

International Journal of Engineering Researches and Management Studies DEFLATION POLICY IN LIGHT OF COMPETITION FOR DIGITAL CURRENCIES AND FIAT CURRENCY

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ABSTRACT

In early age barter system was used to exchanges goods and services to meet the necessities of the society. Later on the metallic currency has such as gold and metallic coins have replaced as currency the exchanges medium of goods and services. At recent the introduction of digital currency is emerging and increasing all over the world very rapidly. Beside the normal currency being controlled by the government, the era of digital currency has been started. This system has started peer-to-peer transaction that has decentralized the traditional system and has universally been considered a medium of exchange. However, there is an ample of research opportunity in the digital and fiat currency deflation in Iraq. Very little research has been carried out in this regard. Hence, this paper focused the devaluation of digital currency in Iraq. This paper would help to understand the current situation of Iraq regarding the importance, benefits, success and failure of digital currencies. Lastly, this study will open avenues for the researchers to explore this study area in broader concept.

Keywords: digital, currency, devaluation, mone.

1. INTRODUCTION

Historically the mode of trade and payment was mostly base on the barter system means goods for goods and services for services and less depend on the paper currency method (Dibrova, 2016). In the past majority of goods and services were exchanged by the barter method of business between the seller and purchaser. Later on, with the passage of time the business were carried out by the exchanged of gold among various business parties at individual and corporate level. Similarly, other tangible and valuable assets like pernicious stone and other shells also used as a medium of exchange while doing business activities. Gold certificates as a mean of currency also used during the incient time as a reliable source of payment while making the business transactions (Shoaib et al., 2013). The main advantage of currency is the movability in all over the business world.

In the current business world paper money is highly applicable and acceptable in all the business transactions despite the risk involved. Each country in the world has its own paper currency and has its exchange value with other currencies of the world. However, the changing business and technological world is adopting other modern and innovative form of currencies to sustain in the modern business cultural and environment (Biancone et al., 2019). The normal methods of payment, transactions are continuously improving and replacing with the advance and modern technological communication and exchange system.

Davis (1989) introduced the technology acceptance model (TAM) which described that the acceptance of technological model solely base on the notation of reliability, flexibility, perceptions and availability from the consumer and the customer (Echchabi, 2018; Islam, 2011). Hence the business world is continuously developing and empowering advance technologies in every field of life like in business performance, economic activities, industrial operation and social activities. Resultantly, government monitory policy device a mechanism to control and regulate the transaction system with advanced and secure technology features.

Recently the modern business world is moving towards the new currency method and acknowledging the importance of crypto currencies as the digital money which has some merits and demerits for the researchers, scholars, government policy maker and the economist. The incorporation of new digital currencies is emerging and getting popular due to the acceptance and demand from the various stakeholder of the business world, like the investor, government agencies, financial institutions and consumers.

Moreover, the traditional means of paper currencies have some disadvantages for example the owner and holder of paper currency always remain on high risk due to the chances of theft, lost and damages. There are thousands of robbery cases registered in every country of the world despite the strong security provided for them.

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Secondly, there is a big issue of million of currency notes on daily bases, which further spoil with the passage of time and become continuous headache for the issuing authorities.

Government weak monitory policy can increase the penetration of counterfeit currency in the system. None of the country in the world is dead sure that its full currency is free from counterfeited currency. This counterfeited currency leads towards currency devaluation that further leads to increase in inflation rate in any country. Furthermore, the planning, designing, paper printing and transferring of the currencies need huge amount and human resources. According to the state bank policy every commercial bank has to deposit its daily collection to their regional head offices. These currencies are also required by very next day for daily transactions embedded the transportation cost

In spite of the people interest and demand for the digital currencies there is still some gap exist in the relevant literature of digital currencies which needs to readdress (<u>Böhme et al., 2015; Chuen, 2015; Yermack, 2013</u>). Very few economist scholars design the complete features of digital currency in their study and research model. Hendrickson et al., (2016) used a new model; of digital currency which explain the usage of bitcoin at the place of traditional currencies with multiple equilibrium. Although, the given model did not fully present the desired features of digital currency which make them distinct from government fiat money.

2. REVIEW OF LITERATURE

When we analyzed the history of currency, "historically the currency was mainly distributed in two different types number one is the physical form such as diamond, gold or any other valuable things and the second one is the type of paper currency which was basically issued by the central bank of the government and it is backed with the bank securities. Similarly, the new form of currency was introduced by the development of modern technologies, which is called the third form of currency and presented in the name of digital currency or paper less currency. (Thompson, 2017). Many innovative forms of digital currencies are introducing in the financial market for the performance of business transactions and that follows the Bitcoin currency rule.

Meanwhile, there of hundred types of digital currencies exist in the market in the form of token with some specific changes with low charges but in more flexible in nature "(such as Litecoin), privacy coins such as Monero, and projects like Ethereum that have established smart contracts (which can ensure that a contract's obligations are met before coins are exchanged").Now the scope and functions of digital currencies enhanced and not confine and limited to the Bitcoin only (Muedini, 2018). Various types of cryptocurrencies now can be subdivided into the commodities also.

The commodity can be found in any form of tangible and intrinsic vale such as gold, shells and animals that were used in the past as the medium of exchange (Adam, 2017). "Cryptocurrencies such as tokens can fit in this category since they not only can be traded, but they can also be used to build programs or apps onto a blockchain". Although the digital currencies are very new as compare to the old and existing form of money, which bring some acceptability and applicability issue while using as a medium of exchange in making business transactions.

Hence, the detail description and study of digital and other form od paper less money become more important and necessary in the modern business world. "Paper currency is an old form of the currency mostly issued by the government against the stock of required resources from the public. Although the issuance of paper currency normally considers against the basic norms of true justice because the issuing authority means government has complete control on it. The new development in the business world makes the electronic form of payment necessary in buying and selling while modifying the existing form of money exchange method by the newly accepted mode of payment of digital currencies.

As explained by Muedini, (2018) the digital currencies can be found in the form of language and can be presented with certain code or bars. The main factor in paper money was the representation and value analysis process—as in gold and fiat currency—but rather safety and encoding. As Dodd,(2014) acknowledged, "[i]t is no accident that such concerns coincide with the era of financialization, in which money has become increasingly self-referential".



Although the development in the currency exchange did not improved the financial transactions and payment method in the business affairs. Rather it has smoothed the entrepreneurial inclination toward unchallenged power, combined, exaggerated, and legalized neoliberalism, consequently creating the artificial boom in the business and financial market resulting the crash of money and stock market. Indeed, succeeding the understandings of Piketty (2014), capital, power and fame have concentrated enormously in the era of the digital economy, "as digital technology has spread all around the globe" (Golumbia, 2016, p 11), precisely in the name of vague slogans like speed, efficiency, connectivity, and "internet freedom."

Although the modern form of currencies is not supported by any tangible force like by a community nor by the gold and do not have any intrinsic value system however, it is widely and equally accepted everywhere only on the base of relation, trust and agreement between the parties. Although, the paper currency is continuously using and accepting every where due to the explicit and implicit credibility and legally support of the central of the country, universally accepted social contracts among the people and the government with their fellow citizen and lastly government ultimate power of the issuing authority (Ritter, 1995). Mostly the government and its designated central and private banks have complete monopoly in issuing and limiting the paper currency in their respective countries. (Ibravn, 2015; McLeay et al., 2014; Adams and Mouatt, 2009; Brown, 2007). But now a days most of the government financial insitutions are dealing and issuing very little number of paper money in their business dealing and payment.

The paper money mostly issued and monetarized by the commercial and central banks of the country they issued the required money by creating "credit" made available as money to borrowers in the banks' manual accounting methods at the moment at which borrowers sign their IOUs (Huber, 2014; McLeay and Thomas, 2014; Tanweer, 2014; Brown, 2007). Thus, most money is created by the issuance of debt by commercial banks in the form of accounting figures held in their books digitally (Brown, 2007; Greco, 2009; Bernstein, 2008). In significance, "the modern definition of money as a form of financial asset should define money as an "IOU" expressed as "a unit of account" (McLeay and Thomas, 2014; Doepke and Schneider, 2013). This is because 95 per cent of the money held by the public takes the form of deposits in the banking system and has no physical form (McLeay and Thomas, 2014; Brown, 2007; Rowbotham, 1998). Government currencies – i.e. paper money and coins in circulation – issued as IOUs by central banks, account for just 5 per cent of all money".

In spite of the people increasing interest in the newly form of the digital currencies, the scientific and academic literature about the digital currencies have not fully discovered and studied.

Most of the studies conducted on digital currencies mainly focuses on the qualitative nature of research method ("Böhme et al., 2015; Chuen, 2015; Yermack, 2013") however, only few business research scholars have started to analysis the nature, characteristic and scope of the digital currencies in the modern business world. Hendrickson et al. (2016) use a monetary model with endogenous search and consumption preferences to show that bitcoin can co-exist with conventional fiat money at multiple equilibria. Although, the given model existing studies did not consider the deflation of digital currencies with respect to the context and environment of the Iraqi cultural and financial markets. In a DSGE framework, Barrdear and Kumhof (2016) show that the central bank issuing its own brand of digital currency could stabilize business cycles and potentially raise real GDP.

Other areas of research are concerned with the valuation of digital currencies and their optimal design. Gandal and Halaburda (2014) look at network effects associated with digital currencies and takes on an empirical approach to inves- tigate how such effects are reflected in their relative prices. Huberman et al. (2017) "explore the Bitcoin platform from a market design perspective and argue that the elimination of dead-weight loss from monopoly comes at the expense of inefficiencies and congestion in raising revenue and funding the infrastructure. Finally, Chiu and Koeppl (2017) model thedouble-spending" incentives of blockchain technology to find negative welfare effects based largely on the inefficient design of Bitcoin in its current form. Moreover, the demand and concern of people interest for the digital currencies are high but there is still some gap exist in the relevant literature of digital currencies which needs to readdress (<u>Böhme et al., 2015; Chuen, 2015; Yermack, 2013</u>). Very few economist scholars design the complete features of digital currency in their study and research model. Hendrickson et al., (2016) used a new model; of digital currency which explain the usage of



bitcoin at the place of traditional currencies with multiple equilibrium. Although, the given model did not fully present the desired features of digital currency which make them distinct from government fiat money

3. RESEARCH METHODOLOGY

In case of exploratory study, case study research can be used (BHUTTA et al., 2013). According to Barkley (2006), case study can be used when there is a need of holistic and in-depth study about less known phenomenon. Case studies are best to use when exploring a new concept as it provides a great source of quantitative and qualitative data.

This research is mainly depending on the qualitative from of research method in which in-depth interview method is used to collect the data. The main objective of this research study is to identify and study the deflation of digital currency in Iraq. Major financial institutions are selected for the study to know the trend and deflation of digital and fiat currency in Iraq.

The respondents of this study are from financial institutions situated in the capital territory of Islamabad. Interviews were taken from ten top level management officers of the financial institutions rigorously as suggested by (DEPAULO, 2010). The measurement of this research consists of one set of open-ended question which formed by the researchers in exploring the understanding of defamatory situation of digital and fiat currencies in Iraq. After transcription of interviews, Tag clouds were created by using website tagcrowd.com.

Study Findings and discussion

The interviews were carefully transcribed and tag clouds were made using online resources. The findings mentioned below are based on interviews, field notes and tag clouds. 01. The results have shown that a system of competing privately issued monies can work only for a strict subset of production technologies (i.e., the technology used to issue digital currencies).

Authors	Journal	Variables	Data source	Period examined	Methodology	Existence of Herding
Ballis and Drakes. (2020)	FRL	Bitcoin Dash Ethereun Litecoin <u>Moneno</u> Ripple	Cryptocompare.com Commarketcag.com	August 2015-December 2018	Cross-sectional absolute deviations (CSAD) by Chang et al. (2000) Cross-sectional standard deviations (CSSD) by Christie and Huang (1995) GARCH by Bollercley, et al. (2016)	There is herding and is more pronounced in bull markets
Bourn et al.	FRL	Bitcom	Commarketcap.com	28 April 2013-2 May	Cross-sectional absolute	Significant herding during 4
(2019)		Ethereum		2018	deviations (CSAD) by	penods: (24 April 2016-28
	â	Kapple			Chang et al. (2000)	November 2016, 5 January
		Lifecom				2017-1 April 2017, 21 May
	-	Stellar	-		1	2017-29 May 2017, 20 July
	Œ	Dash	2			2017–13 September 2017),
		Nem				especially from April 2016 to
	-	Monero				September 2017

Table 01 Main characteristics and findings of studies focusing on behavior in digital currency markets

Kauser and Szőckl (2020)	FRL	Ranging from 395 to 2026 digital currencies	Commarketcap.com	1 January 2015–25 March 2019	Cross-sectional absolute deviations (CSAD) by Chang et al. (2000)	Bitcom is a "transfer currency" and leads to herding
Kallinterakia and Wang (2019)	KIBAF	The top 296 cryptocurrencies	Commarketcap.com	27 December 2013-10 July 2018	Cross-sectional absolute deviations (CSAD) by Chang et al. (2000)	Significant herding (irrespective of Bitcoin and its trends), strongly asymmetric (is more powerful during bull markets, low-rolatility and high-volume periods) and smaller digital currencies reinforce its size
Philippas et al.	JIFMIM	Top 100 cryptocurrencies in	Commarketcap.com	January 2016-May	Cross-sectional absolute	Bitcom-related tweets and Google



The table 01 shows various research studies findings about the digital currencies. It further summarized different effect of variables in respect to their utilization and performance. The table also reveals the data sources and method of the research studies incorporated during the research process. The research results described the impact and trending in the behavior of the currencies according to the time period. In a nutshell, the above evidence validated the behavior of digital currencies in the financial markets during different period of time.

It is evident from the study that budgetary borrowing has great impact on deletion of money. More a bank circulate the currency the value of currency is depleted. Inappropriate economic policies and slower economic activities also become the reason for currency depletion. By addressing these factors depletion can be reduced that creates a high inflation rate hampering not only the whole economic system but also sabotage a layman ordinary life. Currency depletion can be addressed by maintaining macro economic indicator growth rate, balance of trade and balance of payment.

Monitory policy governs the deletion strategies to address the deletion of fiat and digital currency. Moreover, government intervention some time additionally supports to eliminate the deletion effect on the real income of the countryman. Moreover, the presence of privately issued currencies can create problems for monetary policy implementation under a money-growth system. Unfortunately, in Iraq, people are still not fully aware about the importance of digital and fiat currencies uses and applications. Although, the private sectors response positively about the digital and fiat currencies in Iraq.

4. CONCLUSION

This paper focused the devaluation of digital currency in Iraq. This paper helped to ascertain the current situation of Iraq regarding the importance, benefits, success and failure of digital currencies. As we have observed the important role of private sectors financial institutions in molding the digital and fiat currencies.

Digital currencies are less control area by the central bank so it is merely not less affected from deletion as compared to fiat currency. Virtual currency is not so familiar and understood in Iraq at recent. It is also evident that socially efficient allocation cannot be achieved by governing the under totally private arrangement of digital currency. The upper boundaries are enquired to be maintained of a possible social allocation of digital currencies. Despite the lack of knowledge about the digital currency in general public, the private sector financial institutions starting using for the mode of payment and other financial transactions day by day.

5. FUTURE RECOMMENDATION

Lastly, future studies must include a forecasting approach along with a case study is also employed to see the future trends and security concerns revolving around the new medium of currency.

References

- [1] Adam, M. F. (2017). Bitcoin: Shariah Compliant? Amanah Finance Consultancy, pages 1-54. Available Online: http://darulfiqh.com/wp-content/uploads/2017/08/ResearchPaper-on-Bitcoin-Mufti-Faraz-Adam.pdf
- [2] Barrdear, J., Kumhof, M., 2016. The Macroeconomics of Central Bank Issued Digital Currencies. Bank of England Staff. Working paper 605.
- [3] Bernstein, P.L. (2008), A Primer on Money, Banking, and Gold, John Wiley and Sons, Hoboken, New Jersey.
- [4] Biancone, P. Pietro, & Radwan, M. (2018). Social Finance And Unconventional Financing Alternatives : An Overview. European Journal of Islamic Finance, 10, 1–6.
- [5] Biancone, P. Pietro, Secinaro, S., & Kamal, M. (2019). Crowdfunding and Fintech : Business Model Sharia Compliant. European Journal of Islamic Finance, 12, 1–10.
- [6] Böhme, R., Christin, N., Edelman, B., Moore, T., 2015. Bitcoin: economics, technology, and governance. J. Econ. Perspect. 29, 213–238.
- [7] Brown, E.H. (2007), Web of Debt, Third Millennium Press, Louisiana.
- [8] Chiu, J., Koeppl, T. V., 2017. The economics of cryptocurrencies bitcoin and beyond. queen's economics department working paper 1389.
- [9] Chuen, D., 2015. Handbook of Digital Currency: Bitcoin, Innovation, Financial Instruments, and Big Data. Elsevier.

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- [10] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly, 319-340.
- [11] Dibrova, A. (2016). Virtual currency: new step in monetary development. Procedia-Social and Behavioral Sciences, 229, 42-49.
- [12] Doepke, M. and Schneider, M. (2013), "Money as a unit of account", NBER Working Paper No. 19537, October 2013, JEL No. E4, E5, F33.
- [13] Dodd, N. (2014). The social life of money Princeton University Press NJ USA ISBN: 9780691141428 pp 1–456. Firm Theory Science, Business Administration Science.
- [14] Echchabi, A. (2018). E-Banking Acceptance in Thailand : An Emphasis on Islamic Banks ' Customers. European Journal of Islamic Finance Privacy, 9, 1–5.
- [15] Gandal, N., Halaburda, H., 2014. Some economics of private digital currency. Bank of Canada. Working paper 2014-33..
- [16] Golumbia D (2016) The politics of bitcoin—Software as right-wing extremism. University of Minnesota Press, Minneapolis.
- [17] Greco, T.H. (2009), The End of Money and The Future of Civilization, Chelsea Green Publishing, Vermont.
- [18] Hendrickson, J.R., Hogan, T.L., Luther, W.J., 2016. The political economy of bitcoin. Econ. Inq. 54, 925–939.
- [19] Huber, J. (2014), "Modern money theory and new currency theory a comparative discussion, including an assessment of their relevance to monetary reform", Real-World Economics Review, No. 66.
- [20] IbRavn (2015), "Explaining money creation by commercial banks: Five analogies for public education", Real-world Economics Review, Vol. 71, pp. 92-111, 28 May 2015, available at: www. paecon.net/ PAEReview/issue71/Ravn71.pdf.
- [21] Islam, A. Y. M. A. (2011). Viability of the extended technology acceptance model: An empirical study. Journal of Information and Communication Technology, 10(January 2011), 85–98.
- [22] McLeay, M., Radia, A. and Thomas, R. (2014), Money Creation in the Modern Economy, The Bank's Monetary Analysis Directorate, Bank of England, Quarterly Bulletin 2014 Q1
- [23] Mouatt, S. (2010), "The case for monetary diversity", International Journal of Community Currency Research, Vol. 14, pp. 7-28.
- [24] Muedini, F. (2018). The compatibility of cryptocurrencies and Islamic finance. European Journal of Islamic Finance, 10, 1-11.
- [25] Mukhibad, H. (2019). The Role Of Sharia Supervisory Boards in Meeting Maqasid Syariah Study on Islamic Banks in Indonesia. European Journal of Islamic Finance, 13(August), 1–10.
- [26] Oziev, G., &Yandiev, M. (2018). Cryptocurrency from Shari'ah Perspective. Ssrn, 1–18. https://doi.org/10.2139/ssrn.3101981
- [27] Piketty T (2014) Capital in the twenty-first century. Belknap Press, Cambridge, MA
- [28] Ritter, J.A. (1995), "The transition from barter to fiat money", The American Economic Review, Vol. 85 No. 1, pp. 134-149.
- [29] Rowbotham, M. (1998), "Grip of death, a study of modern money", Debt Slavery and Destructive Economics, J W Arrowsmith Ltd, Bristol.
- [30] Shoaib, M., Ilyas, M., &Khiyal, M. S. H. (2013, September). Official digital currency. In Eighth International Conference on Digital Information Management (ICDIM 2013) (pp. 346-352). IEEE.
- [31] Tanweer, A. (2014), "Money as metaphor", On the Horizon, Vol. 22 No. 4, pp. 297-307. Permanent link to this document: http://dx.doi.org/10.1108/OTH-08-2014-0030
- [32] Thompson, D. (2017). What On Earth Is Going On With Bitcoin? The Atlantic. November 30, 2017. Available Online: https://www.theatlantic.com/business/archive/2017/11/bitcoindelusion-conquerworld/547187/
- [33] Yermack, D., 2013. Is Bitcoin a Real Currency? An Economic Appraisal. National Bureau of Economic Research. Working paper 19747.
- [34] Zubaidi, I. B., & Abdullah, A. (2017). Developing a Digital Currency from an Islamic Perspective: Case of Blockchain Technology. International Business Research, 10(11), 79. https://doi.org/10.5539/ibr.v10n11p79.

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