Reasons for Dealing with a Particular Bank in the State of Libya

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This section uses the results of a survey to find out how consumers evaluate banking services in the State of Libya. The survey contained a large number of variables, most of which are correlated. This paper tries to examine the relationships among the interrelated variables and represent them in terms of a few underlying factors. This is done through the use of the technique of Factor Analysis. This study represents an inquiry into consumers' evaluation of the banking system in Libya. A survey was conducted to collect information on a number of issues relating to the consumer's views on various aspects of the structure and performance of commercial banks operating in the State of Libya. The survey results were subjected to multivariate statistical analysis. The technique of factor analysis was used to analyze the relationships among the interrelated variables affecting consumers' choice of a particular commercial bank. The principal component method, with varimax rotation, is utilized to reduce the large number of explanatory variables to a few underlying factors.

Keywords: State of Libya, commercial bank, Factor Analysis, varimax rotation

Introduction

Libya, like many other Middle Eastern countries, has a dual banking system, i.e., interest-free financial organizations operating side-by-side with traditional (interest-based) banks. Libya has 14 banks: eight local conventional banks, one Islamic bank (i.e., operating according to Islamic laws which prohibit the payment of fixed interest on deposits and the charge of fixed interest on loans), and five branches of foreign conventional banks. The study is based on a number of hypotheses including:

1. The Libyan consumers are free to deal with any one (or more) of the commercial banks operating in the State.
2. The customers are aware of the services and terms of the various financial institutions operating in Libyan money market.

The type of services and modes of operations differ, to some extent, between different banks operating in Libya.

The paper is divided into six sections. Following the introduction, Section Two gives information about the used sample. Section Three briefly reviews the technique of factor analysis. Section Four gives reasons for dealing with a particular bank. The main statistical results are shown in Section Five. Finally, Section Six summarizes the main conclusions of the study.

The Sample

A survey was conducted during the months of June to August 2017 to find out how the consumers evaluate banking services in the State of Libya. A random sample, with 385 members, was selected.

The sample size was determined using the following assumptions:

1. A proportion (π) of 50%. This is the safest possible assumption.
2. A confidence level of 95%. This corresponds to a Z value of 1.96.
3. A precision rate of 0.05% within the confidence level.

Under these assumptions, the sample size will be given by:

$$n = \frac{Z^2 p(1-p)}{e^2}$$

$$n = \frac{(1.96)^2 (.5)(.5)}{(0.05)^2}$$

$$\approx 385$$

Hence, a sample size of 385 members was determined.

Methodology

Factor Analysis is unduly used by social scientists as a variable-reducing technique. This section briefly reviews the mathematics of this technique. The review is heavily based on the work developed by Muliak (1972) and summarized by Malhotra (2004).

Mathematically, Factor Analysis is somewhat similar to multiple regression analysis, in that each variable is expressed as a linear combination of underlying factors. The amount of variance one variable shares with all other variables included in the analysis is referred to as communality (Dillon & Goldstein, 1984; Bartholomew & Knott, 1999). The co-variation among the variables is described in terms of a small number of common factors plus a unique factor for each variable (Joreskog & Sorbom, 1979). These factors are not overtly observed. If the variables are standardized, the factor model may be represented as:

$$X_i = A_{i1}F_1 + A_{i2}F_2 + A_{i3}F_3 + \dots + A_{im}F_m + V_iU_i$$

where:

X_i = i th standardized variable;

A_{ij} = standardized multiple regression coefficient of variable i on common factor j ;

F_i = common factor;

V_i = standardized regression coefficient of variable i on unique factor i ;

U_i = the unique factor of variable i ;

M = number of common factors.

The unique factors are non-correlated with each other and with the common factors (The common factors themselves can be expressed as linear combinations of the observed variables).

$$F_i = W_{i1}X_1 + W_{i2}X_2 + W_{i3}X_3 + \dots + W_{ik}X_k$$

where:

F = estimate of its factor;

W_i = weight or factor score coefficient;
 k = number of variables.

It is possible to select weights or factor score coefficients so that the first factor explains the largest portion of the total variance (Manly, 1994; Lattin, Carroll, & Green, 2003). Then, a second set of weights can be selected, so that the second factor accounts for most of the residual variance, subject to being non-correlated with the first factor. This same principal could be applied to selecting additional weights for the additional factors (Metwally, 2000). Thus, the factors can be estimated so that their factor scores, unlike the values of the original variables, are not correlated. Furthermore, the first factor accounts for the highest variance in the data, the second factor the second highest, and so on.

In the Factor Analysis Model, hypothetical components are derived that account for the linear relationship between observed variables (Harman, 1967; Ding, 1999). The model requires that the relationships between observed variables be linear and that the variables have non-zero correlation between them. The derived hypothetical components have the following properties:

1. They form a linearly independent set of variables. No hypothetical component is derivable from the other hypothetical components as a linear combination of them.
2. The hypothetical components' variables can be divided into two basic kinds of components: common factors and unique factors. These two components can be distinguished in terms of the patterns of weights in the linear equations that derive the observed variables from the hypothetical components' variables. A common factor has more than one variable with a non-zero weight or factor loading associated with the factor. A unique factor has only one variable with a non-zero weight associated with the factor. Hence, only one variable depends upon a unique factor.
3. Common factors are always assumed to be non-correlated with the unique factors. Unique factors are also usually assumed to be mutually non-correlated, but common factors may or may not be correlated with each other.
4. Generally, it is assumed that there are fewer common factors than observed variables. However, the number of unique factors is usually assumed to be equal to the number of observed variables.

The following notations are used:

$X = An$ $n \times 1$ random vector of observed random variables $X_1, X_2, X_3, \dots, X_n$. It is assumed that $E(X) = 0$, and $E(XX') = R_{xx'}$, a correlation matrix with units in the main diagonal.

$F = An$ $m \times 1$ vector of m common factors $F_1, F_2, \dots, F_m$. It is assumed that $E(F) = 0$, and $E(FF') = R_{ff'}$, a correlation matrix.

$U = An$ $n \times 1$ random vector of the n unique factors variables $U_1, U_2, \dots, U_n$. It is assumed that $E(U) = 0$, and $E(UU') = I$. The unique factors are normalized to have unit variances and are mutually non-correlated.

$A = An$ $n \times m$ matrix of coefficients called the factor pattern matrix.

$V = An$ $n \times n$ diagonal matrix of coefficients for the unique factors.

The observed variables, which are the coordinates of X , are weighted combinations of the common factors and the unique factors.

The fundamental equation of factor analysis can then be written as:

$$X = AF + VU$$

The correlation coefficients between variables in terms of the factors may be derived as follows:

$$\begin{aligned}
R_{xx} &= E(XX') \\
&= E\{(AF + VU)(AF + VU)'\} \\
&= E\{(AF + VU)(F'A' + U'V')\} \\
&= E(AFF'A' + AFU'V' + VUF'A' + VUU'V') \\
&= AR_{ff}A' + AR_{fu}V' + VR_{uf}A' + V^2
\end{aligned}$$

Given that the common factors are non-correlated with the unique factors, we have:

$$R_{fu} = R_{uf}' = 0.$$

Hence,

$$R_{xx} = AR_{ff}A' + V^2$$

Suppose we subtract the matrix of unique factor variance V^2 , from both sides. We then obtain:

$$R_{xx} - V^2 = AR_{ff}A'$$

R_{xx} is dependent only upon the common factor variables, and the correlation among the variables, are related only to the common factors. Let

$$R_c = R_{xx} - V^2$$

We have already defined the factor pattern matrix A . The coefficients of the factor pattern matrix are weights assigned to the common factors when the observed variables are expressed as linear combinations of the common and unique factors. We now define the factor structure matrix. The coefficients of the factor structure matrix are the covariances between the observed variables and the factors. The factor structure matrix is helpful in the interpretation of factors as it shows which variables are similar to a common factor variable (Tacq, 1997; Wichern, 2001). The factor structure matrix A_s , is defined as:

$$\begin{aligned}
A_s &= E(XF') \\
&= E[(AF + VU)F'] \\
&= AR_{ff} + VR_{uf} \\
&= AR_{ff}
\end{aligned}$$

Thus, the factor structure matrix is equivalent to the factor pattern matrix A multiplied by the matrix of covariance's among the factors R_{ff} . Substituting A_s for AR_{ff} , the reduced correlation matrix becomes the product of the factor structure and the factor pattern matrix (Johnson & Wichern, 2002).

$$\begin{aligned}
R_c &= AR_{ff}A' \\
&= A_sA'
\end{aligned}$$

Reasons for Dealing With a Particular Bank

This section uses the results of the survey to find out how consumers evaluate banking services in the State of Libya. The survey contained a large number of variables, most of which are correlated. This section tries to examine the relationships among the interrelated variables and represent them in terms of a few underlying factors. This is done through the use of the technique of Factor Analysis.

Respondents were asked to indicate their degree of agreement with 26 statements relating to their preferences for dealing with a particular bank, using a seven-point scale. The survey results were analyzed using the SPSS program (Coakes & Steed, 1999). Table 1 gives the means and standard deviations of scores of variables related to consumers' preferences. The data in Table 1 suggest that cost of keeping a current account (V17); Return on deposits (V16), and Staff confidence (V3) score relatively higher than other variables. Other variables that score relatively high are bank appearance (V5); easiness to obtain loans (V2), and bank

reputation (V4), on the other hand, the mean score of variables 14 and 10, which relate to easiness to deposit and withdraw and speed of services are much smaller than other scores. The standard deviation was highest for variable V18 (easiness to transfer money abroad). Other variables which have relatively high standard deviations are V22 (bank location) and (V1) (number of branches). On the other hand, the variable V14 (easiness to deposit and withdraw) has the lowest standard deviation. Other variables which have relatively low standard deviations are V19 (staff assistance) and V19 (interest on loans).

Statistical Results

The main results of Factor Analysis are given in Tables 2 to 11. An investigation of the results would seem to suggest that:

1. All coefficients on the diagonals of the Anti-image correlation matrix (see Table 2) are greater than 0.5. Therefore, no variable should be eliminated.
2. The correlation matrix (see Table 3) shows that 250 correlation coefficients out of 300 coefficients (i.e., 83.3%) are statistically significant at, at least, the 5% level of significance.
3. Table 3 also shows that each variables has a highly significant correlation coefficient with more than one of the other variables. This suggests adequacy of the factor mode.

Table 1

Means and Standard Deviations of Scores of Variables Related to Bank Services in Libya Descriptive Statistics

	<i>Mean</i>	<i>Std. Deviation</i>	<i>Analysis N</i>	
V1	4.1013	1.7283	385	Number of branches
V2	4.6519	1.7893	385	Easiness to obtain loans
V3	3.7351	1.5720	385	Staff competence
V4	4.6519	1.3163	385	Bank reputation
V5	4.6649	1.3266	385	Bank appearance
V6	4.5039	1.3270	385	Community service
V7	4.2494	1.3675	385	The bank is known abroad
V8	5.0519	1.3258	385	Size of the bank
V9	4.8727	1.2837	385	Interest on loans
V10	3.2260	1.4942	385	Speed of services
V11	4.3221	1.3249	385	Advertising
V12	3.3039	1.4374	385	Banking facilities
V13	3.3662	1.4337	385	Easiness to open a current account
V14	3.1766	1.2353	385	Easiness to deposit and withdraw
V15	4.2338	1.3683	385	Relatives and friends recommendations
V16	5.1636	1.2917	385	Return on deposits
V17	5.1740	1.2741	385	Cost of keeping a current account
V18	3.6234	1.8543	385	Easiness to transfer money abroad
V19	3.3429	1.2673	385	Staff assistance
V20	3.9169	1.5707	385	Religious reasons
V21	3.6208	1.5075	385	Afternoon service
V22	4.1558	1.7623	385	Bank location
V23	3.9039	1.6484	385	Variety of services
V24	3.9662	1.6302	385	Easiness to read bank statements
V25	3.9065	1.6062	385	Available accounts
V26	3.9662	1.6635	385	Electronic services

4. Bartlett's test of sphericity was used to test the null hypothesis that the variables are non-correlated in the population. The test gave a value of 16154.9 which is highly significant favoring a rejection of the null hypothesis (Goldstein, 1984; Dunteman, 1989). Also, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was calculated. A value of 0.896 was obtained which indicates that correlations between pairs of variables can be explained by other variables and hence Factor Analysis is appropriate (Hair, Anderson, Joseph, Tatham, & Blach, 2004). Actually, a KMO value of 0.896 is considered "marvelous".

5. The variance statistics (see Table 7) suggest that there are only five factors with an eigenvalue greater than one. The five factors account for 83.3%. This is a high percentage which suggests adequacy of the factor model.

6. The factor loadings (see Table 8) give the relationship between variables and factors. For example, speed of services (V10) rating can be expressed as:

$$V10 = 0.788 F_1 + 0.315 F_2 - 0.372 F_3 + 0.123 F_4 - 0.107 F_5$$

Advertising (V11) rating can be expressed as:

$$V11 = 0.319 F_1 + 0.785 F_2 + 0.269 F_3 - 0.9626 F_4 - 0.189 F_5$$

7. The upper right triangle in the reproduced correlation matrix represents the residuals, i.e., the difference between the observed correlation coefficient and that estimated from the model. The magnitudes of the residuals indicate how well the fitted model reproduces the observed correlations (Morrison, 2005). The results reveal that only 17% of the residuals are greater than 0.05 (in absolute value). This suggests goodness of fit.

Although the initial or non-rotated factor matrix indicates the relationship between the factors and individual variables, it does not result in factors which can be interpreted (Myers & Mullet, 2003). For example, Factor 1 in Table 8 is highly correlated with 15 out of the 26 variables. In such a complex matrix, it is difficult to interpret the factors. Therefore, through rotation, the factor matrix is transformed into a simpler one that is easier to interpret.

The rotated factors matrix obtained by the varimax procedure (see Table 10) suggests that:

Factor 1 has high coefficients for the variables which represent:

V1: Number of branches;

V2: Easiness to obtain loans;

V21: Afternoon service;

V22: Bank location;

V23: Variety of services;

V24: Easiness to read bank statements;

V25: Available accounts;

V26: Electronic services.

Therefore, this factor may be labeled "convenience".

Factor 2 has high coefficients for the variables which represent:

V3: Staff competence;

V10: Speed of services;

V12: Banking facilities;

V13: Easiness to open a current account;

V14: Easiness to deposit and withdraw;

V18: Easiness to transfer money abroad;

V19: Staff assistance.

Therefore, this factor may be labeled “traditional services”.

Factor 3 has high coefficients for the variables which represent:

V4: Bank reputation;

V5: Bank appearance;

V6: Community service;

V7: The bank is known abroad;

V8: Size of the bank;

V11: Advertising;

V15: Relatives and friends recommendations.

Therefore, this factor may be labeled “reputation”.

Factor 4 has high coefficients for the variables which represent:

V9: Interest on loans;

V16: Return on deposits;

V17: Cost of keeping a current account.

Therefore, this factor may be labeled “cost-return”.

Finally, Factor 5 is highly related to the variables representing religion (V20). Hence, this factor may be labeled “religion”.

Thus, using the principal component method and varimax rotation, the 26 explanatory variables for dealing with a particular bank, have been reduced to the following five factors:

F1: Convenience;

F2: Traditional services;

F3: Reputation;

F4: Cost-return;

F5: Religion.

Results of Factor Analysis

Table 2

Anti-image Matrices

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
Anti-image Covariance	V1	5.89 6E-0 2	1.60 5E-0 3	-8.7 55E- 03	1.23 9E-0 2	-2.0 12E- 03	2.05 9E-0 2	-2.0 25E- 03	-4.1 44E- 02	7.94 3E-0 3	-3.2 16E- 04	-3.3 20E- 03	1.15 9E-0 4	-2.6 40E- 03	1.31 6E-0 2	-2.0 59E- 03	1.37 9E-0 4	-5.8 89E- 04	6.69 3E-0 3	-4.3 31E- 03	2.36 1E-0 3	1.26 4E-0 2	-3.6 19E- 02	-2.4 58E- 02	-2.9 09E- 02	-1.6 77E- 03	-3.5 73E- 03
	V2	1.60 5E-0 3	0.18 4	5.85 2E-0 4	2.52 8E-0 2	-6.2 17E- 03	-3.1 09E- 02	4.07 6E-0 3	-3.1 36E- 02	2.47 6E-0 3	3.96 3E-0 3	-8.1 84E- 03	-1.0 29E- 03	5.82 7E-0 3	2.62 5E-0 2	2.93 9E-0 2	-1.5 00E- 04	-1.3 17E- 03	-1.0 37E- 02	-7.9 02E- 03	-0.1 42	1.66 4E-0 2	-1.3 95E- 02	-3.6 01E- 02	-1.9 02E- 02	1.70 4E-0 2	-3.2 37E- 02
	V3	-8.7 55E- 03	5.85 2E-0 4	0.21 9	-1.0 65E- 03	-9.3 51E- 03	1.39 5E-0 2	-1.1 00E- 02	-1.2 92E- 03	5.82 9E-0 2	1.43 5E-0 3	1.15 9E-0 2	-1.7 08E- 03	-4.6 67E- 03	4.03 0E-0 2	-2.5 40E- 02	-2.0 38E- 03	3.38 7E-0 4	-3.8 85E- 03	-6.2 83E- 02	-5.1 98E- 03	8.38 0E-0 3	1.11 9E-0 2	-2.2 50E- 02	1.63 9E-0 2	-8.3 57E- 04	-1.0 19E- 03
	V4	1.23 9E-0 2	2.52 8E-0 2	-1.0 65E- 03	7.57 5E-0 2	-5.2 55E- 02	1.76 5E-0 2	-3.6 05E- 03	-5.2 80E- 02	-1.6 35E- 02	1.31 4E-0 3	-1.3 83E- 02	8.39 1E-0 4	-8.1 76E- 04	3.41 8E-0 2	-2.6 99E- 02	-2.2 69E- 04	6.13 0E-0 4	-7.7 57E- 03	4.26 0E-0 4	-1.1 68E- 02	-1.3 40E- 03	-1.3 78E- 02	-1.9 84E- 02	2.95 2E-0 3	-2.2 78E- 03	1.14 9E-0 3
	V5	-2.0 12E- 03	-6.2 17E- 03	-9.3 51E- 03	-5.2 55E- 02	9.68 0E-0 2	2.28 3E-0 3	-5.4 21E- 04	-1.1 28E- 02	-1.6 39E- 02	-4.9 97E- 04	-1.3 19E- 02	5.40 1E-0 4	1.09 4E-0 2	-2.0 69E- 02	-3.3 68E- 02	-5.2 71E- 04	1.18 2E-0 3	-1.6 11E- 02	-3.6 60E- 02	4.51 7E-0 3	-4.9 72E- 03	2.25 6E-0 3	1.47 4E-0 2	-1.4 44E- 03	3.90 1E-0 3	-7.6 02E- 03
	V6	2.05 9E-0 2	-3.1 09E- 02	1.39 5E-0 2	1.76 5E-0 2	2.28 3E-0 3	0.26 9	-6.6 35E- 02	-9.9 69E- 02	-4.4 66E- 02	1.10 9E-0 3	1.65 9E-0 2	3.66 4E-0 4	-5.5 82E- 04	4.61 8E-0 3	-2.6 18E- 02	-3.6 08E- 04	1.58 8E-0 3	-4.6 64E- 03	1.99 0E-0 3	-3.4 50E- 02	-1.5 96E- 02	-7.8 56E- 03	-1.0 10E- 02	1.23 7E-0 2	-3.2 16E- 03	6.69 5E-0 3
	V7	-2.0 25E- 03	4.07 6E-0 3	-1.1 00E- 02	-3.6 05E- 03	-5.4 21E- 04	-6.6 35E- 02	8.04 9E-0 2	2.82 2E-0 2	6.92 9E-0 3	-2.5 81E- 03	-5.4 84E- 02	-1.4 34E- 03	1.95 5E-0 3	-2.6 67E- 03	2.46 6E-0 2	3.82 4E-0 4	-6.7 00E- 04	-4.6 72E- 04	-1.7 38E- 05	1.55 6E-0 2	1.53 8E-0 3	2.87 9E-0 3	5.14 5E-0 3	-3.6 33E- 03	2.48 2E-0 3	-2.4 38E- 03
	V8	-4.1 44E- 02	-3.1 36E- 02	-1.2 92E- 03	-5.2 80E- 02	-1.1 28E- 02	-9.9 69E- 02	2.82 2E-0 2	0.25 2	4.80 9E-0 2	4.84 8E-0 4	-6.1 27E- 03	-1.5 74E- 03	2.15 6E-0 3	-1.7 61E- 02	3.90 5E-0 2	-5.6 26E- 04	-1.0 24E- 03	4.79 7E-0 3	-4.4 02E- 04	-3.5 31E- 02	2.99 8E-0 2	2.82 4E-0 2	3.61 9E-0 2	-7.4 43E- 03	-1.2 88E- 03	6.85 5E-0 4
	V9	7.94 3E-0 3	2.47 6E-0 2	5.82 9E-0 2	-1.6 35E- 02	-1.6 39E- 02	-4.4 66E- 02	6.92 9E-0 3	4.80 9E-0 2	0.23 5	6.76 3E-0 3	-3.9 37E- 03	-4.4 36E- 03	2.02 5E-0 3	9.38 9E-0 3	-1.5 00E- 02	-1.2 26E- 03	-6.9 51E- 03	4.29 7E-0 3	-3.5 41E- 02	-5.0 33E- 02	4.97 5E-0 4	1.08 5E-0 2	8.39 2E-0 3	-2.4 57E- 02	5.22 6E-0 3	-6.8 03E- 03
	V10	-3.2 16E- 04	3.96 3E-0 3	1.43 5E-0 3	1.31 4E-0 3	-4.9 97E- 04	1.10 9E-0 3	-2.5 81E- 03	4.84 8E-0 4	6.76 3E-0 3	4.79 6E-0 2	-8.7 74E- 04	-2.0 56E- 02	7.67 0E-0 3	5.60 0E-0 3	2.02 8E-0 3	9.06 4E-0 6	2.58 9E-0 4	-1.8 14E- 03	-2.8 61E- 03	-1.7 27E- 03	2.26 8E-0 3	-8.8 27E- 04	-1.0 16E- 03	-1.9 07E- 03	5.42 7E-0 4	-1.3 86E- 03
	V11	-3.3 20E- 03	-8.1 84E- 02	1.15 9E-0 2	-1.3 83E- 02	-1.3 19E- 02	1.65 9E-0 2	-5.4 84E- 03	-6.1 27E- 03	-3.9 37E- 04	-8.7 74E- 04	6.91 1E-0 2	1.36 1E-0 3	-9.2 56E- 03	-4.1 71E- 03	-1.6 36E- 02	-6.9 78E- 05	-3.9 64E- 02	1.27 0E-0 2	3.35 1E-0 2	5.03 7E-0 3	1.44 2E-0 3	5.91 9E-0 3	-4.6 56E- 03	2.57 7E-0 3	-1.3 89E- 03	3.68 4E-0 3
	V12	1.15 9E-0 4	-1.0 29E- 03	-1.7 08E- 03	8.39 1E-0 4	5.40 1E-0 4	3.66 4E-0 4	-1.4 34E- 03	-1.5 74E- 03	-4.4 36E- 03	-2.0 56E- 02	1.36 1E-0 3	1.33 7E-0 2	-6.6 70E- 03	-4.0 85E- 05	-3.9 31E- 03	1.36 4E-0 4	-2.2 92E- 04	-9.3 54E- 04	2.16 9E-0 3	3.04 2E-0 4	-1.9 13E- 04	2.37 2E-0 4	-2.3 12E- 04	5.46 3E-0 4	4.00 4E-0 5	-1.2 76E- 04
	V13	-2.6 40E- 03	5.82 7E-0 3	-4.6 67E- 03	-8.1 76E- 04	1.09 4E-0 2	-5.5 82E- 04	1.95 5E-0 3	2.15 6E-0 3	2.02 5E-0 3	7.67 0E-0 3	-9.2 56E- 03	-6.6 70E- 03	1.17 2E-0 2	-1.3 28E- 02	2.77 8E-0 3	5.95 8E-0 6	2.07 7E-0 5	-1.1 86E- 02	-1.7 79E- 02	-1.0 39E- 02	-4.8 73E- 03	1.94 6E-0 3	7.51 2E-0 3	-9.8 73E- 04	1.45 9E-0 3	-3.0 31E- 03

(Table 2 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
	V14	1.31 6E-0 2	2.62 5E-0 2	4.03 0E-0 2	3.41 8E-0 2	-2.0 69E- 02	4.61 8E-0 3	-2.6 67E- 03	-1.7 61E- 02	9.38 9E-0 3	5.60 0E-0 3	-4.1 71E- 03	-4.0 85E- 05	-1.3 28E- 02	0.13 1	-3.8 34E- 02	-6.1 55E- 04	5.37 7E-0 4	2.66 6E-0 3	-7.3 11E- 03	-2.8 77E- 02	1.13 0E-0 2	-7.2 16E- 02	-3.5 75E- 02	-1.1 17E- 02	-1.2 35E- 03	2.50 7E-0 3
	V15	-2.0 59E- 03	2.93 9E-0 2	-2.5 40E- 02	-2.6 99E- 02	-3.3 68E- 02	-2.6 18E- 02	2.46 6E-0 2	3.90 5E-0 2	-1.5 00E- 02	2.02 8E-0 3	-1.6 36E- 02	-3.9 31E- 03	2.77 8E-0 3	-3.8 34E- 02	0.67 3	1.10 6E-0 2	-9.5 51E- 03	1.57 9E-0 2	4.97 2E-0 3	-6.8 89E- 03	4.50 2E-0 3	-2.3 30E- 02	1.70 6E-0 2	-2.7 63E- 03	-3.1 10E- 03	3.18 2E-0 3
	V16	1.37 9E-0 4	-1.5 00E- 04	-2.0 38E- 03	-2.2 69E- 04	-5.2 71E- 04	-3.6 08E- 04	3.82 26E- 4	-5.6 26E- 03	-1.2 26E- 4	9.06 4E-0 6	-6.9 78E- 05	1.36 4E-0 4	5.95 8E-0 6	-6.1 55E- 04	1.10 6E-0 2	1.20 9E-0 2	-1.1 02E- 02	-1.8 02E- 04	1.29 2E-0 3	-5.5 44E- 04	-4.5 08E- 05	-3.7 64E- 04	1.44 9E-0 4	-1.6 58E- 04	-1.7 60E- 06	-2.2 61E- 05
	V17	-5.8 89E- 04	-1.3 17E- 03	3.38 7E-0 4	6.13 0E-0 4	1.18 2E-0 3	1.58 8E-0 3	-6.7 00E- 04	-1.0 24E- 03	-6.9 51E- 03	2.58 9E-0 4	-3.9 64E- 04	-2.2 92E- 04	2.07 7E-0 5	5.37 7E-0 4	-9.5 51E- 03	-1.1 67E- 02	1.17 8E-0 4	4.74 1E-0 5	-1.3 68E- 03	2.79 2E-0 5	3.26 5E-0 5	-3.0 60E- 04	-4.2 18E- 04	1.00 4E-0 4	-2.5 71E- 04	3.76 8E-0 4
	V18	6.69 3E-0 3	-1.0 37E- 02	-3.8 85E- 03	-7.7 57E- 03	-1.6 11E- 02	-4.6 64E- 03	-4.6 72E- 04	4.79 7E-0 3	4.29 7E-0 3	-1.8 14E- 03	1.27 0E-0 2	-9.3 54E- 04	-1.1 86E- 02	2.66 6E-0 3	1.57 9E-0 2	-1.8 02E- 04	4.74 1E-0 4	2.86 5E-0 2	2.34 0E-0 2	1.47 1E-0 2	9.99 6E-0 3	-6.6 46E- 03	-8.3 44E- 03	-1.2 94E- 03	-1.8 30E- 03	3.67 7E-0 3
	V19	-4.3 31E- 03	-7.9 02E- 03	-6.2 83E- 02	4.26 0E-0 4	-3.6 60E- 02	1.99 0E-0 3	-1.7 38E- 05	-4.4 02E- 04	-3.5 41E- 02	-2.8 61E- 03	3.35 1E-0 2	-1.7 9E-0 3	-1.1 79E- 02	-7.3 11E- 03	4.97 2E-0 3	1.29 2E-0 3	-1.3 68E- 03	2.34 0E-0 2	0.13 0	7.85 7E-0 3	-1.9 13E- 03	2.72 0E-0 3	-1.8 96E- 02	1.37 4E-0 2	-3.2 29E- 04	4.50 5E-0 3
	V20	2.36 1E-0 3	-0.1 42	-5.1 98E- 03	-1.1 68E- 02	4.51 7E-0 3	-3.4 50E- 02	1.55 6E-0 2	-3.5 31E- 02	-5.0 33E- 02	-1.7 27E- 03	5.03 7E-0 3	3.04 2E-0 4	-1.0 39E- 02	-2.8 77E- 02	-6.8 89E- 03	-5.5 44E- 04	2.79 2E-0 3	1.47 1E-0 2	7.85 7E-0 3	0.29 5	-1.1 08E- 02	-3.2 04E- 03	3.26 3E-0 2	1.69 4E-0 2	-2.2 06E- 02	3.76 2E-0 2
	V21	1.26 4E-0 2	1.66 4E-0 2	8.38 0E-0 3	-1.3 40E- 03	-4.9 72E- 03	-1.5 96E- 02	1.53 8E-0 3	2.99 8E-0 2	4.97 5E-0 4	2.26 8E-0 3	1.44 2E-0 3	-1.9 13E- 04	-4.8 73E- 03	1.13 0E-0 2	4.50 2E-0 3	-4.5 08E- 05	3.26 5E-0 5	9.99 6E-0 3	-1.9 13E- 03	-1.1 08E- 02	0.12 5	2.23 5E-0 2	-5.8 72E- 02	-5.0 83E- 02	-2.1 13E- 02	5.95 0E-0 4
	V22	-3.6 19E- 02	-1.3 95E- 02	1.11 9E-0 2	-1.3 78E- 02	2.25 6E-0 3	-7.8 56E- 03	2.87 9E-0 3	2.82 4E-0 2	1.08 5E-0 2	-8.8 27E- 04	5.91 9E-0 3	2.37 2E-0 4	1.94 6E-0 3	-7.2 16E- 03	-2.3 30E- 02	-3.7 64E- 04	-3.0 60E- 04	-6.6 46E- 03	2.72 0E-0 3	-3.2 04E- 03	2.23 5E-0 2	8.00 8E-0 2	-1.8 54E- 02	-1.8 85E- 02	-3.1 02E- 03	-3.3 68E- 04
	V23	-2.4 58E- 02	-3.6 01E- 02	-2.2 50E- 02	-1.9 84E- 02	1.47 6E-0 2	-1.0 10E- 02	5.14 5E-0 3	3.61 9E-0 2	8.39 2E-0 3	-1.0 16E- 03	-4.6 56E- 03	-2.3 12E- 04	7.51 2E-0 3	-3.5 75E- 02	1.70 6E-0 2	1.44 9E-0 4	-4.2 18E- 03	-8.3 44E- 03	-1.8 96E- 02	3.26 3E-0 2	-5.8 72E- 02	-1.8 54E- 02	0.11 0	1.96 1E-0 2	-8.1 39E- 04	8.89 8E-0 3
	V24	-2.9 09E- 02	-1.9 02E- 02	1.63 9E-0 3	2.95 2E-0 3	-1.4 44E- 03	1.23 7E-0 2	-3.6 33E- 03	-7.4 43E- 03	-2.4 57E- 02	-1.9 07E- 03	2.57 7E-0 3	5.46 3E-0 4	-9.8 73E- 04	-1.1 17E- 02	-2.7 63E- 03	-1.6 58E- 04	1.00 4E-0 3	-1.2 94E- 03	1.37 4E-0 2	1.69 4E-0 2	-5.0 83E- 02	-1.8 85E- 02	1.96 1E-0 2	9.69 5E-0 2	-4.7 45E- 03	5.39 6E-0 3
	V25	-1.6 77E- 03	1.70 4E-0 2	-8.3 57E- 04	-2.2 78E- 03	3.90 1E-0 3	-3.2 16E- 03	2.48 2E-0 3	-1.2 88E- 03	5.22 6E-0 3	5.42 7E-0 4	-1.3 89E- 03	4.00 4E-0 5	1.45 9E-0 3	-1.2 35E- 03	-3.1 10E- 03	-1.7 60E- 06	-2.5 71E- 04	-1.8 30E- 03	-3.2 29E- 04	-2.2 06E- 02	-2.1 13E- 03	-3.1 02E- 03	-8.1 39E- 04	-4.7 45E- 03	4.41 8E-0 2	-3.8 95E- 02
	V26	-3.5 73E- 03	-3.2 37E- 02	-1.0 19E- 03	1.14 9E-0 3	-7.6 02E- 03	6.69 5E-0 3	-2.4 38E- 03	6.85 5E-0 4	-6.8 03E- 03	-1.3 86E- 03	3.68 4E-0 3	-1.2 76E- 04	-3.0 31E- 03	2.50 7E-0 3	3.18 2E-0 3	-2.2 61E- 05	3.76 8E-0 4	3.67 7E-0 3	4.50 5E-0 3	3.76 2E-0 4	5.95 0E-0 4	-3.3 8E-0 3	8.89 6E-0 3	5.39 6E-0 3	-3.8 95E- 02	4.84 2E-0 2

(Table 2 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
Anti-image Correlation	V1	0.88 3	1.54 2E-0 2	-7.7 03E- 02	0.18 5	-2.6 64E- 02	0.16 4	-2.9 39E- 02	-0.3 40	6.74 3E-0 2	-6.0 47E- 03	-5.2 02E- 02	4.12 9E-0 3	-0.1 00	0.15 0	-1.0 34E- 02	5.16 4E-0 3	-2.2 35E- 02	0.16 3	-4.9 45E- 02	1.79 0E-0 2	0.14 7	-0.5 27	-0.3 06	-0.3 85	-3.2 85E- 02	-6.6 88E- 02
	V2	1.54 2E-0 2	0.84 3	2.91 7E-0 3	0.21 4	-4.6 62E- 02	-0.1 40	3.35 2E-0 2	-0.1 46	0.11 9	4.22 2E-0 2	-7.2 63E- 02	-2.0 77E- 02	0.12 6	0.16 9	8.36 0E-0 2	-3.1 83E- 03	-2.8 31E- 02	-0.1 43	-5.1 11E- 02	-0.6 12	0.11 0	-0.1 15	-0.2 54	-0.1 43	0.18 9	-0.3 43
	V3	-7.7 03E- 02	2.91 7E-0 3	0.93 5	-8.2 68E- 03	-6.4 21E- 02	5.74 7E-0 2	-8.2 81E- 02	-5.5 03E- 03	0.25 7	1.40 0E-0 2	9.42 0E-0 2	-3.1 56E- 02	-9.2 10E- 02	0.23 8	-6.6 14E- 02	-3.9 60E- 02	6.66 8E-0 3	-4.9 04E- 02	-0.3 72	-2.0 44E- 02	5.05 8E-0 2	8.45 1E-0 2	-0.1 45	0.11 2	-8.4 93E- 03	-9.8 89E- 03
	V4	0.18 5	0.21 4	-8.2 68E- 03	0.81 1	-0.6 14	0.12 4	-4.6 17E- 02	-0.3 82	-0.1 22	2.18 1E-0 2	-0.1 91	2.63 7E-0 2	-2.7 44E- 02	0.34 3	-0.1 20	-7.4 97E- 03	2.05 2E-0 2	-0.1 67	4.29 1E-0 3	-7.8 13E- 02	-1.3 75E- 02	-0.1 77	-0.2 18	3.44 5E-0 2	-3.9 38E- 02	1.89 8E-0 2
	V5	-2.6 64E- 02	-4.6 62E- 02	-6.4 21E- 02	-0.6 14	0.81 8	1.41 5E-0 2	-6.1 41E- 03	-7.2 32E- 02	-0.1 09	-7.3 34E- 03	-0.1 61	1.50 1E-0 2	0.32 5	-0.1 84	-0.1 32	-1.5 41E- 02	3.50 0E-0 2	-0.3 06	-0.3 26	2.67 2E-0 2	-4.5 15E- 02	2.56 3E-0 3	0.14 3	-1.4 90E- 02	5.96 6E-0 2	-0.1 11
	V6	0.16 4	-0.1 40	5.74 7E-0 2	0.12 4	1.41 5E-0 2	0.85 4	-0.4 51	-0.3 83	-0.1 78	9.76 3E-0 3	0.12 2	6.11 1E-0 3	-9.9 43E- 03	2.45 8E-0 2	-6.1 54E- 02	-6.3 28E- 03	2.82 3E-0 2	-5.3 14E- 02	1.06 4E-0 2	-0.1 22	-8.6 94E- 02	-5.3 54E- 02	-5.8 77E- 02	7.66 3E-0 2	-2.9 50E- 02	5.86 7E-0 2
	V7	-2.9 39E- 02	3.35 2E-0 2	-8.2 81E- 02	-4.6 17E- 02	-6.1 41E- 03	-0.4 51	0.81 6	0.19 8	5.03 5E-0 2	-4.1 54E- 02	-0.7 35	-4.3 73E- 02	6.36 6E-0 2	-2.5 95E- 02	0.10 6	1.22 6E-0 2	-2.1 76E- 02	-9.7 29E- 03	-1.6 99E- 04	0.10 1	1.53 2E-0 2	3.58 6E-0 2	5.47 4E-0 2	-4.1 13E- 02	4.16 2E-0 2	-3.9 05E- 02
	V8	-0.3 40	-0.1 46	-5.5 03E- 03	-0.3 82	-7.2 32E- 02	-0.3 83	0.19 8	0.79 0	0.19 8	4.41 4E-0 3	-4.6 47E- 02	-2.7 13E- 02	3.97 2E-0 2	-9.6 90E- 02	9.49 0E-0 2	-1.0 20E- 02	-1.8 82E- 02	5.65 1E-0 2	-2.4 33E- 03	-0.1 30	0.16 9	0.19 9	0.21 8	-4.7 66E- 02	-1.2 21E- 02	6.21 1E-0 3
	V9	6.74 3E-0 2	0.11 9	0.25 7	-0.1 22	-0.1 09	-0.1 78	5.03 5E-0 2	0.19 8	0.85 2	6.36 6E-0 2	-3.0 87E- 02	-7.9 08E- 02	3.85 7E-0 2	5.34 1E-0 2	-3.7 69E- 02	-2.2 98E- 02	-0.1 32	5.23 3E-0 2	-0.2 02	-0.1 91	2.89 8E-0 3	7.90 6E-0 2	5.22 1E-0 2	-0.1 63	5.12 5E-0 2	-6.3 73E- 02
	V10	-6.0 47E- 03	4.22 2E-0 2	1.40 0E-0 2	2.18 1E-0 3	-7.3 34E- 03	9.76 3E-0 3	-4.1 54E- 02	4.41 4E-0 3	6.36 6E-0 2	0.88 7	-1.5 24E- 02	-0.8 12	0.32 4	7.05 7E-0 2	1.12 9E-0 2	3.76 4E-0 4	1.08 9E-0 2	-4.8 94E- 02	-3.6 22E- 02	-1.4 52E- 02	2.92 6E-0 2	-1.4 24E- 02	-1.4 00E- 02	-2.7 97E- 02	1.17 9E-0 2	-2.8 76E- 02
	V11	-5.2 02E- 02	-7.2 63E- 02	9.42 0E-0 2	-0.1 91	-0.1 61	0.12 2	-0.7 35	-4.6 47E- 02	-3.0 87E- 02	-1.5 24E- 02	0.79 7	4.47 9E-0 2	-0.3 25	-4.3 79E- 02	-7.5 87E- 02	-2.4 14E- 03	-1.3 90E- 02	0.28 5	0.35 3	3.52 6E-0 2	1.54 9E-0 2	7.95 6E-0 2	-5.3 45E- 02	3.14 8E-0 2	-2.5 14E- 02	6.36 8E-0 2
	V12	4.12 9E-0 3	-2.0 77E- 02	-3.1 56E- 02	2.63 7E-0 2	1.50 1E-0 3	6.11 1E-0 3	-4.3 73E- 02	-2.7 13E- 02	-7.9 08E- 02	-0.8 12	4.47 9E-0 2	0.87 6	-0.5 33	-9.7 51E- 04	-4.1 44E- 02	1.07 3E-0 2	-1.8 27E- 02	-4.7 80E- 02	5.20 1E-0 2	4.84 3E-0 3	-4.6 73E- 03	7.25 0E-0 3	-6.0 36E- 03	1.51 8E-0 2	1.64 8E-0 3	-5.0 17E- 03
	V13	-0.1 00	0.12 6	-9.2 10E- 02	-2.7 44E- 02	0.32 5	-9.9 43E- 03	6.36 6E-0 2	3.97 2E-0 2	3.85 7E-0 2	0.32 4	-0.3 25	-0.5 33	0.82 1	-0.3 39	3.12 9E-0 2	5.00 5E-0 4	1.76 8E-0 3	-0.6 47	-0.4 56	-0.1 77	-0.1 27	6.35 1E-0 2	0.20 9	-2.9 29E- 02	6.41 3E-0 2	-0.1 27

(Table 2 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
	V14	0.15 0	0.16 9	0.23 8	0.34 3	-0.1 84	2.45 8E-0 2	-2.5 95E- 02	-9.6 90E- 02	5.34 1E-0 2	7.05 7E-0 2	-4.3 79E- 02	-9.7 51E- 04	-0.3 39	0.90 9	-0.1 29	-1.5 45E- 02	1.36 8E-0 2	4.34 8E-0 2	-5.5 94E- 02	-0.1 46	8.80 7E-0 2	-7.0 37E- 02	-0.2 98	-9.9 03E- 02	-1.6 22E- 02	3.14 4E-0 2
	V15	-1.0 34E- 02	8.36 0E-0 2	-6.6 14E- 02	-0.1 20	-0.1 32	-6.1 54E- 02	0.10 6	9.49 0E-0 2	-3.7 69E- 02	1.12 9E-0 2	-7.5 87E- 02	-4.1 44E- 02	3.12 9E-0 2	-0.1 29	0.84 9	0.12 3	-0.1 07	0.11 4	1.68 0E-0 2	-1.5 46E- 02	1.55 0E-0 2	-0.1 00	6.27 6E-0 2	-1.0 82E- 02	-1.8 04E- 02	1.76 3E-0 2
	V16	5.16 4E-0 3	-3.1 83E- 03	-3.9 60E- 02	-7.4 97E- 03	-1.5 41E- 02	-6.3 28E- 03	1.22 6E-0 2	-1.0 20E- 02	-2.2 98E- 02	3.76 4E-0 4	-2.4 14E- 03	1.07 3E-0 2	5.00 5E-0 4	-1.5 45E- 02	0.12 3	0.69 8	-0.9 78	-9.6 81E- 03	3.25 7E-0 2	-9.2 80E- 03	-1.1 58E- 03	-1.2 10E- 02	3.97 9E-0 3	-4.8 43E- 03	-7.6 15E- 05	-9.3 46E- 04
	V17	-2.2 35E- 02	-2.8 31E- 02	6.66 8E-0 3	2.05 2E-0 2	3.50 0E-0 2	2.82 3E-0 2	-2.1 76E- 02	-1.8 82E- 02	-0.1 32	1.08 9E-0 2	-1.3 90E- 02	-1.8 27E- 02	1.76 8E-0 3	1.36 8E-0 2	-0.1 07	-0.9 78	0.69 4	2.58 1E-0 2	-3.4 94E- 02	4.73 7E-0 2	8.50 0E-0 4	-9.9 64E- 03	-1.1 73E- 02	2.97 0E-0 2	-1.1 27E- 02	1.57 8E-0 2
	V18	0.16 3	-0.1 43	-4.9 04E- 02	-0.1 67	-0.3 06	-5.3 14E- 02	-9.7 29E- 03	5.65 1E-0 2	5.23 3E-0 2	-4.8 94E- 02	0.28 5	-4.7 80E- 02	-0.6 47	4.34 8E-0 2	0.11 4	-9.6 81E- 03	2.58 1E-0 2	0.87 4	0.38 3	0.16 0	0.16 7	-0.1 39	-0.1 49	-2.4 56E- 02	-5.1 45E- 02	9.87 2E-0 2
	V19	-4.9 45E- 02	-5.1 11E- 02	-0.3 72	4.29 1E-0 3	-0.3 26	1.06 4E-0 2	-1.6 99E- 04	-2.4 33E- 03	-0.2 02	-3.6 22E- 02	0.35 3	5.20 1E-0 2	-0.4 56	-5.5 94E- 02	1.68 0E-0 2	3.25 7E-0 2	-3.4 94E- 02	0.38 3	0.87 0	4.01 0E-0 2	-1.4 98E- 02	2.66 5E-0 2	-0.1 59	0.12 2	-4.2 59E- 03	5.67 6E-0 2
	V20	1.79 0E-0 2	-0.6 12	-2.0 44E- 02	-7.8 13E- 02	2.67 2E-0 2	-0.1 22	0.10 1	-0.1 30	-0.1 91	-1.4 52E- 02	3.52 6E-0 2	4.84 3E-0 3	-0.1 77	-0.1 46	-1.5 46E- 02	-9.2 80E- 03	4.73 7E-0 2	0.16 0	4.01 0E-0 2	0.78 5	-5.7 63E- 02	-2.0 84E- 02	0.18 1	0.10 0	-0.1 93	0.31 5
	V21	0.14 7	0.11 0	5.05 8E-0 2	-1.3 75E- 02	-4.5 15E- 02	-8.6 94E- 02	1.53 2E-0 2	0.16 9	2.89 8E-0 3	2.92 6E-0 2	1.54 9E-0 2	-4.6 73E- 03	-0.1 27	8.80 7E-0 2	1.55 0E-0 2	-1.1 58E- 03	8.50 0E-0 4	0.16 7	-1.4 98E- 02	-5.7 63E- 02	0.87 9	0.22 3	-0.5 01	-0.4 61	-0.2 84	7.63 9E-0 3
	V22	-0.5 27	-0.1 15	8.45 1E-0 2	-0.1 77	2.56 3E-0 2	-5.3 54E- 02	3.58 6E-0 2	0.19 9	7.90 6E-0 2	-1.4 24E- 02	7.95 6E-0 2	7.25 0E-0 3	6.35 1E-0 2	-7.0 37E- 02	-0.1 00	-1.2 10E- 02	-9.9 64E- 03	-0.1 39	2.66 5E-0 2	-2.0 84E- 02	0.22 3	0.91 5	-0.1 98	-0.2 14	-5.2 16E- 03	-5.4 09E- 03
	V23	-0.3 06	-0.2 54	-0.1 45	-0.2 18	0.14 3	-5.8 77E- 02	5.47 4E-0 2	0.21 8	5.22 1E-0 2	-1.4 00E- 02	-5.3 45E- 02	-6.0 36E- 03	0.20 9	-0.2 98	6.27 6E-0 2	3.97 9E-0 3	-1.1 73E- 02	-0.1 49	-0.1 59	0.18 1	-0.5 01	-0.1 98	0.87 2	0.19 0	-1.1 69E- 02	0.12 2
	V24	-0.3 85	-0.1 43	0.11 2	3.44 5E-0 2	-1.4 90E- 02	7.66 3E-0 2	-4.1 13E- 02	-4.7 66E- 02	-0.1 63	-2.7 97E- 02	3.14 8E-0 2	1.51 8E-0 2	-2.9 29E- 02	-9.9 03E- 02	-1.0 82E- 02	-4.8 43E- 03	2.97 0E-0 2	-2.4 56E- 02	0.12 2	0.10 0	-0.4 61	-0.2 14	0.19 0	0.91 3	-7.2 50E- 02	7.87 6E-0 2
	V25	-3.2 85E- 02	0.18 9	-8.4 93E- 03	-3.9 38E- 02	5.96 6E-0 2	-2.9 50E- 02	4.16 2E-0 2	-1.2 21E- 02	5.12 5E-0 2	1.17 9E-0 2	-2.5 14E- 02	1.64 8E-0 3	6.41 3E-0 2	-1.6 22E- 02	-1.8 04E- 02	-7.6 15E- 02	-1.1 27E- 02	-5.1 45E- 02	-4.2 59E- 03	-0.1 93	-0.2 84	-5.2 16E- 02	-1.1 69E- 02	-7.2 50E- 02	0.87 5	-0.8 42
	V26	-6.6 88E- 02	-0.3 43	-9.8 89E- 03	1.89 8E-0 2	-0.1 11	5.86 7E-0 2	-3.9 05E- 02	6.21 1E-0 3	-6.3 73E- 02	-2.8 76E- 02	6.36 8E-0 2	-5.0 17E- 03	-0.1 27	3.14 4E-0 2	1.76 3E-0 2	-9.3 46E- 04	1.57 8E-0 2	9.87 2E-0 2	5.67 6E-0 2	0.31 5	7.63 9E-0 3	-5.4 09E- 03	0.12 2	7.87 6E-0 2	-0.8 42	0.86 1

Note. Measures of sampling adequacy (MSA).

Table 3

Correlation Matrix

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
Correlation	V1	1.00 0	0.73 2	0.40 7	0.04 1	0.05 99	-0.1 72	-0.1 6	0.16 32	-0.0 7	0.29 21	-0.1 9	0.30 2	0.31 6	0.31 0	0.02 1	0.29 0	0.29 4	0.27 4	0.46 2	0.16 8	0.75 4	0.93 8	0.86 2	0.90 2	0.83 6	0.82 3
	V2	0.73 2	1.00 0	0.36 0	0.06 1	0.09 2	0.06 7	-0.0 97	0.31 4	0.00 2	0.28 6	-0.0 64	0.30 5	0.30 7	0.28 7	-0.0 59	0.24 4	0.24 0	0.29 3	0.40 6	0.51 8	0.54 8	0.73 2	0.66 2	0.68 5	0.65 8	0.67 6
	V3	0.40 7	0.36 0	1.00 0	0.30 3	0.29 9	0.12 5	0.16 6	0.20 9	-0.1 60	0.70 0	0.15 1	0.74 1	0.75 5	0.61 7	0.04 5	-0.0 49	-0.0 54	0.74 1	0.81 7	0.38 3	0.36 4	0.42 5	0.48 1	0.34 1	0.43 4	0.46 5
	V4	0.04 1	0.06 1	0.30 3	1.00 0	0.93 2	0.54 3	0.68 5	0.68 6	0.38 7	0.35 0	0.74 5	0.35 9	0.35 2	0.17 9	0.45 9	0.16 8	0.16 7	0.44 3	0.25 9	0.23 9	0.01 2	0.11 0	0.06 3	0.04 7	0.10 7	0.13 4
	V5	0.05 9	0.09 2	0.29 9	0.93 2	1.00 0	0.51 3	0.63 5	0.66 7	0.40 0	0.31 3	0.69 3	0.32 0	0.31 3	0.17 6	0.47 5	0.18 1	0.17 9	0.40 7	0.28 5	0.22 7	0.02 1	0.11 8	0.06 6	0.06 1	0.12 0	0.15 3
	V6	-0.1 99	0.06 7	0.12 5	0.54 3	0.51 3	1.00 0	0.74 3	0.55 1	0.30 7	0.33 8	0.68 9	0.35 5	0.34 8	0.26 0	0.19 5	0.05 8	0.05 6	0.37 2	0.11 1	0.43 5	-0.1 53	-0.1 54	-0.1 75	-0.1 46	-0.1 20	-0.0 94
	V7	-0.1 72	-0.0 97	0.16 6	0.68 5	0.63 5	0.74 3	1.00 0	0.43 0	0.32 2	0.42 6	0.94 2	0.43 3	0.41 8	0.30 7	0.26 8	0.09 6	0.09 6	0.43 6	0.09 5	0.21 1	-0.1 02	-0.1 37	-0.1 45	-0.1 01	-0.0 76	-0.0 39
	V8	0.16 6	0.31 4	0.20 9	0.68 6	0.66 7	0.55 1	0.43 0	1.00 0	0.25 5	0.22 3	0.49 2	0.22 9	0.22 1	0.10 9	0.26 6	0.19 0	0.18 6	0.27 9	0.18 2	0.42 5	-0.0 67	0.15 7	0.02 0	0.10 1	0.10 6	0.13 4
	V9	-0.0 32	0.00 2	-0.1 60	0.38 7	0.40 0	0.30 7	0.32 2	0.25 5	1.00 0	-0.1 33	0.36 3	-0.1 10	-0.1 18	-0.1 48	0.25 9	0.73 3	0.73 8	-0.1 41	0.00 9	0.05 7	0.01 0	-0.0 40	-0.0 53	0.00 5	-0.0 15	-0.0 20
	V10	0.29 7	0.28 6	0.70 0	0.35 0	0.31 3	0.33 8	0.42 6	0.22 3	-0.1 33	1.00 0	0.40 5	0.96 6	0.91 8	0.79 7	0.03 5	-0.1 66	-0.1 70	0.90 8	0.68 5	0.46 9	0.31 8	0.34 4	0.34 9	0.33 9	0.38 8	0.43 0
	V11	-0.1 21	-0.0 64	0.15 1	0.74 5	0.69 3	0.68 9	0.94 2	0.49 2	0.36 3	0.40 5	1.00 0	0.41 9	0.41 2	0.30 2	0.33 0	0.14 1	0.14 1	0.42 7	0.08 9	0.22 8	-0.0 73	-0.0 91	-0.1 11	-0.0 58	-0.0 36	-0.0 03
	V12	0.30 9	0.30 5	0.74 1	0.35 9	0.32 0	0.35 5	0.43 3	0.22 9	-0.1 10	0.96 6	0.41 9	1.00 0	0.97 8	0.86 4	0.03 4	-0.1 46	-0.1 50	0.95 5	0.74 6	0.51 5	0.34 5	0.36 2	0.36 5	0.35 6	0.40 7	0.44 8
	V13	0.31 2	0.30 7	0.75 5	0.35 2	0.31 3	0.34 8	0.41 8	0.22 1	-0.1 18	0.91 8	0.41 2	0.97 8	1.00 0	0.89 6	0.02 5	-0.1 52	-0.1 56	0.96 6	0.77 6	0.53 3	0.35 8	0.36 3	0.37 3	0.36 0	0.41 2	0.45 0
	V14	0.31 6	0.28 7	0.61 7	0.17 9	0.17 6	0.26 0	0.30 7	0.10 9	-0.1 48	0.79 7	0.30 2	0.86 4	0.89 6	1.00 0	0.01 4	-0.1 54	-0.1 57	0.84 1	0.70 3	0.49 6	0.37 9	0.36 7	0.40 7	0.38 1	0.39 0	0.40 8
	V15	0.02 0	-0.0 59	0.04 5	0.45 9	0.47 5	0.19 5	0.26 8	0.26 6	0.25 9	0.03 5	0.33 0	0.03 4	0.02 5	0.01 4	1.00 0	0.10 6	0.11 9	0.05 4	0.04 5	0.01 8	-0.0 06	0.06 2	0.00 3	0.02 2	0.03 1	0.02 9
	V16	0.29 1	0.24 4	-0.0 49	0.16 8	0.18 1	0.05 8	0.09 6	0.19 0	0.73 3	-0.1 66	0.14 1	-0.1 46	-0.1 52	-0.1 54	0.10 6	1.00 0	0.99 4	-0.1 98	0.05 6	-0.0 34	0.20 7	0.25 2	0.23 2	0.24 0	0.21 1	0.19 5
	V17	0.29 0	0.24 0	-0.0 54	0.16 7	0.17 9	0.05 6	0.09 6	0.18 6	0.73 8	-0.1 70	0.14 1	-0.1 50	-0.1 56	-0.1 57	0.11 9	0.99 4	1.00 0	-0.2 04	0.05 5	-0.0 40	0.20 7	0.25 0	0.23 1	0.23 9	0.20 9	0.19 3

(Table 3 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
	V18	0.27 4	0.29 3	0.74 1	0.44 3	0.40 7	0.37 2	0.43 6	0.27 9	-0.1 41	0.90 8	0.42 7	0.95 5	0.96 6	0.84 1	0.05 4	-0.1 98	-0.2 04	1.00 0	0.71 8	0.50 6	0.29 3	0.35 3	0.34 7	0.31 9	0.37 1	0.41 2
	V19	0.46 2	0.40 6	0.81 7	0.25 9	0.28 5	0.11 1	0.09 5	0.18 2	0.00 9	0.68 5	0.08 9	0.74 6	0.77 6	0.70 3	0.04 5	0.05 6	0.05 5	0.71 8	1.00 0	0.44 3	0.46 2	0.47 9	0.54 2	0.42 4	0.49 2	0.51 2
	V20	0.16 8	0.51 8	0.38 3	0.23 9	0.22 7	0.43 5	0.21 1	0.42 5	0.05 7	0.46 9	0.22 8	0.51 5	0.53 3	0.49 6	0.01 8	-0.0 34	-0.0 40	0.50 6	0.44 3	1.00 0	0.10 8	0.20 4	0.14 0	0.17 4	0.17 8	0.17 7
	V21	0.75 4	0.54 8	0.36 4	0.01 2	0.02 1	-0.1 53	-0.1 02	-0.0 67	0.01 0	0.31 8	-0.0 73	0.34 5	0.35 8	0.37 9	-0.0 06	0.20 7	0.20 7	0.29 3	0.46 2	0.10 8	1.00 0	0.72 3	0.82 9	0.83 9	0.85 7	0.81 4
	V22	0.93 8	0.73 2	0.42 5	0.11 0	0.11 8	-0.1 54	-0.1 37	0.15 7	-0.0 40	0.34 9	-0.0 91	0.36 2	0.36 3	0.36 7	0.06 2	0.25 2	0.25 0	0.35 3	0.47 9	0.20 4	0.72 3	1.00 0	0.85 9	0.87 9	0.81 8	0.80 6
	V23	0.86 2	0.66 2	0.48 1	0.06 3	0.06 6	-0.1 75	-0.1 45	0.02 0	-0.0 53	0.34 4	-0.1 11	0.36 5	0.37 3	0.40 7	0.00 3	0.23 2	0.23 1	0.34 7	0.54 2	0.14 0	0.82 9	0.85 9	1.00 0	0.81 6	0.79 5	0.76 8
	V24	0.90 2	0.68 5	0.34 1	0.04 7	0.06 1	-0.1 46	-0.1 01	0.10 1	0.00 5	0.33 9	-0.0 58	0.35 6	0.36 0	0.38 1	0.02 2	0.24 0	0.23 9	0.31 9	0.42 4	0.17 4	0.83 9	0.87 9	0.81 6	1.00 0	0.85 5	0.83 0
	V25	0.83 6	0.65 8	0.43 4	0.10 7	0.12 0	-0.1 20	-0.0 76	0.10 6	-0.0 15	0.38 8	-0.0 36	0.40 7	0.41 2	0.39 0	0.03 1	0.21 1	0.20 9	0.37 1	0.49 2	0.17 8	0.85 7	0.81 8	0.79 5	0.85 5	1.00 0	0.96 8
	V26	0.82 3	0.67 6	0.46 5	0.13 4	0.15 3	-0.0 94	-0.0 39	0.13 4	-0.0 20	0.43 0	-0.0 03	0.44 8	0.45 0	0.40 8	0.02 9	0.19 5	0.19 3	0.41 2	0.51 2	0.17 7	0.81 4	0.80 6	0.76 8	0.83 0	0.96 8	1.00 0
Sig. (1-tailed)	V1		0.00 0	0.00 0	0.21 3	0.12 4	0.00 0	0.00 0	0.00 1	0.26 7	0.00 0	0.00 9	0.00 0	0.00 0	0.00 0	0.35 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V2	0.00 0		0.00 0	0.11 5	0.03 5	0.09 3	0.02 8	0.00 0	0.48 3	0.00 0	0.10 7	0.00 0	0.00 0	0.00 0	0.12 3	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V3	0.00 0	0.00 0		0.00 0	0.00 0	0.00 7	0.00 1	0.00 0	0.00 1	0.00 0	0.00 1	0.00 0	0.00 0	0.00 0	0.19 1	0.16 8	0.14 7	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V4	0.21 3	0.11 5	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 1	0.00 0	0.00 0	0.00 0	0.40 7	0.01 6	0.11 0	0.18 0	0.01 8	0.00 4
	V5	0.12 4	0.03 5	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.34 1	0.01 0	0.09 7	0.11 6	0.00 9	0.00 1
	V6	0.00 0	0.09 3	0.00 7	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.12 8	0.13 7	0.00 0	0.01 5	0.00 0	0.00 1	0.00 1	0.00 0	0.00 2	0.00 9	0.03 3
	V7	0.00 0	0.02 8	0.00 1	0.00 0	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.03 0	0.03 0	0.00 0	0.03 2	0.00 0	0.02 3	0.00 4	0.00 2	0.02 3	0.06 9	0.22 5
	V8	0.00 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.01 6	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.09 5	0.00 1	0.34 7	0.02 4	0.01 9	0.00 4

(Table 3 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
	V9	0.26 7	0.48 3	0.00 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0		0.00 5	0.00 0	0.01 5	0.01 1	0.00 2	0.00 0	0.00 0	0.00 0	0.00 3	0.42 8	0.13 3	0.42 3	0.21 9	0.15 2	0.45 8	0.38 7	0.34 6
	V10	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 5		0.00 0	0.00 0	0.00 0	0.00 0	0.24 5	0.00 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V11	0.00 9	0.10 7	0.00 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 3	0.00 3	0.00 0	0.04 0	0.00 0	0.07 6	0.03 8	0.01 5	0.13 0	0.24 1	0.47 4
	V12	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.01 5	0.00 0	0.00 0		0.00 0	0.00 0	0.25 3	0.00 2	0.00 2	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V13	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.01 1	0.00 0	0.00 0	0.00 0		0.00 0	0.31 1	0.00 1	0.00 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V14	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.01 6	0.00 2	0.00 0	0.00 0	0.00 0	0.00 0		0.39 2	0.00 1	0.00 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V15	0.35 0	0.12 3	0.19 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.24 5	0.00 0	0.25 3	0.31 1	0.39 2		0.01 8	0.01 0	0.14 4	0.18 8	0.36 6	0.45 2	0.11 4	0.47 6	0.33 2	0.27 0	0.28 8
	V16	0.00 0	0.00 0	0.16 8	0.00 0	0.00 0	0.12 8	0.03 0	0.00 0	0.00 0	0.00 1	0.00 3	0.00 2	0.00 1	0.00 1	0.01 8		0.00 0	0.00 0	0.13 5	0.25 1	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V17	0.00 0	0.00 0	0.14 7	0.00 1	0.00 0	0.13 7	0.03 0	0.00 0	0.00 0	0.00 0	0.00 3	0.00 2	0.00 1	0.00 1	0.01 0	0.00 0		0.00 0	0.14 1	0.21 9	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V18	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 3	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.14 4	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V19	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.01 5	0.03 2	0.00 0	0.42 8	0.00 0	0.04 0	0.00 0	0.00 0	0.00 0	0.18 8	0.13 5	0.14 1	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V20	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.13 3	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.36 6	0.25 1	0.21 9	0.00 0	0.00 0		0.01 7	0.00 0	0.00 3	0.00 0	0.00 0	0.00 0
	V21	0.00 0	0.00 0	0.00 0	0.40 7	0.34 1	0.00 1	0.02 3	0.09 5	0.42 3	0.00 0	0.07 6	0.00 0	0.00 0	0.00 0	0.45 2	0.00 0	0.00 0	0.00 0	0.00 0	0.01 7		0.00 0	0.00 0	0.00 0	0.00 0	0.00 0
	V22	0.00 0	0.00 0	0.00 0	0.01 6	0.01 0	0.00 1	0.00 4	0.00 1	0.21 9	0.00 0	0.03 8	0.00 0	0.00 0	0.00 0	0.11 4	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0	0.00 0
	V23	0.00 0	0.00 0	0.00 0	0.11 0	0.09 7	0.00 0	0.00 2	0.34 7	0.15 2	0.00 0	0.01 5	0.00 0	0.00 0	0.00 0	0.47 6	0.00 0	0.00 0	0.00 0	0.00 0	0.00 3	0.00 0	0.00 0		0.00 0	0.00 0	0.00 0
	V24	0.00 0	0.00 0	0.00 0	0.18 0	0.11 6	0.00 2	0.02 3	0.02 4	0.45 8	0.00 0	0.13 0	0.00 0	0.00 0	0.00 0	0.33 2	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0		0.00 0	0.00 0
	V25	0.00 0	0.00 0	0.00 0	0.01 8	0.00 9	0.00 9	0.06 9	0.01 9	0.38 7	0.00 0	0.24 1	0.00 0	0.00 0	0.00 0	0.27 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0		0.00 0
	V26	0.00 0	0.00 0	0.00 0	0.00 4	0.00 1	0.03 3	0.22 5	0.00 4	0.34 6	0.00 0	0.47 4	0.00 0	0.00 0	0.00 0	0.28 8	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	

Note. Determinant = 1.844E – 19.

Table 4

Inverse of Correlation Matrix

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
V1	16.96 1	0.148 8	-0.67 3	2.775 3	-0.35 3	1.299 7	-0.42 4	-2.79 4	0.572 4	-0.11 5	-0.81 5	0.147 2	-3.82 2	1.700	-0.05 2	0.193 8	-0.84 8	3.962 5	-0.56 5	0.136	1.712 6	-7.66 9	-3.79 9	-5.08 9	-0.64 4	-1.25 2
V2	0.148	5.444	0.015	1.817	-0.35 0	-0.62 9	0.276 9	-0.67 9	0.573	0.450 5	-0.64 5	-0.41 9	2.707	1.089	0.238 8	-0.06 9	-0.60 0	-1.97 1	-0.33 7	-2.62 7	0.723 8	-0.94 6	-1.78 8	-1.06 8	2.100 0	-3.64 0
V3	-0.67 8	0.015	4.564 4	-0.06 4	-0.44 1	0.237 4	-0.62 4	-0.02 3	1.130	0.137	0.765 3	-0.58 3	-1.81 8	1.401 2	-0.17 2	-0.76 9	0.131 9	-0.61 4	-2.20 0	-0.08 0	0.305	0.638 6	-0.93 6	0.771 6	-0.08 6	-0.09 6
V4	2.775	1.817	-0.06 4	13.20 2	-7.16 7	0.867	-0.59 1	-2.77 1	-0.91 7	0.362 1	-2.64 1	0.829 1	-0.92 1	30.43 7	-0.52 9	-0.24 8	0.687 5	-3.57 5	0.043 2	-0.52 2	-0.14 1	-2.27 2	-2.38 7	0.402 1	-0.68 1	0.313
V5	-0.35 3	-0.35 0	-0.44 1	-7.16 7	10.33 1	0.088	-0.07 0	-0.46 3	-0.71 9	-0.10 8	-1.97 2	0.417	9.644 8	-1.62 8	-0.51 7	-0.45 0	1.037 9	-5.80 9	-2.90 6	0.158	-0.41 0	0.291	1.389	-0.15 4	0.912	-1.62 2
V6	1.299	-0.62 9	0.237	0.867	0.088	3.719	-3.06 6	-1.47 4	-0.70 6	0.086	0.893	0.102 7	-0.17 7	0.131 5	-0.14 5	-0.11 1	0.502 5	-0.60 5	0.057 5	-0.43 5	-0.47 4	-0.36 5	-0.34 2	0.475 1	-0.27 1	0.514
V7	-0.42 7	0.276	-0.62 4	-0.59 1	-0.07 0	-3.06 6	12.42 5	1.394	0.366	-0.66 9	-9.85 9	-1.33 3	2.073	-0.25 2	0.455	0.393 7	-0.70 3	-0.20 2	-0.00 2	0.655	0.153	0.447	0.582	-0.46 6	0.698	-0.62 6
V8	-2.79 4	-0.67 9	-0.02 3	-2.77 1	-0.46 3	-1.47 4	1.394	3.975	0.812	0.040	-0.35 2	-0.46 8	0.732 3	-0.53 3	0.231 5	-0.18 5	-0.34 6	0.666 3	-0.01 3	-0.47 6	0.951	1.402	1.311	-0.30 5	-0.11 6	0.056
V9	0.572	0.573	1.130	-0.91 7	-0.71 9	-0.70 6	0.366	0.812	4.249	0.599	-0.24 2	-1.41 0	0.734	0.304	-0.09 5	-0.43 1	-2.50 8	0.637 7	-1.15 7	-0.72 5	0.017	0.576	0.325	-1.07 7	0.503	-0.59 7
V10	-0.11 4	0.450	0.137	0.362	-0.10 8	0.086	-0.66 9	0.040	0.599	20.85 0	-0.26 5	-32.0 62	13.64 7	0.889	0.063	0.016	0.458	-1.32 0	-0.45 8	-0.12 2	0.378	-0.23 0	-0.19 3	-0.41 0	0.256	-0.59 7
V11	-0.81 5	-0.64 5	0.765	-2.64 1	-1.97 2	0.893	-9.85 9	-0.35 2	-0.24 2	-0.26 5	14.46 9	1.473	-11.4 29	-0.46 0	-0.35 2	-0.08 3	-0.48 7	6.412	3.726	0.247	0.166	1.069	-0.61 4	0.385	-0.45 5	10.10 1
V12	0.147 9	-0.41 9	-0.58 3	0.829	0.417	0.102	-1.33 3	-0.46 8	-1.41 0	-32.0 62	1.473	74.80 3	-42.5 77	-0.02 3	-0.43 7	0.844 6	-1.45 2	-2.44 2	1.247	0.077 4	-0.11 4	0.222	-0.15 8	0.422	0.068 7	-0.19 7
V13	-3.82 2	2.707	-1.81 8	-0.92 1	9.644	-0.17 7	2.073	0.732	0.734	13.64 7	-11.4 29	-42.5 77	85.33 8	-8.63 0	0.352	0.042	0.151	-35.3 24	-11.6 72	-3.00 4	-3.31 9	2.073	5.841 9	-0.86 9	2.818	-5.34 2
V14	1.700	1.089	1.401	3.437	-1.62 8	0.131	-0.25 2	-0.53 3	0.304	0.889	-0.46 0	-0.02 3	-8.63 0	7.617 4	-0.43 4	-0.38 8	0.348	0.709	-0.42 8	-0.74 2	0.687	-0.68 6	-2.48 1	-0.87 8	-0.21 3	0.394
V15	-0.05 2	0.238	-0.17 2	-0.52 9	-0.51 7	-0.14 5	0.455	0.231	-0.09 5	0.063	-0.35 2	-0.43 7	0.352 4	-0.43 4	1.486	1.360	-1.20 5	0.819	0.057 5	-0.03 5	0.053	-0.43 2	0.231	-0.04 2	-0.10 5	0.098
V16	0.193	-0.06 8	-0.76 9	-0.24 8	-0.45 0	-0.11 1	0.393	-0.18 5	-0.43 1	0.016	-0.08 3	0.844	0.042	-0.38 8	1.360	82.70 6	-81.9 43	-0.52 0	0.821 5	-0.15 5	-0.03 0	-0.38 9	0.109	-0.14 1	-0.00 3	-0.03 9
V17	-0.84 8	-0.60 9	0.131	0.687	1.037	0.502	-0.70 7	-0.34 6	-2.50 8	0.458	-0.48 7	-1.45 6	0.151	0.348	-1.20 5	-81.9 43	84.92 4	1.405	-0.89 3	0.803	0.022 4	-0.32 6	-0.32 6	0.879 4	-0.49 4	0.661
V18	3.962	-1.97 0	-0.61 9	-3.57 5	-5.80 9	-0.60 5	-0.20 3	0.666	0.637	-1.32 0	6.412	-2.44 2	-35.3 24	0.709	0.819	-0.52 0	1.405	34.90 4	6.277	1.739	2.785	-2.89 7	-2.65 4	-0.46 6	-1.44 6	2.650

(Table 4 continued)

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
V19	-0.56 5	-0.33 1	-2.20 4	0.043	-2.90 6	0.057	-0.00 2	-0.01 3	-1.15 7	-0.45 8	3.726	1.247	-11.6 72	-0.42 8	0.057	0.821	-0.89 3	6.277	7.687	0.205	-0.11 7	0.261	-1.32 8	1.090	-0.05 6	0.715
V20	0.136 7	-2.62 0	-0.08 2	-0.52 2	0.158	-0.43 5	0.655	-0.47 6	-0.72 5	-0.12 2	0.247	0.077	-3.00 4	-0.74 2	-0.03 5	-0.15 5	0.803	1.739	0.205	3.388	-0.30 0	-0.13 6	1.007	0.592	-1.69 1	2.632
V21	1.712	0.723	0.305	-0.14 1	-0.41 0	-0.47 4	0.153	0.951	0.017	0.378	0.166	-0.11 4	-3.31 9	0.687	0.053	-0.03 0	0.022	2.785	-0.11 7	-0.30 0	7.982	2.227	-4.27 1	-4.18 5	-3.81 7	0.098
V22	-7.66 6	-0.94 8	0.638	-2.27 2	0.291	-0.36 5	0.447	1.402	0.576	-0.23 0	1.069	0.222	2.073	-0.68 6	-0.43 2	-0.38 9	-0.32 4	-2.89 7	0.261	-0.13 6	2.227	12.48 8	-2.10 9	-2.42 8	-0.87 7	-0.08 7
V23	-3.79 9	-1.78 6	-0.93 6	-2.38 7	1.389	-0.34 2	0.582	1.311	0.325	-0.19 3	-0.61 4	-0.15 8	5.841	-2.48 1	0.231	0.109	-0.32 6	-2.65 4	-1.32 8	1.007	-4.27 1	-2.10 9	9.111	1.843	-0.16 8	1.674
V24	-5.08 9	-1.06 8	0.771	0.402	-0.15 4	0.475	-0.46 6	-0.30 5	-1.07 7	-0.41 0	0.385	0.422	-0.86 9	-0.87 8	-0.04 2	-0.14 1	0.879	-0.46 6	1.090	0.592	-4.18 5	-2.42 8	1.843	10.31 4	-1.10 8	1.150
V25	-0.64 4	2.100	-0.08 6	-0.68 1	0.912	-0.27 1	0.698	-0.11 6	0.503	0.256	-0.45 5	0.068	2.818	-0.21 3	-0.10 5	-0.00 3	-0.49 4	-1.44 6	-0.05 6	-1.69 1	-3.81 7	-0.87 7	-0.16 8	-1.10 8	22.63 3	-18.2 06
V26	-1.25 2	-3.64 0	-0.09 6	0.313	-1.62 2	0.514	-0.62 6	0.056	-0.59 7	-0.59 7	1.101	-0.19 7	-5.34 2	0.394	0.098	-0.03 9	0.661	2.650	0.715	2.632	0.098	-0.08 7	1.674	1.150	-18.2 06	20.65 3

Table 5

KMO and Bartlett's Test

Kaiser-Meyer-Olkin measure of sampling adequacy		0.896
Bartlett's test of sphericity	Approx. Chi-Square	16154.888
	df	325
	Sig.	0.000

Table 6

Communalities

	Initial	Extraction
V1	1.000	0.911
V2	1.000	0.870
V3	1.000	0.662
V4	1.000	0.879
V5	1.000	0.843
V6	1.000	0.711
V7	1.000	0.793
V8	1.000	0.802

(Table 6 continued)

	Initial	Extraction
V9	1.000	0.824
V10	1.000	0.885
V11	1.000	0.822
V12	1.000	0.964
V13	1.000	0.975
V14	1.000	0.824
V15	1.000	0.480
V16	1.000	0.953
V17	1.000	0.956
V18	1.000	0.938
V19	1.000	0.729
V20	1.000	0.807
V21	1.000	0.794
V22	1.000	0.883
V23	1.000	0.844
V24	1.000	0.866
V25	1.000	0.876
V26	1.000	0.856

Note. Extraction Method: Principal Component Analysis.

Table 7

Total Variance

	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
Component	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	9.721	37.389	37.389	9.721	37.389	37.389	6.920	26.617	26.617
2	5.538	21.298	58.687	5.538	21.298	58.687	6.224	23.937	50.554
3	3.835	14.752	73.439	3.835	14.752	73.439	4.286	16.485	67.039
4	1.407	5.410	78.849	1.407	5.410	78.849	2.661	10.233	77.273
5	1.244	4.784	83.633	1.244	4.784	83.633	1.654	6.360	83.633
6	0.953	3.664	87.296						

(Table 7 continued)

	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
Component	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
7	0.670	2.576	89.872						
8	0.429	1.650	91.522						
9	0.352	1.355	92.878						
10	0.324	1.244	94.122						
11	0.281	1.081	95.203						
12	0.223	0.857	96.060						
13	0.180	0.692	96.752						
14	0.168	0.648	97.400						
15	0.138	0.530	97.930						
16	0.116	0.445	98.374						
17	0.111	0.427	98.802						
18	7.842E-02	0.302	99.103						
19	5.153E-02	0.198	99.301						
20	4.869E-02	0.187	99.489						
21	4.418E-02	0.170	99.659						
22	3.624E-02	0.139	99.798						
23	2.482E-02	9.546E-02	99.893						
24	1.461E-02	5.618E-02	99.950						
25	7.076E-03	2.721E-02	99.977						
26	6.028E-03	2.318E-02	100.000						

Note. Extraction Method: Principal Component Analysis.

Table 8

Component Matrix^a

	Component				
	1	2	3	4	5
V1	0.722	-0.561	0.229	-0.138	6.071E-02
V2	0.657	-0.359	0.195	-2.033E-02	0.521
V3	0.750	9.756E-02	-0.273	0.102	-7.032E-02
V4	0.418	0.666	0.392	-0.319	-7.050E-02
V5	0.411	0.626	0.412	-0.328	-6.228E-02
V6	0.246	0.743	0.162	4.954E-02	0.264
V7	0.292	0.800	0.198	-2.293E-02	-0.165
V8	0.357	0.480	0.384	-0.267	0.474
V9	2.496E-02	0.262	0.778	0.374	-0.101
V10	0.788	0.315	-0.372	0.123	-0.104
V11	0.319	0.785	0.269	-7.593E-02	-0.159
V12	0.827	0.323	-0.373	0.168	-9.626E-02
V13	0.831	0.313	-0.383	0.177	-8.869E-02
V14	0.755	0.191	-0.403	0.215	-9.198E-02
V15	0.119	0.308	0.344	-0.433	-0.255
V16	0.133	-0.114	0.835	0.469	-6.787E-02
V17	0.130	-0.114	0.838	0.466	-7.496E-02
V18	0.807	0.368	-0.376	6.902E-02	-6.804E-02
V19	0.793	2.884E-02	-0.193	0.242	-6.551E-02
V20	0.509	0.277	-0.119	0.196	0.647
V21	0.686	-0.515	0.133	-5.779E-02	-0.196
V22	0.751	-0.501	0.196	-0.163	5.180E-02
V23	0.736	-0.522	0.131	-7.300E-02	-8.462E-02
V24	0.734	-0.520	0.197	-0.134	-1.730E-02
V25	0.771	-0.475	0.162	-0.154	-7.347E-02
V26	0.788	-0.431	0.143	-0.154	-6.746E-02

Note. Extraction Method: Principal Component Analysis, 5 components extracted.

Table 9

Reproduced Correlations

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
Repro duced Correl ation	V1	0.91 1	0.75 5	0.40 6	5.82 6E-0 2	8.15 2E-0 2	-0.19 3	-0.19 9	0.14 2	-8.71 6E-0 3	0.28 4	-0.14 8	0.30 2	0.30 8	0.31 1	3.65 7E-0 2	0.28 3	0.28 1	0.27 7	0.47 5	0.19 7	0.81 1	0.89 4	0.85 9	0.88 4	0.87 7	0.86 1
	V2	0.75 5	0.87 0	0.36 6	8.18 2E-0 2	9.97 1E-0 2	6.28 0E-0 2	-0.14 2	0.39 0	1.35 0E-0 2	0.27 5	-0.10 1	0.30 1	0.30 9	0.29 7	-8.91 5E-0 2	0.24 6	0.24 1	0.28 8	0.43 4	0.54 5	0.56 0	0.74 2	0.65 4	0.70 1	0.67 3	0.66 8
	V3	0.40 6	0.36 6	0.66 2	0.24 4	0.22 8	0.19 9	0.25 3	0.15 0	-0.12 3	0.74 3	0.24 6	0.77 7	0.78 3	0.72 3	-2.09 7E-0 4	-8.63 7E-0 2	-8.98 5E-0 2	0.75 6	0.67 9	0.41 6	0.43 6	0.44 1	0.46 4	0.43 4	0.47 7	0.50 0
	V4	5.82 6E-0 2	8.18 2E-0 4	0.24 4	0.87 9	0.86 0	0.62 6	0.75 1	0.67 1	0.37 8	0.36 2	0.79 7	0.36 8	0.35 5	0.22 3	0.54 6	0.16 2	0.16 3	0.41 9	0.20 3	0.24 2	2.86 8E-0 2	0.10 6	4.13 0E-0 2	8.21 8E-0 2	0.12 4	0.15 3
	V5	8.15 2E-0 2	9.97 1E-0 2	0.22 8	0.86 0	0.84 3	0.60 0	0.72 1	0.66 4	0.37 9	0.33 4	0.76 9	0.33 9	0.32 7	0.19 9	0.54 1	0.17 9	0.18 0	0.39 0	0.19 0	0.22 9	4.56 3E-0 2	0.12 7	5.91 7E-0 2	0.10 2	0.14 1	0.16 8
	V6	-0.19 3	6.28 0E-0 2	0.19 9	0.62 6	0.60 0	0.71 1	0.65 4	0.61 9	0.31 9	0.34 7	0.66 0	0.36 5	0.36 0	0.24 9	0.22 5	8.86 1E-0 2	8.58 1E-0 2	0.39 7	0.18 0	0.49 2	-0.24 7	-0.15 0	-0.21 1	-0.18 5	-0.16 4	-0.12 8
	V7	-0.19 9	-0.14 2	0.25 3	0.75 1	0.72 1	0.65 4	0.79 3	0.49 3	0.37 9	0.42 3	0.80 3	0.43 8	0.42 8	0.30 4	0.40 1	0.11 3	0.11 4	0.46 6	0.22 2	0.23 5	-0.15 1	-0.14 7	-0.16 1	-0.15 7	-0.10 7	-7.11 2E-0 2
	V8	0.14 2	0.39 0	0.15 0	0.67 1	0.66 4	0.61 9	0.49 3	0.80 2	0.28 6	0.20 8	0.54 0	0.21 6	0.21 0	0.10 6	0.31 7	0.15 6	0.15 4	0.27 0	0.12 7	0.52 3	-2.84 0E-0 2	0.17 2	4.21 8E-0 2	0.11 6	0.11 6	0.13 9
	V9	-8.71 6E-0 3	1.35 0E-0 2	-0.12 3	0.37 8	0.37 9	0.31 9	0.37 9	0.28 6	0.82 4	-0.13 1	0.41 1	-0.11 2	-0.12 0	-0.15 4	0.21 5	0.80 5	0.80 7	-0.14 3	-2.53 6E-0 2	6.66 1E-0 4	-1.63 8E-0 2	-2.61 0E-0 2	-3.53 5E-0 2	-1.33 5E-0 2	-2.95 4E-0 2	-3.28 6E-0 2
	V10	0.28 4	0.27 5	0.74 3	0.36 2	0.33 4	0.34 7	0.42 3	0.20 8	-0.13 1	0.88 5	0.40 6	0.92 3	0.92 7	0.84 1	3.64 8E-0 2	-0.17 7	-0.18 1	0.90 8	0.74 2	0.48 9	0.34 2	0.33 6	0.36 7	0.32 6	0.38 6	0.42 0
	V11	-0.14 8	-0.10 1	0.24 6	0.79 7	0.76 9	0.66 0	0.80 3	0.54 0	0.41 1	0.40 6	0.82 2	0.41 9	0.40 8	0.28 1	.446	0.15 3	0.15 4	0.45 1	0.21 6	0.23 0	-0.11 4	-9.64 2E-0 2	-0.12 1	-0.10 8	-6.01 8E-0 2	-2.58 2E-0 2
	V12	0.30 2	0.30 1	0.77 7	0.36 8	0.33 9	0.36 5	0.43 8	0.21 6	-0.11 2	0.92 3	0.41 9	0.96 4	0.96 9	0.88 1	2.16 2E-0 2	-0.15 3	-0.15 7	0.94 4	0.78 4	0.52 5	0.36 0	0.35 4	0.38 7	0.34 4	0.40 5	0.44 0

(Table 9 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
	V13	0.30 8	0.30 9	0.78 3	0.35 5	0.32 7	0.36 0	0.42 8	0.21 0	-0.12 0	0.92 7	0.40 8	0.96 9	0.97 5	0.88 8	9.66 0E-0 3	-0.15 6	-0.16 0	0.94 8	0.79 1	0.53 2	0.36 5	0.35 9	0.39 3	0.35 0	0.41 0	0.44 5
	V14	0.31 1	0.29 7	0.72 3	0.22 3	0.19 9	0.24 9	0.30 4	0.10 6	-0.15 4	0.84 1	0.28 1	0.88 1	0.88 8	0.82 4	-5.92 3E-0 2	-0.15 0	-0.15 5	0.85 2	0.74 0	0.46 8	0.37 2	0.35 3	0.39 6	0.34 8	0.40 0	0.42 9
	V15	3.65 7E-0 2	-8.91 5E-0 2	-2.09 7E-0 4	0.54 6	0.54 1	0.22 5	0.40 1	0.31 7	0.21 5	3.64 8E-0 2	0.44 6	2.16 2E-0 2	9.66 0E-0 3	-5.92 3E-0 2	0.48 0	8.20 2E-0 2	8.57 7E-0 2	6.82 5E-0 2	-5.05 9E-0 2	-0.14 5	4.41 6E-0 2	6.06 0E-0 2	2.56 1E-0 2	5.79 7E-0 2	8.68 9E-0 2	9.46 0E-0 2
	V16	0.28 3	0.24 6	-8.63 7E-0 2	0.16 2	0.17 9	8.86 1E-0 2	0.11 3	0.15 6	0.80 5	-0.17 7	0.15 3	-0.15 3	-0.15 6	-0.15 0	8.20 2E-0 2	0.95 3	0.95 4	-0.21 1	5.93 9E-0 2	-1.53 5E-0 2	0.24 7	0.24 1	0.23 9	0.26 0	0.22 5	0.20 6
	V17	0.28 1	0.24 1	-8.98 5E-0 2	0.16 3	0.18 0	8.58 1E-0 2	0.11 4	0.15 4	0.80 7	-0.18 1	0.15 4	-0.15 7	-0.16 0	-0.15 5	8.57 7E-0 2	0.95 4	0.95 6	-0.21 5	5.55 1E-0 2	-2.29 7E-0 2	0.24 7	0.23 9	0.23 7	0.25 9	0.22 4	0.20 5
	V18	0.27 7	0.28 8	.756	0.41 9	0.39 0	0.39 7	0.46 6	0.27 0	-0.14 3	0.90 8	0.45 1	0.94 4	0.94 8	0.85 2	6.82 5E-0 2	-0.21 1	-0.21 5	0.93 8	0.74 4	0.52 7	0.32 3	0.33 4	0.35 4	0.31 9	0.38 1	0.41 8
	V19	0.47 5	0.43 4	0.67 9	0.20 3	0.19 0	0.18 0	0.22 2	0.12 7	-2.53 6E-0 2	0.74 2	0.21 6	0.78 4	0.79 1	0.74 0	-5.05 9E-0 2	5.93 9E-0 2	5.55 1E-0 2	0.74 4	0.72 9	0.43 9	0.50 2	0.50 1	0.53 1	0.49 8	0.53 4	0.55 2
	V20	0.19 7	0.54 5	0.41 6	0.24 2	0.22 9	0.49 2	0.23 5	0.52 3	6.66 1E-0 4	0.48 9	0.23 0	0.52 5	0.53 2	0.46 8	-0.14 5	-1.53 5E-0 2	-2.29 7E-0 2	0.52 7	0.43 9	0.80 7	5.26 5E-0 2	0.22 2	0.14 5	0.16 8	0.16 4	0.19 1
	V21	0.81 1	0.56 0	0.43 6	2.86 8E-0 2	4.56 3E-0 2	-.247	-.151	-2.84 0E-0 2	-1.63 8E-0 2	0.34 2	-0.11 4	0.36 0	0.36 5	0.37 2	4.41 6E-0 2	0.24 7	0.24 7	0.32 3	0.50 2	5.26 5E-0 2	0.79 4	0.79 8	0.81 2	0.80 8	0.81 8	0.80 3
	V22	0.89 4	0.74 2	0.44 1	0.10 6	0.12 7	-0.15 0	-0.14 7	0.17 2	-2.61 0E-0 2	0.33 6	-9.64 2E-0 2	0.35 4	0.35 9	0.35 3	6.06 0E-0 2	0.24 1	0.23 9	0.33 4	0.50 1	0.22 2	0.79 8	0.88 3	0.84 8	0.87 1	0.87 0	0.85 8
	V23	0.85 9	0.65 4	0.46 4	4.13 0E-0 2	5.91 7E-0 2	-0.21 1	-0.16 1	4.21 8E-0 2	-3.53 5E-0 2	0.36 7	-0.12 1	0.38 7	0.39 3	0.39 6	2.56 1E-0 2	0.23 9	0.23 7	0.35 4	0.53 1	0.14 5	0.81 2	0.84 8	0.84 4	0.84 9	0.85 4	0.84 1
	V24	0.88 4	0.70 1	0.43 4	8.21 8E-0 2	.102	-0.18 5	-0.15 7	.116	-1.33 5E-0 2	0.32 6	-0.10 8	0.34 4	0.35 0	0.34 8	5.79 7E-0 2	0.26 0	0.25 9	0.31 9	0.49 8	0.16 8	0.80 8	0.87 1	0.84 9	0.86 6	0.86 7	0.85 3
	V25	0.87 7	0.67 3	0.47 7	0.12 4	0.14 1	-0.16 4	-0.10 7	0.11 6	-2.95 4E-0 2	0.38 6	-6.01 8E-0 2	0.40 5	0.41 0	0.40 0	8.68 9E-0 2	0.22 5	0.22 4	0.38 1	0.53 4	0.16 4	0.81 8	0.87 0	0.85 4	0.86 7	0.87 6	0.86 4
	V26	0.86 1	0.66 8	0.50 0	0.15 3	0.16 8	-0.12 8	-7.11 2E-0 2	0.13 9	-3.28 6E-0 2	0.42 0	-2.58 2E-0 2	0.44 0	0.44 5	0.42 9	9.46 0E-0 2	0.20 6	0.20 5	0.41 8	0.55 2	0.19 1	0.80 3	0.85 8	0.84 1	0.85 3	0.86 4	0.85 6

(Table 9 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
Residual	V1		-2.23 5E-0 2	2.65 0E-0 4	-1.75 4E-0 2	-2.23 9E-0 2	-6.58 4E-0 3	2.75 1E-0 2	2.36 1E-0 2	-2.30 2E-0 2	1.27 6E-0 2	2.63 6E-0 2	7.52 0E-0 3	4.15 4E-0 3	5.01 0E-0 3	-1.68 8E-0 2	8.51 3E-0 3	8.96 6E-0 3	-2.54 1E-0 3	-1.31 9E-0 2	-2.92 5E-0 2	-5.61 1E-0 2	4.38 1E-0 2	2.36 2E-0 3	1.80 7E-0 2	-4.08 1E-0 2	-3.81 1E-0 2
	V2	-2.23 5E-0 2		-6.11 2E-0 3	-2.06 1E-0 2	-7.43 7E-0 3	4.67 0E-0 3	4.45 6E-0 2	-7.56 8E-0 2	-1.12 9E-0 2	1.03 3E-0 2	3.75 2E-0 2	4.61 5E-0 3	-2.65 2E-0 3	-9.61 3E-0 3	2.99 3E-0 2	-1.64 8E-0 3	-5.54 5E-0 4	5.23 0E-0 3	-2.73 3E-0 2	-2.71 2E-0 2	-1.25 0E-0 2	-9.96 3E-0 3	8.70 3E-0 3	-1.54 0E-0 2	-1.49 4E-0 2	7.79 0E-0 3
	V3	2.65 0E-0 4	-6.11 2E-0 3		5.81 8E-0 2	7.12 6E-0 2	-7.38 7E-0 2	-8.62 6E-0 2	5.95 3E-0 2	-3.74 9E-0 2	-4.34 2E-0 2	-9.48 2E-0 2	-3.61 7E-0 2	-2.79 7E-0 2	-0.10 6	4.48 2E-0 2	3.72 4E-0 2	3.62 2E-0 2	-1.45 6E-0 2	0.13 8	-3.21 1E-0 2	-7.17 3E-0 2	-1.62 6E-0 2	1.64 5E-0 2	-9.25 9E-0 2	-4.38 4E-0 2	-3.49 3E-0 2
	V4	-1.75 4E-0 2	-2.06 1E-0 2	5.81 8E-0 2		7.26 7E-0 2	-8.29 4E-0 2	-6.65 3E-0 2	1.49 3E-0 2	9.21 8E-0 3	-1.20 3E-0 2	-5.18 5E-0 2	-8.83 9E-0 3	-3.50 9E-0 3	-4.42 0E-0 2	-8.69 8E-0 2	6.09 0E-0 3	3.43 6E-0 3	2.46 4E-0 2	5.60 4E-0 2	-2.95 3E-0 3	-1.66 3E-0 2	3.45 2E-0 3	2.12 6E-0 2	-3.54 9E-0 2	-1.75 6E-0 2	-1.92 9E-0 2
	V5	-2.23 9E-0 2	-7.43 7E-0 2	7.12 6E-0 2	7.26 7E-0 2		-8.71 9E-0 2	-8.60 5E-0 2	3.25 8E-0 2	2.09 3E-0 2	-2.14 6E-0 2	-7.61 9E-0 2	-1.93 2E-0 2	-1.46 0E-0 2	-2.32 0E-0 2	-6.63 9E-0 2	2.50 2E-0 4	-1.04 5E-0 2	1.74 2E-0 2	9.57 2E-0 3	-2.22 8E-0 3	-2.46 9E-0 3	-8.39 5E-0 3	7.04 9E-0 3	-4.14 5E-0 2	-2.15 6E-0 2	-1.50 4E-0 2
	V6	-6.58 4E-0 3	4.67 0E-0 3	-7.38 7E-0 2	-8.29 4E-0 2	-8.71 9E-0 2		8.91 0E-0 2	-6.80 8E-0 2	-1.20 4E-0 2	-8.77 0E-0 3	2.96 7E-0 2	-1.03 5E-0 2	-1.22 9E-0 2	1.15 3E-0 2	-3.04 0E-0 2	-3.04 9E-0 2	-2.99 9E-0 2	-2.52 6E-0 2	-6.91 3E-0 2	-5.67 8E-0 2	9.39 1E-0 2	-4.08 1E-0 3	3.60 1E-0 2	3.90 7E-0 2	4.46 3E-0 2	3.46 9E-0 2
	V7	2.75 1E-0 2	4.45 6E-0 2	-8.62 6E-0 2	-6.65 3E-0 2	-8.60 5E-0 2	8.91 0E-0 2		-6.31 8E-0 2	-5.67 5E-0 2	2.64 7E-0 3	0.13 9	-5.10 1E-0 3	-9.78 2E-0 3	2.75 5E-0 3	-0.13 3	-1.71 3E-0 2	-1.76 8E-0 2	-3.06 2E-0 2	-0.12 7	-2.44 7E-0 2	4.96 2E-0 2	9.61 2E-0 3	1.54 2E-0 2	5.52 5E-0 2	3.10 9E-0 2	3.24 7E-0 2
	V8	2.36 1E-0 2	-7.56 8E-0 2	5.95 3E-0 2	1.49 3E-0 2	3.25 8E-0 2	-6.80 8E-0 2	-6.31 8E-0 2		-3.12 7E-0 2	1.48 0E-0 2	-4.80 8E-0 2	1.31 4E-0 2	1.11 1E-0 2	3.33 1E-0 3	-5.13 6E-0 2	3.32 3E-0 2	3.21 8E-0 3	8.88 2E-0 3	5.40 9E-0 2	-9.85 3E-0 2	-3.86 0E-0 2	-1.45 5E-0 2	-2.20 2E-0 2	-1.50 4E-0 2	-9.54 8E-0 3	-4.64 7E-0 3
	V9	-2.30 2E-0 2	-1.12 9E-0 2	-3.74 9E-0 2	9.21 8E-0 3	2.09 3E-0 2	-1.20 4E-0 2	-5.67 5E-0 2	-3.12 7E-0 2		-2.43 7E-0 3	-4.84 0E-0 2	2.17 2E-0 3	2.58 7E-0 3	6.12 1E-0 3	4.39 9E-0 2	-7.18 3E-0 2	-6.88 6E-0 2	1.99 6E-0 3	3.46 5E-0 2	5.60 7E-0 2	2.63 6E-0 2	-1.34 6E-0 2	-1.72 1E-0 2	1.87 6E-0 2	1.49 1E-0 2	1.25 5E-0 2
	V10	1.27 6E-0 2	1.03 3E-0 2	-4.34 2E-0 2	-1.20 3E-0 2	-2.14 6E-0 2	-8.77 0E-0 3	2.64 7E-0 3	1.48 0E-0 2	-2.43 7E-0 3		-8.13 9E-0 4	4.32 2E-0 2	-9.26 8E-0 3	-4.43 9E-0 2	-1.24 8E-0 3	1.08 1E-0 2	1.11 5E-0 2	1.89 8E-0 4	-5.69 0E-0 2	-2.09 8E-0 2	-2.37 6E-0 2	1.28 4E-0 2	-2.25 0E-0 2	1.26 6E-0 2	1.28 2E-0 3	9.16 7E-0 3
	V11	2.63 6E-0 2	3.75 2E-0 2	-9.48 2E-0 2	-5.18 5E-0 2	-7.61 9E-0 2	2.96 7E-0 2	0.13 9	-4.80 8E-0 2	-4.84 0E-0 2	-8.13 9E-0 4		-2.60 3E-0 4	3.98 5E-0 3	2.19 0E-0 2	-0.11 5	-1.20 1E-0 2	-1.27 1E-0 2	-2.44 4E-0 2	-0.12 7	-1.77 2E-0 3	4.12 2E-0 2	5.71 4E-0 3	9.70 4E-0 3	5.06 3E-0 2	2.42 0E-0 2	2.25 0E-0 2
	V12	7.52 0E-0 3	4.61 5E-0 3	-3.61 7E-0 2	-8.83 9E-0 3	-1.93 2E-0 2	-1.03 5E-0 2	-5.10 1E-0 3	1.31 4E-0 2	2.17 2E-0 3	4.32 2E-0 2	-2.60 3E-0 4		8.78 1E-0 3	-1.68 1E-0 2	1.23 3E-0 2	6.96 6E-0 3	7.44 1E-0 3	1.01 0E-0 2	-3.75 1E-0 2	-9.58 8E-0 3	-1.50 4E-0 2	7.54 6E-0 3	-2.21 0E-0 2	1.10 6E-0 2	2.02 0E-0 3	7.32 2E-0 3
	V13	4.15 4E-0 3	-2.65 2E-0 3	-2.79 7E-0 2	-3.50 9E-0 3	-1.46 0E-0 2	-1.22 9E-0 2	-9.78 2E-0 3	1.11 1E-0 2	2.58 7E-0 3	-9.26 8E-0 3	3.98 5E-0 3	8.78 1E-0 3		7.50 6E-0 3	1.56 1E-0 2	3.95 3E-0 3	4.11 4E-0 3	1.74 3E-0 2	-1.43 3E-0 2	4.08 4E-0 4	-6.93 8E-0 3	3.37 3E-0 3	-2.01 9E-0 2	9.88 6E-0 3	2.04 2E-0 3	4.79 2E-0 3
	V14	5.01 0E-0 3	-9.61 3E-0 3	-0.10 6	-4.42 0E-0 2	-2.32 0E-0 2	1.15 3E-0 2	2.75 5E-0 3	3.33 1E-0 3	6.12 1E-0 2	-4.43 9E-0 2	2.19 0E-0 2	-1.68 1E-0 2	7.50 6E-0 3		7.32 6E-0 2	-3.27 6E-0 3	-2.39 0E-0 3	-1.14 1E-0 2	-3.67 5E-0 2	2.85 5E-0 2	7.04 6E-0 2	1.35 4E-0 2	1.17 2E-0 2	3.23 2E-0 2	-9.85 3E-0 3	-2.03 2E-0 2

(Table 9 continued)

		V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18	V19	V20	V21	V22	V23	V24	V25	V26
	V15	-1.68 8E-0 2	2.99 3E-0 2	4.48 2E-0 2	-8.69 8E-0 2	-6.63 9E-0 2	-3.04 0E-0 2	-0.13 3	-5.13 6E-0 2	4.39 9E-0 2	-1.24 8E-0 3	-0.11 5	1.23 3E-0 2	1.56 1E-0 2	7.32 6E-0 2		2.44 7E-0 2	3.27 5E-0 2	-1.39 6E-0 2	9.58 6E-0 2	0.16 2	-5.03 1E-0 2	9.25 6E-0 4	-2.25 5E-0 2	-3.57 4E-0 2	-5.55 9E-0 2	-6.59 6E-0 2
	V16	8.51 3E-0 3	-1.64 8E-0 3	3.72 4E-0 2	6.09 0E-0 3	2.50 2E-0 3	-3.04 9E-0 2	-1.71 3E-0 2	3.32 3E-0 2	-7.18 3E-0 2	1.08 1E-0 2	-1.20 1E-0 2	6.96 6E-0 3	3.95 3E-0 3	-3.27 6E-0 3	2.44 7E-0 2		3.93 9E-0 2	1.29 6E-0 2	-3.07 1E-0 3	-1.90 1E-0 2	-4.01 8E-0 2	1.07 2E-0 2	-6.14 2E-0 3	-1.97 6E-0 2	-1.43 2E-0 2	-1.06 9E-0 2
	V17	8.96 6E-0 3	-5.54 5E-0 4	3.62 2E-0 2	3.43 6E-0 3	-1.04 5E-0 4	-2.99 9E-0 2	-1.76 8E-0 2	3.21 8E-0 2	-6.88 6E-0 2	1.11 5E-0 2	-1.27 1E-0 2	7.44 1E-0 3	4.11 4E-0 3	-2.39 0E-0 3	3.27 5E-0 2	3.93 9E-0 2		1.15 1E-0 2	-6.32 9E-0 4	-1.66 3E-0 2	-4.04 1E-0 2	1.05 6E-0 2	-6.21 5E-0 3	-2.00 3E-0 2	-1.49 7E-0 2	-1.15 0E-0 2
	V18	-2.54 1E-0 3	5.23 0E-0 3	-1.45 6E-0 2	2.46 4E-0 2	1.74 2E-0 2	-2.52 6E-0 2	-3.06 2E-0 2	8.88 8E-0 3	1.99 6E-0 4	1.89 8E-0 4	-2.44 4E-0 2	1.01 0E-0 2	1.74 3E-0 2	-1.14 1E-0 2	-1.39 6E-0 2	1.29 6E-0 2	1.15 1E-0 2		-2.64 0E-0 2	-2.07 9E-0 2	-2.99 1E-0 2	1.98 3E-0 3	-6.76 7E-0 3	7.26 6E-0 5	-9.98 6E-0 3	-6.08 5E-0 3
	V19	-1.31 9E-0 2	-2.73 3E-0 2	0.13 8	5.60 4E-0 2	9.57 2E-0 2	-6.91 3E-0 2	-0.12 7	5.40 9E-0 2	3.46 5E-0 2	-5.69 0E-0 2	-0.12 7	-3.75 1E-0 2	-1.43 3E-0 2	-3.67 5E-0 2	9.58 6E-0 2	-3.07 1E-0 3	-6.32 9E-0 4	-2.64 0E-0 2		4.20 9E-0 3	-3.99 9E-0 2	-2.21 9E-0 2	1.05 2E-0 2	-7.35 1E-0 2	-4.25 3E-0 2	-4.05 1E-0 2
	V20	-2.92 5E-0 2	-2.71 2E-0 2	-3.21 1E-0 2	-2.95 3E-0 3	-2.22 8E-0 3	-5.67 8E-0 2	-2.44 7E-0 2	-9.85 3E-0 2	5.60 7E-0 2	-2.09 8E-0 2	-1.77 2E-0 3	-9.58 8E-0 3	4.08 4E-0 4	2.85 6E-0 2	0.16 2	-1.90 1E-0 2	-1.66 3E-0 2	-2.07 9E-0 2	4.20 9E-0 3		5.49 9E-0 2	-1.78 1E-0 2	-5.73 8E-0 3	5.35 9E-0 3	1.36 5E-0 2	-1.38 1E-0 2
	V21	-5.61 1E-0 2	-1.25 0E-0 2	-7.17 3E-0 2	-1.66 3E-0 2	-2.46 9E-0 2	9.39 1E-0 2	4.96 2E-0 2	-3.86 0E-0 2	2.63 6E-0 2	-2.37 6E-0 2	4.12 2E-0 2	-1.50 4E-0 2	-6.93 8E-0 3	7.04 5E-0 3	-5.03 1E-0 2	-4.01 8E-0 2	-4.04 1E-0 2	-2.99 1E-0 2	-3.99 9E-0 2	5.49 9E-0 2		-7.51 3E-0 2	1.72 8E-0 2	3.10 9E-0 2	3.83 6E-0 2	1.08 3E-0 2
	V22	4.38 1E-0 2	-9.96 3E-0 3	-1.62 6E-0 2	3.45 2E-0 3	-8.39 5E-0 3	-4.08 1E-0 3	9.61 2E-0 3	-1.45 5E-0 2	-1.34 6E-0 2	1.28 4E-0 2	5.71 4E-0 3	7.54 6E-0 3	3.37 3E-0 3	1.35 6E-0 2	9.25 6E-0 4	1.07 2E-0 2	1.05 6E-0 2	1.98 3E-0 2	-2.21 9E-0 2	-1.78 1E-0 2	-7.51 3E-0 2		1.18 5E-0 2	7.87 3E-0 3	-5.27 5E-0 2	-5.18 9E-0 2
	V23	2.36 2E-0 3	8.70 3E-0 3	1.64 5E-0 2	2.12 6E-0 2	7.04 9E-0 3	3.60 1E-0 2	1.54 2E-0 2	-2.20 2E-0 2	-1.72 1E-0 2	-2.25 0E-0 3	9.70 4E-0 2	-2.21 0E-0 2	-2.01 9E-0 2	1.17 4E-0 2	-2.25 5E-0 2	-6.14 2E-0 3	-6.21 5E-0 3	-6.76 7E-0 3	1.05 2E-0 2	-5.73 8E-0 3	1.72 8E-0 2	1.18 5E-0 2		-3.29 9E-0 2	-5.90 2E-0 2	-7.27 5E-0 2
	V24	1.80 7E-0 2	-1.54 0E-0 2	-9.25 9E-0 2	-3.54 9E-0 2	-4.14 5E-0 2	3.90 7E-0 2	5.52 5E-0 2	-1.50 4E-0 2	1.87 6E-0 2	1.26 6E-0 2	5.06 3E-0 2	1.10 6E-0 2	9.88 6E-0 3	3.23 2E-0 2	-3.57 4E-0 2	-1.97 6E-0 2	-2.00 3E-0 2	7.26 6E-0 5	-7.35 1E-0 2	5.35 9E-0 3	3.10 9E-0 2	7.87 3E-0 3	-3.29 9E-0 2		-1.16 7E-0 2	-2.22 8E-0 2
	V25	-4.08 1E-0 2	-1.49 4E-0 2	-4.38 4E-0 2	-1.75 6E-0 2	-2.15 6E-0 2	4.46 3E-0 2	3.10 9E-0 2	-9.54 8E-0 3	1.49 1E-0 2	1.28 2E-0 3	2.42 0E-0 2	2.02 0E-0 3	2.04 2E-0 3	-9.85 3E-0 3	-5.55 9E-0 2	-1.43 2E-0 2	-1.49 7E-0 2	-9.98 6E-0 3	-4.25 3E-0 2	1.36 5E-0 2	3.83 6E-0 2	-5.27 5E-0 2	-5.90 2E-0 2	-1.16 7E-0 2		0.10 3
	V26	-3.81 1E-0 2	7.79 0E-0 3	-3.49 3E-0 2	-1.92 9E-0 2	-1.50 4E-0 2	3.46 9E-0 2	3.24 7E-0 2	-4.64 7E-0 3	1.25 5E-0 2	9.16 7E-0 3	2.25 0E-0 2	7.32 2E-0 3	4.79 2E-0 3	-2.03 2E-0 2	-6.59 6E-0 2	-1.06 9E-0 2	-1.15 0E-0 2	-6.08 5E-0 3	-4.05 1E-0 2	-1.38 1E-0 2	1.08 3E-0 2	-5.18 9E-0 2	-7.27 5E-0 2	-2.22 8E-0 2	0.10 3	

Notes. Extraction Method: Principal Component Analysis; residuals are computed between observed and reproduced correlations.

There are 58 (17.0%) nonredundant residuals with absolute values > 0.05; reproduced communalities.

Table 10

Rotated Component Matrix ^a

	Component				
	1	2	3	4	5
V1	0.936	0.126	-3.799E-02	8.493E-02	0.106
V2	0.714	0.126	-5.887E-02	8.752E-02	0.578
V3	0.339	0.726	9.249E-02	-7.458E-02	7.790E-02
V4	5.009E-02	0.197	0.902	0.105	0.113
V5	7.798E-02	0.164	0.886	0.111	0.114
V6	-0.286	0.304	0.573	0.148	0.432
V7	-0.255	0.388	0.738	0.179	3.278E-02
V8	0.102	1.694E-02	0.653	6.237E-02	0.601
V9	-6.038E-02	-0.102	0.344	0.831	2.933E-02
V10	0.194	0.886	0.200	-0.120	8.295E-02
V11	-0.194	0.344	0.792	0.193	4.134E-02
V12	0.202	0.932	0.190	-8.829E-02	0.102
V13	0.206	0.939	0.174	-9.003E-02	0.109
V14	0.216	0.873	4.492E-02	-8.402E-02	7.406E-02
V15	0.103	-0.112	0.649	-9.910E-03	-0.189
V16	0.237	-0.149	8.708E-02	0.931	3.289E-02
V17	0.237	-0.153	8.995E-02	0.931	2.521E-02
V18	0.188	0.890	0.262	-0.161	0.124
V19	0.390	0.749	1.842E-02	7.894E-02	9.630E-02
V20	6.525E-02	0.451	6.906E-02	5.192E-03	0.771
V21	0.838	0.243	-6.213E-02	0.102	-0.140
V22	0.916	0.172	1.029E-02	4.825E-02	0.108
V23	0.878	0.249	-6.326E-02	7.896E-02	-2.596E-02
V24	0.909	0.178	-1.186E-02	7.551E-02	3.781E-02
V25	0.903	0.238	3.070E-02	4.686E-02	-6.145E-03
V26	0.882	0.272	5.609E-02	3.447E-02	8.707E-03

Notes. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Table 11

Component Transformation Matrix

Component	1	2	3	4	5
1	0.666	0.676	0.250	0.052	0.185
2	-0.636	0.330	0.679	0.023	0.159
3	0.255	-0.484	0.435	0.712	0.063
4	-0.295	0.405	-0.517	0.689	0.084
5	-0.014	-0.188	-0.143	-0.120	0.964

Notes. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Conclusions

The main conclusions of this study may be summarized and 385 consumers were surveyed to find out how they evaluate banks operating in the State of Libya. The main results of the survey are:

1. The respondents were asked to rate the importance of 26 bank attributes. Factor Analysis was used to reduce the number of explanatory variables to a manageable level. Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling suggest that Factor Analysis is appropriate in determining the main reasons for preferring one type of bank over the other within the dual-banking system currently operating in Libya.

2. Using the principal component method and varimax rotation, the 26 explanatory variables for dealing with a particular bank were reduced to the five factors, namely, a convenience factor, a traditional services factor, a reputation factor, a cost-return factor, and a religious factor.

3. Libyan consumers who elect to bank with conventional local banks do so mainly for convenience and because of the reputation these banks enjoy locally.

4. Libyan consumers who elect to bank with Islamic banks do so mainly for religious reasons. Adhering to Islamic religion, which prohibits using (i.e., paying or receiving) interest is a main factor which motivates Libyan consumers to deal (borrow or deposit funds) with local Islamic bank rather than any of the other traditional (interest-based, local, or foreign) banks.

5. While reputation and high-quality banking services are important factors when selecting a bank, commercial banks must pay attention to price-competition when thinking of expanding or maintaining their market shares. Banking deregulation should be a base for competition in terms of interest rates on loans and deposits.

6. Although Libya is a relatively small country, convenience, in terms of number of branches, location of branches, and business hours, is an important decision factor for consumers who live in relatively new developed areas.

References

- Bartholomew, D. J., & Knott, M. (1999). *Latent variable models and factor analysis*. London, Edward Arnold Publishers.
- Basilevsky, A. (1994). *Statistical factor analysis and related methods*. New York, N.Y.: John Wiley.
- Coakes, S. J., & Steed, L. G. (1999). *SPSS: Analysis without anguish*. Sydney: Jacaranda Wiley Ltd.
- Dillon, W. R., & Goldstein, M. (1984). *Multivariate analysis: Methods and applications*. New York, N.Y.: John Wiley.
- Ding, A. A. (1999). Prediction intervals, factor analysis models and high-dimensional empirical linear predictions. *Journal of the American Statistical Association*, 94, 442-451.
- Dunteman, G. H. (1989). *Principal component analysis*. Newburg Park, CA: Sage Publications.
- Goldstein, M. (1984). *Multivariate analysis: Methods and applications*. New York, N.Y.: John Wiley.
- Hair, J., Anderson, R. E., Joseph, R. L., Tatham, F., & Blach, W. C. (2004). *Multivariate data analysis with readings* (10th ed.). New York, N.Y.: Macmulton.
- Harman, H. H. (1967). *Modern factor analysis*. Chicago: University of Chicago Press.
- Johnson, R. A., & Wichern, D. W. (2002). *Applied multivariate statistical analysis*. Englewood Cliffs, N.J.: Prentice-Hall.
- Joreskog, R. G., & Sorborn, D. (1979). *Advances in factor analysis and structural equation models*. Cambridge: Mass Abt Books.
- Lattin, J., Carroll, J. D., & Green, P. E. (2003). *Analyzing multivariate data*. Mason, USA: Thomson.
- Lawley, D. N., & Maxwell, A. K. (1971). *Factor analysis as a statistical method*. New York, N.Y.: American Elsevier Publishing Company.
- Malhotra, N. K. (2004). *Marketing research: An applied orientation*. London: Prentice-Hall.
- Manly, B. F. J. (1994). *Multivariate statistical methods* (2nd ed.). London: Champon & Hall.

- Metwally, M. M. (2000). *Applied multivariate statistical techniques*. Wollongong: FE Publishing.
- Morrison, D. F. (2005). *Multivariate statistical methods* (4th ed.). London, Duxbury Advanced Series.
- Muliak, S. A. (1972). *The foundation of factor analysis*. New York, N.Y.: McGraw-Hill.
- Myers, J. H., & Mullet, G. M. (2003). *Managerial applications of multivariate analysis in marketing*. New York, N.Y.: Thomson.
- Stewart, D. W. (1981). The application and misapplication of factor analysis in marketing research. *Journal of Marketing Research*, 18(1), 51-62.
- Tacq, J. (1997). *Multivariate analysis techniques in social science research*. Thousand Oaks, CA: Sage Publications.
- Wichern, D. W. (2001). *Applied multivariate statistical analysis*. Paramus, N.J.: Prentice-Hall.