



Longrun Relationship of Financial System Digitalization and Money Availability, Evidence from West African Country, 2000-2022

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The broad objective of this study is to measure the impact of digital finance on money supply in Nigeria. However; the specific objectives of the study are to determine impact of automated teller machine on money supply in Nigeria. Determine impact of point of services on money supply in Nigeria. And finally investigate the impact of web pay on money supply in Nigeria. Ordinary least square was adopted for investigation Result reveals that automated teller machine services positively and significantly impacted on money supply in Nigeria, point of sales services positively and significantly impacted on money supply in Nigeria and finally web pay services positively and significantly impacted on money supply in Nigeria. The implication of result shows that digital finance plays a very serious Positive roles in the extent of money supply efforts. Hence, it was concluded that digital finance should be encouraged to ensure that money supply in economy will make the economic system effective. Since automated teller machine impacts positively on money supply in Nigeria, the Central Bank of Nigeria in synergy with the bank needs to come up with more policy that would enhance digital financing in the economy. Monetary authorities in Nigeria should enforce compliance of the cashless policy in the economy, since it will enhance and promote point of sales activities and still make money available in Nigeria. There should be a lot of orientation and awareness programs to further educate Nigerians on the benefits and workability of web pay financing in the economy so as to enhance financial inclusion in Nigeria financial system.

←
ABSTRACT

Keywords: Financial System Digitalization; Money Availability; Nigeria

Introduction

Bharat (2014) stated that digital finance is financial services delivered over digital infrastructure platform including mobile and internet with low use of cash and traditional bank branches. Mobile phone, computers, or cards used over point-of-sale (POS) devices connect individuals and business to a digitized national payment infrastructure, enabling seamless transactions across all channels. Digital financial services are vital to the public as it boosts security for their cash and it's more convenient compared to keeping money at home traveling with the money. However, Ali, et al. (2014) stated that the provision of digital finance involves the participation of different players such as banks/financial institutions, mobile network operators, financial technology providers, regulators, agents, chains of retailers and clients. Buckley & Malady, (2015) opined that digital finance mechanisms also need improvement of infrastructures to make the services user-friendly, secure, and cost-effective manner. Digital financial services provide the means to overcome obstacles associated with payments and other financial transactions executed outside the banking hall through electronic platforms, and can contribute to national economic growth and financial inclusion (Buckley & Malady, 2015).

Onwumere & Ogiri (2020) expressed that digital finance is pivotal to the digitalization of the financial system here in Nigeria, with numerous advantages ranging from financial inclusion, convenience in carrying out financial transactions to security of these transactions in a digital platform which would culminate to economic development of the economy. However, Allen, et al. (2020) stated that digital finance is not without its downsides, which constitute the problem this study seeks to resolve. Providers of digital finance services are profit-seeking corporations that use digital finance to maximize their profitability or to maximize the profitable opportunities of businesses affiliated with digital finance providers namely banks, financial and non-financial institutions. Ngungi (2013) stated that corporate providers of digital finance services can discriminately use a more aggressive marketing tactic to persuade high-and middle income customers to use a new or existing digital finance platform or infrastructure and use a less-aggressive marketing tactic to persuade low-income and poor customers to use new or existing digital platforms or infrastructure if they believe the latter cannot afford the associated fees, thereby leading to lower financial inclusion for poor and low-income customers since the net monetary pay-off to digital finance providers is higher with high-and-middle income customers than with low-income and poor customers (Wasiaturrahma, Wahyuningtyas, & Ajija, 2019).

The Central Bank of Nigeria (CBN) adopted the digital financial economy policy initiative that was already in use globally for a number of key reasons. This includes the need to: Increase the development and modernization of the Nigerian payment systems in line with the vision's 2020 goal so as to become one of the top 20 economies in the world by the year 2020. Create avenues for economic growth and to reduce the cost of banking services (including the cost of credit). Increase financial inclusion by providing more efficient transaction options that result in a wider reach. Improve monetary policy's effectiveness in driving economic growth and managing inflation. Arner, et al. (2020) explained that the cashless policy also aims to reduce some of the negative consequences associated with the usage of physical cash in the economy, including: The costs of cash volume handling. and other cash-related crimes lead to loss of physical cash during fire and flooding incidents. The entire banking population subsidizes the costs that the tiny minority users incurred in terms of high cash usage. It gives rise to a lot of money outside the formal economy, making it difficult to effectively implement monetary policy thus significantly affecting economic growth. It encourages cash-related fraudulent activities like money laundering, corruption, leakages amongst others (Buchak, et al., 2018).

According to the Central Bank of Nigeria, the digital finance policy was introduced, in line with the nation's vision 2020 goal of being one of the top 20 economies of the world; this is to drive the development and modernization of the Nigerian payment system and money supply. However, the use of cash in carrying out transactions has remained relatively poor in Nigeria. This is due to the poor network connections in the use of Point-Of-Sale and bank transfers which often results in debiting customers' accounts more than once, high transaction charges by banks, as well as security and technical setbacks. These are some of the factors still posing challenges in crossing into a digital finance policy of the society. The transition to a cashless economy raises a lot of concerns as it seems there is yet no substantial evidence to justify its implementation in Nigeria. The extent to which digital finance impacted on money supply is a subject to ongoing research among scholars. Thus, this study is set to evaluate the impact of a digital finance policy on the Nigerian payment system focusing more on money supply statistics.

The broad objective of the study is to evaluate the impact of digital finance activities on money supply while the specific objectives are to: Measure the impact of automated teller machine on money supply in Nigeria. Determine the impact of point of sales services on money supply in Nigeria. Examine the impact of web transfers services on money supply in Nigeria.

Review of Related Literature

Conceptual Review

Digital Financial System

Digital finance is financial services delivered through mobile phones, personal computers, the internet or cards linked to a reliable digital payment system. Similarly, White & Berry (2016) identified digital finance as a financial service delivered via mobile phones, the internet or cards Buckley & Malady, (2015) opines that digital finance encompasses a magnitude of new financial products, financial businesses, finance-related software, and novel forms of customer communication and interaction - delivered by Financial Technology (FinTech) companies and innovative financial service providers. While there is no standard definition of digital finance, there is some consensus that digital finance encompasses all products, services, technology and/or infrastructure that enable individuals and companies to have access to payments, savings, and credit facilities via the internet (online) without the need to visit a bank branch or without dealing directly with the financial service provider. In Europe, the internet has emerged as a widely recognized distribution channel for the banking industry, and all traditional banks as well as new players, are discovering its effectiveness compared with other channels (Diebold, Kodali, & Averch, 2016)

Money Supply

Mbutor & Uba (2013) stated that money supply (includes cash in circulation), M1 (includes M0, notes in circulation and other money equivalents easily convertible into cash) and M2 (includes M1, short-term deposits in banks, 24-hour money markets funds and other). M0 has the highest liquidity, followed by M1 and M2.

Indices of Digital Finance

Automated Teller Machine

Automated teller machine is a specialized computer that makes it convenient to manage a bank account holder's funds. Hannig & Jansen (2010) sees automated teller machine as a machine that allows a person to check account balances, withdraw or deposit money, print a statement of account activities or transactions, and even purchase stamps. Baber (2020) stated that an automated teller machine (ATM) is an electronic banking outlet that allows customers to complete basic transactions without the aid of a branch representative or teller. Anyone with a credit card or debit card can access cash at most ATMs, either in the Nigeria or abroad. ATMs are convenient, allowing consumers to perform quick self-service transactions such as deposits, cash withdrawals, bill payments, and transfers between accounts. David-West, Iheanachor & Kelikume (2018) sees fees are commonly charged for cash withdrawals by the bank where the account is located, by the operator of the ATM, or by both. Some or all of these fees can be avoided by using an ATM operated directly by the bank that holds the account.

Point of Sales Services

European Investment Bank (2014) defines a point of sale (POS) is a place where a customer executes the payment for goods or services and where sales taxes may become payable. A POS transaction may occur in person or online, with receipts generated either in print or electronically. Hannig & Jansen (2010) sees a POS System is the overall hardware and software system used for billing in a POS Store. It usually consists of the following units for displaying the order total, product weight, etc. and other hardware units for scanning product barcodes, a printer for receipts and a cash register. A POS (Point of Sale) terminal is a card reading machine or any other device that accepts payments for an order placed on the POS system.

Web Transfers Services

Dabla-Norris, Yan, & Unsal (2015) stated that Web file transfer refers to a variety of services that allow users to share files over the web for other people to download. These services are often available for free, though users who want to share very large files may have to pay a fee to do so or for faster file transfers. Web file transfer refers to a variety of services that allow users to share files over the web for other people to download. Mckee, Kaffenberger, & Zimmerman (2015) opined that these services are often available for free, though users who want to share very large files may have to pay a fee to do so or for faster file transfers. A number of services offer the ability to transfer files over the web. Glocker & Piribauer (2021) opined that POS are marketed to people who want to share large files as email services usually place limits on the size of attachments. Web-based sharing services allow users to share videos and pictures easily. Some of these services include cloud storage such as Drop box or Microsoft One Drive. (Muli, 2019). Stated that others are simply websites that offer the ability to upload files for later download. The business model of these services is to offer a free tier with the ability to pay for the ability to upload larger files. Other sites might throttle the download rate for free users and offer faster transfers for paid accounts. Feng, et al. (2020) stated that all the mobile transfer of money from one bank to another are part of the reason why money is always available in the financial system.

Broad Money

Onwumere & Ogiri (2020) stated that broad money (M2) consists of currency outside bank and total demand and time deposits of the banks and non-bank financial institutions Thus, the narrow money (M1) is a subset of the broad money (M2). M2 is one of the key economic indicators often used to forecast inflation using the quantity theory of money and in Nigeria, it is also one of the quantity-based nominal anchors of the half yearly monetary policy statements formulated by the monetary policy operations in Nigeria. Money has been seen as “a generalized means of purchasing power that is acceptable as payment for goods and services (Pakhnenko, et al., 2021) Thus what constitute the money stock of any country would be those mediums that facilitate readily the exchange mechanism and command general acceptability. These would basically include currency (C) and chequeable demand deposits (DD) created by deposit money banks. In Nigeria, this is defined as M1.

Theoretical Review

Theory of Financial Innovations

The theory of financial innovations was proposed by Silber in 1983 premised on the idea that benefit expansion of money related foundations is the key reason of financial inclusion. The theory demonstrates that the primary thoughts behind the new innovations are the defects of the money related business sector, mostly the deviated data, office expenses and exchange costs According to the theory, financial related innovations can be very new resolutions or simply customary means whereby latest component of development has been offered, enhancing firms’ liquidity as well as expanding quantity new applicants, due to their qualifications on the situation (Ionescu, 2012). Financial innovation is a critical motivating force of the financial system, which leads to better economic competence and enhanced economic advantage derived from the new and frequent changes (Scheau, 2020). Financial innovations define financial developments by coming up with new ways of production, technological solutions, creating better return rates hence boosting the country’s economy in general. The theory posits that the innovativeness improves the firms’ competitive edge of a corporate and generates more earnings to the investors (Wasiaturrahma, Wahyuningtyas, & Ajija, 2019) Innovation is a tool used to solve, manage and transfer the entire extra burden. The application of innovations promotes growth of financial entities through improved allocation, efficiency and a reduction of financial and administration costs (Zhu, et al., 2016). Financial innovations enhance financial markets liquidity; ensure the allocation of resources to insufficient areas as well as improving the accessibility to emerging prospects hence deepening financial inclusion (Shisia & Mutung’u, 2015). The theory of financial innovations posits that some restrictions including external handicaps helps corporations in their pursuit of their objective which is maximization of revenues (Monyoncho, 2015), hence commercial banks come up with innovative ways to reach more people to improve their profits. The emerging innovative financial inclusion models through mobile and other digital financial services especially in many African countries which are assisting in closing the gap of financial instruments which exists in these countries (Monyoncho, 2015).

Empirical Review

Komal (2009) studied the impact of ATM transactions and cashless payment on cash demand in Austria. In order to assess this effect of ATMs on money demand; the demand for cash was determined by the frequency of withdrawals and by the amount withdrawn. He found out that 94 percent of debit card holders use ATMs to draw cash, while only some 58% of Austrians regularly draw cash at bank counters. Moreover, 14% of respondents regularly acquire cash from other sources. A detailed analysis of the total amount withdrawn indicates that about 53% of total cash withdrawn comes from ATMs, it could be inferred that ATM transactions and cashless payments affect optimal cash holdings in two ways.

Jegede (2014) investigates the effects of ATM on the performance of Nigerian banks using responses from questionnaire from a convenience sample of 125 employees of five selected banks in Lagos State with Interswitch network. The results indicate that less than the benefits, the deployment of ATMs terminals have averagely improved the performance of Nigerian banks because of the alarming rate of ATM fraud. He concludes that banks should strive to increase their security layers to subvert the tricks of web scammers.

Okoro (2014) examine the impact of automated teller machine (ATM), point of sales (PoS), Mobile and Internet service values on the intermediation efficiency of the Nigerian economy using multiple regression technique on time series data of 2006 – 2011. The study reports the following findings: that there is significant relationship between ATM, PoS, Internet service values and the intermediation efficiency of the Nigerian economy. However, the study also reveals that there is no significant relationship between Mobile service value and intermediation efficiency of the Nigerian economy within the period under study. He concludes that the ATM, PoS and Internet services are the major instruments used by the customers of the deposit money banks in Nigeria, and recommends that the banks should put more effort in advertising these products in Nigeria.

Ebiringa (2010) investigated on the effects of ATM infrastructure on the success of e-payment. The study is motivated by the apparent low level of satisfaction with the level of the e-payment services irrespective of the increased deployment of ATM by banks and the need to isolate the critical factors responsible for this. The study was principally based on primary data collected from users of the ATMs and a total of one thousand, one hundred and forty-one (1,141) users of ATM were sampled. The study used weighted scores of the responses to success factors identified in the literature that were analysed using the Factor analysis simulation model. The study concluded that the provision of adequate infrastructure such as power is critical for effective integration of the Nigerian banking system to the global network of electronic payment via ATMs.

Akhisar, Tunay and Tunay (2015) researched the impacts of the bank's productivity execution of electronic-based managing an account administration in 23 created and building up nations' electronic keeping money administrations through 2005 utilizing dynamic board information techniques. The discoveries of the study set up that bank productivity of created and creating nations was influenced by the proportion of the quantity of branches to the quantity of ATMs and were profoundly critical and electronic managing an account administration in huge. The concentrate likewise found that a few variables had a negative relationship, due to differing qualities in the level of advancement of the nations, the socio-social structure and electronic managing an account base.

Monyoncho (2015) inspected the relationship between E-Banking advances and money related execution of business banks in Kenya utilizing optional information for a time of five years. The discoveries of the study uncovered that ATM developments, Mastercards, portable managing an account and web keeping money offer the comfort of directing a large portion of the saving money exchanges at the time that suits the client. The study presumed that selection of E-Banking advances affected the execution of business banks in Kenya and prescribed that business banks ought to keep putting resources into saving money innovations.

Ogunmuyiwa and Ekone (2010) investigate the impact of money supply on economic growth in Nigeria between 1980 and 2006, by applying econometric technique OLS, causality test and ECM for time series data, the results reveal that although money supply is positively related to growth but the result is however insignificant in the case of GDP growth rates on the choice between contractionary and expansionary money supply.

Knowledge Gap

Unit Gap: The unit gap of this study is to investigate the impact of digital finance on money supply in Nigeria, 2000-2021. Therefore the gap of this study is on digital finance on money supply in Nigeria. This study is only working within this acceptable unit gap of the study.

Content Gap: The content gap of this study is on the proxies of the dependent and independent variables. The dependent variable called money supply while the independent variables derived from the objective of the study is digital finance using indicators such as ATM, POS. and Web pay. This study is only working within this acceptable content gap.

Time Gap: The time gap of this study is to investigate the impact of digital finance on money supply in Nigeria. 2000-2021. The choice of 2000 was made because it was the year of digital financial activities started in Nigeria. Hence, 2021 was selected because it's the most current statistical data available in the central bank of Nigeria statistical data. So, all the variables of interest are measured till 2021.

Methodology

Research Design

This study adopted the ex-post-factor research design. The ex-post-factor research design is described as after-the-fact research using time series data. This is suitable for the work given that it is based on an already completed event and the researcher is meant to analyse the outcomes of the already completed event and draw reasonable conclusions. All the data to be employed for this work were time series, secondary and purely quantitative. They are drawn from sources such as statistical bulletins of Central Bank of Nigeria

Model Specification

The study used ordinary least square regression model. It follows the model used by Ugwuanyi, Udeme & Ezema (2020) *empirically examined the impact of digital finance on money supply in Nigeria between 2009 and 2018 using auto Regressive Distributed Lag*, this direct model is used as thus;

$$M2_t = B_0 + B_1 ATM_t + B_2 POS_t + B_3 WP_t + \dots + E_t \dots \dots (1)$$

Where, M2= Broad money supply, ATM = Automated teller machine,

WP= Web pay, E_t = Error term, B₀ = Center of origin, B₁= B₃ = Coefficient of estimation.

Data Presentation, Analyses and Interpretation

Data Presentation

From the table below, it contains data involving digital finance variable and money supply in Nigeria such as automated teller machine, point of sales services and web pay as well money supply. Data collected from the central bank of Nigeria statistical bulletin covering the period of 2000-2021. The variables are is log transformed to bring down the data size and ensure linearity, and also to be consistent with unit root diagnostic test.

Table 1: Logarithm of Data from Appendix 1

YEAR	LM2	LMATM	LNPOS	LNWP
2009	9.1783	6.3073	2.4006	4.4326
2010	9.3148	5.9907	2.5431	3.2208
2011	9.4436	7.3535	3.4346	4.0878
2012	9.6488	7.5932	3.8713	3.4521
2013	9.8385	7.9476	5.0815	3.8568
2014	9.9240	8.2106	5.7432	4.3049
2015	9.9468	8.2865	6.1059	4.5172
2016	10.0965	8.5148	6.6319	4.8855
2017	10.2613	8.7699	7.2512	5.2181
2018	10.3014	8.7764	7.7761	6.5160
2019	10.4416	8.7814	8.0723	6.1698
2020	10.4916	7.3390	6.4517	4.6788
2021	12.7173	7.4378	6.6198	4.7558

Source: Central Bank of Nigeria Statistical Bulletin (2021)

Where M2= Money supply, ATM= Automated teller machine, POS = Point of sales services, WP =Web pay services, LN= Log transformation of the variables.

Table 2: Summary Statistics

	LM2	LMATM	LNPOS	LNWP
Mean	10.12349	7.793031	5.537216	4.622806
Median	9.946812	7.947657	6.105937	4.517227
Maximum	12.71737	8.781495	8.072390	6.516070
Minimum	9.178592	5.990739	2.400619	3.220874
Std. Dev.	0.885191	0.907476	1.918261	0.947787
Skewness	1.964862	-0.689725	-0.437686	0.582564
Kurtosis	6.881001	2.487021	1.887651	2.784232
Jarque-Bera	16.52348	2.773267	2.9085281	2.630542
Probability	0.000258	0.006197	0.001211	0.003676
Sum	131.6054	101.3094	71.98381	60.09648
Sum Sq. Dev.	9.402767	9.882145	44.15669	10.77960
Observations	13	13	13	13

Table 2 contains the basic measures of central tendency, spread and variations calculated on the level series of the dataset. Of particular interest is the Jacque-Bera (JB) statistics which is a test for normality must be equal to 3. It is a combined test of a skewness(S) of zero (0) and a kurtosis (K) of three (3), which are signs of a Mesokurtic distribution. In this case, however, the JB statistics shows that the variables are positively and negatively skewed and are leptokurtic.

Test of Unit Root

Table 3 Shows Stationary Tests using augmented dickey fuller in an attempt to confirm the order of integration of the series under study, thereby confirming their suitability for a linear combination in the form of a model, the unit root test following the form specified at ADF Statistics test is used.

Table 3: Unit Root Test

Variable	ADF Statistics	Critical Values @ 5%	Probability Value	Inference
LN _{M2}	-2.7093	-1.9858	0.0137	I(1)
LN _{ATM}	-6.7378	-3.9393	0.0014	I(1)
LN _{POS}	-2.1969	-1.9777	0.0003	I(1)
LN _{WP}	-4.0662	-1.9776	0.0008	I(1)

From the result of the unit root test contained in table 3, ATM, POS, WP are all integrated of order 1(1). On the other hand, money supply is also integrated at 1(2) and is stationary. Given these orders of integration, the Ordinary Least Square Regression Method was used up in preference for this analysis to ARDL which tolerates different stationary property.

Table 4: Regression Analysis

Dependent Variable: LN_{M2}
Method: Least Squares
Date: 08/17/22 Time: 07:14
Sample (adjusted): 2010 2021
Included observations: 12 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN _{ATM}	0.523727	0.306358	-1.709528	0.0057
LN _{POS}	0.682056	0.226376	1.245960	0.0480
LN _{WP}	0.313790	0.407137	-0.647915	0.2352
LN _{M2} (-1)	1.406833	0.210141	6.694715	0.0002
R-squared	0.879010	Mean dependent var		10.20223
Adjusted R-squared	0.858639	S.D. dependent var		0.875709
S.E. of regression	0.581778	Akaike info criterion		2.015745
Sum squared resid	2.707721	Schwarz criterion		2.177380
Log likelihood	8.094467	Hannan-Quinn criter.		1.955901
Durbin-Watson stat	2.200569			

From EViews 10.0 Analysis Extract

Test of Hypotheses/Study Results

Accept H₀ if the coefficient of the variable is negative, otherwise reject H₀ and probability value is > 0.05, otherwise rejects H₀ and accept H₁. Accept H₁ if the probability value is < 0.05, otherwise reject H₁ and accept H₀.

Given the coefficient of the parameter estimates of ATM as 52% and the probability of t-statistics of 0.006 < 0.05 which is significant, it shows that it is statistically significant, result reveals that coefficient of the variable is positive and probability value is significant the study rejected the Null hypothesis and accepted the alternate hypothesis thereby concluded that automated teller machine had a positive and significant impact on money supply in Nigeria.

Given the coefficient of the parameter estimates of POS as 68% and the probability of t-statistics of $0.048 < 0.05$ which is significant, it shows that it is statistically significant, Result reveals that coefficient of the variable is positive and probability value is significant the study rejected the Null hypothesis and accepted the alternate hypothesis thereby concluded that point of sales services had a positive and significant impact on money supply in Nigeria.

Given the coefficient of the parameter estimates of WP as 68% and the probability of t-statistics of $0.23 < 0.05$ which is non-significant, it shows that it is statistically non-significant, result reveals that coefficient of the variable is positive and probability value is significant the study rejected the Null hypothesis and accepted the alternate hypothesis thereby concluded that Web pay services had a positive and non-significant impact on money supply in Nigeria.

Based on evidence presented by the analysis, the following are the specific findings:

- i. Automated teller machine positively and significantly impacted on money supply in Nigeria.
- ii. Point of sales positively and significantly impacted on money supply in Nigeria.
- iii. Web pay positively and significantly impacted on money supply in Nigeria.

Conclusion

This study investigated the impact of digital finance on money supply in Nigeria between the periods. The economic motivation of the study is anchored on the desire to find out the extent to which digital finance on money supply in Nigeria Reviews of Conceptual, empirical and theoretical basis for the work was done and are line with our Apporrari expectations. The research methodology concentrated on the use of the base line OLS. Based on findings, the study concludes that digital finance plays a serious positive and significant impact on money supply in Nigeria. It was also to be noted that this study can be employed for the purposes of generalization and can be expanded to capture other sphere of the economy with distinctive peculiarities. When these generalizations are made, it is capable of positioning our economy to a greater performance through digital finance activities.

Recommendation

In line with the specific objectives of this study, we recommend as follows:

- i. Automated teller machine positively and significantly impacted on money supply in Nigeria: It is recommended that effective policies such as policies that will encourage protection of ATM environment should be embarked upon to deepen the financial industry.
- ii. Point of sales positively and significantly impacted on money supply in Nigeria: This study recommend that public enlightenment campaigns should be done by financial institution directing people about the availability of Point of sales serious efforts need to be made in terms of improving productivity of these sectors, so as to promote the competitiveness of commodities and to create a conducive investment climate to attract capital movement for growth.
- iii. Web pay positively and significantly impacted on money supply in Nigeria: There is a need from the Government to educate the public through their market association about the availability of Web pay, mobile pays and use of cheques to enhance financial inclusion in the financial system

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APPENDIX 1

YEAR	M2	ATM	POS	WP
2009	9687.506619	548.46	11.03	84.148
2010	11101.46498	399.71	12.72	25.05
2011	12628.32209	1561.74	31.02	59.61
2012	15503.40802	1984.65	48.01	31.53
2013	18743.07209	2828.92	161.27	47.36
2014	20415.61035	3679.87	312.01	74.08
2015	20885.52324	3970.29	448.58	91.57
2016	24259.00464	4988.11	758.92	132.34
2017	28604.4686	6437.54	1409.85	184.57
2018	29774.42516	6480.09	2383.12	675.91
2019	34257.90339	6512.68	3204.79	478.18
2020	36014.87707	1539.22	633.84	107.65
2021	333491.34	1699.19	749.87	116.21