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ANALYSIS OF CASHLESS PAYMENT OPTIONS AND ITS IMPACT ON SPENDING BEHAVIOUR OF CONSUMERS IN CHENNAI

M. Mohana Priya[1] and Dr. Tamilarasi Mailachalam[2]
[1]Ph.D. Research Scholar, Department of Commerce,
Madras Christian College, East Tambaram, Chennai,Tamil Nadu, India.
[2]M.Com., M.Phil., Ph.D.,
Head,Associate Professor& Research Supervisor, Department of Commerce,
Madras Christian College, Chennai, Tamil Nadu, India.

ABSTRACT

India has predominantly been a cash-based country where more than 95 percent of the transactions are based on the cash. Therefore, India has no option but to go cashless payment system. This system is a payment option where the transactions are done without using the physical cash. A large number of business firms, even street vendors, are now accepting electronic/digital payments, prompting the people to learn to transact the cashless way at a faster pace than ever before. Consequently, "Cashless Payment System" have made online as well as offline shopping much easier.Many studies and literature about "Consumer Behaviour" towards cash and card payment options.
However, very few studies were conducted to analyse the impact of Cashless payment option on spending behaviour of consumersespecially the context and focus of Chennai.The purpose of the study is to analyse the various factors that determine the usage of cashless payment options for consumer spending. The study also examines the impact of "Cashless Payment Options" on "Spending Behaviour" of consumers in Chennai.Based on a Sample of 150 consumers in Chennai district, descriptive and inferential analysis are carried out. For this analysis Independent Sample "t" Test, Correlation and Multiple Regression are used to test the hypothesis and analyse the influence of the factors that determining cashless payment options and their impact on spending behavior of consumers. The study reveals that demographic variable–"Gender" has a key impact on thefactors determining the cashless payment options. Further, there is a strong positive relationship between factors determining the cashless payment options and spending behavior of consumers. Out of ten factors that determine cashless payment option, convenience is the strongest factor in predicting spending behavior of consumers. Based on the results, the study suggests that the Government, policy makers, and management of retail organisation should take proactive steps to create more awareness about the cashless payment options among the consumers and increase the acceptance of the various cashless payment options at no cost. This would increase the usage of cashless payments for purchase of goods and services.

KEYWORDS: *Cashless Payment, Spending Behaviour, Digital Payments, Consumers, Easy Access, Convenient.*

INTRODUCTION :

Each country in the world has its own mode of transactions depending upon the formal and functional behaviour of socio-economic condition. As for as India is concerned over 95 percent of the population is mostly comfortable enough to carry out cash-based transacting economy. In this context, there is no option left for India to ignore or avoid the risk of adopting the cashless payment system in the 21st

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century. In this mode of transaction, one could buy, sell, barter or conduct any financial collaboration without the need of physical cash. It is the payment option where monetary transactions are done with the facilities like Debit/Credit Cards, Electronic Funds Transfers (EFT), Mobile payments, Multi-functional ATMs, Internet Banking, Cheque, Digital Wallets, Direct Debit, Point of Sale (POS), etc. The introduction of cashless payment system with the help of information technology in these days is fully supported by the central government in India. This initiative has not only helped the transactions faster but, at the same time, it has saved lot of time and money of the consumers and sellers in the country. People of all over the world have started taking interest in using cashless payment options for their purchases. This is important to note that"Politicians, Administrators, Policy makers, Academicians, businessmen, general people" all over the world have strongly supported the cashless payment options. Further, payment systems in retail sector can be restructured into cash and non-cash payments. Further, more payments can be divided into Retail Payments and Wholesale Payments. Retail payments generally, have higher transaction volumes than wholesale payments. Consumers use retail payment options to purchase goods and services. By adopting and using cashless payment options, consumers will reduce the risk of losing hard-earned cash, and overcome the change problems currently being faced in the retail sector. There is an urgent need to study the core objective and analyse the various parameters that ensures the application of cashless payment system in the context of consumer's spending pattern. Further, their analytical study looks into the key factors governing and influencing the impact of "cashless payment-option on the paradigm shift in the spending behaviour of consumers in the Chennai".

STATEMENT OF PROBLEM

The Indian payment system is swiftly migrating to more and more IT based systems. In the retail sector, we have very high volumes of money transactions. Apart from cash, merchants are adopting cashless payment options, like Cards, Digital Wallet, etc. in the retail sector. The entire nation is undergoing the process of modernization in money transactions. A large number of business firms, even street vendors, are now accepting electronic/digital payments, prompting the people to learn to transact the cashless way at a faster pace than ever before. Cashless Payment Systems have made online as well as offline shopping much easier. In spite of the efforts taken by the banks to promote the use of debit cards and the introduction of new payment methods, the transition from cash to cashless or digital payment methods is not taking place as quickly as sometimes expected. Consumers are considered as "King" in the market and their buying behavior, particularly spending behavior, strongly influences the business performance like sales, profit, etc. The present study is an attempt to analyse the factors that determining the cashless payment options for consumers and also to evaluate how these factors are influencing the spending behavior of the consumers.

OBJECTIVES OF THE STUDY

The objectives refer to the questions to be answered through the study. They indicate what researcher is trying to get from the study. The following are the objectives of this study:

❖ To identify the demographic and Cashless Payment Option Profile of the consumers in Chennai.
❖ To analyse the factors that determine Cashless Payment Options available for consumer spending in Chennai.
❖ To evaluate the impact of Cashless Payment Options on Spending Behavior of consumers in Chennai.

SIGNIFICANCE OF THE STUDY

In today's fast growing economy, no one has time to wait for days or hours to transmit a message or to stand in queues to withdraw money to pay for their purchases. Even women today are going out to earn, and they do not even have time to buy grocery items. In the face of this situation, going digital is need of the hour which cannot be avoided. The use of cashless payment systems affects the judgment of consumers as to "how much is spent" or "what is bought", and "what is the preferred mode of cashless payment option

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used for purchase". This would ultimately influence the money management that has implications for lifestyles, budgeting and saving of consumers. In the current cashless economy, digital money as payment mode, is becoming a trend. Previous studies addressed how the various payment modes like cash and cards, influence consumer spending behavior. This study aims to integrate different constructs related to payment methods. And it reviews how they influence consumers' spending behavior. The result of the study is more useful for policy makers, government, administrators, businessmen, academicians and those who are interested in the topic of cashless payment system.

THEORETICAL FRAMEWORK
CASHLESS PAYMENT OPTION

A "Cashless payment option" is a payment option in which all types of transactions are carried out through digital means. It includes e-banking (Mobile banking or banking through computers), debit and credit cards, card-swipe or point of sales (POS) machines and digital wallets. Such a transaction is the one in which it is carried out by using cards or digital means. A Cashless Society describes an economic state whereby financial transactions are not conducted with money in the form of physical banknotes or coins, but rather through the transfer of digital information (usually an electronic representation of money) between the transacting parties.

SPENDING BEHAVIOUR

Consumer spending is an important factor that affects the economic growth and development in a country.Spending behaviouris different for people belonging to different sections of society. For example, people belonging to the middle class consider basic necessities and education and spending toward the future of their children as their top priorities, followed by lifestyle goods. The rich class spends more on luxury goods and international brands. Finally, the super-rich class spends on ultra-luxury goods. It is observed that as disposable income increases, people prefer the branded goods, shift to processed foods. And, the expenditure on food, beverages, and transport and communication also increases.There are a number of factors affecting the consumer spending behaviour in India. These include growing income levels resulting in more disposable income with individuals, changing attitudes towards consumption, changes in prices, introduction of new products, availability of credit such as loans,availability of payment options, mortgages and credit cards, rising aspiration levels, increased literacy, growing brand consciousness and rapid urbanization.

REVIEW OF LITERATURE

Soman (2001) examined the effect of past usage of payment mechanisms on future spending behaviour by creating differences in the retrospective evaluation of past payments. He found that consumers who normally use credit cards vs. cheque to pay for transactions in the test situation were more likely to purchase an additional discretionary product. **Stavins (2001)** uses survey data from US households in order to evaluate the effects of consumer characteristics on the probability of using different electronic payment systems. The results show a strong effect of demographic characteristics on consumers' use of payment instruments.

Soman (2003), using transaction data from a US supermarket, compared shopping behaviour across cash, cheque and credit card payment modes. The study found that majority of the respondents used card payments. And,they noted that when using cheque and credit card, more non-essential items were purchased. He also found that the use of prepaid cards (integrated circuit cards, ICC, usually referred to as 'smart cards') increases the amount spent per transaction.A study conducted by **Klee (2004)** in the Unites States of America using supermarket panel data, found no difference in the number of items and total value of the purchases across debit and credit card payment modes, And it show that the payment mode choice is related to total amount of the transactions, with card and cheque use dominating in high cost transactions.

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The survey carried out by **Jonker (2005)** reported that debit cards are more frequently used (compared to other modes) in non-food retail, petrol, supermarket purchases and public transport use. And that fast-food purchases are mostly paid for by cash.**Borzekowski, Kiser and Ahmed (2006)** reported that cheque usage has significantly declined globally since the mid-1990s.Further, debit card transactions grew at a rate of 20% in the US between 1996 and 2005.And that ATM withdrawals and credit card use flattened over that period. This suggests that more people are using their debit cards to effect transactions.

Raghubir and Srivastava (2008) conducted four separate experiments in a single study to examine the relationship between spending behaviour and the mode of payment. They found that individuals are willing to spend more when exposed to a credit card logo. The second study examined willingness to spend via cash and credit card by manipulating the amount of the transaction. The third and fourth studies by **Raghubir and Srivastava (2008)** examined spending behaviour as a function of payment mode only. Study three examined spending behaviour when an equivalent amount of money was given in the form of a gift certificate versus cash. Results showed that the total amount spent was higher in the gift certificate condition than in the cash condition across all product categories.

Bounie and Francois (2009)conducted a research in which participants are asked to diarize their shopping behaviour across six shopping occurrences. The final sample size was substantial.In this, 1447 participants across France submitted their diary records. They reported that demographic characteristics had no significant relationship with ownership and use but the type and size of transaction did - with cash preferred for low cost payments and cards (both debit and credit) preferred for high cost payments.

Thomas et al. (2011) conducted a complex set of studies into payment mode influence on unhealthy food purchases and in one study that uses supermarket data they report that expenditure is related to card use and that consumers spend more on unhealthy food items when they pay by credit card ((M=\$67.6) than when using cash (M= \$37.9). They report that the purchase of vice products correlates (positively) with debit and credit card use and negatively with cash. The findings of the payment mode research seem to be fairly consistent in that the use of such cards in the context of routine (household) shopping transactions is associated with an increase in spending and number of items purchased.

RESEARCH METHODOLOGY

The detailed methodology of the research has been described based on research design, sampling design, data collection method and analysis. It is a descriptive as well as analytical research because here we discuss the demographic profile of the respondents and Cashless Payment options as well as identifying the relationship among factors determining the cashless payment options and its impact on spending behaviour of consumers. It is both qualitative and quantitative research. A survey design is used to obtain the required information.

The population for this study comprises of consumers who purchasethe goods using Cashless Payment options like Debit Card, Credit Card, Digital Wallet, etc. in Chennai, Tamil Nadu,and India. The study covered only the major parts of Chennai district, Tamil Nadu. Structured Questionnaire was used to collect the Primary data. Secondary data relating to Cashless Payment Options, etc. were collected from variousResearch Articles, Internet sources, Newspapers, Journals, Magazines, Reports, books, etc.

A sample size of 150 is selected for this study. Since the exact population of consumers using cashless payment for buying goods is unknown, Convenience Sampling, a type of Non-Probability Sampling technique is used to collect data from the respondents. The questionnaire is constructed to analyse the Demographic variables including gender, age, marital status, qualification, income, occupation and Cashless Payment Option variables like type of cashless payment option used, frequency of usage of cashless payment option, etc. And also analyse theconsumer's perception on the factors determining cashless payment options and its impact on their spending behaviour. Main data collection begins in the monthof May 2018. Microsoft Excel and Statistical Package for the Social Sciences (SPSS) are used for the data feeding and statistical analysis.

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ANALYSIS OF DATA AND RESULTS

The data, after collection, has been processed and analyzed in accordance with the outline laid down for the purpose at the time of developing the research plan. Analysis has been done through various statistical tools to understand the outcomes with reference to the objectives and hypothesis. In order to analyze and give the proper interpretation of data the various statistical tools like Percentage Analysis (descriptive) and Independent Sample "t" test, Correlation and Multiple Regression (inferential) are used.

I. DESCRIPTIVE ANALYSIS
DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Table 1
DEMOGRAPHIC PROFILE OF THE RESPONDENTS
(Sample Size = 150)

VARIABLES	OPTIONS	FREQUENCIES	(%)
Gender	Male	88	59.00
	Female	62	41.00
Age	19 – 30 Years	Open ended	54.00
	31 - 50 Years	Question)	33.00
	51 - 72 Years		13.00
Marital Status	Married	68	45.30
	Unmarried	82	54.70
Qualification	School/Diploma	44	29.30
	UG/PG	90	60.00
	Professional/Ph.D.	16	10.70
Monthly Family Income (INR)	Upto Rs.25,000	60	40.00
	Rs.25,001 – Rs.50,000	37	24.70
	Rs.50,001 – Rs.1,00,000	42	28.00
	Above Rs.1,00,000	11	7.30
Occupation	Salaried	90	60.00
	Business/Professional	25	16.70
	Student	13	8.70
	Home maker/Retired	22	14.60

Source: Primary Data

INTERPRETATION

From the above table, it is inferred that Male respondents (88, 59%) are more than Female respondents (62, 41%). 54% of the respondents belong to the age group of 19 - 30 Years. Majority of the respondents are unmarried (82, 54.70%). 60% (90) of them are Under/Post Graduates and salaried respondents. In case of Monthly Family Income, 40% (60) of the respondents are earning income upto Rs.25,000.

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2. CASHLESS PAYMENT OPTIONS DATA

Table 2
CASHLESS PAYMENT OPTIONS DATA
(Sample Size = 150)

VARIABLES	OPTIONS	FREQUENCIES	(%)
Value of Goods purchased through Cashless Payment Option	Upto Rs.5,000	54	36.00
	Rs.5,001 – Rs.10,000	19	12.70
	Rs.10,001 – Rs.20,000	36	24.00
	Above Rs.20,000	41	27.30
Type of Cashless Payment Option used for purchase	Cheque	10	6.70
	Debit Card	40	26.70
	Credit Card	36	24.00
	Net Banking	19	12.70
	Mobile Banking	14	9.30
	Digital Wallet	23	15.30
	Other Payment options	8	5.30
Frequency of Usage of Cashless Payment Option in a month	Less than 5 times	54	36.00
	5 – 10 times	25	16.70
	More than 10 times	71	47.30

Source: Primary Data

INTERPRETATION

From the above table, it is inferred that 36% (54) of the respondents purchase the goods worth Rs.5,000 through cashless payment option. Out of various cashless payment options, 26.70% (40) of the respondents make Debit Cards payments which is followed by Credit cards (24%, 36) and Digital Wallet (15.30%, 23). 47.30% (71) of the respondents use the cashless payment option for more 10 times in a month.

3. FACTORS DETERMINING CASHLESS PAYMENT OPTIONS

Table 3
FACTORS DETERMINING CASHLESS PAYMENT OPTIONS
(Sample Size = 150)

S. No.	VARIABLES	MEAN	RANK
1.	Widespread Acceptance	3.79	
2.	Widespread Usage	3.92	
3.	Act as form of record keeping	3.63	
4.	Easy Access	4.09	THIRD
5.	Easiness in Payment process	4.03	
6.	High speed of transaction settlement	3.92	
7.	Secured Payment	3.64	
8.	More convenient	4.42	FIRST
9.	Offer and Discounts on purchases	3.99	
10.	Easy Transfer of money	4.14	SECOND

Source: Primary Data

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INTERPRETATION

From the above table, it is inferred that More Convenient (M = 4.42), Easy transfer of money (M = 4.14) and Easy access (M = 4.09) are the top three factors that determining the cashless payment options of consumers. It is also inferred that the factors are highly perceived by the consumers since all Mean value of the above variables are above 3.5 (70%) out of 5.

II. INFERENTIAL ANALYSIS
1. FACTORS DETERMINING CASHLESS PAYMENT OPTIONS

H_0: **There is no significant difference between Male and Female respondents with respect to the Perception on the factors determining Cashless Payment Options.**

Table 4
GENDER AND PERCEPTION ON THE FACTORS OF CASHLESS PAYMENT OPTIONS

VARIABLES	GENDER						t – value	p – value
	MALE			FEMALE				
	N	Mean	SD	N	Mean	SD		
PERCEPTION ON THE FACTORS OF CASHLESS PAYMENT OPTIONS	88	40.53	6.391	62	38.16	6.154	2.288	0.024*

Source: Primary Data
(* 5% level of Significance)

INTERPRETATION

An independent-samples t-test was conducted to compare the difference between Male and Female respondents with respect to the Perception on the factors of cashless payment options. As the P value (0.024) is lesser than Sig. Value (0.05), the Null Hypothesis is rejected. Based on the mean scores of Perception on the factors of cashless payment options, we can say that the mean value of Male respondents (M = 40.53) is more than Femalerespondents (M = 38.16). This indicates that the perception of Male respondents is more than Female respondents on the factors of cashless payment options.

Hence, it is concluded that there is statistically significant difference between Male and Female respondents with respect to the Perception on the factors determining Cashless Payment Options.

2. IMPACT OF CASHLESS PAYMENT OPTIONS ON SPENDING BEHAVIOUR
H_0: **There is no significant difference between Male and Female respondents with respect to the Impact of Cashless Payment Options on Spending Behaviour.**

Table 5
GENDER AND SPENDING BEHAVIOUR

VARIABLE	GENDER						t – value	p - value
	MALE			FEMALE				
	N	Mean	SD	N	Mean	SD		
Impact of Cashless Payment Options on Spending Behaviour	88	19.88	4.093	62	19.11	4.380	1.091	0.277

Source: Primary Data
(5% level of Significance)

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INTERPRETATION

An independent-samples t-test was conducted to compare the difference between Male and Female respondents with respect to the Impact of Cashless Payment Option on theSpending Behaviourof consumers. As the P value (0.277) is greater than Sig. Value (0.05), the Null Hypothesis is accepted. The mean score of the Male (M = 19.88) and Female(M = 19.11) respondents are more of less same. Hence, there is no significant difference between Male and Female respondents with respect to the Impact of Cashless Payment Options on Spending Behaviour.

3. FACTORS OF CASHLESS PAYMENT OPTIONS AND SPENDING BEHAVIOUR

H_0: **There is no significant relationship between Factors of Cashless Payment Options and Spending Behaviour.**

A Pearson product-moment correlation was run to determine the relationship between Factors of Cashless Payment Options and Spending Behaviour.

Table 6
FACTORS OF CASHLESS PAYMENT OPTIONS - SPENDING BEHAVIOUR

VARIABLES	N	'r' VALUE	P - VALUE	RELATIONSHIP	REMARKS	
					SIGNIFICANT	RESULT
Widespread Acceptance – Spending Behaviour	150	0.306**	0.000	Positive	Significant	Rejected
Widespread Usage – Spending Behaviour	150	0.210*	0.010	Positive	Significant	Rejected
Act as form of record keeping – Spending Behaviour	150	0.305**	0.000	Positive	Significant	Rejected
Easy Access – Spending Behaviour	150	0.435**	0.000	Positive	Significant	Rejected
Easiness in Payment process – Spending Behaviour	150	0.420**	0.000	Positive	Significant	Rejected
High speed of transaction settlement – Spending Behaviour	150	0.308**	0.000	Positive	Significant	Rejected
Secured Payment – Spending Behaviour	150	0.324**	0.000	Positive	Significant	Rejected
More convenient	150	0.491**	0.000	Positive	Significant	Rejected
Offer and Discounts on purchases – Spending Behaviour	150	0.338**	0.000	Positive	Significant	Rejected
Easy Transfer of money – Spending Behaviour	150	0.487**	0.000	Positive	Significant	Rejected

Source: Primary Data
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

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INTERPRETATION

As the P value is lesser than Sig. Value (0.01) in all the above case, the Null Hypotheses are rejected. There are moderate to high positive correlations between the factors of cashless payment option and the spending behaviour of consumers. The relationships between them are also highly significant (0.000). Out of ten factors, Convenient has more relationship (r = 0.491) with Spending Behaviour than others and Widespread Usage has less relationship (r = 0.210) with Spending Behaviour than others. Hence, there is a significant relationship between Factors of Cashless Payment Options and Spending Behaviour.

MULTIPLE REGRESSION ANALYSIS

Regression is the determination of statistical relationship between two or more variables. Multiple Regression was conducted to determine the best linear combination of Widespread Acceptance, Widespread Usage, Act as form of record keeping, Easy Access, Easiness in Payment process, High speed of transaction settlement, Secured Payment, More convenient, Offer and Discounts on purchases and Easy Transfer of money for predicting Spending Behaviour.

TABLE 7
REGRESSION ANALYSIS

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.786	1.903		3.565	.000
	Widespread Acceptance	.787	.428	.191	2.549	.014
	Widespread Usage	.860	.463	.186	1.919	.041
	Act as form of record keeping	.162	.430	.036	.377	.707
	Easy Access	.925	.488	.207	2.353	.020
	Easiness in Payment process	.567	.596	.119	.951	.343
	High speed of transaction settlement	.085	.446	.020	.190	.849
	Secured Payment	.489	.410	.176	1.895	.034
	More convenient	.809	.430	.260	2.526	.019
	Offer and Discounts on purchases	.779	.417	.203	2.135	.032
	Easy Transfer of money	.981	.377	.237	2.602	.010

Dependent Variable: SPENDING BEHAVIOUR

This combination of seven out of ten variables significantly predicts the dependent variable i.e., Spending Behaviour, $F (10, 139) = 6.422$, $p = .000$ which is lesser than .001 (Sig. Value 2-tailed) and Adjusted R Square = 0.665. Out of ten independent variables, More Convenient (0.260) is the strongest influencing factors which predicting dependent variable – Spending Behaviour. The beta weights suggest that the Convenient only contribute most (0.260 or 26%) to predict Spending Behaviour.Act as form of record keeping, Easiness in Payment process and High speed of transaction settlement do not predict the spending behaviour significantly.

FINDINGS AND SUGGESTIONS

It is found from the study that the female respondents perceived lesserthan their counterpart on the various factors that influenced Cashless Payment option. Hence, the government and Management of organizations should take steps to create more awareness and encourage the female consumers to use the cashless payment options for their purchases.In addition, buyers and sellers both should be made aware about the benefits of the cashless transactions. Further, a financial literacy campaign should be conducted

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by government time-to-time to make population aware of benefits of electronic payments. There is a need to scale up the capabilities of POS machines for the faster rollouts in our country. Finally, Steps should be taken by the government to make Electronic payment infrastructure completely safe and secure so that incidents of Cyber-crimes could be minimized and consumers develop trust in electronic payment system.Periodical research on consumers behaviour especially spending behaviour should be conducted which would be more helpful for the sellers and consumers.

CONCLUSION

The result of this study has verified the previous finding that the various factors of cashless payment options have strong impact on spending behaviour of consumers. This is also consistent with prior studies. In addition, it is also proved that the convenient and easy transfer of money played important roles in determining thespending behaviour of consumers. This study has taken a new look at the relationships between Perception on the various factors which determine cashless payment options and spending behaviour, which receives continuous attention from policy makers, government, academic researchers and managers of the organizations.It will be better to say that India at this point of time, has to go for less-cash economy rather than cashless economy. The continuous march towards less cash economy will lead to cashless economy in the country.

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