war crisis. While the housing sector grows and developed by (21%) during the COVID-19 pandemic crisis.

10. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the sports sector)). There is a different influence of the crises on the sports sector, this hypothesis is supported by comparing the influence of the crises on the sports sector. sports sector experienced a (49%) decline during the ISIS war crisis. Also, the sports sector shriveled by (89%) during the COVID-19 pandemic crisis.

11. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the bank sector)). The hypothesis does not achieve because in the origin the crises have no influence on the bank sector, therefore, they cannot be compared to each other.

12. Based on the hypothesis ((There is the different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the art sector)). The hypothesis does not achieve because in the origin the crises have no influence on the art sector, therefore, they cannot be compared to each other.

PART FOUR

Conclusions, Recommendations, and Future Thesis

4.1 Results

4.2 conclusions

4.3 Recommendations

4.4 Future Thesis

4.1 Results

First: General Results

1. The damage caused by financial crises on projects can be reduced. And the government can react quickly by applying scientific crisis management principles to minimize the bad effects of the crisis.

2. According to investment nationality, the largest number of projects invested with Local investment at (81%) in the region, with foreign investment at (18%) was invested and venture investment at only (1%) was invested.

3. there are the top five sectors paid attention by KRG, have been the most invested sectors such as follows: the industry sector by around 17 and half billion dollars, the tourism sector approximately (13$) billion, the housing sector by (9,209,787,991$) billion, trading sector by (2$) billion, agriculture sector (963,756,659 $).

4. The crises themselves there were different from each other. ISIS is a war crisis and external threat thus war in any country causes economic deterioration, also the projects in the region had a bad drop. The focus of the KRG on border protection, internal security, and war armies.

5. However, the COVID-19 crisis was a global epidemic and internal threat. Caused the delay or stoppage of the projects temporarily rather than the fall of the projects.

6. When the crisis occurs the development of the projects will be slow and the projects will stop.

7. from maximum to minimum, these sectors are negatively influenced by the ISIS war crisis as follows: the most affected sector is the tourism sector by (98%), then the agriculture sector by (97%), the health sector by (95%), the housing sector by (69%), education sector by (62%), industry sector by (52%), sports sector by (49%).

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8. The trading sector does not influence by the ISIS crisis it developed by (7%).

9. from maximum to minimum, these sectors are negatively influenced by the COVID-19 pandemic crisis as follows: the most affected sector is the transportation sector by (100%), then the service sector by (92%), the sports sector by (89%), the tourism sector by (88%), trading sector by (41%), agriculture sector by (10%), sports sector by (49%).

10. The four sectors do not influence by the COVID-19 pandemic crisis. And developed in the crisis era. the sectors are developed such as, agriculture about (183$), education by (143%), housing by (21%), and industry (12%).

11. The amount of this capital recorded for projects each year is the total cost of the project. This amount does not have to be the total amount spent on the project in the same year.

Second: Implementing Results

1. The KRG does not have an appropriate and effective management plan to deal with the ISIS crisis on investment projects depending on the scientific criteria.

2. The KRG has an appropriate and effective management plan to handle and manage the COVID-19 pandemic crisis on investment projects depending on the scientific criteria.

3. The KRG has a healthier and more effective crisis management to handle and manage the COVID-19 pandemic crisis than the ISIS war crisis on investment projects.

4. The ISIS war crisis has a negative influence on investment projects. capital in dollars dropped from the appearance of ISIS in the crisis stage from 2013 to 2014 by (65.20%). As well as the number of projects dropped from (108) to (70) projects.

5. The ISIS crisis has a great negative influence on the trade sector. capital in dollars for this sector decreased from 2014 to 2015 by (80.37%).

6. The ISIS crisis has a negative influence on the health sector. health sector which capital in dollars for this sector decreased considerably during two years from 2014 to 2016 by (60.32%) and (64.94%).

7. The ISIS crisis has a big negative influence on the industry sector. capital in dollars for the industry sector decreased sharply from the year 2013 to 2014 by (87.79%).

8. The ISIS crisis has a great negative influence on the service sector. The number of projects was 2 projects but after the crisis came no projects were left in the years after.

9. The ISIS crisis has a great negative influence on the tourism sector. This sector dropped rapidly from the year 2014 to 2015 by (91.20%).

10. The ISIS crisis has no influence on the transportation sector.

11. The ISIS crisis and other factors has a negative influence on the education sector. This sector falls from the year 2012 to 2013 by (78.51%)

12. The ISIS crisis and other factors have a huge negative influence on the agriculture sector. agriculture sector declined sharply from 2013 to 2014 by (99.41%) with only one project.

13. The ISIS crisis has had a great negative influence on the housing sector, it decreased by (94.92%) from the year 2014 to 2015.

14. The ISIS crisis has no negative influence on the sports sector.

15. The ISIS crisis has no negative influence on the bank sector.

16. The ISIS crisis has no negative influence on the art sector.

17. The COVID-19 pandemic has a limited influence on investment projects. Thus, capital in dollars decreased slightly from the appearance of COVID-19 in the crisis stage by (18.76%). However, the number of projects increased slightly from (66) to (76) projects.

18. The COVID-19 crisis has an influence on the trade sector. trade sector decreased moderately from 2019 to 2020 by (41.36%).

19. The COVID-19 crisis has a little negative influence on the health sector. health sector decreased slightly from 2019 to 2020 by (9.6%) and from the year 2020 to 2021 by (42.8%).

20. The COVID-19 crisis has a limited negative influence on the industry sector. Because the industry sector increased slightly by (10.9%) from 2019 to 2020. While it decreased by (13.87%) in the next year.

21. The COVID-19 crisis has had a massive negative influence on the service sector. Because the service sector dropped sharply by (91.89%) from 2019 to 2020.

22. The COVID-19 crisis has had a negative influence on the tourism sector. tourism sector dropped steeply by (87.96%) from 2019 to 2020.

23. The COVID-19 crisis has no influence on the transportation sector.

24. The COVID-19 crisis has had a negative influence on the education sector. education sector declined by (93.03%) in the crisis continuous stage.

25. COVID-19 has no negative influence on the agriculture sector. agriculture sector climbed significantly from no projects in 2019 to 4 projects by around (183$) million in 2020.

26. COVID-19 and other factors have a negative influence on the housing sector. housing sector decreased by (56.62%) in the year 2021.

27. COVID-19 has a negative influence on the sports sector. this sector decreased significantly by (89.1%) from the year 2019 to 2020.

28. The COVID-19 crisis has no influence on the bank sector.

29. The COVID-19 crisis has no influence on the art sector.

30. The crises themselves there were different from each other. Thus, their influence is different from each other. There are sectors that fall in the ISIS era while the same sector increased in the COVID-19 era.

31. There is a different influence of the crises (ISIS war crisis and COVID-19 pandemic crisis) on the trade sector. Because the trade sector increased by (7%) during the ISIS war crisis era. While the trade sector decreased by (41%) during the COVID-19 pandemic crisis era.

32. The ISIS war crisis has a larger negative influence on the health sector than the COVID-19 crisis. When the health sector decreased by (95%) at the ISIS war crisis era. While the health sector decreased by (10%) during the COVID-19 pandemic crisis era.

33. The ISIS war crisis has a larger negative influence on the industry sector than the COVID-19 crisis. When industry sector declined by (52%) at the ISIS war crisis era. Also, the industrial sector decreased by (12%) during the COVID-19 pandemic crisis era.

34. There is a different influence of the crises on the service sector. There were no projects for the service sector during the ISIS war crisis. However, the service sector developed by (92%) during the COVID-19 pandemic crisis.

35. The ISIS war crisis has a larger negative influence on the tourism sector than the COVID-19 crisis. tourism sector experienced a (98%) decline during the ISIS war crisis. While the tourism sector shrank by (88%) during the COVID-19 pandemic crisis.

36. There is a different influence of the crises on the transportation sector. There were no projects in the transportation sector during the ISIS war crisis. On the other hand, the transportation sector shrank by (100%) during the COVID-19 pandemic crisis.

37. There is a different influence of the crises on the education sector. This sector experienced a (62%) decline during the ISIS war crisis. While this sector grows and developed by (143%) during the COVID-19 pandemic crisis.

38. There is a different influence of the crises on the agriculture sector. agriculture sector experienced a (97%) decline during the ISIS war crisis. While the agriculture sector grows and developed by (100%) during the COVID-19 pandemic crisis.

39. There is a different influence of the crises on the housing sector. housing sector experienced a (69%) decline during the ISIS war crisis. While the housing sector grows and developed by (21%) during the COVID-19 pandemic crisis.

40. The COVID-19 crisis has a larger negative influence on the sports sector than the ISIS war crisis. sports sector experienced a (49%) decline during the ISIS war crisis. Also, the sports sector shriveled by (89%) during the COVID-19 pandemic crisis

4.2 Conclusions

The KR-I has faced many ups and downs and suffered many crises from 2012-2022. The first crisis begins in the year 2014 by the same time KR-I faced four sudden shocks this year. Includes budget cuts, the ISIS war crisis, the humanitarian crisis, and the declines in oil prices. These factors pushed the region into a hard financial crisis. The KR-I faced another financial crisis due to suffering COVID-19 pandemic crisis in early 2020 and the decline of the oil price. The dropping in the oil price can harm the region because the main financial resource of the region depends on oil. The government's reaction toward investment projects while there is ISIS war crisis has not been effective and does not pay attention to investment projects. Because the main focus of the KRG is to protect its borders and fighting, therefore the KRG did not pay much attention to investments. The KRG do not make any important decisions in the third top crisis management stage. However, The KRG has an appropriate and effective management plan to handle and manage the COVID-19 pandemic crisis on investment projects depending on the scientific

criteria. Because KRG has a react in each stage, the most important decision taken in the damage containment stage such as (the decentralized system to hand over power and the extension of project completion permits). These decisions helped projects to struggle with the crisis. As well as, the KRG has plan to give attention to three main sectors and make them priority such as (tourism, agriculture, and industrial) with the aim of diversification of KR income through the investment sectors except for the oil sector. In comparison, the KRG has a healthier and more effective crisis management to handle and manage the COVID-19 pandemic crisis than the ISIS war crisis on investment projects.

The influence of crises on investment projects was different and negative because, the ISIS war crisis has a negative influence on investment projects. capital in dollars dropped from the appearance of ISIS in the crisis stage from 2013 to 2014 by (65.20%). As well as the number of projects dropped from (108) to (70) projects. Also, The COVID-19 pandemic has a limited influence on investment projects. Thus, capital in dollars decreased slightly from the appearance of COVID-19 in the crisis stage by (18.76%). However, the number of projects increased slightly from (66) to (76) projects. By comparing them the study reach out that, the crises themselves there were different from each other. Thus, their influence is different from each other. There are sectors that fall in the ISIS era while the same sector increased in the COVID-19 era.

4.3 Recommendations

Following these findings, the study recommends the following solutions:

First: General Recommendations

1. Install a foreign investment department in the BOI in the region. In an aim to pay more attention to attract foreign investors.

2. In every situation and any crisis, the KRG should have to react and take precautions for investment projects.

3. Implementing a single-window system. To allow investors to submit information to a single agency, rather than having to deal with multiple agencies in multiple locations to obtain the necessary papers, permits, and clearances to complete their projects. There is an obvious time-saving benefit to the single window system.

4. Monitor the projects and implement the cash-flow system. so that only the capital spent on the projects is recorded each year.

Second: Implementing Recommendation

There are the most important recommendations for investment projects to confront different crises that could occur at any time. To obtain a stable investment environment in the KR.

1. Manage the crisis according to scientific criteria.

2. Implementing (Early warning system) to inform the projects of the occurrence of any unwanted events.

3. Installation of a response team (crisis management team) to prepare an organization to respond to potential crises.

4. Attempti to rely on local products, and raw materials and strengthen local employees.

5. Diversify and develop investment sectors to avoid financial deficits during crises.

6. Set a (strategic investment map) as a tool for investors to invest in that sector which is the most useful for the KR.

7. Members of organizations must understand the crisis management process, and review their current tactics before establishing new ones in order to manage crises efficiently.

4.4 Future Thesis

1. The role of early warning system on crisis management.
2. The impact of the ISIS war crisis on economic growth in KR-I.
3. The role of crisis management in managing the COVID-19 pandemic crisis in KR-I and the middle east. (Comparative study).
4. The impact of the financial crisis on the growth economy.

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Appendices

Appendix (1)

Names of the interviewees

	Date	Name	Carrier	Workplace
A	26/9/2022	Muxlis Salim Xoshnaw	General Director of managerial and law	BOI
B	26/9/2022	Nazhad Jalal Mohammed	General Director studies and information	BOI
C	10/10/2022	Haval Sadeeq Ismael	General Director of promotion, assessment, and licensing of projects.	BOI
D	9/10/2022	Saman Arab	General Director of Erbil investment	General Directorate of Investment

An interview survey questionnaire on the subject

Research title:

The Role of Financial Crises Management Implementing on Investment Development in Kurdistan Region – Iraq During Financial Crises (ISIS war crisis and COVID-19 pandemic crisis).

Introduction:

I am Lavin Luqman Khudhur, a master student in the department of Business Administration Techniques at the Faculty of Technical Administrative College, Erbil Polytechnic University. The purpose of this survey is to gather practical data on the role of financial crisis management implementing on investment development in the Kurdistan Region- Iraq. The answers reflect your knowledge, and it will be a positive result to complete my research. Thank you very much for provide us your time.

A summary on the subject:

The Kurdistan Region has faced many ups, downs and crises, especially the crises of ISIS war crisis and the COVID-19 pandemic crisis, and our aim is to demonstrate the negative effects of these crises on the investment sectors, and to understand the KRG's response and steps on this issue in order to reduce deficiencies and advance the Kurdistan Region.

Questions:

2. How has the financial crisis of 2014 affected the investment sectors?

3. How has the financial crisis of 2020 affected the investment sectors?

4. What were your plans and strategies when each of the ISIS crises and coronavirus crises existed?

5. How have you tried to reduce the negative effects of the ISIS crisis on the investment sectors?

6. How have you tried to reduce the negative effects of the coronavirus crisis on the investment sector?

7. how have you used the concept of crisis management in solving both the ISIS crisis and the coronavirus crisis

8. What were the ways and decisions that were taken to manage the 2014 crisis?

9. What were the ways and decisions that were taken to manage the 2020 crisis?

10. Have facilities and reforms been made to ensure that projects do not stop working and continue during crises, what were the facilities and reforms?

11. Can investment projects grow when there is a crisis?

12. Before the crisis broke out, there were signs that we were heading for a crisis. What were your tools for this purpose?

13. One of the earliest and most important stages of crisis stage is the shock stage. What was your reaction at this stage?

14. Another stage is crisis occurrence or crisis response. What has your response been at this stage?

15. The third step, known as the post-crisis phase, is to return to normal. What was your reaction at this stage?

16. How can we learn from these past crises facing the region so that we can have a clear vision in the future when the crisis occurs again?

Note:
1. documents
2. Decisions
3. Statistics
4. Plans

To support these mentioned.

KURDISTAN REGION GOVERNMENT
MINISTRY OF COUNCIL
THE SECRETARY

Decision of the Council of Ministers

No. (107) on 28/07/2021

Based on the provisions of Article (8) of the Law of the Council of Ministers of the Kurdistan Region No. (3) of (1992) as amended, In order to embody the decentralization of management and the principle of decentralization and filling in the higher management centers, and in the public interest and to facilitate the processing of citizens' transactions and the provision of public services in the most convenient and easiest manner away from routine, In the light of the regular meeting of the Council of Ministers No. (62) 28/7/2021, the Council of Ministers decided to:

First: The establishment of the independent administration of Zakho, which consists of:
1- Zakho district
2- Batifa District

Second: Soran Independent Administration Consists of:
1- Soran district
2- Choman district
3- Ruandz district
4- Mergasur district

Third: The Ministry of Interior must implement this decision in coordination with the ministry and other relevant parties.
Fourth: this decision shall be implemented from the date of its issuance and shall be published in the Kurdistan Reality newspaper.

Masrur Barzani
Prime Minister of the Council of Ministers

A5

ڕۆڵی جێبەجێکردنی بەڕێوەبردنی قەیرانی دارایی لەسەر گەشەسەندنی
وەبەرهێنان لە هەرێمی کوردستان – عێراق لە کاتی قەیرانە داراییەکانی
(قەیرانی جەنگی داعش و قەیرانی پەتای کۆڤید–19)
لێکۆلینەوەیەکی شیکاری و بەراوردکاری

نامەیەکە

پێشکەشی ئەنجومەنی کۆلێژی تەکنیکی کارگێڕی کراوە لەزانکۆی
پۆلیتەکنیکی هەولێر- وەکو بەشێک لەپێداویستیەکانی بەدەستهێنانی
پلەی ماستەر لە زانستی کارگێڕی کار

لەلایەن

لاڤین لقمان خضر

بەکالۆریۆس لە زانستی کارگێڕی کار- زانکۆی پۆلیتەکنیکی هەولێر–۲۰۱۸

بەسەرپەرشتی

د. ئاراس قادر خۆشناو

هەولێر- کوردستان- عێراق

حوزەیران ۲۰۲۳   ذو الحجة 4144هـ   پوشپەر 2723 ک

Abstract in Kurdish Language

پوخته

ئهم توێژینهوهیه ئامانجی لێکۆڵینهوهیه له ڕۆڵی بهڕێوهبردنی قهیرانهکان له بهڕێوهبردن و مامهڵهکردن لهگهڵ قهیرانه دارایییهکان (قهیرانی جهنگی داعش و قهیرانی پهتای کۆﭬید-١٩) لهسهر پهرهپێدانی وهبهرهێنان. ههروهها، تویژینهوهکه کاریگهری قهیرانهکانی لهسهر پهرهپێدانی وهبهرهێنان تاوتوێ کردووه. لێکۆڵینهوهیهکی شیکاری و بهراوردکاری له ههرێمی کوردستان-عێراق. ئهم تویژینهوهیه ههوڵدهدات ڕۆڵی بهڕێوهبردنی قهیرانهکان دیاری بکات بهپێی مۆدێلی پێنج قۆناغی میترۆﭫ، بهپێی ئهو ڕێکخستن و بڕیارانهی که له کاتی ڕوودانی قهیرانهکاندا دراون. ههروهها، تویژینهوهکه کاردانهوهی حکومهتی له ههر قۆناغێکدا له ههردوو سهردهمی قهیرانهکاندا بهراورد کردووه. ههروهها، تویژینهوهکه ههوڵدهدات بۆ شیکردنهوه و لێکۆڵینهوه له واقیعی دۆخی وهبهرهێنان له کاتی ڕوودانی قهیرانهکان له ناوچهکهدا، ههروهها بهراوردکردنی کاریگهری قهیرانهکان لهسهر ههر کهرتێکی وهبهرهێنان. بابهتێکی تویژینهوهی چهمکی داڕێژرا، و کۆمهڵێک گریمانه پهرهی پێدرا. بۆ ئهو مهبهستهش شیکاری دارایی و وهشانی SPSS 28.0 بهکارهێنرا. تویژینهوهکه گریمانهکهی لهسهر دوانزه کهرتی وهبهرهێنان وهک (بازرگانی، تهندروستی، پیشهسازی، خزمهتگوزاری، گهشتیاری، گواستنهوه، پهروهرده، کشتوکاڵ، نیشتهجێبوون، وهرزش، بانک، و هونهر) بۆ ماوهی ده ساڵ له ساڵی ٢٠١٢ تا ٢٠٢٢ جێبهجێکردووه.

لێکۆڵینهوهکه گهیشته کۆمهڵێک ئهنجام که گرنگترینیان ئهوهیه حکومهتی ههرێم کاراتر و باشتر بهڕێوهبردنی قهیرانهکانی ههیه بۆ مامهڵهکردن و بهڕێوهبردنی قهیرانی پهتای کۆﭬید-19 له چاو قهیرانی جهنگی داعش لهسهر پرۆژهکانی وهبهرهێنان بهپێی پێوهره زانستییهکان. بهم شێوهیه دهتوانرێت زیانهکانی قهیرانی دارایی لهسهر پرۆژهکان کهم بکرێتهوه. وه حکومهت دهتوانێت کاردانهوهی خێرای ههبێت به جێبهجێکردنی بنهما زانستییهکانی بهڕێوهبردنی قهیرانهکان بۆ کهمکردنهوهی کاریگهرییه خراپهکانی قهیرانهکه. له لایهکی ترهوه

أ

خودی قەیرانەکانی ئەوێ لە یەکتر جیاواز بوون. داعش قەیرانی جەنگ و هەڕەشەی دەرەکییە، پرۆژەکانی ناوچەکەش دابەزینێکی خراپیان هەبوو. تەرکیزی حکومەتی هەرێم لەسەر پاراستنی سنوورەکان و ئاسایشی ناوخۆ و سوپای جەنگە. بەم شێوەیە قەیرانی شەڕی داعش کاریگەری نەرێنی گەورەی لەسەر پرۆژەکانی وەبەرهێنان هەیە. سەرمایە بە دۆلار لە دەرکەوتنی داعش لە قۆناغی قەیرانەکاندا بە ڕێژەی (65.20%) دابەزیوە. هەروەها، ژمارەی پرۆژەکان لە (١٠٨) پرۆژە بۆ (٧٠) پرۆژە دابەزیوە. بەڵام قەیرانی کۆڤید-١٩ پەتایەکی جیهانی بوو کە لە هەموو جیهاندا بڵاوبووەوە بەڵام بۆ ناوچەکە مەترسی ناوخۆیی بوو. هۆکاری دواکەوتن یان وەستانی پرۆژەکان بۆ ماوەیەکی کاتی نەک ئەوە کەوتنە خوارەوەی پرۆژەکان. بەم شێوەیە پەتای کۆڤید-١٩ کاریگەرییەکی سنووردارییی لەسەر پرۆژەکانی وەبەرهێنان هەیە. بەم شێوەیە سەرمایە بە دۆلار کەمێک کەمی کردووە لە دەرکەوتنی کۆڤید-١٩ لە قۆناغی قەیرانەکاندا بە ڕێژەی (١٨٫٧٦%). بەڵام ژمارەی پرۆژەکان کەمێک زیادی کردووە لە (٦٦) پرۆژە بۆ (٧٦) پرۆژە.

تویژەرەکە پێشنیاری کردووە کە بەپێی پێوەرە زانستییەکان قەیرانەکە بەڕێوەببەن. وە جێبەجێکردنی (سیستەمی ئاگاداركردنەوەی پێشوەختە) بۆ ئاگاداركردنەوەی پرۆژەکان لە ڕوودانی هەر ڕووداوێکی نەخوازراو. وە دانانی تیمی وەڵامدانەوە (تیمی بەڕێوەبردنی قەیران) بۆ ئامادەکردنی ڕێکخراوێک بۆ وەڵامدانەوەی قەیرانە ئەگەرییەکان. و هەوڵدان بۆ پشت بەستن بە بەرهەمە ناوخۆییەکان، و کەرەستەی خاو و بەهێزکردنی کارمەندانی ناوخۆیی. هەروەها هەمەچەشنکردن و پەرەپێدانی کەرتەکانی وەبەرهێنان بۆ دووركەوتنەوە لە کورتهێنانی دارایی لە کاتی قەیرانەکاندا. هەروەها، دانانی (نەخشەی وەبەرهێنانی ستراتیژی) وەک ئامرازێک بۆ وەبەرهێنەران بۆ وەبەرهێنان لەو کەرتەدا کە زۆرترین سوودی هەیە بۆ هەرێمی کوردستان.

وشەی سەرەکی: قەیرانە داراییەکان، بەڕێوەبردنی قەیرانەکان، وەبەرهێنان، قەیرانی شەڕی داعش، قەیرانی پەتای کۆڤید-١٩، حکومەتی هەرێم.

Abstract in the Arabic Language

الملخص

تهدف هذه الدراسة إلى دراسة دور إدارة الأزمات في إدارة ومعالجة الأزمات المالية (أزمة حرب داعش وأزمة جائحة كوفيد –19) في تنمية الاستثمار. كما تناولت الدراسة تأثير الأزمات على تنمية الاستثمار. دراسة تحليلية ومقارنة في اقليم كوردستان العراق. تحاول هذه الدراسة تحديد دور إدارة الأزمات اعتمادًا على نموذج ميتزوف المكون من خمس مراحل ، اعتمادًا على التنظيم والقرارات المتخذة أثناء حدوث الأزمات. كما قارنت الدراسة رد فعل الحكومة في كل مرحلة من مرحلتي الأزمتين. كما تحاول الدراسة تحليل واستكشاف واقع الوضع الاستثماري خلال حدوث الأزمات في المنطقة ، ومقارنة تأثير الأزمات على كل قطاع استثماري. تم تصميم موضوع دراسة مفاهيمي ، وتم تطوير مجموعة من الفرضيات. للتحقق من صحة الفرضيات. لهذا الغرض ، تم استخدام التحليل المالي والإصدار 28.0 من .SPSS نفذت الدراسة الفرضية على اثني عشر قطاعا استثماريا مثل (التجارة ، الصحة ، الصناعة ، الخدمات ، السياحة ، النقل ، التعليم ، الزراعة ، الإسكان ، الرياضة ، البنوك ، الفن) لمدة عشر سنوات من عام 2012 حتى عام 2022.

توصلت الدراسة إلى مجموعة من الاستنتاجات ، أهمها أن حكومة إقليم كردستان لديها إدارة أكثر فاعلية وأفضل للأزمات للتعامل مع أزمة جائحة COVID-19 وإدارتها من أزمة حرب داعش على المشاريع الاستثمارية اعتمادًا على المعايير العلمية. وبالتالي ، يمكن تقليل الأضرار التي تسببها الأزمات المالية على المشاريع. ويمكن للحكومة أن تتفاعل بسرعة من خلال تطبيق مبادئ إدارة الأزمات العلمية لتقليل الآثار السيئة للأزمة. من ناحية أخرى ، كانت الأزمات نفسها مختلفة عن بعضها البعض. داعش ازمة حرب وتهديد خارجي ومشاريع المنطقة تدهورت بشكل سيء. تركز حكومة إقليم كردستان على حماية الحدود والأمن الداخلي وجيوش الحرب. وبالتالي ، فإن أزمة حرب داعش لها تأثير سلبي كبير على المشاريع الاستثمارية. وانخفض رأس المال بالدولار عن ظهور داعش في مرحلة الأزمة بنسبة (65.20٪). كما انخفض عدد المشاريع من (108) الى (70) مشروع. ومع ذلك ، فإن أزمة كوفيد –19 كانت وباء عالميًا منتشرًا في جميع أنحاء العالم ولكن بالنسبة للمنطقة كان تهديدًا داخليًا. التسبب في تأخير أو توقف المشاريع مؤقتاً بدلاً من أن تسقط المشاريع. وبالتالي ، فإن لوباء COVID-19 تأثير محدود على

المشاريع الاستثمارية. وبذلك انخفض رأس المال بالدولار بشكل طفيف عن ظهور COVID-19 في مرحلة الأزمة بنسبة (18.76٪). إلا أن عدد المشاريع ارتفع بشكل طفيف من (66) إلى (76) مشروعا.

واقترحت الباحثة إدارة الأزمة وفق معايير علمية. وتنفيذ (نظام الإنذار المبكر) لإبلاغ المشاريع بوقوع أي أحداث غير مرغوب فيها. وتنصيب فريق استجابة (فريق إدارة الأزمات) لإعداد المنظمة للاستجابة للأزمات المحتملة. ومحاولة الاعتماد على المنتجات المحلية والمواد الخام وتعزيز العمالة المحلية. كذلك ، تنويع قطاعات الاستثمار وتطويرها لتلافي العجز المالي أثناء الأزمات. أيضًا ، وضع (خريطة استثمار إستراتيجية) كأداة للمستثمرين للاستثمار في هذا القطاع الذي يعتبر أكثر فائدة لحكومة إقليم كردستان.

الكلمات المفتاحية: الأزمات المالية ، إدارة الأزمات ، الاستثمار ، أزمة حرب داعش ، أزمة جائحة-COVID 19 ، حكومة إقليم كردستان.

ERBIL POLYTECHNIC UNIVERSITY

دور التنفيذ إدارة الأزمات المالية على تنمية الاستثمار في إقليم كوردستان –
العراق خلال الأزمات المالية (أزمة حرب داعش وأزمة جائحة COVID-19)
دراسة تحليلية ومقارنة

رسالة

مقدمة الى مجلس كلية التقنية الإدارية في الجامعة التقنية– أربيل

وهي جزء من متطلبات نيل درجة الماجستير في تقنيات ادارة الاعمال

من قبل طالبة

لافين لقمان خضر

بكالوريوس في إدارة الاعمال – جامعة أربيل التقنية– 2018

بأشراف

أ.م.د ئاراس قادر خوشناو

أربيل– كوردستان– عيراق

حزيران ٢٠٢٣   ذو الحجة 4144هـ   پوشپەر 2723 ك