

Cashless-Faceless-Paperless: Digital India

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Abstract

Digital India is a flagship plan of the Indian Government. It was launched in July 2015 with a perception to transform India into a knowledgeable and digitally empowered economy. "Cashless, Faceless, Paperless" is the apparent role of Digital India. Major progression towards this objective happened in late 2016, when the government initiated steps of demonetization in the country. Cashless transaction and demonetization is a way towards the cashless economy. An attempt has been made by the authors, to study various objectives, importance and hurdles in the way of cashless economy and to know about our country's status with respect to digital payments. Illiteracy is one of the major hurdles in the path of cashless economy. Inadequate infrastructure is a challenge and there is reluctance and lack of reliability of people on usage of cashless instruments. Studies reflect how common people supported the idea of demonetization when the decision of banning high currency notes at midnight to check corruption was enforced. The taxpayers are also happy, as the cashless transactions will lead to transparency in the system with corruption checked, the tax base will increase and the tax rate shall be reduced because of larger tax collection. The authors suggest that there is a vigorous need to promote awareness about cashless payments in semi-urban and rural areas; spread more awareness through Common Service Centres (CSCs) to achieve the aim of cashless economy. Further JAM (Jan Dhan- Aadhar-Mobile) infrastructure can enhance the digital transaction culture in the country. To increase penetration of digitalization in the long run, there is a requirement to create awareness, to keep credit/ debit cards safe, to use digital wallets and net banking in the most secured manner. Recent step of demonetization has enhanced digital transactions in the country- a huge step to check corruption, still a lot needs to be done to scale up the level of digitalization in India.

Keywords: Digital Transactions, Cashless Economy, Demonetization, Internet Banking, Physical Currency, Infrastructure, Taxation, ATM

Introduction

Cashless economy/society refers to a state in which financial transactions in an economy are not made in coins or physical bank notes form, but through digital transferring. It includes credit and debit cards, card swipe, point of sale, digital wallets, machines, mobile banking, banking through computers etc. Cashless economy as a part of Digital India is an initiative taken by the Indian Government to make India a digitally powerful country. Through Digital India, most of the benefits of the government schemes, favoring poor, reach directly to them in their bank accounts. Barter system is also an example of cashless economy where there is no use of cash. The exchange of goods and services is done just by exchanging goods and services in return. So in a way, cashless economy has its origin in the barter system. Cashless Society is a movement towards an economy, where cash currency is replaced with digital currency (such as Bitcoin and banking, phone banking, e-wallets) across which money can be transferred in a digital form. The idea of transforming India to cashless is to move it towards digitalization and making it a digitally powerful country. Since India is a developing country, a move towards digitalization will lead to financial sophistication and further development of the economy. In cashless economy, corruption is checked; taxes can be calculated and collected with certainty. Since all the transactions are made online digitally, taxpayers can not hide online transactions and taxable income can be better accounted, hence there will be very less space for black money in the country.

However our economy is facing following challenges in moving towards cashless economy: Large amount of cash transactions exist in India, which account for almost 14% of country's GDP. Around 95% of the transactions take place largely in informal and unorganized sectors, where cash is preferred as they don't have the required digital transaction sources. Since small retailers dominate in our country, they don't have enough avenues to invest in digital payment infrastructure. In India, ATM is mainly used for withdrawal of cash and not for clearing online transactions. There are about 21 crore Rupay cards but majorly around 92% of the ATM cards are used for withdrawal of cash. For digital settlement of transactions, internet connection is required, but in our country, there is a lack of internet connectivity in the rural areas. Lack of infrastructure, lower literacy rates in rural India makes it difficult to widely expand the usage of plastic money as a part of cashless economy. There is a scanty availability of point of sale machines. Mobile Internet penetration is only around 27% in rural India, it should be minimum 67% which is global level median percentage. Lakhs of bank accounts were opened through Jan Dhan Yojana; however most of them are un-operational.

Review of Literature

Marco and Bandiera (2004) stated that higher usage of cashless instruments of banks give strength and effectiveness to monetary policy and the current e-money usage is not causing any challenge to the financial system stability. Jain, P.M (2006) stated that taking complete advantage of technology, remittances and quick payments will ensure judicious use of funds availability for financial institutions, business houses, banks and citizens of India. Roth (2010) analyzed that world's developed nations, are moving towards electronic payment mechanism and away from cash payment instruments. Kumar Piyush (2015), in a survey study, concluded that cashless transactions are rapidly growing; as markets become more integrated with world economy and as the banking sector grows, more people move away from making cash transactions towards cashless system. Cashless transactions are much safer than the cash transactions; also it takes less time and does not create any problem of wear and tear like paper money, further it helps in keeping record of all the transactions done. Saini, B.M (2015) concluded that eventually e-transactions will happen with cashless transactions. There has been an intensive growth in

electronic transactions that possibly can increase cyber crimes, so awareness to keep debit/ credit cards safe along with measures to keep transactions hassle free is needed. R. Ragaventhara (2016) analyzed the relationship between knowledge economy and cashless economy and stated that cashless system is the best way to check black money, it also creates awareness about the knowledge economy among the general public. Kumari Deepika (2016) found that through demonetization, Government is creating awareness among people about cashless transactions. Forbes (2016) stated that cashless future is the major aim of India's digitalization move. India has been the most cash reliant country than any other country in the world, however after demonetization; millions of new users got added into the country's digital economic transactions.

Objectives of the Study

1. To understand various modes of digital payments and digital transactions in India vis-a-vis other economies.
2. To analyze the changes in cash-less transactions overtime in India.
3. To understand the significance and challenges in cashless transactions in the country and make suitable recommendations.
4. To analyze the demonetization effect on preferred payment options, on e-wallet usage.
5. To evaluate the role of government in reinforcing cashless transaction system in India and make suitable suggestions for its flawless functioning.

Data and Research Methodology:

The analysis in the study is based on secondary data/information sources. Newspapers, books, relevant websites and Journals have been referred. Analysis is made from the information available through different sources and other countries. Keeping in mind the technology available and its suitability, suggestions for feasibility/ adaptability of cashless for our country is discussed.

Facts and Analysis

Modes of Digital Transactions

There are various modes of digital transactions or cashless transactions such as Net banking, Debit cards, Credit cards, E-wallets, Phone banking, Mobile wallets, Point of sale and the like.

The table below depicts Mode of Digital Payments and Digital Transactions (percent) across various countries.

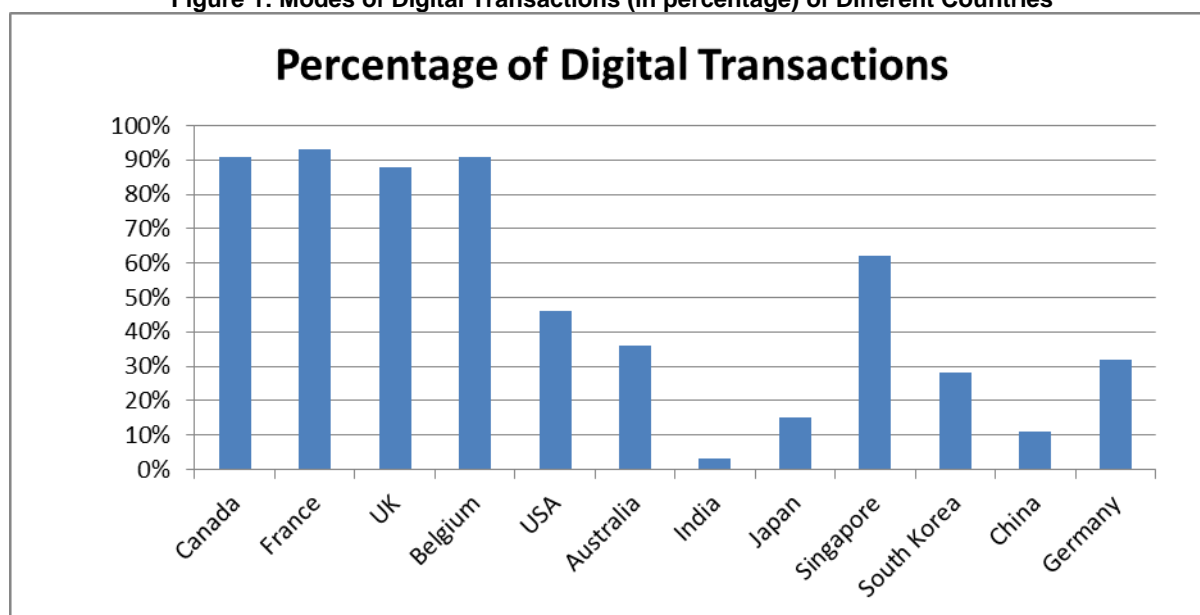
Table- 1: Mode of Digital Payments and Digital Transactions (percent) of Different Countries

Name of the Country	Mode of Digital Payment	Digital Transactions as per 2015 world atlas
Canada	Payment Cards , Online Wallets	91%
France	Mobile Banking, MPOS, Contact-less Cards	93%
United Kingdom	Paym - Mobile Payment System	88%
Belgium	Debit Cards , Six dots -Mobile App	91%
USA	E-banking, Mobile Banking and Cards Payments	46%

Australia	NAB Mobile Banking App and Internet Banking, Card Payments,	36%
India	Credit Cards, Debit Cards, Electronic banking	3%
Japan	Card Payments and Online Banking, Mobile Banking	15%
Singapore	IBanking, Mobile Wallet and Contact less Cards	62%
South Korea	Debit and Credit Cards	28%
China	CUP Cards, Internet Banking	11%
Germany	EC-karte a Debit Card and Online Banking	32%

Source: World Atlas 2015

Figure 1: Modes of Digital Transactions (in percentage) of Different Countries



Source: Author's representation of Table 1

The above figure shows that India is very far away from other countries in terms of usage of electronic payments with countries like France, Canada, UK, Belgium making around 90% of the

transactions online as per 2015 world atlas, however there has been an increase in cash-less transactions during 2011-2016 in India as depicted in the table below.

Table 2: Increase in Cash-Less Transactions during 2011-2016 in India

Methods of transaction	2011 INR(bn)	2012 INR(bn)	2013 INR(bn)	2014 INR(bn)	2015 INR(bn)	2016 INR(bn)	% Growth 2011- 2016
Cheques	25152	27526.11	37256.12	45212.23	56451.25	92540.72	44.65%
NEFT & RTGS	50121	51002	55837.91	59248.36	60266.19	87287.04	12.35%
Internet banking	293523	311516	325462	423524.26	524254	623251.23	18.72%
Mobile/e-Wallet	41	62.21	97.12	115.23	137.67	343.57	123%
Credit&debit cards	199006	19252	20016.81	20816.12	21510.39	31069.64	10.57%
AEPS (aadhar enabled payment system)			NIL	NIL	190	2210	1063%

Source: <https://www.researchgate.net>publication> ; Annual Report RBI 2016

The above table indicates that in India there has been a substantial rise in the number of transactions made through Cheques, NEFT, RTGS, Mobile/ E-wallets, Credit Card, Net Banking and Debit Card etc., with the maximum rise of over 100% visible in Mobile/E-wallets during the time period 2011-16 and over 1000% rise in AEPS (Aadhar Enabled Payment System) in 2016. A lot needs to be done to scale it up further to make India competitive in reaching the level of digitalization compared to what other developed and its counterpart developing countries are experiencing.

Significance of Cashless Transactions

Cashless transactions will increase the number of taxpayers; it will lead to a lesser tax rate applicable for all the tax payers throughout the country. Transaction can be easily done with security. Cashless transactions will lead to transparency and accountability, as every transaction will be recorded by the regulatory body in the long-term which will enhance growth in businesses and increase investment opportunities for the economy. With cashless transactions, the large amount of currency deposit in the banks will increase the liquidity of the economy and would eventually mean a lesser rate of interest. With cashless transactions, accountability is better, thus reducing the scope of corruption. With

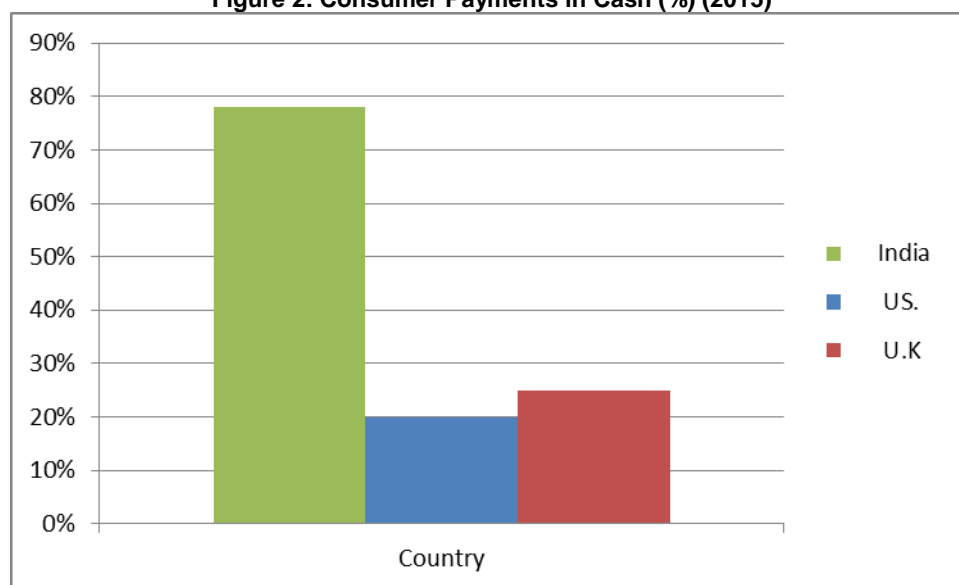
cashless economy, there will be no requirement of carrying bulky notes, only required cards or mobile banking will be sufficient. There will be no panic of being robbed. Cashless transactions will make it easier to track various expenses, thus making it easier to know where and how much was spent. All deposits/ credits and withdrawals/ debits will be done directly to the bank accounts through electronic media, thus there is no need to go to the bank frequently to deposit cash. However, our country's residents rely so much on cash that MNCs such as Amazon had to introduce cash on delivery system just to be able to tap the Indian market. The cash to GDP rate is the highest in India at 12.42%, while, some other countries have average cash to GDP rate of 5%. The figure below depicts the picture of consumer payment behavior in 2015 in India versus US and UK.

Table 3: Consumer Payments in Cash (2015)

India	78%
US.	20%.
U.K	25%

Source: <https://www.oliveboard.in/blog/cash-to-cashless-digital-india-economy-analysis-upsc-ias-current-affairs-gk-exam-study/>

Figure 2: Consumer Payments in Cash (%) (2015)



Source: Author's representation of Table 3

The figure above clearly shows that in India in the year 2015, almost 3/4th of all consumer payments were made in cash which were about three times that of U.K. and four times that of US. However, moving towards cashless economy is a tough task and there are many hurdles to it:

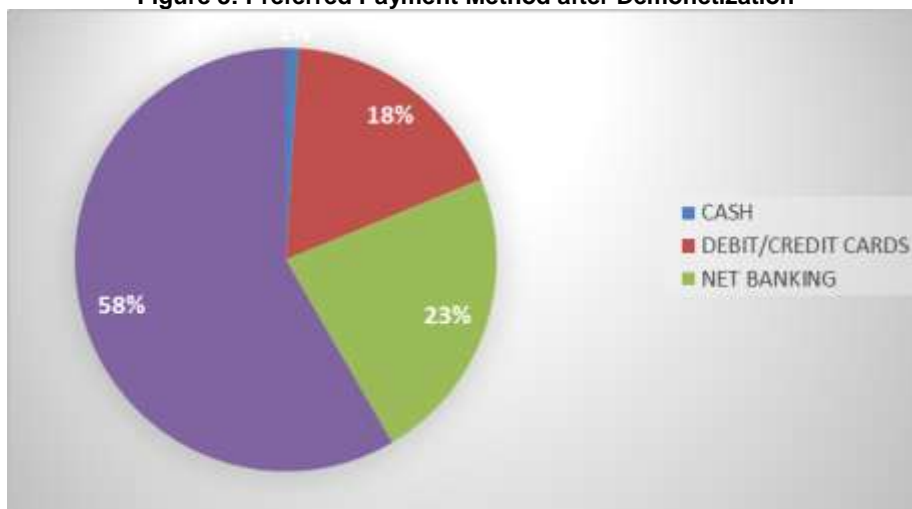
Infrastructure in India to support cashless economy is inadequate. India being a vast country is having only 14 lakh point of sale (PoS) machines and 2.3 lakh ATMs indicating very low penetration. Countries like France, Brazil, UK and Australia have PoS terminals which are 3-4 times India's Pos terminals. Since most of the ATMs are largely spread in metros, their number is less in the rural and

suburban areas. Mobile Internet Penetration is quite poor in rural India. For making digital payments, internet connection is required but there is poor internet connectivity in the rural areas and low literacy rate which makes it more difficult to widely spread usage of plastic money throughout the country. Over 93% of rural Indians haven't done any digital transactions.

Demonetization Effect on Cashless Transactions

Major goal of recent demonetization process in India were: financial inclusion, a shift towards cashless economy and to check black money. Below is the chart depicting preferred payment options after demonetization.

Figure 3: Preferred Payment Method after Demonetization

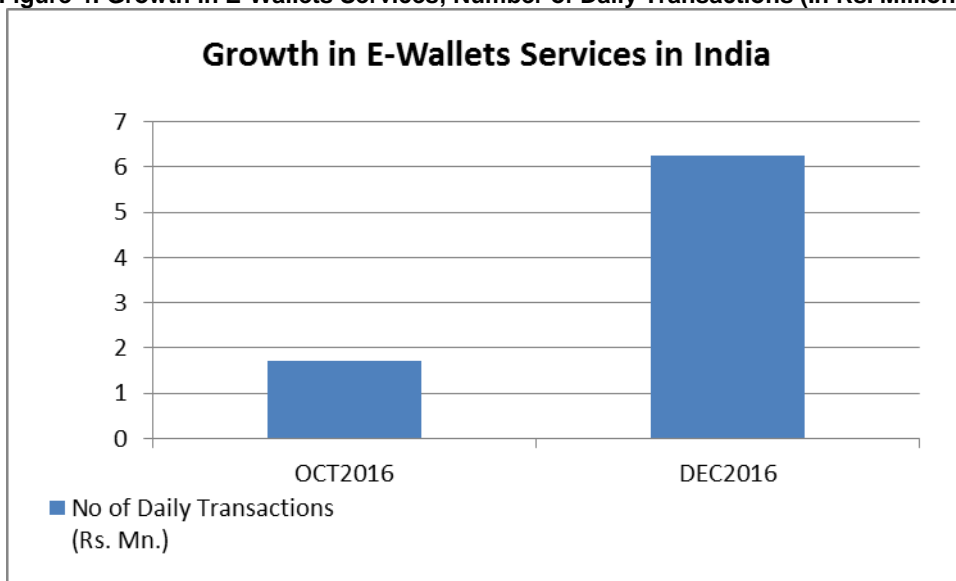


Source: <https://economictimes.indiatimes.com>

From the above chart it can be inferred that the demonetization effect on reduction in cash transactions is significant, with e-wallets comprising the largest share of the pie at 58%, net banking

comprising 23% share, debit/credit cards usage at 18%, while cash usage only comprising 1% of the pie. The figure 4 depicts the growth in e-wallets services after demonetization.

Figure 4: Growth in E-Wallets Services; Number of Daily Transactions (In Rs. Millions)



Source: <https://economictimes.indiatimes.com>, Ministry of Electronics and Information Technology.

The figure above clearly shows the effect of demonetization in November'16 on the number of transactions through e-wallets which increased by multi-fold times between October'16 and December'16. After demonetization, e-wallets usage got implemented at a largescale. These e-wallets (like Paytm, USSD etc.) enable users to make payments by just scanning a QR code or by using mobile numbers.

**Cashless and Digital India: Initiatives
India's Steps towards Cashless Economy:**

(i) The government has initiated steps to encourage digital payment access country-wide. Government declared a 400-1,000% rise in digital transactions since demonetization. (ii) National Payments Corporation of India has launched UPI

(United Payment Interface) along with RBI. (iii) The "Digital India Initiative" has been set up to promote mobile phone coverage comprehensively and provide internet connectivity throughout the country, helping over a billion people to prefer digital payment techniques. (iv) The RBI has promoted biometric authentication system for banking. (v) The Aadhar Enabled Payment System (AEPS) is helpful to open bank account using only fingerprints and an identification number. The expected size of digital market in India by 2023 is over \$ 1 trillion.

Steps undertaken by Government and RBI to Discourage Cash Usage

Government is encouraging use of mobile wallets greatly. Recently, RBI issued guidelines that allow users to enhance their limit to Rupees 1,00,000

on the basis of Know your customer verification. Various incentives in this direction include: (i) Service Tax got waived off on digital fuel purchase through mobile wallets, e-wallets or credit cards. (ii) For online ticket buyers, free accident insurance of Rupees worth 10 lakhs will be given. (iii) On new LIC policy purchased online, discount of 8% is offered. (iv) Government has introduced technologies such as BHIM (Bharat Interface for Money) app for transactions between parties. (v) In addition to RBI, Government and companies are also taking part in tackling cybercrime. Microsoft opened first cyber security centre known as Cyber Security Engagement Centre (CSEC) in the country. This centre tracks origin of cyber attacks, spread of viruses and help customers in tapping pool of security specialists. (vi) To encourage illiterate and poor people in the rural areas to increase digital payments, government is encouraging Aadhaar Pay through which financial transactions take place by using fingerprint only.

Digital Finance for Rural Areas of the Country

This is done by creating access and awareness by way of Common Service Centres (CSCs): The targets are: (i) Two lakhs Common Service Centres (CSCs) to make provision for capacity building. (ii) The programme has a target to create awareness of digital payment methods to approx. 25 lakhs marchants and 1 crore rural natives across India. (iii) It also has target of 10 marchants for every panchayat to get POS machines/ digital payment mechanism.

Capacity Building and Awareness for Digital Economy

This includes: (i) To transmit know-how about digital payment system, its benefits, tools, and processes. (ii) To create awareness and educate citizens regarding 'Digital India - faceless, cashless and paperless'. (iii) To educate through Digi-Shala Programme Portfolio (TV Channel) through which Government imparts digital payments information in the rural areas. (iv) To encourage people especially in semi-urban and rural areas to prefer digital payments along with other products and services as a part of Digital India.

Conclusions and Suggestion

For India, with the population of around 133.92 crores, it becomes quite a difficult task to completely move towards a cashless economy. Around 3/4th of our country's population is illiterate and can not even read or write, we cannot expect them to engage in digital transactions. Most people of older generation are not even friendly with smart phones and believe in making cash transactions. There is an inadequate infrastructure; mobile penetration is quite low in rural India. Retail businesses mostly work on cash flow, unavailability of internet network further reduce proportion of people engaged in making digital transactions. There are however, various benefits of digitalization, moving towards cashless transaction will increase convenience, there will be no need to carry cash, help people in keeping track records of their spending and reduce risk. This will also help companies, government in achieving an enhanced efficiency level

with lower cost and time involved and would increase the welfare of the society, as there will be reduced crime rates. The production cost of paper currency will be reduced, economic growth will be enhanced further, tax collection will increase, financial markets will respond much better. It becomes therefore, highly desirable for the country to take up more rigorous steps and streamline the existing initiatives to achieve the objective of Digital India successfully and making transactions -faceless, cashless and paperless.

Although there has been an increase in cash-less transactions during 2011-2016 in India, India is very far away from other countries (such as France, Canada, UK, Belgium) in terms of usage of electronic payments, which are engaged in making around 90% of the transactions online. In the recent years, there has been a substantial increase in the e-wallets, AEPS (Aadhar Enabled Payment System) mode of digital transactions especially after demonetization in November'16; Government should ensure that wide-spread awareness, at the country level be spread and encourage more people to switch towards digital payments, taking care of the safety measures simultaneously.

Cashless transaction is the need of today's era, the authors suggest that the government should provide proper infrastructure in rural, urban and semi-urban areas for digitalization; spread more awareness through Common Service Centers (CSCs) for the same. Camps can be organized at various parts of the country which would help people in getting friendlier with digital transactions, create awareness and promote its usage at the same time. Further JAM (Jan Dhan- Aadhar- Mobile) infrastructure can enhance digital transaction culture. To increase penetration of digitalization in the long run, there is a need to create more awareness to keep credit/ debit cards safe, use digital wallets and net banking in the most secured manner. The step of demonetization has indeed enhanced digital transactions in the country. It was a huge step to eradicate corruption. There is still a lot to be done to scale up digitalization level in India. Is our society actually ready for the transformation? Given there is a well functioning infrastructure and strong awareness to the masses while ensuring safety at the same time, the society will be happy to move towards digitalization and enjoy the fruits of the same in the long run.

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