

Credit Card Usage among White, African American and Hispanic Households

The use of credit cards among White, African-American and Hispanic households was investigated using the 2001 Survey of Consumer Finances. Fifty-four percent of those who held credit cards responded that they paid their credit card balance in full, e.g. they were a convenience user. The results showed that African American and Hispanic households were less likely than White households to be convenience users of credit cards. Older household heads were more likely to be convenience users of credit cards. Households with higher credit card interest rates and higher credit limits were more likely to be convenience users of credit cards. Compared to those with a college degree, those with a high school education or less and those with some college were less likely to be convenience users of credit cards.

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Introduction and Purpose

A credit card allows consumers to buy goods and services even though they might not have the money to pay for it right away. A credit card is a payment tool and a convenient source of credit (Garman & Fogue, 2006). The financial institutions that provide credit cards let the consumers spend up to an agreed dollar amount and consumers need to pay off what they've spent in a periodical fashion. The financial institution will charge a pre determined interest rate (annual percentage rate) which is based on the borrower's credit score. The funds available through the credit card can be used to make purchases or to withdraw cash. In summary, a credit card is a pre approved loan with flexible repayment options. It is distinguished from other financial instruments by the freedom it gives borrowers to determine the size of the loan and the pace at which it is repaid (Bird, Hagstrom & Wild, 1997).

According to Bird, Hagstrom and Wild (1997), when credit card holders have an outstanding credit card balance after the last monthly payment, they are known as revolving credit card users. Credit card users who pay the entire outstanding balance in their credit card balance and have a zero forwarding balance to the next month billing cycle are called convenience credit card users.

According to American Consumer Credit Counseling, the total U.S. credit card debt in the first quarter of 2002 was approximately \$60 billion. The average credit card interest rate is around 18.9%. Approximately half of all credit card holders pay only their minimum monthly requirements. In 2001, 59 percent of African American families and 53 percent of Hispanic families had credit cards, compared to 82 percent of white families. Although African American and Hispanic households have a lower rate of credit card ownership, African American and Hispanic cardholders are more likely to have credit card debt.

Studies on credit cards have focused on demographic characteristics of credit card users. For example, Bradford (2003) focused on low wealth African American families and their usage of credit cards. He also compared the low income households with White families and concluded that African American families owe less on credit cards and other non-secured debt than White families.

Although these studies are useful to understand the overall characteristics of credit card usage among Whites, African Americans and Hispanics, they do not provide much information about the factors that contribute to the amount of outstanding balances among different ethnic groups. The purpose of this study is to examine credit card usage among different ethnic groups and to identify factors affecting revolving versus convenience use. This study will use Bryant' exposition of consumption and borrowing (1990) and the life cycle hypothesis of savings (Ando & Modigliani, 1963) as a theoretical framework for studying credit card usage among ethnic groups.

Review of Literature

Credit card usage among African American Households.

Olney (1998) suggests that discrimination against African Americans could be a factor in the more limited access of credit by African-American families. According to Freddie Mac (1999) credit records

show that 48% of African Americans have a bad credit record, 16% have an indeterminate credit record while only 36% have a good credit score. Therefore, most financial institutions might consider African American customers as a high risk. Because of this, credit institutions are likely to charge higher interest rates to African Americans.

Compared to Whites, African Americans have less income and less net worth. A larger share of their expenditure is devoted for food, housing, apparel, transportation, and personal care products (Ards & Myers, 2001). African Americans use their credit to manage their expenditures. As a result they may be more likely to have an outstanding balance in their credit cards.

Credit card usage among Hispanic Households.

Hispanics' lack of financial knowledge might influence their credit ratings. According to Freddie Mac (1999), 34% of Hispanics were identified as having a bad credit score, 15% had indeterminate credit scores while 51% had a good credit score. According to Freddie Mac, African Americans and Hispanics are more likely to have bad credit, less likely to have good credit, and more likely to have indeterminate credit than White households.

Credit Card Debt among African American and Hispanic Households.

African American and Hispanic households are less likely to have a credit card than White families. In 2001, 59 percent of African American families and 53 percent of Hispanic families had a minimum of one credit card compared to 82 percent of white families (Manning, 2000). Eighty-three and a half percent of African Americans, 75.4% of Hispanics, and 50.7% of White families had an outstanding balance (Survey of Consumer Finances, 2001).

Based on previous research, the following hypotheses are formulated.

Hypotheses.

H1: White households are more likely to be a credit card convenient user compared to Hispanic or African American households.

H2: Older household heads are more likely to be a convenience user of credit cards.

H3: Compared to households who have a college degree, households with less education are less likely to be a convenience credit card user.

H4A: Compared to households who have a neutral attitude towards credit, households who have a bad attitude towards credit cards are more likely to be a convenience user of credit cards.

H4B: Compared to households who have a neutral attitude towards credit, households who have a good attitude towards credit cards are less likely to be a convenience user of credit cards.

H5: Households who use credit cards for leisure activity are less likely to be a convenience credit cards user.

H6: Households who are afraid of credit rejection are less likely to be a convenience user of credit cards.

H7: Households who have a larger outstanding balance are less likely to be a credit card convenience user.

H8: Those who hold more credit cards are less likely to be a convenience user of credit cards.

Methodology

Data and Sample

Data for the study were drawn from the 2001 Survey of Consumer Finances which is sponsored by the Board of Governors of the Federal Reserve System in corporation with the Statistics of Income Division of the Internal Revenue Services. The collection of the data was handled by the National Organization for Research at the University of Chicago. The data was collected using computer-assisted personal interviewing (Aizcorbe, Kennickell & Moore, 2003).

The Survey of Consumer Finance was conducted using a dual-frame sample design. The first set of observations consisted of 2,917 cases that provide good coverage of characteristics that are broadly distributed in the population. The second set of cases was selected from the statistical records derived by the Statistics of Income Division of the Internal Revenue Service. The second part of the sample was designed to disproportionately select families that were likely to be wealthy.

This study focuses on households who held at least one credit card. Also, the study investigated only White, African American, and Hispanic households. The sample size for this study consisted of 3,105 White, 263 African American, and 157 Hispanic heads of households. This was a total of 3,525 households.

Results

Sample Characteristics

Table 1 presents the weighted descriptive statistics for all the variables. Among households who hold at least one credit card, 54.30% were convenience users. The average age of the household heads was 49 years. Eighty-four percent of the households were headed by a White person while 10.27% were headed by an African American person, and 5.61% were headed by a Hispanic person.

Nearly 60% of the households had a high school education or less. On average, each household had 2.2 credit cards and an average credit limit of \$18,782. On average, the annual interest rate was 13.73%. Forty three percent of the households were neutral with regard to their attitude towards credit. Fifteen percent of the households responded that they would use credit cards for leisure activities. Eleven percent of the households said they would be rejected if they applied for credit.

ANOVA

The results of ANOVA to determine differences in averages of the continuous variables are shown in Table 2. White household heads were older than African American and Hispanic households. White household heads had completed more years of education than African American and Hispanic household heads. White households had more credit cards and higher credit card limits. There was no significant difference among the households in regard to the credit card interest rate and the amount of the outstanding balance.

Chi-Square Tests

The results of Chi-square tests to examine the relationships between categorical variables are shown in Table 3. White households were about twice as likely to be convenience users compared to African American and Hispanic households.

Hispanics were more likely to think that the use of credit was a good idea. African American and Hispanic households were more likely to use credit for leisure than were White households. African American households were more likely to expect to be rejected for credit compared to the other groups.

White households were more likely to make credit card payments on time. White households were more likely to have a college degree than other households.

Logistic Regression

A logistic regression was conducted to predict the likelihood of being a convenience user of credit cards. Age, race or ethnicity, education, interest rate, credit limit, fear of rejection, and number of cards were significant predictors of being a convenience user. As hypothesized, African American and Hispanic household heads were less likely than White household heads to be convenience users. This supports the first hypothesis.

Older household heads and those with a college degree were more likely to be convenience users. This supports the 2nd and 3rd hypothesis.

The general attitude toward credit and the preference for using credit for leisure were not significantly related to convenience use. Hence, the 4th and 5th hypotheses were not supported.

Compared to those who are not afraid of being rejected for credit, those who are afraid of being rejected were less likely to be convenience users. The relationship between the amount of the balance and being a convenience user was negative suggesting that those with smaller balances are more likely to be convenience users. Thus, hypotheses 6 and 7 were supported.

The 8th hypothesis which predicted a relationship between the number of cards and convenience use of credit cards was not supported. See Table 4 for results of the logistic regression.

Conclusions and Implications

Implications for Consumers, Educators, and Advisors.

Five of the eight hypotheses were supported. The fact that older households are more likely to be convenience users supports the life cycle model of consumption and Bryant's exposition theory. Older households are more likely than younger households to have established their households and to be accumulating savings for retirement. Therefore, they are less likely to pay interest on outstanding credit card balances. Observing that the heads of African American and Hispanic households were younger, on average, educators should put more emphasis on educating these consumers on the effective use of credit.

This study also found that education has an important impact on convenience use of credit. Educators should look for opportunities to provide resources for households with less education. It is important to help these households understand the terminology related to credit use and the factors that affect their credit scores. This includes learning about interest rates and the tendency of lenders to offer introductory teaser rates which often increase with little warning. Another skill that would be helpful would be learning how to search for better credit terms.

The fact that some consumers are afraid of being rejected for credit suggests that this might have happened in the past. Educators and community leaders should attempt to provide access to trustworthy lenders. This would help consumers to gain skill in using credit and become more comfortable with using financial institutions.

Limitations and Future Research

It would be interesting to include more variables such as financial planning horizon, employment status, and duration of using credit and how risk tolerance would influence the use of credit in each ethnic group.

Table 1
Weighted Descriptive Statistics and Coding of Variables in the 2001 SCF (N=3,525)

Variables	Coding	Mean (S.D) or Freq
Dependent Variables		
Do you pay the total credit card balance in your credit card.	1 if yes (a convenience user), 0 otherwise.	54.30%
Independent Variables		
<u>Demographic Characteristics</u>		
Ethnicity of the household	1 if White, 0 otherwise 2 if African American, 0 otherwise 3 if Hispanic, 0 otherwise	84.12% 10.27% 05.61%
Age	Continuous	49.39 (16.27)
Education		
College or more	1 if 16 years or more, 0 otherwise	22.17%
Some college	1 if between 13 and 15, 0 otherwise	16.70%
High School or less	1 if less than or = 12, 0 otherwise	61.70%
<u>Credit Attitude</u>		
Attitude towards credit	1 if good, 0 otherwise 1 if good or bad , 0 otherwise 1 if bad, 0 otherwise	29.06% 43.24% 27.70%
Using credit for leisure activity	1 if yes, 0 otherwise	15.46%
Fear of credit rejection	1 if turn down for credit, 0 otherwise	11.31%
<u>Use of Credit</u>		
Number of credit cards held	Continuous	2.20 (1.60)
Balances on credit cards	Continuous	\$1,977 (5,964)
Interest rate on credit cards	Continuous	13.73 (5.89)
Credit Limit	Continuous	\$18,782 (42,353)

Table 2: ANOVA Analysis of Means of Selected Characteristics of Credit card usage of White, African American and Hispanic Households in the 2001 SCF. (N=3,525)

Variables	Race			P- Value
	White (a)	African American (b)	Hispanic (c)	
Age of household head (ab, ac)	50.30 yrs	45.13 yrs	43.47 yrs	<.0001
Years of Education (ab, ac, bc)	9.45 yrs	5.98 yrs	7.67 yrs	<.0001
Number of Credit Cards (ab)	2.37	2.01	2.06	0.0225
Credit Card Limit (ab, ac)	\$20,596	\$9,048	\$9,448	<.0001
Credit Card Interest Rate	13.70%	13.96%	13.52%	0.6615
Credit Card Balance (ab, ac)	\$1958	\$1992	\$2236	0.8176

Note: The different pairs of letters a,b,c represent the means of the specific groups that are significantly different from each other at the 0.05% level.

Table 3: Unweighted Chi-square Analysis of Race and Credit Card Usage of Households in the 2001 SCF.(N=3,525)

Variables	White	Black	Hispanic	P-value
Use of credit card				<.0001
Revolver	30.21%	68.44%	64.33%	
Convenience	69.79%	31.56%	35.67%	
Attitude towards credit				<.0001
Good Idea	27.25%	38.02%	42.04%	
Good in some ways				
Bad in others	42.16%	44.11%	36.31%	
Bad idea	30.60%	17.87%	21.66%	
Use of Credit for leisure activity				<.0001
Yes	13.88%	20.91%	19.11%	
No	86.12%	79.09%	80.89%	
Fear of credit rejection				<.0001
Feared	06.28%	30.42%	17.83%	
Not feared	93.72%	69.58%	82.17%	
Credit card Balance payments				<.0001
Always	58.43%	32.56%	32.13%	
Sometimes	17.86%	19.95%	30.19%	
Never	22.78%	46.51%	35.09%	
Level of Education				<.0001
High school or less	46.76%	75.67%	73.25%	
Some College	17.49%	09.89%	15.29%	
College graduate or more	35.75%	14.45%	11.46%	

Table 4 Results of Logistic Regression for Likelihood of Being a Credit Card Convenience User in 2001 SCF (N = 3,525)

Variables	Parameter Estimates	Standard Error	Significance	Odds Ratio
Age	0.0260	0.0031	<.0001***	1.026
Race				
White (Reference)				
African American	-0.7360	0.1620	<.0001***	0.521
Hispanics	-0.5758	0.2001	<.0040**	0.519
Education				
High School or less	-0.7104	0.1172	<.0001***	0.491
Some College	-0.6168	0.1453	<.0001***	0.540
College Graduate or more (Reference)				
Attitude towards credit				
Good	-0.1437	0.1058	0.1857	0.866
Bad	0.1958	0.1127	0.0823	1.216
Good in someway Bad in others (Reference)				
Interest Rate	0.0409	0.0078	<.0001***	1.042
Credit Limit	0.0316	0.0032	<.0001***	1.032
Use of credit for leisure activity	-0.1576	0.1292	0.2226	0.156
Fear of credit rejection	-1.1602	0.1664	<.0001***	0.787
Credit card balance	-0.4221	0.0246	<.0001***	0.656
Number of credit cards	-0.0190	0.0392	0.6275	0.982
Intercept	-0.5203	0.2273	0.0221	

*p<.05 **p<.01, ***<.001

References

- Aizcorbe, A., Kennickell, A., & Moore, K. (2003). Recent changes in U.S. family finances: Evidence from the 1998 and 2001 Survey of Consumer Finance. *Federal Reserve Bulletin*, 89, 1-32.
- Ando, A., & Modigliani, F. (1963). The life cycle hypothesis of savings: Aggregate implications and tests, *American Economic Review*, 53, 55-84.
- Ards, S. D., & Meyers, S. L. (2001). The color of money. *The American Behavioral Scientist*, 45(2), 177-239.
- Bird, E., Hagstrom, P. A. & Wild, R. (1997). Credit cards and the poor. *Institute for Research on Poverty Discussion Paper*. 1188-1197.
- Bradford, W. (2003) The savings and credit management of low-income, low-wealth black and white families. *Economic Development Quarterly*, 17, 53-74.
- Bryant, W. K. (1990). *The Economic Organization of the household*. Cambridge: Cambridge University Press.
- Garman, E. T. & Fogue, R. E. (2006) *Personal Finance* (8th Edition.). Boston: Houghton Mifflin Company.
- Freddie Mac. (1999) Freddie Mac News Release. *Good credit*.
- Manning, R. D. (2000). *Credit Card Nation: The Consequences of America's Addiction to Credit*. New York: Basic Books.
- Olney, M. (1998). When your word is not enough: Race, collateral, and household credit. *Journal of Economic History*. 58(2), 408-31.
- Reading, R. & Shirley, R. (2001). Debt, social disadvantage, and maternal depression. *Social Science & Medicine*. 53, 441-453.

Endnotes

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