

1. Executive summary

The WP1 of this report presents how this proposal explicates the notion of Cryptocurrencies like bitcoin, Litecoin, etc., as well as their benefits and drawbacks, and how they are affecting the financial system and the currencies accepted by each country, such as the United State dollar, the pound, etc. This will address the significant transformation that would arise when digital currencies become globally accepted, including who would gain from this transformation, who would eventually disappear, and what this transition would entail for the financial system, and how will it lead the financial system? Can it really annihilate it or become its companion? This will occur eventually, therefore it all depends on how this sector adapts to it when it does.

To examine these issues, an intensive review of the literature is carried out, and data is validated by interviews and questionnaire carried out. These data are analysed in order to ascertain the correctness of the findings from the state-of-the-art review. Also, the research gaps were identified from the intensive literature review carried out. Then, the aim and objectives to achieve the main goal of this research are present. Then research impact statement is also presented alongside the proposed research.

2. Research gap analysis

Cryptocurrency is an internet currency, a digital monetary system, and is a means of exchange (Pandya, 2016). It employs cryptographic operations to conduct transactions. Analysis of cryptographic communication systems allows only the recipient of a transmission to retrieve its contents (Pandya, 2015). It is clearly connected to encoding, that involves the obfuscation of ordinary messages and their subsequent decipherment upon entering. It uses techniques like cryptography (Gupta, 2018). The purpose of cryptography is to encrypt and decrypt everything from buyer to seller to ensure a secure transaction; nevertheless, if the transaction or message is interrupted, it means that a third party gets all they need to read or do criminal acts (Gupta, 2019). The most distinctive and significant characteristic of Cryptocurrency is that it runs independently of any central authority; the decentralised nature of the blockchain employed by Cryptocurrency renders it impervious to any form of government interference or control (Ravi Kumar Gupta, 2020). Blockchain enables the development of digital currency, which employs encryption techniques to regulate the number of units created and to authorise or verify each transfer of funds. The simplest definition of blockchain is a transactional records system that guarantees encryption, accountability, and decentralisation (Khan, 2020). A blockchain is a spreadsheet that is open to all network participants. When information is recorded on a blockchain, updating or changing it is extraordinarily difficult.

In Cryptocurrency, Monies are stored in a digital wallet, making it impossible to be physically stolen. Also, the knowledge necessary to access this wallet is only obtainable in the brain or if opted to store a secure key in case they are forgotten. Blockchain transactions occur on multiple nodes, which are analogous to servers that share identical data held on the blockchain. The architecture of a blockchain is comprised of nodes. All nodes on a blockchain are interconnected and regularly exchange the most recent blockchain data with one another. Every time a transaction is made, some percentage of the network's nodes must confirm it by

verifying that the transaction is being made by the holder of the digital wallet in question. In the Bitcoin blockchain, for instance, the user will be requested for the private key, the public key, and evidence of ownership. Block chains are therefore one of the most difficult things to exploit.

The main reason Cryptocurrency is a challenge to financial institutions is not because it poses a threat or because rather, this is because it offers capabilities better over what financial institutions give, e.g., Bitcoin, runs 24 hours a day, seven days a week, with transactions occurring every second. In contrast, banks are normally closed on Sundays and on holidays, as most of their activities require human resources. There is no way to trace the address associated to the account to a specific individual, and operations are anonymous, unlike banks, where name, address, and signature are attached to every transaction made. This is both a good and a negative thing from an ethical standpoint; it's a positive idea to maintain the identity confidential when no one needs to know who you really are, but it also facilitates transactions between criminals for illicit purposes. Cryptocurrency has never been compromised, and every single Cryptocurrency is accounted for; as stated previously, every transaction is logged and validated by nodes. In order to answer the following questions: How does Cryptocurrency work, and is it safe? What are the many kinds of cryptocurrencies and what makes them unique? What is the impact of this digital currency on the current financial system? And could the economy be impacted by cryptocurrency? The following objectives are designed to offer solution to the above research questions.

3. Aim and Objectives

The main goal of this research is to explore Cryptocurrencies as well as their benefits and drawbacks, and how they are affecting the financial system and the currencies accepted by each country. What exactly is a cryptocurrency? How does it work? Is it safe? Is it trustworthy? Is it a threat to the rest of the currency system? And most importantly, how will it influence the banking sector? How would people react to this shift, and how would it be supplied with the facts they need to believe in this new development? As well as describing how Bitcoin came to be, how it has evolved over time, and where it is today, this guide will explain the various types of cryptocurrencies and provide enough background information for readers to grasp the significance of this digital currency and why it could be the future's most important medium of exchange. To achieve this, the following objectives will be carried out: carry out extensive literature review of the state-of-the-art to investigate the research domain, carry out primary data and secondary data collection, and analyse the data. Then, real-life engagement and testing is done followed by review of models and analysis, also, the optimization of models will be carried out followed by final testing and report production.

4. Impact statement

The proposed research will give a fundamental foundation for establishing the feasibility of cryptocurrency in comparison to the traditional financial system, as well as identifying any advantages that cryptocurrency may have over the traditional financial system, among other things. Taking this a step further, the government and private participants in the financial sector might be better prepared for the future by knowing how to capitalise on the power of the cryptocurrency in order to maximise the gains in the financial industry. This could also assist the government in planning the economy to accommodate the transactions of the modern day.

5. Proposed research

The proposed research uses deductive studies to test the theories against the real-life situation in Cryptocurrency and its consequential effect on the financial sector and the economy. This proposal looks at the latest studies on how cryptocurrencies differ from typical payment methods. Investigation into the concept and concepts of Bitcoin and its motivations in monetary transactions has taken a long way toward understanding the nature of the currency. It hopes to provide a brief overview of potential study areas by elaborating on the theoretical approaches. The traditional banking system and the cryptocurrency will be examined as well. Cryptocurrency is still regarded as a ground-breaking discovery in Blockchain technology. As one of the most essential variables in evaluating concepts, the volume of literature is also considered. As a result of a cryptographic economic system, Cryptocurrency has had an impact on financial organizations. However, even though many financial specialists aren't aware with Cryptocurrency as a digital currency, it is believed that this study will highlight substantial shortcomings. As a result, we have developed a theoretical framework and established practical procedures by examining and justifying reputable sources.

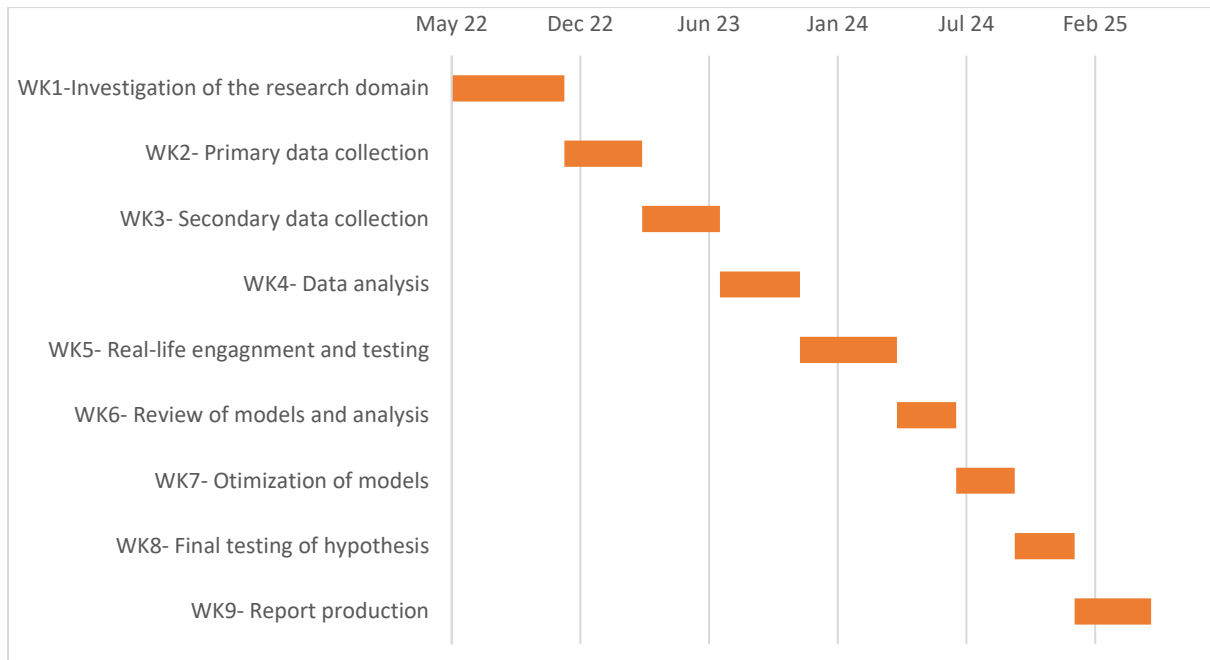
WP2 - Financial justification & Budget

1. Executive summary

The WP2 presents the financial justification and budget of the project proposal. The project costing is done according to work package by work package basis with respect to the milestone. The project is divided into nine work packages. This includes investigation of the research domain, primary data collection, secondary data collection and data analysis. Other packages include real-life engagement and testing, review of models and analysis, optimization of models, final testing, and report production. Each package has specific tasks and milestones. The task and milestones of the work packages description and the cost summary are shown below.

Task ID	Work Package	Start	Days	Finish	Months
1	WK1-Investigation of the research domain	11-May-22	183	10-Nov-22	6
2	WK2- Primary data collection	10-Nov-22	121	11-Mar-23	4
3	WK3- Secondary data collection	11-Mar-23	121	10-Jul-23	4
4	WK4- Data analysis	10-Jul-23	124	11-Nov-23	4
5	WK5- Real-life engagnment and testing	11-Nov-23	151	10-Apr-24	5
6	WK6- Review of models and analysis	10-Apr-24	92	11-Jul-24	3
7	WK7- Otimization of models	11-Jul-24	91	10-Oct-24	3
8	WK8- Final testing of hypothesis	10-Oct-24	93	11-Jan-25	3
9	WK9- Report production	11-Jan-25	119	10-May-25	4

The following Gantt chart shows the project milestones with their respective tasks.



The breakdown of cost according to the work packages is given below.

S/N	Item Description	Amount (£)
1	WK1	24,500.00
2	WK2	65,000.00
3	WK3	57,000.00
4	WK4	15,000.00
5	WK5	35,000.00
6	WK6	45,000.00
7	WK7	20,000.00
8	WK8	50,000.00
9	WK9	37,000.00
	TOTAL	348,500.00

References

Gupta, R. K., 2018. Employment Security and Occupational Satisfaction in India. *Journal of Advanced Research in Dynamical & Control System*, 10(10), pp. 244-249.

Gupta, R. K., 2019. Minimum Wage and Minimum Work Hour in India. *Journal of Advanced Research in Dynamical & Control System*, 11(2), pp. 2402-2405.

Khan, S. K., 2020. *UAV-aided 5G Network in Suburban, Urban, Dense Urban, and High-rise Urban Environments*. s.l., 2020 IEEE 19th International Symposium on Network Computing and Applications (NCA).

Pandya, S. W. K. S. J., 2015. *A Hybrid Based Recommendation System to overcome the problem of sparsity*. s.l., International Conference on emerging trends in scientific research.

Pandya, S. W. P., 2016. *An Adaptive Approach towards designing a Smart Health-care Real-Time Monitoring System based on IoT and Data Mining*. Dubai, 3rd IEEE International Conference on Sensing technology and Machine Intelligence (ICST- 2016).

Ravi Kumar Gupta, D. B., 2020. The Journey of Single Taxation System: A Comprehensive study of GST in India. *International Journal of Disaster Recovery and Business Continuity*, 11(3), pp. 3022-3030.