

# Artificial Intelligence Tools for Academic Research

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# Outline

- Introduction to AI
- Academic Writing
- Literature Review
- Paper Analysis
- Data Analysis
- Code Generation
- Presentation
- Caution
- Conclusion

# Introduction

- Artificial Intelligence (AI) aims to mimic the behavior of humans.
- Natural Language Processing aims to get the machine to understand written text as humans do.
- Generative AI involves using machines to generate text based on large corpora of training data and the concept of next word prediction.
- AI-Chatbots are applications of Generative AI.
- The major currently available chatbots are:
  - ChatGPT: <https://chat.openai.com/>
  - Bard: <https://bard.google.com/>
  - Claude (By Anthropic): <https://claude.ai/>

# Proofreading

Proofread the following paragraph:

Bitcoin create Satoshi Nakamoto and build blockchain technology. It is a pear to peer traditional payment sysstem.

Here is the corrected version of the paragraph:

"Bitcoin was created by Satoshi Nakamoto and it pioneered blockchain technology. It is a peer-to-peer alternative to traditional payment systems."

# Tone Adjustment

Rewrite the paragraph in an academic way:

Bitcoin was created by Satoshi Nakamoto and built blockchain technology. It is a peer-to-peer traditional payment system.

In the realm of cryptocurrency innovation, Bitcoin was conceived and brought into existence by the enigmatic figure known as Satoshi Nakamoto, concurrently pioneering the foundational blockchain technology. Bitcoin stands as a manifestation of a peer-to-peer paradigm, diverging markedly from traditional payment systems.

# Tone Adjustment

Rewrite the paragraph in an industrial or business way:

Bitcoin was created by Satoshi Nakamoto and built blockchain technology. It is a peer-to-peer traditional payment system.

In the realm of digital currency innovation, Bitcoin emerged through the efforts of its creator, Satoshi Nakamoto, and served as the catalyst for the development of blockchain technology. Bitcoin represents a distinct departure from conventional payment systems, as it operates on a peer-to-peer basis, facilitating efficient and decentralized transactions.

# Summarization

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Summarize the following paragraph in one sentence:

In the realm of cryptocurrency innovation, Bitcoin was conceived and brought into existence by the enigmatic figure known as Satoshi Nakamoto, concurrently pioneering the foundational blockchain technology. Bitcoin stands as a manifestation of a peer-to-peer paradigm, diverging markedly from traditional payment systems.

Bitcoin, created by Satoshi Nakamoto, simultaneously pioneered blockchain technology and represents a peer-to-peer alternative to traditional payment systems.

# Simplification

Simplify the following paragraph for the general audience:

In the realm of cryptocurrency innovation, Bitcoin was conceived and brought into existence by the enigmatic figure known as Satoshi Nakamoto, concurrently pioneering the foundational blockchain technology. Bitcoin stands as a manifestation of a peer-to-peer paradigm, diverging markedly from traditional payment systems.

Bitcoin, created by someone mysterious named Satoshi Nakamoto, introduced both blockchain technology and a new way of making payments that doesn't rely on banks or traditional systems.

# Simplification

Can you explain to a general audience in simple words what kappa equals 0.7 means?

Certainly! When Cohen's Kappa ( $\kappa$ ) equals 0.7, it means that there's a pretty good level of agreement between two or more people when they're making judgments or decisions together.

Imagine you and a friend are rating movies, and you both give similar ratings about 70% of the time. It shows that you generally agree, but there are still some differences in your opinions about 30% of the time. So, a Kappa of 0.7 means you're on the same page most of the time, but not always.

# American/British

Make sure the following paragraph uses British English:

Bitcoin was utilized as an investment. It was created by an unknown organization.

In British English:

"Bitcoin was utilised as an investment. It was created by an unknown organisation."

# Passive/Active

Convert into passive voice:

Satoshi Nakamoto created bitcoin to be a digital currency.

"Bitcoin was created by Satoshi Nakamoto to be a digital currency."

# Academic Synonyms

Suggest some academic synonyms for the word develop

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1. Evolve
2. Progress
3. Advance
4. Cultivate
5. Formulate
6. Construct
7. Generate
8. Establish
9. Innovate
10. Refine

# Comparison

Provide me with a table to compare Bitcoin and Ethereum.

Certainly, here's a simplified table comparing Bitcoin and Ethereum based on several key aspects:

Aspect	Bitcoin	Ethereum
Founders	Satoshi Nakamoto (pseudonymous)	Vitalik Buterin and others
Launch Date	January 2009	July 2015
Purpose	Digital Currency	Smart Contracts and Decentralized Applications
Consensus Algorithm	Proof of Work (PoW)	Transitioning from Proof of Work to Proof of Stake (PoS)
Supply Limit	Capped at 21 million BTC	No fixed supply limit (supply issuance can change)
Block Time	Approximately 10 minutes	Approximately 15 seconds
Transaction Speed	Limited scalability (few transactions per second)	Higher scalability (more transactions per second)

# Conferences

Suggest the major conferences in the field of accounting.

The field of accounting hosts several conferences and events where researchers, academics, accounting professionals, and policymakers gather to discuss the latest developments, share research findings, and engage in discussions related to accounting and finance. Here are some major conferences in the field of accounting:

1. **American Accounting Association (AAA) Annual Meeting:** AAA's annual conference is one of the largest gatherings of accounting academics and professionals. It covers a broad range of accounting-related topics, including financial accounting, managerial accounting, auditing, and taxation.
2. **European Accounting Association (EAA) Annual Congress:** EAA's annual congress is a prominent event for accounting researchers and professionals in Europe, featuring presentations and discussions on various accounting and finance subjects.
3. **American Taxation Association (ATA) Midyear Meeting:** ATA's midyear meeting focuses on tax-related research and education, attracting tax scholars, practitioners, and policymakers.
4. **International Conference on Accounting (ICA):** ICA is an international conference that covers a wide range of accounting and finance topics. It provides a platform for researchers from around the world to share their work.
5. **Midwest Accounting Research Conference (MARC):** MARC is an annual event that brings together accounting researchers from the Midwest region of the United States, providing a forum for the presentation and discussion of research findings.

# Journals

Suggest the major journals in accounting.

The field of accounting has several reputable journals where researchers and academics publish their findings and contributions. Here are some major journals in the field of accounting:

1. **The Accounting Review (TAR):** Published by the American Accounting Association (AAA), TAR is one of the most prestigious journals in accounting. It covers a wide range of topics in financial and managerial accounting, auditing, taxation, and accounting information systems.
2. **Journal of Accounting Research (JAR):** Another prominent journal affiliated with the AAA, JAR focuses on empirical and theoretical research in accounting, including financial accounting, auditing, and disclosure.
3. **Review of Accounting Studies (RAST):** RAST publishes research articles that address important issues in accounting, including financial reporting, auditing, and corporate governance.
4. **Contemporary Accounting Research (CAR):** CAR features research on various aspects of accounting, including empirical studies and theoretical analyses. It is published by the Canadian Academic Accounting Association.
5. **Accounting, Organizations and Society (AOS):** AOS explores the relationship between accounting and organizational behavior, making it an interdisciplinary journal focusing on the social aspects of accounting.

# Paper Structure

How is a research paper related to finance usually structured?

A research paper related to finance typically follows a structured format to effectively present research findings and insights. Here's a common structure for such papers:

1. **Title:** A concise and descriptive title that reflects the main focus of your research.
2. **Abstract:** A brief summary (usually 150-250 words) of your paper, highlighting the research question, methodology, key findings, and implications.
3. **Introduction:**
  - **Research Background:** Provide context for your study by discussing the financial topic or problem you are addressing.
  - **Research Question or Hypothesis:** Clearly state the main question you intend to answer or the hypothesis you aim to test.
  - **Objectives and Scope:** Describe the goals of your research and the scope of your study.
  - **Literature Review:** Summarize relevant literature and prior research related to your topic, highlighting gaps in knowledge.
4. **Methodology:**
  - **Data Sources:** Explain where you obtained your data, whether it's from financial markets, company reports, surveys, or other sources.
  - **Data Analysis Methods:** Describe the statistical methods, econometric models, or analytical tools you used to analyze the data.
  - **Variables and Hypotheses:** Clearly define the variables you are studying and the hypotheses you are testing.
5. **Empirical Analysis:**

# Paper Structure

I have a computer science and engineering background. How different is a finance research paper from my field?

A finance research paper may differ from papers in computer science and engineering in several ways, including the research methods, terminology, and content focus. Here are some key differences:

## 1. Research Methods:

- **Data-Driven:** Finance research often relies heavily on historical financial data, statistical analysis, and econometric models to draw conclusions and make predictions. This is in contrast to computer science and engineering, which may involve more experimental or theoretical research.

## 2. Terminology:

- **Specialized Jargon:** Finance has its own set of specialized terms and jargon related to financial markets, instruments, and concepts (e.g., derivatives, bonds, options, risk management) that you may need to familiarize yourself with.
- **Mathematical Notation:** While computer science and engineering also use mathematics, finance research papers may contain specific mathematical notations and models such as Black-Scholes, CAPM (Capital Asset Pricing Model), or GARCH (Generalized Autoregressive Conditional Heteroskedasticity).

# Research Questions

Can you suggest unanswered research questions regarding cryptocurrencies and GCC?

Certainly, there are several unanswered research questions regarding cryptocurrencies and the Gulf Cooperation Council (GCC) as a region. Exploring these questions can lead to valuable insights into the dynamics, challenges, and opportunities associated with cryptocurrencies in the GCC:

**1. Impact on Monetary Policy:**

- How do the adoption and use of cryptocurrencies in GCC countries affect the central banks' ability to implement and manage monetary policy?
- What are the potential implications of a widespread shift to cryptocurrencies on traditional monetary systems in the GCC?

**2. Cross-Border Regulatory Cooperation:**

- What opportunities and challenges exist for GCC countries to harmonize their cryptocurrency regulations and enforcement efforts?
- How can the GCC achieve a unified approach to cryptocurrencies, given the variations in regulatory stances among member states?

**3. Economic Diversification:**

- To what extent can the adoption of blockchain technology and cryptocurrencies support economic diversification efforts in GCC nations, reducing reliance on oil revenues?
- What blockchain-based initiatives and industries can contribute to economic growth in the region?

# Research Questions

For the research question:

How can GCC nations reconcile the principles of Islamic finance with the use of cryptocurrencies?

What steps that can be taken to answer this research question?

To answer the research question "How can GCC nations reconcile the principles of Islamic finance with the use of cryptocurrencies?" researchers can take the following steps:

**1. Review Islamic Finance Principles:**

- Begin by conducting an extensive literature review to understand the core principles of Islamic finance, including Sharia compliance, prohibition of Riba (interest), and the importance of ethical and social responsibility.

**2. Analyze Cryptocurrency Features:**

- Examine the features and mechanisms of various cryptocurrencies, including Bitcoin and Ethereum, to identify aspects that may align or conflict with Islamic finance principles.

**3. Engage with Islamic Scholars:**

- Collaborate with Islamic finance scholars and experts to gather insights on how they interpret the compatibility of cryptocurrencies with Sharia law.
- Organize interviews, surveys, or focus groups with scholars to understand their perspectives and opinions.

# Hypothesis

Can you provide me an initial hypothesis related to that?

Certainly, here's an initial hypothesis related to the research question "How can GCC nations reconcile the principles of Islamic finance with the use of cryptocurrencies?":

"Hypothesis: Cryptocurrencies can be reconciled with the principles of Islamic finance in GCC nations through the development of Sharia-compliant cryptocurrency frameworks that emphasize transparency, ethical considerations, and asset backing. The successful integration of cryptocurrencies into Islamic finance will require collaboration between Islamic scholars, regulatory authorities, and the cryptocurrency industry to establish clear guidelines and standards for digital assets that align with Sharia principles."

This hypothesis suggests that there is potential for alignment between cryptocurrencies and Islamic finance principles in the GCC region but acknowledges that it will require the creation of specific frameworks and standards to ensure compliance. It also emphasizes the need for collaboration among key stakeholders to achieve this reconciliation. Researchers can use this hypothesis as a starting point and conduct empirical research to either support or refute it based on their findings.

# Hypothesis Testing

How can I test this hypothesis quantitatively? Suggest me some simulation methods.

Testing the hypothesis quantitatively regarding the reconciliation of cryptocurrencies with Islamic finance principles in GCC nations can be challenging due to the complexity of the subject matter. However, you can employ simulation methods that incorporate relevant data and assumptions to evaluate the feasibility and outcomes of different cryptocurrency and Islamic finance integration scenarios. Here are some simulation methods and steps you can consider:

**1. Monte Carlo Simulation:**

- Use Monte Carlo simulations to model the potential financial outcomes of various cryptocurrency investment strategies while considering Islamic finance principles.
- Incorporate historical cryptocurrency price data, expected returns, and volatility into the simulation.
- Introduce constraints based on Islamic finance principles, such as the prohibition of Riba (interest) and Gharar (uncertainty).

**2. Agent-Based Modeling:**

- Develop an agent-based model that simulates the behavior of individual investors, financial institutions, and regulatory bodies in the GCC region.
- Define rules and preferences for agents in accordance with Islamic finance principles and cryptocurrency market dynamics.
- Simulate the interactions and decisions of agents over time to observe the impact on the financial ecosystem.

# Paper Suggestion



<https://www.perplexity.ai/>

Suggest some research papers to read regarding Islamic finance, cryptocurrencies and GCC.

## Sources

Cryptocurrency as a Fin Tech Instrument and...

R<sup>6</sup> researchgate • 1

Islamic Finance and Cryptocurrency: A...

R<sup>6</sup> researchgate • 2

Fintech, Digitalization, and Blockchain in Islamic...

mdpi • 3

A survey of Islamic banking and finance...

sciedirect • 4

Spillovers between the Islamic gold-backed...

E sciedirect • 5

Fintech And Blockchain in Islamic Finance: A...

ssrn • 6

## Answer

Here are some research papers related to Islamic finance, cryptocurrencies, and GCC:

1. "Cryptocurrency as a Fin Tech Instrument and Islamic Finance: The GCC Perspective"  
① This study investigates cryptocurrency in Islamic finance in general and particularly within the Gulf Cooperation Council (GCC).
2. "Islamic Finance and Cryptocurrency: A Systematic Review"  
② This paper presents a qualitative study that examines the perception of users on the Islamic approach toward purification of transactions with cryptocurrency.
3. "Fintech, Digitalization, and Blockchain in Islamic Finance: Retrospective Investigation"  
③ This paper aims to complete a comprehensive review of the existing literature on Islamic fintech and categorize the current work to give a clear understanding of the state of the art.

# Literature Review



<https://www.perplexity.ai/>

Conduct a literature review with references about the following:  
Islamic finance, cryptocurrencies and GCC.

## Sources

Cryptocurrency as a Fin Tech Instrument and...  
R<sup>6</sup> researchgate • 1

Islamic Finance and Cryptocurrency: A...  
R<sup>6</sup> researchgate • 2

Fintech, Digitalization, and Blockchain in Islamic...  
mdpi • 3

A survey of Islamic banking and finance...  
sciedirect • 4

[PDF] A REVIEW ON LITERATURES OF...

N unl • 5

[PDF] An Intelligent Decision-System for...

X arxiv • 6

## Answer

Islamic finance, cryptocurrencies, and GCC are three interconnected topics that have gained significant attention in recent years. Here is a literature review of some research papers related to these topics:

1. "Cryptocurrency as a Fin Tech Instrument and Islamic Finance: The GCC Perspective"  
<sup>1</sup>: This study aims to investigate cryptocurrency in Islamic finance in general and particularly within the Gulf Cooperation Council (GCC). The study concludes that cryptocurrency can be used as a Fin Tech instrument in Islamic finance, but it needs to be Shariah-compliant.
2. "Islamic Finance and Cryptocurrency: A Systematic Review"  
<sup>2</sup>: This paper presents a systematic review of the literature on cryptocurrency and Shariah compliance. It explores the Shariah compliance of the cryptocurrency and concludes that cryptocurrency can be Shariah-compliant if it meets certain criteria.
3. "Fintech, Digitalization, and Blockchain in Islamic Finance: Retrospective Investigation"  
<sup>3</sup>: This study has completed a systematic review of Islamic fintech and digitalization literature. The study concludes that Islamic fintech and digitalization have the potential to revolutionize the Islamic finance industry.

## Citation

Provide me the citation for the following paper including the DOI:

Cryptocurrency as a Fin Tech Instrument and Islamic Finance: The GCC Perspective

### Sources

Cryptocurrency as a Fin Tech Instrument and...  
R<sup>6</sup> researchgate • 1

Emergence or Descend of Islamic Cryptocurrency: ...  
PKP pjmr • 2

Emergence or Descend of Islamic Crypto currency: ...  
R<sup>6</sup> researchgate • 3

virtual money exchange (cryptocurrency) with rea...  
co • 4

Mata Uang Digital (Cryptocurrency): Apaka...  
ac • 5

VOLUME XII, ISSUE 2, FEBRUARY 2020 -...  
xajzkjdx • 6



<https://www.perplexity.ai/>

### Answer

Abdeldayem, M. M., Dulaimi, S. H. A. L., & Nekhili, R. (2020). Cryptocurrency as a Fin Tech Instrument and Islamic Finance: The GCC Perspective. Journal of Xi'an University of Architecture & Technology, 12(2), 226-234. DOI: 10.19001/JAT.2020.XII.I2.20.2084.

# Literature Review



islamic finance cryptocurrencies GCC

x

Insight from top 5 papers

English (en) ▾

⋮

Cryptocurrency in Islamic finance in the GCC is a topic of interest and debate. The use of cryptocurrencies, such as Bitcoin, in Islamic banking and finance is being explored. There is a need to determine the permissibility and compatibility of cryptocurrencies with Islamic principles. Some studies suggest that cryptocurrencies can fit into the structure of Islamic banking and finance, as they have benefits and features that align with Islamic finance principles. However, there are concerns about issues like volatility, fraudulent activity, and regulatory compliance. It is important to create standards and regulations to ensure the proper functioning and disclosure of cryptocurrency transactions in Islamic finance. Further research and exploration are needed to fully understand the potential of cryptocurrencies in the GCC's Islamic finance industry. [1] [2] [3] [4] [5]

# Literature Review



Search: islamic finance cryptocurrencies GCC X

Papers (10)	Insights
<p>Book Chapter • DOI ↗</p> <p><input type="checkbox"/> <a href="#">Strategic Assessment of Islamic Fintech in GCC Countries</a></p> <p>⊖ Tariq Gulrez 01 Jan 2021</p> <p>1 Citations      Ask Copilot</p>	<p>The paper discusses the potential of cryptocurrencies in the Islamic finance industry in GCC countries.</p>
<p>Book Chapter • DOI ↗</p> <p><input type="checkbox"/> <a href="#">Cryptocurrency and Islamic Finance</a></p> <p>⊖ Nafis Alam +2 more 01 Jan 2019</p> <p>4 Citations      Ask Copilot</p>	<p>The paper discusses the usage and challenges of cryptocurrencies in Islamic finance, but does not specifically mention the GCC region.</p>

# Literature Review



<https://typeset.io/>

## The Compatibility of Cryptocurrencies and Islamic Finance

Fait Muedini<sup>1</sup> • [Institutions \(1\) ▾](#)

31 Jul 2018 - Iss: 10

**TL;DR:** In this paper, the compatibility of Bitcoin and other cryptocurrencies within the context of Islamic law is examined, with an emphasis on the importance of ethical financial dealings, and the history of money in Islamic history.

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**Abstract:** In this article, I shall examine the compatibility of Bitcoin and other cryptocurrencies within the context of Islamic law. I shall begin by an introduction of Bitcoin and other cryptocurrencies. I will then discuss the history of money in Islamic history, with an emphasis on the importance ethical financial dealings. I will then argue that Bitcoin and other cryptocurrencies are highly compatible within Islamic finance, and in many cases, actually provide solutions to problems of government institution controlled currencies, arguing that Bitcoin and other cryptocurrencies better address several problems that early Islamic finance scholars were concerned with. Unlike traditional fiat, the supply of Bitcoin and many other digital currencies are fixed, thereby eliminating potential for gharar (deception), and also inflation. In addition, unlike fiat and precious metal coins, digital currencies cannot be altered, forged, or manipulated. Moreover, cryptocurrencies' peer-to-peer transactions remove the need for any banking institution, thereby eliminating any risk with a third party controlling one's money. I shall then conclude with a summary of the main points of the article, and examine future possibilities with regards to the role of digital and cryptocurrencies.

[read less](#)

# Literature Review



islamic finance cryptocurrencies GCC

x

Explain Abstract of this paper in 2 lines

Conclusions from the paper

Results of the paper

Methods used in this paper

Summarise introduction of this paper

What are the contributions of this paper

Explain the practical implications of this paper

Limitations of this paper

Literature survey of this paper

What data has been used in this paper

Future works suggested in this paper

Find Related Papers

# Literature Review



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Explain Abstract of this paper in 2 lines

1:33 PM

**Abstract of the paper "The Compatibility of Cryptocurrencies and Islamic Finance":**

- The paper examines the compatibility of Bitcoin and other cryptocurrencies with Islamic law, highlighting their advantages over government-controlled currencies in terms of ethical financial dealings and addressing concerns of early Islamic finance scholars. It argues that cryptocurrencies eliminate potential deception and inflation, cannot be altered or manipulated, and remove the need for a third-party banking institution. The paper concludes by discussing the future possibilities of digital and cryptocurrencies in Islamic finance. [1]

[2]

# Literature Review



<https://typeset.io/>

What are the contributions of this paper

1:35 PM

## Contributions of the paper "The Compatibility of Cryptocurrencies and Islamic Finance":

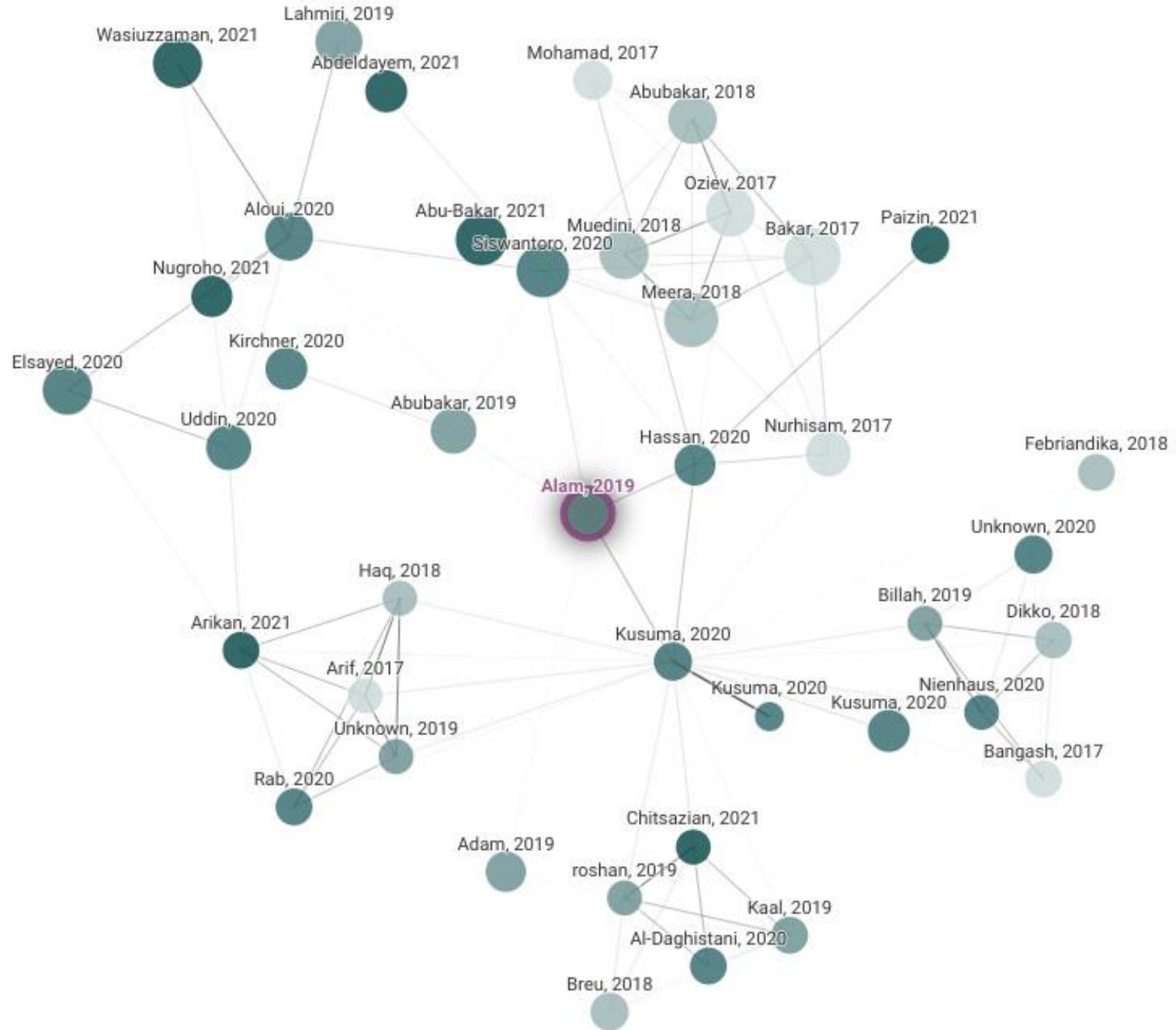
- Examines the compatibility of Bitcoin and other cryptocurrencies within the context of Islamic law.
- Discusses the history of money in Islamic finance, emphasizing the importance of ethical financial dealings.
- Argues that Bitcoin and other cryptocurrencies are highly compatible within Islamic finance and provide solutions to problems of government-controlled currencies.

# Literature Review Map

Example: Cryptocurrency  
and Islamic Finance

 CONNECTED PAPERS

<https://www.connectedpapers.com/>

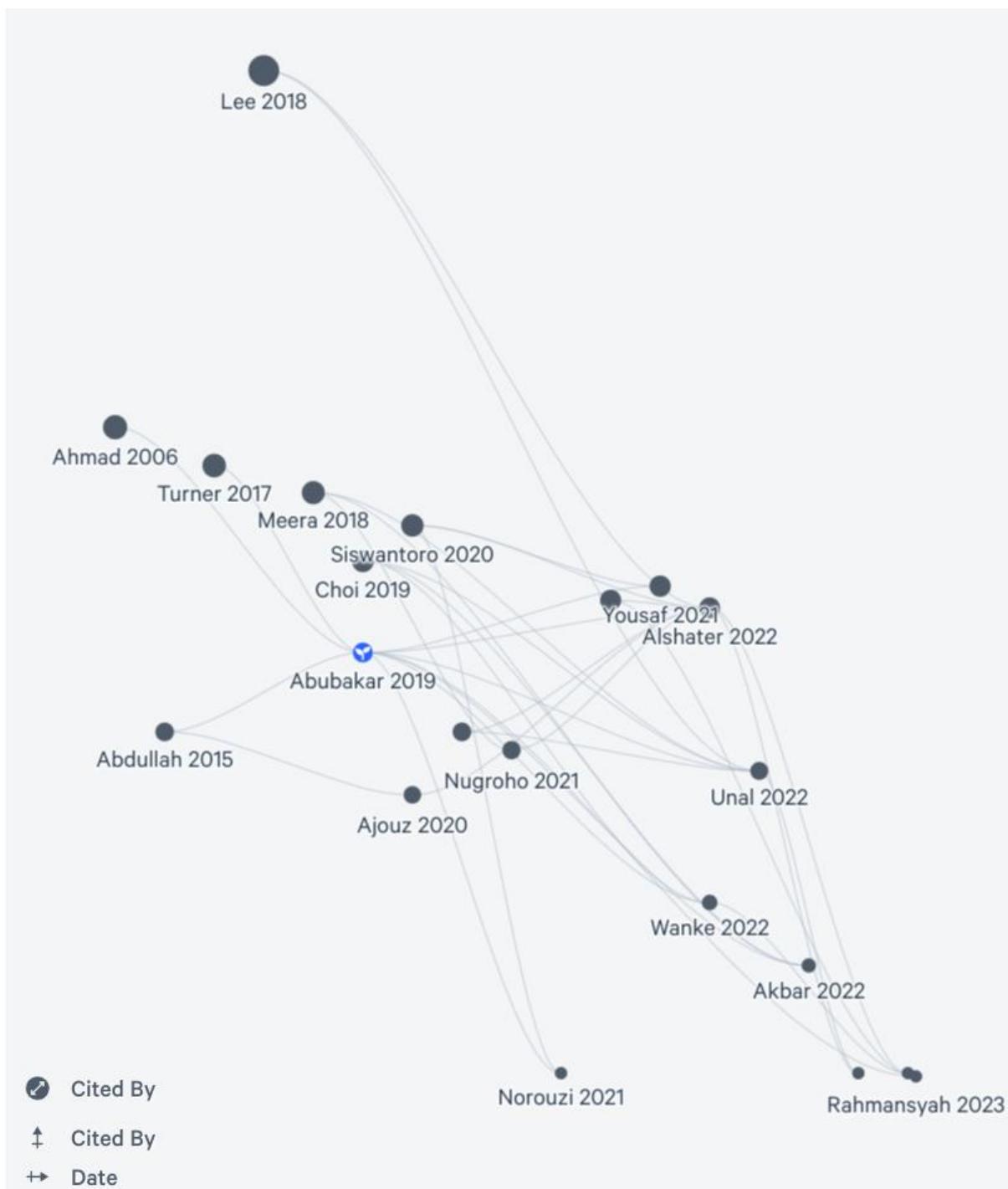


# Literature Review Map

**Example: Crypto-currency  
Tide and Islamic Finance  
Development: Any Issue?**

 **Litmaps**

<https://www.litmaps.com/>



# Research Paper Analysis

**Example: Does Bitcoin's  
Price Affect on the  
Economic Factors? Cross  
Country Evidence**



<https://claude.ai/>

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## Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence

Ahmad Alqatan\*

*Arab Open University, Kuwait.*

**Abstract:** In this paper, I aim to identify the relationship between the Bitcoin and the economic factors using the Fully Modified Least Square (FMOLS) estimator. In fact, the Key economic factors identified for the investigation are the exchange rate, the net trade, the consumer price index, inflation, and the interest rates. Therefore, to test the validity of the chosen technique, I conducted the unit root and the co-integration tests of Pedroni (1999,2004) based on monthly data over the period from January 2015 to December 2019. Actually, the obtained results indicated that, excepting the interest rate, the variables have a strong positive correlation with the Bitcoin, However, I did not find a positive correlation with the Bitcoin. Then, the long-run relationship between the Bitcoin price and the different variables considered in the FMOLS estimate is stronger than the short-run impact since inflation favors the use of the Bitcoin.

**Keywords:** Bitcoin; economic indicators; co-integrating relationship; FMOLS.

**JEL Classification:** G15, M21, O47

Claude accepts PDF files.

# Research Paper Analysis

**Example: Does Bitcoin's  
Price Affect on the  
Economic Factors? Cross  
Country Evidence**



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In the abstract, the author mentions Bitcoin, FMOLS. What do they mean? explain briefly.

In the abstract, the author mentions the following terms:

**Bitcoin** - Bitcoin refers to the digital cryptocurrency that was created in 2009 by an anonymous person or group using the name Satoshi Nakamoto. It is a decentralized digital currency that uses cryptography and blockchain technology to verify and record transactions. Bitcoin can be used to make payments online and acts as a digital store of value.

**FMOLS** - This stands for Fully Modified Ordinary Least Squares. It is an econometric technique used for estimating cointegrating regressions in panel data models. Since the variables in the paper are non-stationary, the author uses FMOLS to estimate the long-run equilibrium relationship between Bitcoin prices and the economic factors.

In brief:

- Bitcoin is the first and most popular cryptocurrency the author analyzes in the paper.
- FMOLS is an econometric method used to estimate the long-run cointegrating regression between non-stationary panel data variables like Bitcoin price and inflation, exchange rates, etc.

So in the abstract, the author indicates that he employs FMOLS methodology to estimate the relationship between Bitcoin prices and key economic indicators across different countries over the sample time period.

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# Research Paper Analysis

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



<https://claude.ai/>

In the paper what does JEL Classification: G15, M21, O47 mean?

In research papers, JEL classification codes are typically used to categorize the paper according to the specific fields of research it relates to.

The JEL codes mentioned in this paper are:

G15 - International Financial Markets

M21 - Business Economics

O47 - Measurement of Economic Growth; Aggregate Productivity; Cross-Country Output Convergence

These codes indicate that this paper covers the following research areas:

G15 - This code relates to the field of international financial markets. The paper analyzes the relationship between Bitcoin prices and exchange rates, which falls under this category.

M21 - This code represents the field of business economics. The paper examines Bitcoin's role in international trade and commerce, which is a business economics topic.

O47 - This relates to measurement of economic growth and productivity. Analyzing the links between Bitcoin prices and macroeconomic factors like inflation is part of this research area.

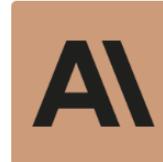
So in summary, the author uses these codes to indicate that the paper focuses on international finance, business economics, and economic growth related aspects as they pertain to Bitcoin and its macroeconomic linkages. This helps readers and researchers categorize and identify the topic areas covered by the paper.

Copy  Retry



# Research Paper Analysis

**Example: Does Bitcoin's  
Price Affect on the  
Economic Factors? Cross  
Country Evidence**



<https://claude.ai/>

What are the contributions of the paper?

Some of the key contributions of this paper are:

- Empirically analyzes the relationship between Bitcoin price and major economic indicators like exchange rates, inflation, trade openness, etc. Most prior research focused on Bitcoin's relationship with financial assets.
- Uses panel data techniques like unit root tests, cointegration tests, and FMOLS regression to study this relationship rigorously. This allows capturing cross-country differences as well as long-run dynamics.
- Finds evidence that Bitcoin acts as a hedge against inflation and currency devaluation in the long run. This highlights its potential economic usefulness.
- Shows Bitcoin can facilitate international trade by improving transaction efficiency and security. This is a novel benefit highlighted by the paper.
- Provides one of the first multi-country analyses of Bitcoin's role in the economy using recent data from 2015-2019. Most prior research was based on single countries or older data.
- Adds to the empirical literature on cryptocurrencies by focusing on the original and most prominent cryptocurrency - Bitcoin.
- Helps understand the drivers of Bitcoin price and its growing relevance in the global economy. This could inform both investors and policymakers.

Overall, the key contribution is providing a robust empirical analysis of Bitcoin's relationship with major macroeconomic factors. This highlights its potential benefits as well as growing importance for the wider economy.

# Research Paper Analysis

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



<https://claude.ai/>

What are the research gaps in the paper that the author tried to fill in?

Some of the key research gaps the author aimed to fill with this paper include:

- Lack of empirical analysis of Bitcoin's relationship with economic fundamentals like inflation, exchange rates, etc. Most prior research focused on financial assets.
- Scarcity of studies using recent Bitcoin data. Many existing papers used data only up to 2013-2014. This paper utilizes monthly data from 2015-2019.
- Limited multi-country analyses examining cross-country differences. Many studies focused only on single countries like US, China, etc. This paper covers 10 major countries.
- Need for studies employing advanced panel data techniques like unit roots, cointegration, FMOLS regression. Existing literature lacked methodological rigor in studying macro relationships.
- Lack of research on Bitcoin's role in facilitating international trade. This paper provides initial evidence on how Bitcoin can enhance cross-border commerce.
- Need for updated research on Bitcoin's safe haven potential against inflation and currency debasement. The paper fills this gap using recent data.
- Understudied area of Bitcoin's potential economic benefits to complement the risks highlighted in prior literature.

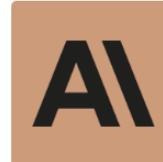
Overall, the author contributed by conducting a robust, multi-country empirical analysis focusing on Bitcoin's macroeconomic linkages and benefits - an area that was relatively under-researched compared to financial relationships.

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# Research Paper Analysis

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



<https://claude.ai/>

What is the aim/objective of the author?

The main aim or objective of the author in this research paper is:

- To identify the relationship between the price of Bitcoin and key economic factors like exchange rates, trade openness, consumer price index, inflation, and interest rates.

Specifically, the author seeks to:

- Empirically analyze if Bitcoin price is affected by major macroeconomic indicators.
- Examine if Bitcoin acts as a hedge against inflation and currency devaluation.
- Assess if Bitcoin can facilitate international trade and commerce.
- Study the drivers of Bitcoin price and its growing economic relevance.
- Provide a robust, multi-country analysis of Bitcoin's linkages with the wider economy.
- Contribute to the empirical literature on cryptocurrencies by focusing on Bitcoin.
- Highlight the potential economic benefits of Bitcoin to complement the risks.

Overall, the author's aim is to conduct a rigorous econometric analysis of Bitcoin's relationship with key economic variables across major countries. This is intended to shed light on Bitcoin's macroeconomic significance and its role in the global economy.

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# Poster

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



<https://claude.ai/>

I'd like to create a poster. Suggest me some content of the paper.

Here are some suggestions for content to include in a poster presenting this research paper:

Title: Relationship Between Bitcoin Prices and Economic Factors

Introduction:

- Background on Bitcoin and research problem/questions

Methodology:

- Data: Monthly panel data from 2015-2019 for 10 major countries
- Analysis: Unit roots, cointegration tests, FMOLS regression

Key Findings:

- Bitcoin price positively associated with exchange rates, inflation, trade openness, CPI
- Bitcoin serves as inflation hedge and facilitates international trade

Exchange Rates:

- Bitcoin price affected by Euro-Dollar exchange rate
- Exchange rate risks may not hinder Bitcoin in long run

Inflation:

- Inflation leads to increased Bitcoin volume
- Bitcoin helps avoid currency devaluation

# Poster

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



<https://claude.ai/>

## International Trade:

- Bitcoin enables faster, secure cross-border transactions
- Can boost online international commerce

## Conclusion:

- Bitcoin has important linkages with macroeconomy
- Long-run relationship between Bitcoin price and economic factors

## Visuals:

- Bitcoin price chart, transaction volume growth chart
- Summary table of results
- Map of countries included
- Key graphs/charts from paper

## References, Acknowledgments:

- Cite paper, authors, funding

The poster should highlight the key objectives, findings, visuals and conclusions to provide an overview of the paper in a compact graphical format. The suggested content covers the major aspects.

# Presentation

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



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Suggest me 5 slides of the paper along with the bullet points and body.

Here are 5 suggested slides along with bullet points and body text summarizing the key aspects of the research paper:

## Slide 1 - Introduction

- Bitcoin is a major financial innovation
- Research aims to study Bitcoin's impact on monetary & financial systems
- Examines Bitcoin's relationship with key economic indicators

## Slide 2 - Methodology

- Panel data from 10 countries from 2015-2019
- Unit root and cointegration tests
- FMOLS regression estimation
- Variables: Bitcoin prices, exchange rates, trade, inflation, interest rates

## Slide 3 - Results

- Bitcoin prices positively correlated with trade, inflation, exchange rates
- No positive correlation found with interest rates
- Indicates Bitcoin's benefits for trade, as inflation hedge

## Slide 4 - Exchange Rates

- Bitcoin prices positively affected by Euro-Dollar rates
- Exchange rate risks may not hinder Bitcoin in long run

## Slide 5 - Conclusion

- Strong long-run relationship between Bitcoin prices and economic factors
- Highlights Bitcoin's economic relevance and benefits
- Impact is stronger in long-run compared to short-run

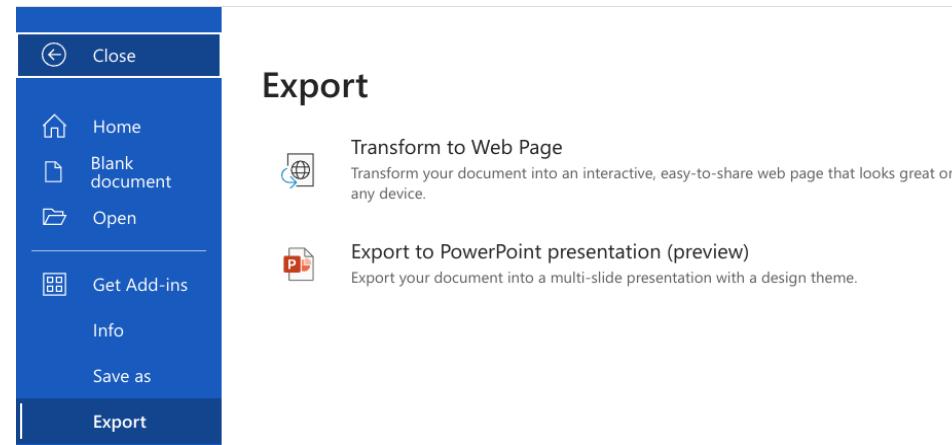
# Presentation

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



<https://claude.ai/>

- a. Write the slides content on Microsoft Word
- b. File > Export > Export to Powerpoint Presentation



## Export to presentation

Choose a design theme.



Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence

# Presentation

**Example: Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence**



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- a. Write the slides content on Microsoft Word
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## Does Bitcoin's Price Affect on the Economic Factors? Cross Country Evidence

1

### Slide 1 - Introduction

- Bitcoin is a major financial innovation
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2

### Slide 2 - Methodology

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### Slide 5 - Conclusion

- Strong long-run relationship between Bitcoin prices and economic factors
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- Impact is stronger in long-run compared to short-run

6

# Data Analysis

Example: Bitcoin Yearly Prices 2018-2022



<https://bard.google.com/>

Following are the yearly open and close Bitcoin prices from 2018 to 2022. Perform some data analysis and provide me with your results and observations.

2018,13880,3693

2019,3694,7168

2020,7161,28993

2021,29000,46214

2022,46230,16528

[View other drafts](#) ▾

Data Analysis of Bitcoin Prices from 2018 to 2022

Year	Open Price	Close Price	Change
2018	13880	3693	-74%
2019	3694	7168	+94%
2020	7161	28993	+308%
2021	29000	46214	+59%
2022	46230	16528	-64%

[Export to Sheets](#)

# Data Analysis

## Example: Bitcoin Yearly Prices 2018-2022



<https://bard.google.com/>

Following are the yearly open and close Bitcoin prices from 2018 to 2022. Perform some data analysis and provide me with your results and observations.

2018,13880,3693  
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2020,7161,28993  
2021,29000,46214  
2022,46230,16528

Observations:

- Bitcoin prices have been extremely volatile over the past five years, with annual price swings ranging from -74% to +308%.
- Despite the volatility, Bitcoin has shown a long-term upward trend, with the overall price increasing by over 1000% from 2018 to 2021.
- However, Bitcoin prices took a major hit in 2022, falling by over 60% from their peak in November 2021.

Possible Explanations for the Volatility:

- Bitcoin is a relatively new asset class, and there is still a lot of uncertainty about its long-term value. This uncertainty can lead to price volatility.
- Bitcoin is not yet widely adopted as a form of payment or investment. This lack of adoption can also contribute to price volatility.
- Bitcoin is subject to a number of factors that can affect its price, including news events, government regulations, and changes in investor sentiment.

Conclusion:

Bitcoin is a volatile asset with a long-term upward trend. However, investors should be aware of the risks involved before investing in Bitcoin.

# Data Analysis

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### Additional Notes:

- The Bitcoin price crash in 2022 was likely due to a combination of factors, including rising interest rates, inflation, and the collapse of the TerraUSD stablecoin.
- Despite the recent price decline, many analysts believe that Bitcoin is still a long-term investment opportunity. They point to Bitcoin's limited supply and growing adoption as reasons for their optimism.

### Disclaimer:

This is not financial advice. Please do your own research before investing in any asset, including Bitcoin.



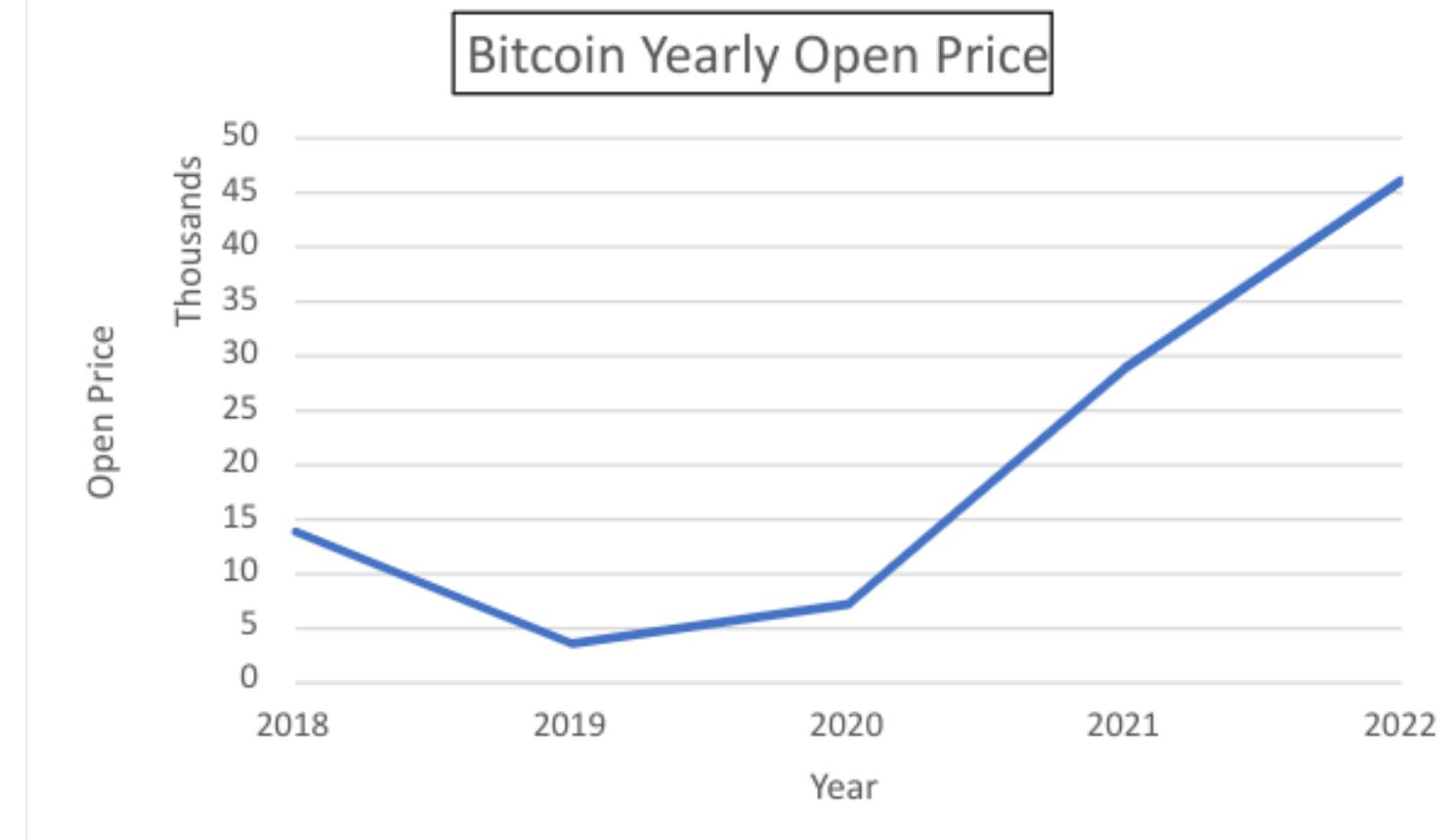
<https://bard.google.com/>

# Data Analysis

Example: Bitcoin Yearly Prices 2018-2022



<https://bard.google.com/>



Bard accepts images.

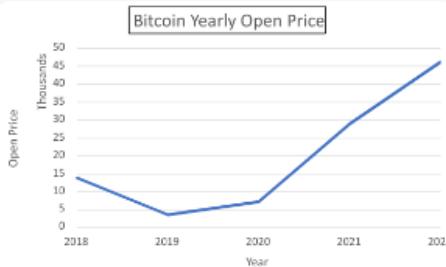
# Data Analysis

## Example: Bitcoin Yearly Prices 2018-2022



<https://bard.google.com/>

Provide your observations on the chart.



[View other drafts](#) ▾

The chart you sent shows the yearly open price of Bitcoin from 2018 to 2023. The chart shows that the open price of Bitcoin has increased steadily over the past few years, from around \$5,000 in 2018 to over \$27,000 in 2023.

There are a few notable observations that can be made from the chart:

- The open price of Bitcoin has increased by over 500% in the past five years.
- The rate of growth has slowed in recent years, but it is still positive.
- There is a clear upward trend in the open price of Bitcoin over time.

The chart also shows that Bitcoin is a volatile asset. The open price of Bitcoin has fluctuated significantly over the past few years, with swings of up to 50% in a single year.

# Search Online



<https://bard.google.com/>

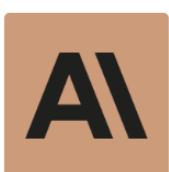
What was the closing price of Bitcoin on 4/Oct/2023?

The closing price of Bitcoin on October 4, 2023 was \$27,420.33.

Source: Yahoo Finance

# Data Analysis

**Example: Bitcoin 2023 Monthly Prices**



<https://claude.ai/>

Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 01, 2023	25,934.02	27,488.76	24,930.30	26,967.92	26,967.92	337,637,313,742
Aug 01, 2023	29,230.87	30,176.80	25,409.11	25,931.47	25,931.47	437,724,169,499
Jul 01, 2023	30,471.85	31,814.52	28,934.29	29,230.11	29,230.11	382,224,489,090
Jun 01, 2023	27,218.41	31,389.54	24,797.17	30,477.25	30,477.25	481,734,214,225
May 01, 2023	29,227.10	29,820.13	25,878.43	27,219.66	27,219.66	443,473,015,479
Apr 01, 2023	28,473.33	31,005.61	27,070.85	29,268.81	29,268.81	511,540,319,004
Mar 01, 2023	23,150.93	29,159.90	19,628.25	28,478.48	28,478.48	883,299,703,608
Feb 01, 2023	23,137.84	25,134.12	21,460.09	23,147.35	23,147.35	723,968,574,897
Jan 01, 2023	16,547.91	23,919.89	16,521.23	23,139.28	23,139.28	690,994,018,045

Claude accepts csv files.

# Data Analysis

**Example: Bitcoin 2023 Monthly Prices**



<https://claude.ai/>

This data represents Bitcoin monthly opening and closing prices starting January 2023 till September 2023. Perform some data analysis and provide the results and observations.

Here are some observations analyzing the given Bitcoin monthly price data from January 2023 to September 2023:

- Prices started at \$16,547 in January 2023, reached an annual high of \$31,005 in April 2023, and ended at \$26,967 in September 2023.
- There was an overall upward trend from January to April, with prices increasing 87% from start to peak. This signals a bull market phase for Bitcoin during this period.
- After peaking in April, prices declined over the next 5 months, dropping 13% from the April high to the September close. This suggests a shift to a bearish sentiment in the market after April.
- The lowest monthly close was in August at \$25,931, marking the bottom of the downtrend after the April high.
- Trading volume was highest during the uptrend, with over \$880 billion traded in the March peak month. Volume declined steadily after March, dropping to \$337 billion by September as prices consolidated sideways to down.
- Overall, the data shows a classic bull market run up early in the year, followed by a correction and bearish reversal from April to September. This lines up with typical Bitcoin boom-and-bust cycles.
- Key levels to watch are the April peak of around \$31,000 which may act as future resistance, and the August low of around \$25,900 which may act as support.

Let me know if you need any clarification or have additional questions on analyzing this Bitcoin price data!

Copy Retry



# Excel Code Generation

	A	B	C
1	Student ID	Numeric	Letter Grade
2	Student 1	50	
3	Student 2	70	
4	Student 3	80	
5	Student 4	90	

	A	B	C
1	Student ID	Numeric	Letter Grade
2	Student 1	50	F
3	Student 2	70	C
4	Student 3	80	B
5	Student 4	90	A

Create an Excel function briefly that assigns a letter grade to numeric grades according to the following scale:

A: 90-95, B:80-90, C:70-80, D:60-70 and F otherwise.

The numeric grades in Excel are from B2 to B5.

To assign letter grades to numeric grades based on the provided scale in Excel for a range of numeric grades in cells B2 to B5, you can use the `IF` and `AND` functions. Here's a brief Excel formula to achieve this:

In cell C2 (or any cell where you want to display the letter grades), use the following formula:

excel

 Copy code

```
=IF(AND(B2>=90, B2<=95), "A", IF(AND(B2>=80, B2<90), "B", IF(AND(B2>=70, B2<
```

# LaTeX Code Generation

Create me a gannt chart on latex that has three major components:

Literature Review - Results and Publishing.

Each of them takes 4 months starting October 2023 till October 2024.

Make sure each cell fits the text perfectly.

Certainly! Here's a Gantt chart in LaTeX with three major components (Literature Review, Results, and Publishing), each taking 4 months, starting in October 2023 and ending in October 2024, with text that fits perfectly in each cell:

latex

 Copy code

```
\documentclass{article}
\usepackage{pgfgantt}
\usepackage[a4paper,margin=1in]{geometry} % Adjust the page margins

\begin{document}
\begin{figure}[h]
\centering
\begin{ganttchart}[
    vgrid={*{6}{draw=none}},dotted,
    hgrid,
    x unit=0.7cm, % Adjust the x unit for a larger chart
    y unit chart=1.2cm, % Adjust the y unit for a larger chart
    time slot format=isodate-yearmonth,
    time slot unit=month,
]{} % This is where you would define your tasks and their dependencies
\end{ganttchart}
\end{figure}

```

# LaTeX Code Generation

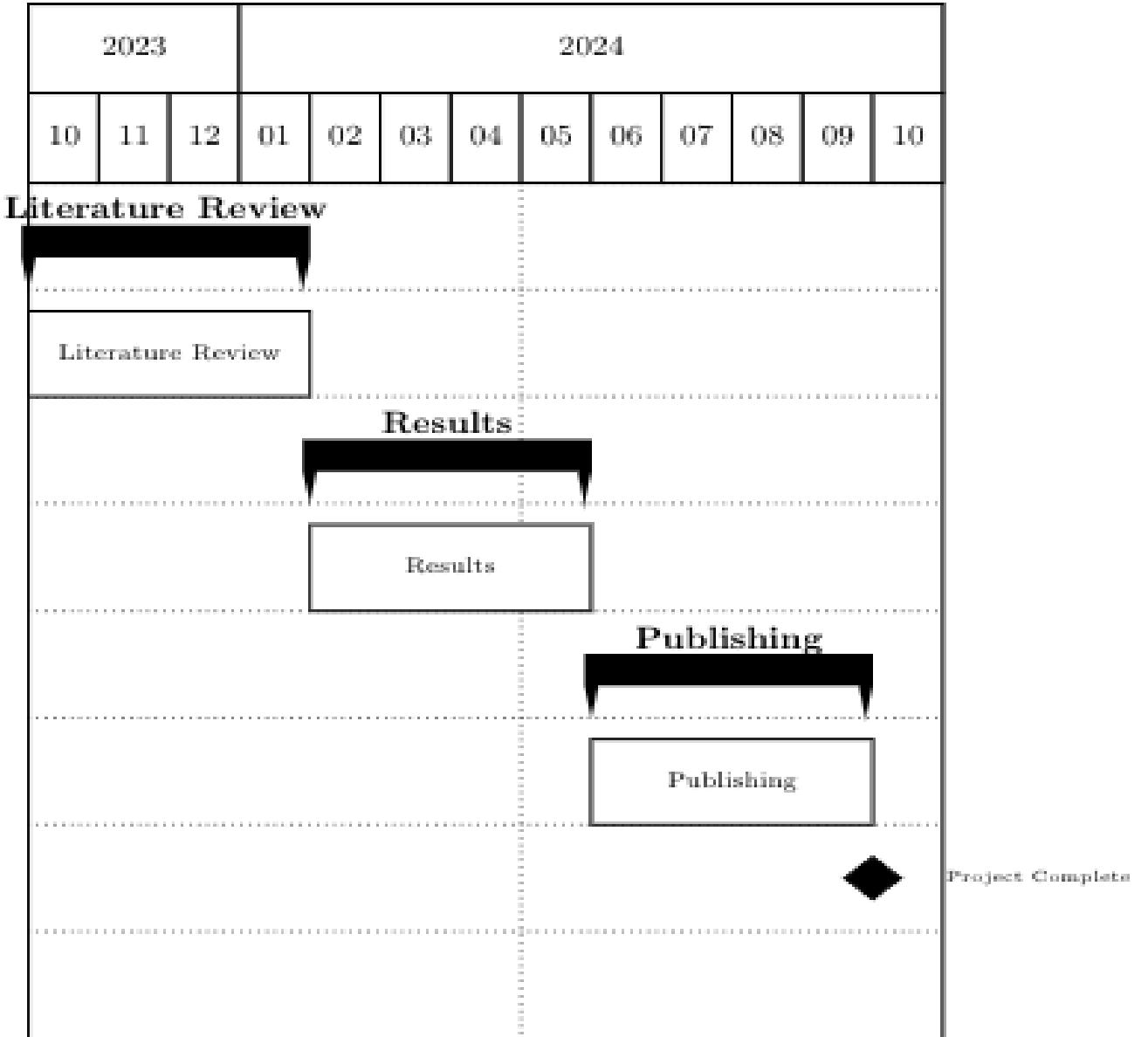


Figure 1: Project Timeline

# Bard Vs ChatGPT Vs Claude

	<b>Bard</b>	<b>ChatGPT3.5 (Free)</b>	<b>Claude 2 (Free)</b>
Access to internet	Yes.	No. Cutoff date: Sept 2021	No. Cutoff date: Early 2023
Text (Token) size	Limited. 1000 token.	Limited. 4096 Token.	Around 75K words.
File Upload	Yes. Images.	No (free version)	Yes. Documents

# Literature Review Tools

- <https://www.semanticscholar.org/>
- <https://www.researchrabbit.ai/>
- <https://elicit.com/>
- <https://scite.ai/>
- <https://www.rayyan.ai/>
- <https://consensus.app/>

# Paper Analysis

- <https://www.chatpdf.com/>
- <https://www.explainpaper.com/>
- <https://askyourpdf.com/>
- <https://www.hipdf.com/chat-with-pdf>
- <https://sider.ai/chatpdf>

# Writing Tools

- <https://quillbot.com/>
- <https://app.grammarly.com/>
- <https://jenni.ai/>
- <https://writesonic.com/>
- <https://www.writefull.com/>

# List of AI Tools

- <https://www.futurepedia.io/>
- <https://topai.tools/>
- <https://aitoolsdirectory.com/>
- <https://www.insidr.ai/ai-tools/>
- <https://findmyaitool.com/>
- <https://opentools.ai/>

# Caution



Check the output of chatbots yourself.



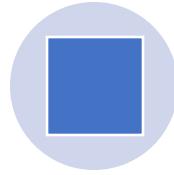
Do not fully depend on AI-chatbots or overuse.



Do not copy and paste.

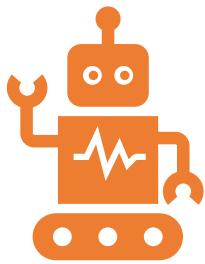


Be careful of plagiarism.

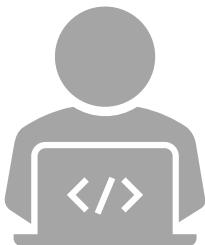


Never provide novel ideas or confidential data.

# Conclusion



AI-Chatbots and AI tools can be beneficial for research and can assist with various tasks.



AI tools can be also used to write emails and letters, communication, and time management.



Make sure to be careful while using these tools.

# References

- Muedini, F. (2018). The compatibility of cryptocurrencies and Islamic finance. *European Journal of Islamic Finance*, (10).
- Alam, N., Gupta, L., Zameni, A., Alam, N., Gupta, L., & Zameni, A. (2019). Cryptocurrency and Islamic finance. *Fintech and Islamic Finance: Digitalization, Development and Disruption*, 99-118.
- Abubakar, M., Hassan, M. K., & Haruna, M. A. (2019). Cryptocurrency tide and Islamic finance development: any issue?. In *Disruptive Innovation in Business and Finance in the Digital World* (pp. 189-200). Emerald Publishing Limited.
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