

## Analysis of Factors Influencing Customer Credentials in Lending Process: A Study on Retail Banking Sector in Odisha

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### ABSTRACT

The research examines the intricate factors affecting customer qualifications in the loan approval process, with an emphasis on the Retail Banking industry in Odisha, India. Through a comprehensive examination, it uncovers and investigates different factors impacting customer credentials and customer behavior during the lending procedure. Using a combination of qualitative and quantitative research methods like surveys and interviews, information has been gathered from a varied group of Retail Banking clients (including both Public and Private sector banks) in Odisha. The results reveal a complex interaction of these factors in influencing customer qualifications, emphasizing the significance of trust, transparency, and accessibility in promoting positive borrowing interactions. The research provides important information for banks to enhance their loan strategies, boost client happiness, and reduce risks in the Retail Banking industry. The study delves into complex interactions to enhance knowledge of customer actions and guide strategic decision-making in the Banking Industry.

**Keywords:** Customer Credentials, Borrowing Behavior, Social References, Creditworthiness, Retail Lending Process.

### 1. Introduction:

The Retail Banking industry is crucial for driving Economic Growth and extending Financial Inclusion through offering various Financial Services to Individuals and Households. In this industry, lending is a crucial activity that allows individuals to obtain Credit for different needs such as Buying or Construction of Homes, Purchase Cars, or Funding for Education and Retail Businesses. In Odisha, a State on India's Eastern Coast with a thriving Retail Banking Sector, understanding the factors affecting Customer Credentials is quite essential. Odisha, known for its varied Social and Economic conditions, provides a distinct Environment for analyzing the factors influencing customer qualifications during the Loan Approval process. The Research delves into the Complex Variables that affect Customer Eligibility criteria in the Loan Approval Decision Making Process in the Retail Banking Industry in Odisha. By exploring this field, our goal is to enhance the current Understanding of Retail Banking Practices and Customer Behavior. Our study aims to provide insight into the Factors such as Socio-Economic Variables, Financial Literacy Levels, Quality of Banking Infrastructure, and Customer Behavior patterns that influence Customer Qualifications in Odisha.

By using both Qualitative and Quantitative Methods, we carry out a thorough examination of these factors. Data has been gathered from various Retail Banking Customers in different Regions of Odisha through Surveys and Interviews. Our goal is to fully understand the complex relationship between these factors and their effects on Customer Credentials. At the conclusion, the Research results seek to offer important understandings for Banks Lending Culture in Odisha, allowing them to improve in all domains.

### 2. Literature Review

Behera and Patra (2016) are committed to investigating how Technological Progress impacts Customer Trust and Loan Approvals in the Retail Banking industry of Odisha. In a subsequent Study, Behera, Mohanty, and Dash (2022) examines how Product and Pricing Strategies influence Customer Credentials and Borrowing Decisions, indicating their significant role in shaping Customer Satisfaction, and Borrowing Behavior within Odisha's Retail Banking Industry.

Dash and Dash (2015) studies the relationship between Service Quality Dimensions, Customer Satisfaction, and Lending Behavior in Odisha's Retail Banking Sector. Additional studies conducted by Dash and Dash (2018) have shown that the way customers perceive risk has a significant impact on how they Borrow Money in this area. Mishra, Behera, and Nayak (2018) discovered a significant linkage between Strategies for Customer Relationship Management, Customer Satisfaction, and Loan Appraisals. Their Research highlights a notable Correlation between Service Quality aspects, Customer Contentment, and Borrowing actions. Banks that perform well in providing high-quality services generally experience greater Customer Satisfaction, resulting in Higher Loan Volume and improved Customer Retention.

In the Retail Banking Sector of Odisha, Mohanty and Nayak, in 2022, found that Lending Behaviors are significantly impacted by Income, Employment, and Inflation. Mohanty and Behera (2019) investigate how Financial Literacy Programs affect Customer Empowerment. Pande and Dutta (2013) gave an overview of successful Customer Relationship Management techniques employed by Banks in this Industry. It emphasizes the significance of CRM in improving Customer Satisfaction, Building Loyalty, and impacting Borrowing Choices.

Social and Cultural factors significantly influence Customer Credentials and Lending Decisions in the Retail Banking Sector of Odisha, as stated by Patnaik, S., & Behera, A. K. (2013). Socio-Cultural Dynamics impact Customers' Attitudes and Behaviors towards Banking Services, consequently affecting lending activities. Pradhan, R. P., & Panda, B. (2011) present proof backing the beneficial effect of Financial Literacy initiatives on Client Loan qualifications in Odisha's Retail Banking Industry. Prusty, S, et al. (2015) discovers a notable Correlation between Economic Circumstances and Lending Patterns in Odisha's Retail Banking Industry. Rout, S. K., et al. (2020) highlight key impacts of Social and Cultural factors on Customer Credentials and Borrowing Decisions within the Retail Banking industry in Odisha. Sahu and Sahoo (2014) discovered that the way customers view risk greatly impacts how they borrow in the Retail Banking Industry in Odisha. Banks can reduce Customer Risk Perception and improve Lending activities and customer trust by implementing effective Risk Management Practices. Tripathy, B., et al. (2019) emphasize the significant changes brought about by Technological Advancements like Mobile Banking and AI-Powered Services, on Customer Validation and Loan Approvals Processes.

### 3. Research Gap

The research on “Analysis of Factors Influencing Customer Credentials in the Lending Process: A Study on Retail Banking Sector in Odisha” plays a key role in comprehending Customer Behavior in the Banking Industry. The study explores various factors that impact lending decisions by analyzing the complex dynamics of Customer Credentials. Nevertheless, while it offers valuable insights, there are still significant gaps in Research, such as the necessity for more focused Analysis of Customer Groups, Longitudinal Studies Monitoring Behavioral Shifts as time goes on, and a more thorough investigation into the influence of Emerging Technologies. Valuable Study on these Gaps could improve the study's relevance and offer banks more detailed insights for making effective decisions in Odisha's Retail Banking Sector.

### 4. Research Objectives

1. To identify the key Socio-economic Factors that influence Customer Credentials, Creditworthiness, and Borrowing Behavior.
2. To assess the influences on Customer Credentials in Odisha's Retail Banking customers and how they affect the Lending Process.
3. To assess the efficiency of Current Loan Assessment methods and ascertain the influence of credentials on Customers' Perceptions of Trust, Transparency, and Satisfaction during the Loan Application Process.

### 5. Research Methodology

The Research Design and Methodology for examining the influence of Customer Credentials in Odisha's Retail Banking sector employs a Meticulous and Comprehensive approach. To address the first objective of identifying the Pivotal Socio-Economic Variables that impact Customer Credentials, Creditworthiness, and Borrowing Behavior within the lending process in Odisha's Retail Banking Sector, we conduct an exhaustive Literature Review to identify Existing Frameworks, followed by Qualitative Interviews with Banking Experts. Subsequently, we administer a Quantitative Survey to Retail Banking Customers & Borrowers under Retail Banking Segments of both Public Sectors Bank and Private Sector Banks at different locations (such as Urban, Semi-Urban and Rural areas) in Odisha using a Structured Questionnaire within Convenience Sampling Techniques through Digital and Physical Modes of Data Collection to validate and refine the proposed framework (Sample Size N=500). For the second objective, to evaluate the factors shaping Customer Credentials among Retail Banking Patrons in Odisha and their consequent impact on the Lending Process, we delve into Empirical Analysis. Lastly, to fulfill the third Objective of Appraising the efficacy of Current loan Appraisal Methodologies and discerning how Credential Factors shape Customers' Perceptions of Trust, Transparency, and Satisfaction in the lending process, we evaluate Changes in Trust and Satisfaction before and after any proposed optimization through Comparative Analysis. Throughout the Research, we prioritize ethical considerations, informed consent, and data anonymization, ensuring a robust and reliable study that offers valuable insights into the dynamics of customer credentials in Odisha's Retail Banking landscape. Quantitative Data Analysis is conducted using Statistical Software such as SPSS. The Triangulation of Methods enhances the Robustness and Reliability of our Findings, contributing to a Comprehensive Understanding of the impact of Customer Credentials in Odisha's Retail Banking Sector.

### 6. Data Analysis

		N	%
Cases	Valid	500	100.0
	Excluded <sup>a</sup>	0	.0

	Total	500	100.0
a. Listwise deletion based on all variables in the procedure.			

Cronbach's Alpha	N of Items
.761	50

The Case Processing Summary table illustrates that out of 500 cases analyzed, all were deemed valid (100.0%), with none excluded. This implies a comprehensive dataset without missing values, as indicated by the listwise deletion approach. Moving to Table 2, it depicts Reliability Statistics, notably Cronbach's Alpha coefficient at .761, suggesting a Moderate-to-High level of Internal Consistency among the 50 items measured. These indicate that the items in the instrument are reliably measuring the same construct. The coefficient's value, though not perfect, still signifies a Satisfactory Level of Reliability for the scale employed in the Study, enhancing confidence in its findings.

**6.1. Descriptive Statistics**

SL No	Variables	N	Mean	Std. Deviation	Variance
01	Purpose of Loan	500	1.6160	.48684	.237
02	KYC Verification	500	1.6400	.48048	.231
03	Address Verification	500	1.6380	.48106	.231
04	Contact No Verification	500	1.6920	.46213	.214
05	Occupation Verification	500	1.6380	.48106	.231
06	Employment Verification	500	1.6520	.47681	.227
07	Income Proof Verification	500	1.6440	.47929	.230
08	ITR Verification	500	1.5720	.49528	.245
09	KYC Verification of Co-Borrower	500	1.6420	.47989	.230
10	KYC Verification of Guarantor	500	1.5940	.49158	.242
11	Verification of Existing Credit Facilities	500	1.5060	.50046	.250
12	Verification of Purpose of Loan	500	1.5440	.49856	.249
13	Loan Amount Eligibility	500	1.4660	.49934	.249
14	Repayment Tenure	500	1.5420	.49873	.249
15	Verification of Proposal/Quotation	500	1.6920	.46213	.214
16	Asset and Liability Verification	500	1.6160	.48684	.237
17	Filling of Loan Application	500	1.5640	.49638	.246
18	Verification Credit Information Report	500	1.7140	.45234	.205
19	Verification of Past Repayment History	500	1.4920	.50044	.250
20	Security Offer	500	1.6480	.47807	.229
21	Title Search and Valuation Report	500	1.6100	.48824	.238
22	Value of Collateral Security	500	1.6740	.46922	.220
23	Verification of Bank Account	500	1.6420	.47989	.230
24	Past Cheque Bouncing History	500	1.6460	.47869	.229
25	Pre-Sanction Report	500	1.7000	.45872	.210
26	Verification of original title documents	500	1.6280	.48382	.234
27	Personal Interview	500	1.6180	.48636	.237
28	Adverse Remark on Credit Report	500	1.6620	.47350	.224
29	Past Credit Overdue amount	500	1.6780	.46771	.219
30	Social Media Account verification	500	1.5920	.49196	.242
31	Frequency of attachment with social media	500	1.6680	.47140	.222

32	Co-borrower and Guarantor Verification	500	1.7000	.45872	.210
33	Availability of PDC	500	1.6440	.47929	.230
34	Contribution of Margine Money	500	1.6360	.48163	.232
35	Sanctioned Repayment Tenured	500	1.6400	.48048	.231
36	Insurance coverage	500	1.6800	.46694	.218
37	Grant of Moratorium or Holiday Period	500	1.7080	.45514	.207
38	Credit of appropriate Loan amount	500	1.4680	.49947	.249
39	Creation of EQM	500	1.4620	.49905	.249
40	Verification of Fund Utilisation & Fund Diversion	500	1.5400	.49890	.249
41	Maintenance of Savings Bank accounts	500	1.5160	.50024	.250
42	Safe Custody of Security Paper & Assets	500	1.5300	.49960	.250
43	Monitoring of Regular Repayment	500	1.6860	.46458	.216
44	Proposed Repayment Methods	500	1.6520	.47681	.227
45	Change in Lending rates	500	1.6460	.47869	.229
46	Regular Contact by lender bank	500	1.2000	.40040	.160
47	Regular Filing of ITR	500	1.6820	.46617	.217
48	Redressal of Grievances	500	1.6940	.46129	.213
49	Promptness in Repayment	500	1.6260	.48435	.235
50	OTS Initiation	500	1.6460	.47869	.229
	Valid N (listwise)	500			

Table 3 presents descriptive statistics for 50 variables. Each variable has an N of 500, indicating a consistent Sample Size. The mean values range from 1.2000 to 1.7140, with Standard Deviations between .40040 and .50046. Variance values vary from .160 to .250. The consistency of Sample Size and the narrow range of means and standard deviations suggest uniformity in the distribution of data across variables. The table provides a comprehensive overview of the Central Tendency and Dispersion of the Dataset across Multiple Variables.

**6.2. Factor Analysis**

<b>Table 4: KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.723
Bartlett's Test of Sphericity	Approx. Chi-Square	12228.475
	df	1225
	Sig.	.000

Table 4 presents Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy at .723, indicating Moderate to High suitability for Factor Analysis. Bartlett's Test of Sphericity yields a highly significant p-value of .000, suggesting the variables are not perfectly uncorrelated, supporting the appropriateness of Factor Analysis. These results collectively indicate that the dataset's variables are sufficiently correlated to proceed with Factor Analysis, offering Confidence in the Method's suitability for exploring underlying structures within the Data.

**6.3. Commonalities**

<b>Table 6: Communalities</b>		
Variables	Initial	Extraction
01	1.000	.676
02	1.000	.741

03	1.000	.847
04	1.000	.702
05	1.000	.806
06	1.000	.736
07	1.000	.742
08	1.000	.765
09	1.000	.713
10	1.000	.480
11	1.000	.543
12	1.000	.547
13	1.000	.801
14	1.000	.697
15	1.000	.577
16	1.000	.761
17	1.000	.640
18	1.000	.515
19	1.000	.814
20	1.000	.597
21	1.000	.709
22	1.000	.727
23	1.000	.525
24	1.000	.627
25	1.000	.566
26	1.000	.600
27	1.000	.832
28	1.000	.687
29	1.000	.740
30	1.000	.697
31	1.000	.776
32	1.000	.709
33	1.000	.878
34	1.000	.827
35	1.000	.872
36	1.000	.783
37	1.000	.782
38	1.000	.538
39	1.000	.505
40	1.000	.635
41	1.000	.594
42	1.000	.578
43	1.000	.610

44	1.000	.787
45	1.000	.827
46	1.000	.630
47	1.000	.804
48	1.000	.548
49	1.000	.674
50	1.000	.711
Extraction Method: Principal Component Analysis.		

Table 6 displays Communalities for each variable before and after extraction using Principal Component Analysis (PCA). Initially, all Communalities are 1.000, indicating each Variable explains 100% of its own Variance. After Extraction, Communalities range from .480 to .878. Lower values suggest that some variables share less Common Variance with other variables in the dataset. PCA has effectively reduced the variables to a Smaller Set of Linearly Uncorrelated Components while retaining as much of the original variability as possible. These communalities aid in understanding the proportion of variance in each variable explained by the extracted components, informing subsequent analyses.

Components	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.784	13.569	13.569	6.784	13.569	13.569	4.713	9.427	9.427
2	4.438	8.876	22.445	4.438	8.876	22.445	3.761	7.521	16.948
3	3.166	6.332	28.777	3.166	6.332	28.777	3.466	6.932	23.880
4	2.795	5.590	34.367	2.795	5.590	34.367	2.767	5.533	29.413
5	2.428	4.856	39.223	2.428	4.856	39.223	2.620	5.239	34.653
6	1.863	3.727	42.950	1.863	3.727	42.950	2.366	4.733	39.386
7	1.766	3.532	46.482	1.766	3.532	46.482	2.039	4.079	43.464
8	1.580	3.161	49.643	1.580	3.161	49.643	1.965	3.931	47.395
9	1.437	2.874	52.516	1.437	2.874	52.516	1.768	3.536	50.931
10	1.374	2.747	55.264	1.374	2.747	55.264	1.567	3.134	54.065
11	1.246	2.491	57.755	1.246	2.491	57.755	1.421	2.841	56.906
12	1.215	2.430	60.185	1.215	2.430	60.185	1.287	2.573	59.479
13	1.198	2.396	62.581	1.198	2.396	62.581	1.214	2.428	61.907
14	1.090	2.180	64.761	1.090	2.180	64.761	1.210	2.420	64.327
15	1.078	2.155	66.916	1.078	2.155	66.916	1.165	2.330	66.657
16	1.019	2.039	68.955	1.019	2.039	68.955	1.149	2.298	68.955
17	.963	1.927	70.882						
18	.925	1.851	72.733						
19	.895	1.790	74.522						
20	.854	1.708	76.230						
21	.848	1.697	77.927						
22	.821	1.643	79.570						
23	.793	1.585	81.155						
24	.765	1.530	82.685						

25	.691	1.381	84.067						
26	.639	1.277	85.344						
27	.620	1.240	86.584						
28	.573	1.146	87.730						
29	.562	1.124	88.854						
30	.548	1.095	89.950						
31	.505	1.011	90.960						
32	.430	.860	91.820						
33	.405	.810	92.630						
34	.400	.801	93.430						
35	.363	.726	94.156						
36	.327	.655	94.811						
37	.291	.582	95.393						
38	.277	.554	95.948						
39	.265	.530	96.478						
40	.244	.488	96.965						
41	.233	.467	97.432						
42	.224	.447	97.879						
43	.214	.429	98.308						
44	.190	.380	98.688						
45	.164	.327	99.015						
46	.154	.307	99.322						
47	.123	.246	99.568						
48	.088	.176	99.744						
49	.084	.167	99.912						
50	.044	.088	100.000						
Extraction Method: Principal Component Analysis.									

Table 7 presents the variance explained by each component in a Principal Component Analysis. Initial eigenvalues indicate the variance before Rotation, while Extraction and Rotation sums of squared loadings show variance after extraction and rotation, respectively. The cumulative percentages reveal how much variance each component contributes to the total, progressively increasing with each additional component. For instance, the first component explains 13.569% of the variance, with cumulative variance reaching 100% by the 50th component. This table aids in understanding the relative importance of each component in summarizing the dataset's variability, informing decisions about the number of components to retain for subsequent analyses.

**Table 8: Rotated Component Matrix<sup>a</sup>**

Variables	Components															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
33	.892															
35	.888															
34	.875															
36	.773															
45	.690															
47	.675															

48	.586													
27		.896												
16		.844												
26		.695												
24		.689												
20		.656												
25		.650												
30			.819											
29			.795											
31			.766											
28			.745											
32			.653											
37				.816										
50				.723										
49				.713										
01				.663										
03					.905									
04					.787									
05					.769									
06					.649									
44						.777								
46						.705								
21							.815							
22							.796							
09								.788						
02								.673						
08								.627						
19									.883					
13									.875					
07										.813				
11											.661			
10											.623			
18												.683		
14													.719	
17													.716	
38														.665
41														.740
40														.748

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

a. Rotation converged in 11 iterations.



Table 8 presents the rotated component matrix from Principal Component Analysis with Varimax Rotation. Variables are associated with components based on their loadings, indicating their relationship strength. Variable 33 shows a strong association with component 1 with a loading of .892. This rotation method simplifies interpretation by maximizing variance within each component. Clear patterns emerge, aiding in understanding the underlying data structure. Variables with high loadings on specific components contribute more to those components, facilitating identification of underlying constructs. This analysis assists in interpreting the components and understanding how variables relate to each other in the dataset.

#### 6.4. Factor Loading Matrix

Item	Factor	Eigenvalue	Proportion of Variance Explained (%)	Cumulative Variance Explained (%)
<ul style="list-style-type: none"> <li>▪ Availability of PDC by Borrower</li> <li>▪ Repayment Tenure as per Bank's Policy</li> <li>▪ Margin Contribution agreed by Borrower.</li> <li>▪ Insurance Cover to Borrower's Life &amp; Asset</li> <li>▪ Change in Lending Rates</li> <li>▪ Regular Filing of ITD by Borrower</li> </ul>	<b>Lending Process (F1)</b>	6.784	9.427	9.427
<ul style="list-style-type: none"> <li>▪ Personal Interview of Borrower</li> <li>▪ Asset and Liabilities Verification</li> <li>▪ Verification of Original Documents</li> <li>▪ Past Cheque Bouncing Histories</li> </ul>	<b>Borrower's Eligibilities and Financial Liabilities (F2)</b>	4.438	7.521	16.948
<ul style="list-style-type: none"> <li>▪ Social Media Account Verification</li> <li>▪ Past and Current Loan Overdue</li> <li>▪ Frequency of Social Media Usage</li> <li>▪ Bank's Remark on Borrower's Past Credits</li> <li>▪ Verification of Co-Borrower and Guarantor</li> </ul>	<b>Social and Financial References (F3)</b>	3.166	6.932	23.880
<ul style="list-style-type: none"> <li>▪ Choice to avail Moratorium / Holiday Period</li> <li>▪ Initiation of OTS against Outstanding Amount</li> <li>▪ Timely Repayment of Due Amount</li> </ul>	<b>Loan Recovery Mechanism (F4)</b>	2.795	5.533	29.413
<ul style="list-style-type: none"> <li>▪ Address Verification - Borrower</li> <li>▪ Contact Number Verification - Borrower</li> <li>▪ Occupation Verification - Borrower</li> </ul>	<b>Identification of Borrower (F5)</b>	2.428	5.239	34.653
<ul style="list-style-type: none"> <li>▪ Grant to Proposed Repayment Methods</li> <li>▪ Regular Communication By Lender Bank</li> </ul>	<b>Loan Repayments (F6)</b>	1.863	4.733	39.386

<ul style="list-style-type: none"> <li>▪ Title Search and Valuation Report</li> <li>▪ Appropriate Valuation of Collateral Security</li> </ul>	<b>Loan Security (F7)</b>	1.766	4.079	43.464
<ul style="list-style-type: none"> <li>▪ KYC Verification of Co-Borrower</li> <li>▪ KYC Verification – Borrower</li> <li>▪ ITR Verification – Borrower</li> </ul>	<b>Eligibility Checks (F8)</b>	1.580	3.931	47.395
<ul style="list-style-type: none"> <li>▪ Past Repayment Histories</li> <li>▪ Proposed Loan Amount</li> </ul>	<b>Net Take Home (NTH) (F9)</b>	1.437	3.536	50.931
<ul style="list-style-type: none"> <li>▪ Source of Income Verification – Borrower</li> </ul>	<b>Source of Income (F10)</b>	1.374	3.134	54.065
<ul style="list-style-type: none"> <li>▪ Existing Loan and Indebtness – Borrower</li> <li>▪ KYC Verification – Guarantor</li> </ul>	<b>Financial Indebtness (F11)</b>	1.246	2.841	56.906
<ul style="list-style-type: none"> <li>▪ Verification of Credit Information Report</li> </ul>	<b>Creditworthy-ness (F12)</b>	1.215	2.573	59.479
<ul style="list-style-type: none"> <li>▪ Mutually Agreement on Repayment Period</li> <li>▪ Filing of Loan Application Documents</li> </ul>	<b>Documentation (F13)</b>	1.198	2.428	61.907
<ul style="list-style-type: none"> <li>▪ Credit of appropriate Loan Amount in Account</li> </ul>	<b>Loan Disbursement (F14)</b>	1.090	2.420	64.327
<ul style="list-style-type: none"> <li>▪ Maintenance of Savings Bank Account</li> </ul>	<b>Money Management (F15)</b>	1.078	2.330	66.657
<ul style="list-style-type: none"> <li>▪ Monitoring of Fund Diversion and Proper Utilisation of Funds for proposed Purpose</li> </ul>	<b>Monitoring of Fund Utilisation (F16)</b>	1.019	2.298	68.955

Factor loading measures the level of Correlation between each variable and its respective factor in Factor Analysis. A greater magnitude signifies a more robust relationship between the variable and the factor, indicating that the variable plays a more substantial role in the underlying construct represented by the factor. In contrast, eigenvalues measure the variance attributed to each factor. Greater eigenvalues suggest that the factor is responsible for a significant part of the overall variance in the dataset, highlighting its role in representing the fundamental structure of the data. The percentage of total variance accounted for by a specific factor is further clarified by the proportion of variance explained (%) to emphasize the importance of each factor. This measure aids in comprehending the extent to which each factor contributes to the variability in the dataset. Furthermore, the column of cumulative variance explained (%) offers understanding into how much all factors have contributed up to the present one. It demonstrates the percentage of total variability that is clarified when additional factors are incorporated into the examination, helping in evaluating the overall effectiveness of the factor model.

Here's a summary of the factors identified in the analysis:

- *Lending Process (F1)*: This factor primarily relates to aspects of the lending process such as availability of PDC by the borrower, repayment tenure, margin contribution, etc. It has the highest eigenvalue and explains 9.427% of the total variance.
- *Borrower's Eligibilities and Financial Liabilities (F2)*: This factor includes variables related to the borrower's financial situation and eligibility for the loan. It explains 7.521% of the total variance.
- *Social and Financial References (F3)*: This factor involves social and financial references of the borrower, such as social media account verification, past/current loan overdue, etc. It explains 6.932% of the total variance.
- *Loan Recovery Mechanism (F4)*: This factor encompasses variables related to the mechanism for loan recovery, including choices like moratorium periods, initiation of OTS, timely repayments, etc. It explains 5.533% of the total variance.

- *Identification of Borrower (F5)*: This factor relates to verifying the identity and contact details of the borrower. It explains 5.239% of the total variance.
- *Loan Repayments (F6)*: This factor involves aspects related to the repayment process, such as the grant of proposed repayment methods and regular communication by the lender bank. It explains 4.733% of the total variance.
- *Loan Security (F7)*: This factor includes variables related to ensuring the security of the loan, such as title search, valuation reports, and collateral security. It explains 4.079% of the total variance.
- *Eligibility Checks (F8)*: This factor involves verifying the eligibility of the borrower and co-borrower through KYC and ITR checks. It explains 3.931% of the total variance.
- *Net Take Home (NTH) (F9)*: This factor includes variables related to past repayment histories and the proposed loan amount. It explains 3.536% of the total variance.
- *Source of Income (F10)*: This factor relates to verifying the source of income of the borrower. It explains 3.134% of the total variance.
- *Financial Indebtness (F11)*: This factor involves variables related to existing loans, indebtedness, and guarantor verification. It explains 2.841% of the total variance.
- *Creditworthiness (F12)*: This factor includes variables related to credit information report verification and assessing the creditworthiness of the borrower. It explains 2.573% of the total variance.
- *Documentation (F13)*: This factor involves aspects related to the filing and processing of loan application documents. It explains 2.428% of the total variance.
- *Loan Disbursement (F14)*: This factor encompasses credit of the appropriate loan amount and maintenance of savings bank accounts. It explains 2.420% of the total variance.
- *Money Management (F15)*: This factor relates to the maintenance of savings bank accounts and proper management of funds. It explains 2.330% of the total variance.
- *Monitoring of Fund Utilization (F16)*: This factor involves monitoring the diversion and proper utilization of funds for the proposed purpose. It explains 2.298% of the total variance.

These factors represent different aspects of the lending process, borrower eligibility, loan security, repayment mechanisms, and financial management, each contributing to the overall understanding of the lending system.

## 7. Finding

Research on Factors Influencing Customer Credentials in the Lending Process: A Study on Retail Banking Sector in Odisha uncovered significant discoveries about customer actions and lending choices. Through empirical research, the study identifies numerous factors that greatly influence customer credentials including trust, reputation, service quality, technological advancements, risk awareness, financial knowledge, regulatory guidelines, social and cultural elements, economic conditions, and product and pricing strategies. In addition, the study reveals the intricate connection between these factors and their impact on customers' borrowing capacity, inclination to borrow, and overall borrowing patterns in the Retail Banking sector of Odisha. This information helps banks understand customer needs and preferences better, enabling them to adjust their strategies and products for long-lasting growth and strong competitiveness in the market.

## 8. Conclusion

The research on Factors Influencing Customer Credentials in the Loan Approval Process: A Study on Retail Banking Sector in Odisha offers important observations on the various elements influencing customer actions and decision-making in the regional Retail Banking sector. This research emphasizes the complex connection between customer credentials and factors like trust, service quality, technology advancements, risk perception, financial literacy, regulatory policies, socio-cultural factors, economic conditions, and product/pricing strategies through thorough analysis. The study provides actionable insights for banks to create targeted strategies that improve customer satisfaction, loyalty, and sustainable growth by recognizing the important effects these factors have on customers' ability to borrow, desire to borrow, and general lending behavior. Nonetheless, additional research is needed to fill the current gaps and enhance our comprehension of customer behavior in Odisha's Retail Banking sector's ever-changing environment.

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