ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 3, pp: (734-740), Month: July - September 2018, Available at: www.researchpublish.com

Demonetization: An Initiative for Digitalization

Dr. Suneyana Sharma[1], Kartik Kalra[2]

Abstract: **Demonetization is a act of stripping a currency unit of its status as legal tender. It occurs whenever there is a change in national currency. The 8th November 2016 decision of India's prime minister had immediately banned the legal tender of 500 and 1000 rupee notes of Indian currency. Consequently, from the mid night of 8th November 2016 citizens of India start facing problems related to the shortcoming of cash. Prior arrangements for demonetization were not sufficient. In these circumstances citizens of India had started e-payments for shopping and other recreational activities. This article believes that demonetization boosted the digital India programme and Cashless India Programme of Government of India launched in 2015. Article also focuses on the methods available and extent of digital payments in India. To make digital India successful we are hoping a more safe and secure information operational technology and consumer technology.**

Keywords: **Demonetization; Digitalization; E-Payments; Mobile Wallets; Internet Banking.**

1. INTRODUCTION

Demonetization is the process of invalidating the value of currencies in circulation. In the process of demonetization currency loses its valid tender and they are no longer accepted by the sellers in exchange of the goods sold [4]. It was approximately two year back when on November 8, 2016, Indian Prime Minister banned all 500 and 1000 rupee notes. The declaration by the Prime Minister on National Channel that all the 500 and 1000 rupee notes would cease to be legal tender put all the citizens in a shocking position. It was a surgical strike of Government of India against black money hoarders and counterfeit currency suppliers. An official assurance of 50 days was also given by the Prime Minister to restore adequate money supply in the economy to remove negative effect of demonetization and smoothen the economic activities. This demonetization affects about 86% of the Indian currency as 500 and 1000 rupee notes are 86% of the total currency in India [3,13,12].

1.1 History of Demonetization in India:

In India first demonetization has happened in 1946. A High Denomination Bank Notes Ordinance was passed by the pre independence government. The World War II was in the background of this. It was supposed that, during the war businessmen in India has made profit by supplying the allied war effort and they concealed these profits from the tax department. This increased the black marketing in the Indian economy. Therefore, a ordinance passed on January 12, 1946 to ban old currency denomination of 1000 and 10000 thousand rupee notes.

The second demonetization came in 1978 when the then prime minister Morarji Desai announced the currency ban of 1000, 5000 and 10000 rupee notes. This was based on the wanhoo committee recommendations' given on early 70s. A high denomination bank notes (Demonetization) act 1978 of India passed by the law. The aim of this demonetization was also curb the black money in the economy [8,12, 15].

In India this was third time when demonetization has happened. The demonetizations have made no significant effect on Indian economy ever. As per the new RBI data release in annual report 2017-18 showed that 98.96% of the total withdrawn currency at the time of demonetisation was deposited with the banks. The total value of 500 and 1000 rupee notes deposited in banks were 15.44 lakh. Only 1.04 percent of demonetized currency has not been exchanged for new notes. Regardless of all demonetization has made some good effect on Indian economy. It puts digital payments in the habit of citizens of India [10].

[1] Dr. Suneyana Sharma: Corresponding Author, Assistant Professor, Ram Lal Anand College, South Campus, University of Delhi. Email: suneyana.sharma@gmail.com, Mobile: 8130282605
[2] Kartik Kalra: Student of Hanraj Model School, Class 12th, Delhi.

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 3, pp: (734-740), Month: July - September 2018, Available at: www.researchpublish.com

2. INITIATIVE FOR DIGITALIZATION

After demonetization immediately people start facing problems related to cash. The prior arrangements of Reserve Bank of India were not adequate to meet the economy needs. Long queues on ATM, cashless ATMs, Maximum cash withdrawal limit were the primary reasons to force people to save cash for the emergency purpose only. In these circumstances citizens of India had started e-payments for shopping and other recreation activities. But the purchase of grocery had become more difficult. Easy and efficient way of payment was needed to solve this problem.

Consequently some new and easy online payment wallets had come up. To use these wallat, a person needs to put money into wallat app. via online transaction. After adding a minimum balance user can credit to this money in anyone's account by scanning Q R code. The wallats app are mobile friendly app. no other machine is needed to the user [11]. There are many other new source of digital payment in the market. Some major modes of digital payments discussed below are i.e., Banking Cards, USSD, AEPS, UPI, Mobile Wallets, Banks Pre-paid Cards, Debit and Credit cards PoS, Internet Banking, Mobile Banking and Micro ATMs[3], CTS[4], NACH[5], [2, 6, 14].

a). Banking Cards: Banking Card are more secure and convenient e-payment method. A wide variety of cards like Credit cards, Debit cards, RuPay, Visa and Master cards are offered by different banks.

b). USSD: Unstructured Supplementary Service Data channel is a innovative payment system. By using *99# basic feature mobile phone user can do e- transaction. There is no need of internet data facility on mobile. USSD based on the mobile banking services.

c). AEPS: Aadhar Enabled Payment System allows interoperable financial transaction at PoS (Point of Sale, Micro ATM) through the Business Corresponding (BC), Bank Mitra of any bank using the Aadhar Authentication.

d). UPI: "Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and iOS mobile platform(s)."

e). Mobile Wallets: It is a way to carry cash in digital format. User can transfer money online to mobile wallet. Instead of carrying physical card to make purchases, one can pay with the smart phone, tablets and smart watch. An individual's account is required to be linked to the digital wallet to load money in it. Some private companies and most banks have their e-wallets. e.g. Paytm, Freecharge, Mobikwik, Oxigen, mRuppee, Airtel Money, Jio Money, SBI Buddy, itz Cash, Citrus Pay, Vodafone M-Pesa, Axis Bank Lime, ICICI Pockets, SpeedPay etc.

f). Bank Prepaid: in the bank prepaid card user can load money (subject to regulatory limits) using Branch or internet banking.

g). Debit and Credit Card at PoS: it is the use of Debit and Credit card at a point of sale (PoS). PoS is the place where sales are made. A PoS may be a mall, a market or a city at macro level. At micro level, retailers considers as PoS. The area where a customer completes a transaction, such as a checkout counter also known as a point of purchase.

h). Internet Banking: Internet banking is also known as online banking, e-banking or virtual banking. It is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website.

Different types of online financial transactions are:

[3] Definition of Bank cards, USSD, AEPS, UPI, Mobile Wallets, Banks Pre-paid Cards, Debit and Credit cards at PoS, Internet Banking, Mobile Banking and Micro ATMs are Taken from cashless India website from the link http://cashlessindia.gov.in/digital_payment_methods.html

[4] Definition of CTS Taken from the Wikipedia Encyclopaedia from the link https://en.wikipedia.org/wiki/Cheque_Truncation_System

[5] Definition of NACH taken from National Automated Clearing House Product website from the link Overview https://www.npci.org.in/product-overview/national-automated-clearing-house-product-overview

National Electronic Fund Transfer (NEFT)

National Electronic Funds Transfer (NEFT) is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms and corporate can electronically transfer funds maximum of Rs. 50000, from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme. Presently, NEFT operates in hourly batches - there are twelve settlements from 8 am to 7 pm on week days (Monday through Friday) and six settlements from 8 am to 1 pm on Saturdays.

Real Time Gross Settlement (RTGS)

"RTGS is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time; 'Gross Settlement' means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis). Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable. The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is 2 lakh. There is no upper ceiling for RTGS transactions. The RTGS service for customer's transactions is available to banks from 9.00 hours to 16.30 hours on week days and from 9.00 hours to 14:00 hours on Saturdays for settlement at the RBI end. However, the timings that the banks follow may vary depending on the customer timings of the bank branches."

Electronic Clearing System (ECS)

"ECS is an alternative method for effecting payment transactions in respect of the utility-bill-payments such as telephone bills, electricity bills, insurance premia, card payments and loan repayments, etc., which would obviate the need for issuing and handling paper instruments and thereby facilitate improved customer service by banks / companies / corporations / government departments, etc., collecting / receiving the payments."

Immediate Payment Service (IMPS)

"IMPS offers an instant, 24X7, interbank electronic fund transfer service through mobile phones. IMPS is an emphatic tool to transfer money instantly within banks across India through mobile, internet and ATM which is not only safe but also economical both in financial and non-financial perspectives."

i). Mobile banking: "Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct different types of financial transactions remotely using a mobile device such as a mobile phone or tablet. It uses software, usually called an app, provided by the banks or financial institution for the purpose. Each Bank provides its own mobile banking App for Android, Windows and iOS mobile platform(s)."

j). Micro ATMs: The micro ATMs are low cost devices (micro ATMs) that will enable a person to instantly deposit or withdraw funds regardless of the bank associated with a particular Business Correspondents (BC). The platform will enable Business Correspondents (who could be a local kirana shop owner to conduct instant transactions.This device will be based on a mobile phone connection and would be made available at every BC. UID. The basic transaction types, to be supported by micro ATM, are Deposit, Withdrawal, Fund transfer and Balance enquiry.

k). CTS: Cheque Trunction System is a Image-based Clearing System (ICS). it is a project of Reserve Bank of India (RBI), commencing in 2010, for faster clearing of cheques.[1] a cheque truncation means image-based cheque clearing system where cheque images and magnetic ink character recognition(MICR) data are captured at the collecting bank branch and transmitted electronically.

l). NACH: "National Automated Clearing House (NACH) is a centralised system, launched with an aim to consolidate multiple ECS systems running across the country and provides a framework for the harmonization of standard & practices and removes local barriers/inhibitors. NACH system will provide a national footprint and is expected to cover the entire core banking enabled bank branches spread across the geography of the country irrespective of the location of the bank branch."

3. EXTENT OF DIGITALIZATION IN INDIA

Prior to demonetization on july1, 2015 government of India had announced the 'Digital India' Programme with a vision to transform India into a digital empower and knowledge society. 'Faceless, Paperless and cashless economy is one of the

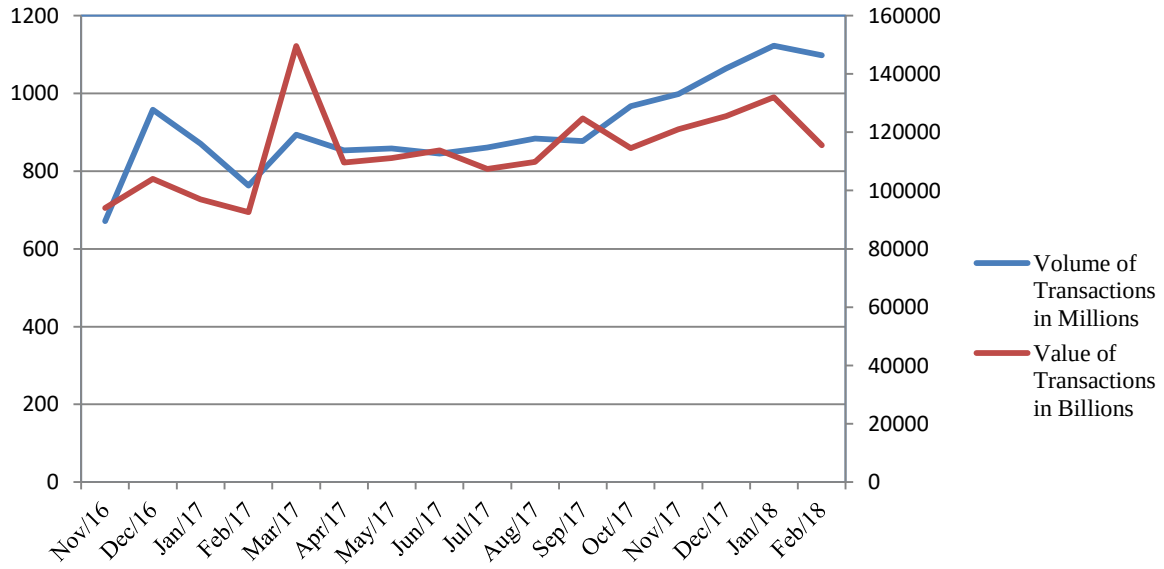
ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 3, pp: (734-740), Month: July - September 2018, Available at: www.researchpublish.com

preferred goals of this society [2]. However demonetization gives a boost to this programme but it is working very slowly or near negligible. According to new RBI annual report 2017-18 "Currency in circulation (CiC), increased by around 4.9 trillion on a year-on-year basis. While the CiC as on March 31, 2018 accounted for 101.8 per cent of its pre-demonetisation level, it works out to around 88 per cent of its underlying 3-year trend had there been no demonetisation. Consequently, India's currency to GDP ratio moved up to 10.9 per cent in 2017- 18 returning to being amongst the highest levels of currency usage in peer emerging market economies (EMEs) and advanced economies (AEs) as well. In consonance, the use of digital payments, which had surged to a peak in December 2016 in the aftermath of demonetisation, fell back to the elevated post demonetisation trend before rising in recent months."[9]

Cash is always a easy way to shop. Problem is in the social and institutional structure of India which cause more cash use in the economy. India is a country where more than 60 percent of people are living in rural areas. Almost one third of rural population have no mobile phone and most of them are significantly computer illiterate. They are not comfortable with the digital payments. Even the shopkeepers of these rural regions are lying on the same category. Thus shopkeepers are also not comfortable in accepting the digital payments. Moreover the old age people of throughout India are also in a habit to use cash for transactions. Security is another big issue for the cashless transactions [5]. As per the ASSOCHAM-PwC report India registered a 350 percent rise in cyber crime in the last three years [1].

Despite all the above facts mentioned above payment habits of Indian citizens are changing. National Payment Corporation of India (NPCI) has published a representative data which summarize the all electronic transactions since November 2016 to till February 2018 [7]. The table presented in Appendix 1 and 2 are representative tables, which show all type of electronic transactions for the above said period. From the table, a month wise comparison of total electronic transaction is presented in the following graph:

Figure 1: Total Volume and Value of E-transaction



Source: **National Payment Corporation of India (NPCI)**

Graph shows overall increase in electronic payments but with the diminishing rate. Data shows declining trend in digital payment year after year. March, 2017 shows the highest value of electronic transactions. In 2018 both volume and value of e-transactions shows declining.

Table in appendix show volume and value of 11 types of e-transactions which are RTGS, NEFT, CTS, IMPS, NACH, UPI, USSD, Debit and Credit Cards at POS, PPI, and Mobile Banking. The RTGS transaction increased from 7.9 billion in November 2016 to 12.5 billion in March 2017 but decline to 10.6 billion in February 2018. Similarly, NEFT transactions were 123 billion, 186.7 billion and 165.6 billion respectively in November 2016, March 2017 and February 2018. UPI, Debit and Credit Cards at POS and Mobile Banking are shows the similar trends. These are 0.3 billion, 6.2 billion and 171.2 billion for UPI, 205.5 billion, 229.7 billion and 247.1 billion for Debit and Credit Cards at POS and 72.3 billion, 60.8 billion and 102.5 billion for Mobile banking for the November 2016, March 2017 and February 2018 respectively. All other Modes of payments are also showing similar trends.

4. BENEFITS OF DIGITAL PAYMENT

Besides the some drawbacks of digital payments which we have discussed in the earlier section digital payment method have some benefits also. Digital payments are more transparent than cash payments. They are fully accounted. It reduces the evasion of tax in the economy. Digital payments reduce the cost of economy by reducing cost associated with printing, storing, Managing and transporting of cash. It is also convenient to use and carry. No risk of getting stolen money associated with this. Even if plastic card is lost, one can block his/her card easily [5].

5. CONCLUSION

Demonetization has unfolded many possibilities in the digital payment system in India. People are now starts feeling comfortable with digital payments with every passing day. The Information technology industry is working hard to make successful Digital India and Cashless India programme. In this line many easy applications has come up in the market. More initiatives taken by the e-commerce industry since suffer most in the early months of demonetization. E-commerce industry is still expecting more scope and growth in it. Although digital payment system has many benefits but security is the sole problem which reduce the effectiveness and use of digital payments. To make digital India successful we are hoping a more safe and secure information operational technology and consumer technology.

REFERENCES

[1] ASSOCHAM-PwC (2016), "India registers 350% rise in cybercrime in three years: ASSOCHAM-PwC study", The Associated Chambers of Commerce and Industry in India, available at http://www.assocham.org/newsdetail.php?id=5880

[2] Cashless India, Government of India (2018), "Digital Payment Methods", available at http://cashlessindia.gov.in/digital_payment_methods.html

[3] Chaudhary S. (2016), "Surgical Strike on Black Money: A Move against Corruption and Terrorism", International Journal of Engineering Technology, Management and Applied Sciences, Volume 4, Issue 11, ISSN 2349-4476.

[4] Important India team (2018), Short essay on Demonetization and its effects available on https://www.importantindia.com/28460/essay-on-demonetization/

[5] MBA Universe.com (2018), "Cashless Economy: Is Society ready for transformation?" available at http://www.mbauniverse.com/group-discussion/topic/business-economy/cashless-economy.

[6] National Automated Clearing House Product Overview, (2018), available at https://www.npci.org.in/product-overview/national-automated-clearing-house-product-overview

[7] National Payment Corporation of India (2018), "Electronic Payment System – Representative Data by RBI" available at https://www.npci.org.in/statistics

[8] Pimputkar S. (2016), "India's history with demonetisation: From 1946 to 2016", the Free Press Journal, available at http://www.freepressjournal.in/featured-blog/indias-history-with-demonetisation-from-1946-to-2016/988212.

[9] Reserve Bank of India (2018), "Reserve Bank of India Annual Report", available at https://rbi.org.in/Scripts/AnnualReportMainDisplay.aspx.

[10] Saha M. (2017), "99% of demonetised notes returned, says RBI report", The Hindu, available at https://www.thehindu.com/business/Economy/only-12-of-demonetised-1000-notes-did-not-return-rbi/article19590311.ece

[11] Sanatani T. (2017), "Effects of Demonetization on Digital Payment Systems in India", International Journal of Computer Science and Network Security, VOL.17, pp 136-140.

[12] Shepard W. (2016), "One Month In, What's The Impact Of India's Demonetization Fiasco", Forbes, available at https://www.forbes.com/sites/wadeshepard/2016/12/12/one-month-in-whats-the-impact-of-indias-demonetization-fiasco/#6e653d1e7ab1

[13] Wahi N. (2016), "Why demonetisation notification is illegal and violates the Constitution ", The Economic Times, available at https://economictimes.indiatimes.com/news/economy/policy/why-demonetisation-notification-is-illegal-and-violates-the-constitution/articleshow/55916594.cms

[14] Wikipedia, The Free Encyclopaedia (2018), "Cheque Truncation System", available at https://en.wikipedia.org/wiki/Cheque_Truncation_System

[15] Wikipedia, The Free Encyclopaedia (2018), "The High Denomination Bank Notes (Demonetisation) Act, 1978, available at https://en.wikipedia.org/wiki/The_High_Denomination_Bank_Notes_(Demonetisation)_Act,_1978

Appendix – 1

Table 1: Total Volume of Electronic Payments (Volume in Million)

.	RTGS	NEFT	CTS	IMPS	NACH	UPI	USSD	Debit and Credit Cards at POS	PPI	Mobile Banking	Total
November 2016	7.9	123.0	87.1	36.2	152.5	0.3	7.0	205.5	59.0	72.3	671.5
December 2016	8.8	166.3	130.0	52.8	198.7	2.0	102.2	311.0	87.8	70.2	957.5
January 2017	9.3	164.2	118.5	62.4	158.7	4.2	314.3	265.5	87.3	64.9	870.4
February 2017	9.1	148.2	100.4	59.7	150.5	4.2	224.8	212.3	78.4	56.2	763.0
March 2017	12.5	186.7	119.2	67.4	182.1	6.2	211.2	229.7	90.0	60.8	893.9
April 2017	9.5	143.2	95.3	65.1	212.6	6.9	188.9	231.1	89.2	61.0	853.1
May 2017	10.4	155.8	97.1	66.7	194.4	9.2	192.6	233.4	91.3	64.9	858.5
June 2017	9.8	152.3	91.9	65.8	197.3	10.2	198.9	232.4	84.7	77.1	844.7
July 2017	9.4	148.1	92.2	69.1	204.3	11.4	190.7	237.6	88.7	69.5	861.1
August 2017	9.5	151.6	92.1	75.7	205.2	16.6	191.8	243.0	89.7	70.8	883.4
September 2017	9.6	157.7	92.2	82.9	176.0	30.8	202.7	240.3	87.5	86.3	877.0
October 2017	10.0	158.8	94.4	88.1	187.0	76.8	184.6	255.7	96.2	130.9	967.3
November 2017	10.8	162.0	96.3	89.5	197.5	104.8	182.4	244.6	92.8	122.8	998.5
December 2017	10.9	169.0	94.6	98.0	183.0	145.5	179.9	263.9	99.1	113.3	1064.2
January 2018	11.2	170.2	96.7	99.6	208.1	151.7	172.8	271.1	113.6	106.3	1122.3
February 2018	10.6	165.6	91.8	99.2	199.1	171.2	156.1	247.1	113.1	102.5	1098.0

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 3, pp: (734-740), Month: July - September 2018, Available at: www.researchpublish.com

Appendix – 2

Table 2: Total Value of Electronic Payments (Value in Billion)

Period	RTGS	NEFT	CTS	IMPS	NACH	UPI	USSD	Debit and Credit Cards at POS	PPI	Mobile Banking	Total
November 2016	78479.2	8807.8	5419.2	324.8	606.6	0.9	7302.6	352.4	13.2	1244.9	94004.2
December 2016	84096.5	11537.6	6811.9	431.9	626.8	7.0	103718.4	522.2	21.3	1365.9	104055.3
January 2017	77486.1	11355.1	6618.4	491.2	541.4	16.6	381760.2	481.2	21.0	1206.7	97011.4
February 2017	74218.8	10877.9	5993.9	482.2	592.0	19.0	357055.2	391.5	18.7	1080.0	92594.5
March 2017	123375.8	16294.5	8062.8	564.7	829.4	23.9	337962.4	416.2	21.5	1499.9	149589.1
April 2017	88512.2	12156.2	6990.6	562.1	905.2	22.0	301650.5	431.4	22.3	1443.8	109602.2
May 2017	90170.5	12410.8	6745.9	585.6	692.4	27.7	316723.7	450.8	25.3	1940.7	111109.3
June 2017	92812.6	12694.2	6409.9	596.5	708.6	30.7	313277.0	468.2	24.1	1584.7	113745.2
July 2017	87149.3	12011.6	6342.5	604.8	771.7	33.8	302097.8	439.3	25.1	1019.2	107378.4
August 2017	89163.4	12500.4	6224.3	651.5	752.4	41.3	294239.4	457.1	27.2	1033.0	109817.9
September 2017	102348.1	14182.1	6271.5	717.6	628.4	52.9	323578.5	478.2	27.6	1121.6	124706.8
October 2017	92056.1	13851.3	6340.2	750.4	900.5	70.3	299071.8	530.5	32.7	1168.7	114532.2
November 2017	98410.5	13884.0	6633.9	782.6	724.1	96.4	287309.6	483.3	32.0	848.4	121047.1
December 2017	100907.8	15779.2	6564.0	871.1	714.0	131.4	299367.3	528.7	35.1	921.5	125531.5
January 2018	107488.4	15374.1	6792.6	882.1	727.7	155.4	290020.0	521.9	38.3	928.7	131980.8
February 2018	91765.6	14843.9	6453.6	882.7	850.9	191.0	270260.0	465.9	36.5	945.0	115490.3