Department of Computer Science

MSc in Information Systems and Digital Innovation

2021-01

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Bitcoin Ethereum

#### **Abstract**

Today we are overwhelmed by technological revolutions, through a series of innovative and new technologies, which have either already changed our daily lives, or intend to change it in the near future. One of the most innovative and rapidly developing technologies is the Blockchain technology, where we intend to deal with this bibliographic review. Because, blockchain has been attracted the attention of financial institutions and governments, as an innovative technology and has been managed to bring about changes in the financial market. As it has managed to radically change the way the economy works, through the creation of Bitcoin and Ethereum. Therefore, it creates with existence the distributed form of trust through this use. Thus managing to influence the traditional methods of banking transactions to date, but also the electronic services in general in the financial sector. In this context, an overview of the key aspects of this technology in the financial sector is provided first. Thus, through the bibliographic research, the following key issues for the development of services in the financial sector, based on blockchain technology, are identified: settlements, remittances, securities, smart contracts, payment between banks and customers, consortia, trade finance but also businesses through digital lending. In addition, the security of these transactions and the parties themselves is considered an important key issue. Another key issue is the liquidity of financial institutions, but also the high operating costs of Blockchain technology. For this reason, the conduct of this research in the financial sector is of particular importance, in order to investigate in detail and present the challenges that arise, the opportunities presented and the current situation in the global market through the use of this technology. But also what expectations it will bring in the near future through the investment, evolution and development of Blockchain technology in financial services and governments.

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## 1. ΚΕΦΑΛΑΙΟ 1 - ΕΙΣΑΓΩΓΗ

1.1

(Casey et al. 2018).

cloud

«4 »

(Davis & O Halloran, 2018). 4

Internet of Things , Big Data
D Printing clou

Blockchain

(Artificial Intelligence).

(Subic, et al.,

2020).

«Blockchain»

blockcha

(Celine, 2018).

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(Cermeno, 2016).

1.2

Blockchain

Blockchain

(Bitcoin, Litecoin, Ethereum) (Greenberg, 2011).

#### blockchain

Blockchain

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Blockchain

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economics», «blockchain in finance», «blockchain in banking», «intial coin offerings» Scopus, Science Direct, IEEE Xplore, ACM Digital Library, SpringerLink, Google Scholar Wiley Online.

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type of the paper, publication year, publication venue and number of citations.

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2016	9
2017	19
2018	15
2019	31
2020	16
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Πίνακας 1.

8	30	33	19
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90			

Πίνακας 2. Blockchain

Blockchain in Banking 20
Blockchain in Economics 24
Blockchain in Finance 21
Blockchain in Fintech 17
Decentralized Finance 8

Πίνακας 3. - Blockchain

Blockchain

Blockchain	
blockchain	
	Blockchain
·	Blockchain
	Fintech
	Blockchain.
	Blockchain

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# 2 ΚΕΦΑΛΑΙΟ 2 - ΕΙΣΑΓΩΓΗ ΣΤΟ BLOCKCHAIN

2.1	
Blocko	chain
	David Cham (Sherman et al., 2019)
1982,	
	(Narayanan et al., 2016)
	Satoshi Nakamoto
2008 (Nakamoto, 2008)	Nakamoto
	Bitcoin (Lee et al, 2019).
	Bitcom (Lee et al, 2019).
(Greenberg, 2011),	
	(Ionciti & Lokhoni 2017)
	(Iansiti & Lakhani, 2017)
	,
	Blockchain
	Bitcoin
IGO	
ICO	(Initial Coin Offering) (Frankenfield, 2019).

blockchain

### blockchain

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## 2.2 Blockchain -

(Laurence, 2017).

peer-to-peer ,

blockchain.

(Laurence, 2017).

Blockchain

(Norman, 2017).

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2.3 Blockchain