

Unveiling key Drivers of Customers' perception of credit culture: A Structural Equation Modelling Analysis of Banks

Kailash Chander¹, Dr. Surinder Singh²

¹Research Scholar, Dept. of Commerce, Chaudhary Devi Lal University, Sirsa

²Professor, Dept. of Commerce, Chaudhary Devi Lal University, Sirsa

Abstract

The study seeks to identify the factors affecting customers' perception towards credit culture of banks in Haryana. The study uses a questionnaire approach to check the perception about credit culture of the banking sector through using 550 valid responses from an electronic survey comprising of 39 items. Credit culture has been significantly affecting by all factors i.e. trust, transparency, service quality, accessibility, lending terms and interest rate. Banks that understand client views can adapt innovative credit solutions, such as flexible credit limits, credit score-based incentives, or personalised loan packages, to satisfy their demands. A favourable credit culture perception supports customer happiness, loyalty, and advocacy, supporting long-term development and, ultimately, bank profitability.

Keywords: Credit culture, banks, perception, trust, transparency, interest rate.

1. Introduction

Banks are essential for developing countries to transform savings into investments, without economic growth and poverty reduction it will not possible (Boumphrey *et al.*, 2005; Dickenson 2024). (Bonga & Mlambo 2016; Agarwal *et al.*, 2023) narrated the banks and various financial institutions works to offer intermediation services. Furthermore, a competitive banking system is a pre-requisite for effective intermediation between savers and investors (Luu *et al.*, 2023; Sanderson & Pierre 2018). Banks and financial institutions survive on interest and non-interest income (Bonga, 2016; Koomson *et al.*, 2023). Loans form a greater portion of the total assets in banks, and these assets generate huge interest income for banks which to a large extent determines the financial performance of banks (Broekhoff *et al.*, 2024).

Indian banks are usually suffering with a convict difficulty. The balance between the need to charge high interest rates and the restriction of the number of loans with high probability of defaulting is normally a big challenge (Marcos & Coelho 2022). There is need to build improved corporative strategies that can also cover the bank in cases of defaults. Indian banks provide the minimum guarantee on deposits. This safeguard the customers in cases of bank collapse. This is then used by banks

as a marketing publicity to attract deposits that will also be channelled towards loans (Inan *et al.*, 2023).

Credit culture reflects a bank's approach to underwriting, managing and monitoring credit risk. (Strischeck 2017; Albaity *et al.*, 2022) indicated that credit culture is the glue that binds the credit process and forms the foundation for credit discipline. As supported by (Boubakri *et al.*, 2023), credit culture is the bridge to communicate the understanding and purposes of lending policies made by the top managers to all staff members who are actual people implementing loan-granting process to customers (Moro *et al.*, 2021). A bank's credit culture is, in the broadest sense, the unique combination of policies, practices, experience, and management attitudes, which defines the lending environment and determines the lending behavior acceptable to the bank (Li *et al.*, 2020). Every bank has a credit culture, which may be formally defined by management or evolves over time. (McKinley 1990) identifies four basic types of credit cultures in banks; values driven, immediate-performance driven, production driven and unfocused. An optimal credit culture may be ideal. The optimal credit culture is not one that minimizes losses but one that provides the best credit quality consistent with management priorities within acceptable standards of performance (Strischeck 2003; Dority *et al.*, 2019). Credit Culture embraces all the factors that bear on

credit extension, credit quality, and recurrent cyclical patterns and sequences (Mueller 1995). The credit culture of banks also has implications for the smooth transmission of monetary policy as its effectiveness in manipulating movements in lending rates may be diluted if the credit cultures of banks are not driven by price (Chen & Arnoldi 2020).

The credit culture of banks also has implications for the smooth transmission of monetary policy as its effectiveness in manipulating movements in lending rates may be diluted if the credit cultures of banks are not driven by price (Afrogha & Oluleye 2021; Birchwood 2001). Parameters of a credit culture: (i) Leadership, (ii) Organisational structure, (iii) Policies, procedures and process and (iv) People (banks employee). Credit culture tightens the credit risk objectives set by the banks with the credit policies in line with the business strategy to obtain them. Credit policy designed by the banks nowadays is the formal written statements providing the regulatory framework for the credit- approval process, the loan rating system, the act to monitor and manage the loans, assess the potentially doubtful debts (Basel Committee 2000).

The study makes a significant contribution to the literature in several key aspects. Firstly, the study explores an area within the field of banking, the relationship between independent variables (Trust, accessibility, service quality, transparency, lending terms and interest rate) and dependent variable (Credit Culture). Additionally, based on previous literatures, we have developed a conceptual model that identifies various factors that affect credit culture of banking industry. This model serves as a framework for understanding the dynamics of credit culture. Further, this paper is structured as follows: Section "Review of Literature" presents the foundational literature relevant to the study. Section "Research Methodology" outlines the Research Methodology, detailing the study design and data collection methods. Section "Data Analysis and Results" presents the Data Analysis and Results, highlighting key findings from our empirical investigation. Finally, Section "Discussion and Conclusions" concludes with a Discussion and Conclusions, addressing the implications of our findings, the limitations of the study, and recommendations for future research.

2. Review of Literature

2.1 Trust and Credit Culture

The trust of clients is an essential component of the banking business, impacting all aspects of a bank's operations, including its credit culture (Grable *et al.*, 2023). A strong credit culture covers the collective procedures, attitudes, and standards that a bank uses in its credit activities. When clients put their faith in a bank, it promotes a healthy credit culture that includes ethical lending practices, smart risk management, and improved customer relationships (Masoud & Albaity 2022; Ennew & Sekhon 2007). Trust is the cornerstone for consumer loyalty and engagement. Customers who have faith in a bank's honesty and dependability are more inclined to participate in long-term financial transactions, including credit products like loans and credit cards (Kidron & Kreis 2022). The trust motivates clients to provide honest financial information, allowing banks to efficiently analyse creditworthiness and make sound loan decisions. As a result, a high degree of consumer trust generates a healthy credit portfolio and minimises the chance of default (Gill *et al.*, 2006). In contrast, breaches of trust can have a negative impact on a bank's credit culture. Scandals involving unethical tactics, such as the Wells Fargo cross-selling scandal, undermine consumer trust and harm a bank's brand (Damberg *et al.*, 2022). Thus, we hypothesize that:

H1: Trust has a significant association with credit culture.

2.2 Transparency and Credit Culture

Transparency of banks has an impact on credit culture, affecting both internal processes and external image (Kwabi *et al.*, 2024; Otalora & Alkire 2019). Transparency is the level to which banks publish relevant information related to their financial health, risk exposures and operating procedures (Moraes *et al.*, 2023). According to (Gorton and Winton 2003), increasing transparency reduces information asymmetry between banks and their stakeholders, leading to a more stable financial environment. Research by (Barth, Caprio and Levine 2006) suggests that regulatory frameworks that promote transparency can reduce moral hazards and decrease the likelihood of financial crises.

Similarly, credit culture, which defines the shared values and practices that guide lending decisions, plays an important role in maintaining loan quality and reducing non-performing assets. According to (Berger and Udell 2004; Bhimavarapu *et al.*, 2023), a strong credit culture promotes disciplined lending processes and accountability, thereby aligning risk taking with institutional goals. Various researches indicate that there is a strong correlation between transparency and a healthy credit culture. Ensuring transparency in reporting leads to careful adherence to credit standards (Laeven & Levine, 2009). However, a number of challenges also exist, including striking a balance between confidentiality and transparency and aligning diverse cultural practices across global banking systems (Remeikiene *et al.*, 2016). Recent studies by IMF researchers indicate that the adoption of advanced technologies such as blockchain and artificial intelligence (AI) can further strengthen transparency and credit culture. These technologies can provide real-time insights and predictive analytics (Losada *et al.*, 2019). Overall, maintaining a balance between transparency and credit culture is essential to promote sustainable banking operations. Thus, we hypothesize that:

H2: Transparency has a significant association with credit culture.

2.3 Service Quality and Credit Culture

High service quality can enhance a bank's reputation and customer base, but an overly lenient credit culture can undermine financial stability (Mir *et al.*, 2023). In contrast, a stringent credit culture may help reduce risk but may drive away customers if not balanced with service quality (Hussain *et al.*, 2023). The study of (Kashyap and Stein 2000) shows that banks with better service quality are in a position to attract more creditworthy borrowers, thereby strengthening their credit portfolio. Similarly, research by (Demirguc-Kunt and Levine 2006) suggests that high service quality coupled with a strong credit culture can promote financial inclusion, particularly in developing economies. This synergy not only benefits customers but also contributes to the broader financial ecosystem (Shetty *et al.*, 2022).

Organizational culture plays an important role in integrating service quality and credit culture. According to research by (Schein 1985), aligning employee behavior with organizational goals is essential to achieving a cohesive culture. Training programs, incentive structures, and leadership styles play an important role in striking a balance between customer-centric service and prudent credit practices. Thus, we hypothesize that:

H3: Service quality has a significant association with credit culture.

2.4 Accessibility and Credit Culture

Accessibility to banks and their credit culture have been widely studied by researchers and practitioners because of their profound impact on economic growth, financial inclusion, and individual prosperity (Erel & Liebersohn 2022). In the banking context, access refers to how easily individuals and businesses can obtain financial services, especially credit (Mushtaq *et al.*, 2022). Access to banking services has long been considered an important driver of financial inclusion. Research suggests that access to credit and other banking services can empower individuals and small businesses, allowing them to invest in education, healthcare, entrepreneurship, and infrastructure (Muluka et al 2015; Amadasun & Mutezo 2022). However, there is a huge gap in access to banking services across different regions. People in rural and backward areas often face major barriers. Scholars such as (Demirguc-Kunt *et al.*, 2018) consider the role of financial infrastructure, digital technology, and regulatory frameworks to be important in reducing this access gap. The spread of mobile banking has proven to be transformative in areas where traditional banking infrastructure is limited. It not only promotes greater inclusion but also encourages economic participation (Amadasun & Mutezo 2022). The credit culture of banks also plays a key role in the success of financial inclusion initiatives. Researchers argue that a balanced credit culture—one that aligns risk-taking propensity with social and economic goals—is essential for sustainable financial development. For example, research by (Beck and Levine 2004) shows that a too loose credit culture can lead to financial crises, while overly

strict lending practices can hinder economic growth. Thus, we hypothesize that:

H4: Accessibility has a significant association with credit culture.

2.5 Lending terms and Credit Culture

In times of economic stability or growth, banks adopt more flexible lending terms to encourage borrowing and increase investment. They offer lower interest rates and longer repayment periods. However, during times of economic uncertainty or recession, lending terms often become tighter as banks prioritize minimizing risk. During this time, interest rates rise, collateral is more stringently demanded, and loan terms are shortened (Wang *et al.*, 2021).

A key aspect influencing lending terms is the borrower's risk profile, which banks assess based on credit scoring models and qualitative factors such as the borrower's credit history, repayment capacity, and stability of income flow (Chen *et al.*, 2021). Credit risk models have evolved significantly with technological advancements, particularly with the increasing use of artificial intelligence (AI) and machine learning. These techniques enable banks to predict the probability of loan default with greater accuracy. In addition, these technological advancements allow banks to customize lending terms according to each borrower's individual risk profile. However, these advancements also raise new concerns related to privacy, data security, and algorithmic bias (Nalukenge & Tauringana 2014). Credit culture also plays an important role in the development of credit policies. Banks that have a conservative credit culture apply stringent lending criteria and approve loans only to borrowers who have a strong financial position and are least likely to default on their loans (Kowalewski & Pisany 2022). On the other hand, banks that have a more

liberal credit culture adopt a more flexible approach in assessing creditworthiness. This approach may lead to higher loan default rates in the future. Research shows that banks with a strong credit culture recover from economic downturns more effectively because they maintain prudent lending practices even during times of market pressure. Conversely, institutions with a weak credit culture may be more vulnerable in times of crisis and be more likely to suffer economic shocks (Kowalewski *et al.*, 2022). Thus, we hypothesize that:

H5: Lending terms has a significant association with credit culture.

2.6 Interest rate and Credit Culture

A key element of monetary policy, interest rates have a significant influence on banks' credit cultures. Interest rate fluctuations can have a big impact on these activities, influencing the financial system's general stability as well as the supply and demand for credit (Afrogha & Oluleye 2021). Interest rates have a direct impact on borrowing costs and return on savings, which in turn affects how businesses and consumers behave (Liu & Lee 2022). The economic environment in which banks function is changed when central banks modify interest rates (Bosire *et al.*, 2014). Lending risk is constantly assessed by banks, and interest rates are a key component of this analysis. The cost of borrowing is lower in an environment with low interest rates, which may encourage more borrowing and, as a result, raise credit risk (Eggertsson *et al.*, 2024). Banks may raise their credit requirements in an effort to reduce this risk, which would make it harder for customers to get loans (Groot & Haas 2023). Thus, we hypothesize that:

H6: Interest rate has a significant association with credit culture.

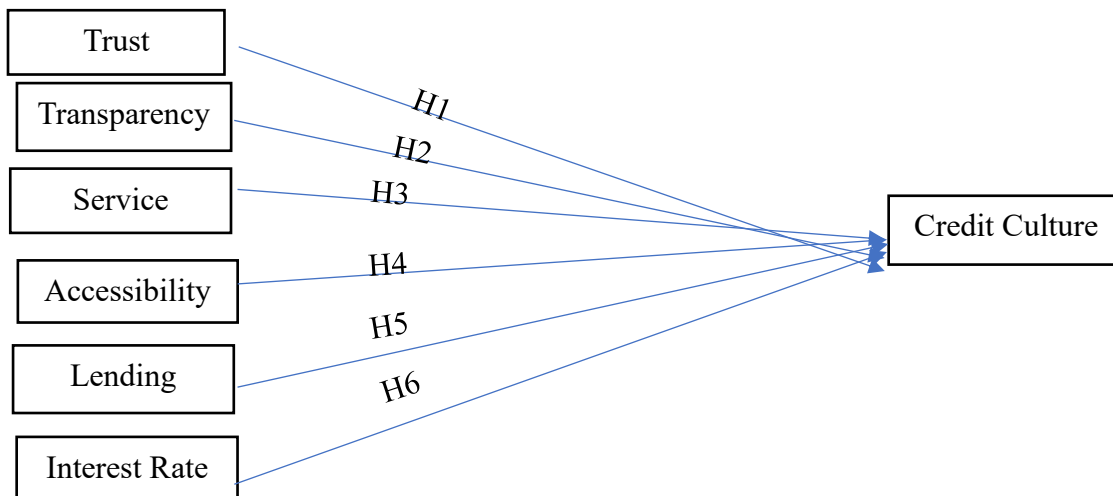


Figure 1: Conceptual Framework

3. Research Methodology

3.1 Research design

The study focused on exploring customers’ perception towards credit culture of banking industry. Data collection took place between June 2024 and November 2024, utilizing convenience cum judgemental sampling techniques. The reason for using convenience sampling is you don’t have access to the full target population for the representative sample. Judgemental sampling enables us to choose participants who meet particular criteria pertinent to our research. This method was used because of the characteristics of our target population, which might be challenging to access via conventional sampling techniques. Prior to data collection, explicit consent was obtained

from participants. A 39-item questionnaire, structured into two sections, was developed and evaluated by a subject professional. A pilot test involving 134 participants was conducted to assess the questionnaire’s reliability and validity. To determine the appropriate sample size, G*power software was used, specifying an effect size of 0.10 and a required power of 0.95, in line with recommendations (Dattalo 2008). The calculated sample size was 215. The questionnaire was distributed through, social media platforms, and email, resulting in 709 responses received. Access to the complete questionnaire was granted only to affirmative responders. A total of 550 valid questionnaires were collected, with crucial sample details provided in Table 1. This sample size was deemed sufficient for data analysis and interpretation purposes.

Table 1: Demographic Profile of Respondents

Particulars		Frequency	Percent
Gender	Male	423	76.9
	Female	123	22.4
	Transgender	4	.7
	Total	550	100.0
Age (Years)	20-30	75	13.6
	30-40	93	16.9
	40-50	141	25.6
	50-60	123	22.4
	Above 60 years	118	21.5
	Total	550	100.0
Marital status	Married	489	88.9
	Unmarried	35	6.4
	Widow	7	1.3
	Divorced	7	1.3

	Live-in-Relationship	5	.9
	Wilfully Separated	3	.5
	Forcefully Separated	4	.7
	Total	550	100.0
Occupation	Farmer	275	50.0
	Businessman	275	50.0
	Total	550	100.0
Education level	Upto 12 th Standard	219	39.8
	Graduate	247	44.9
	Post-graduate	51	9.3
	Above post-graduate	33	6.0
	Total	550	100.0
Annual income (Indian Rupees)	Upto 3 Lakh	105	19.1
	3 Lakh – 7 Lakh	146	26.5
	7 Lakh – 10 Lakh	151	27.5
	Above 10 Lakh	148	26.9
	Total	550	100.0

Source: Primary.

4. Data analysis and results

4.1 Measures

The questionnaire utilized in the study drew from standardized scales found in previous literature, with adjustments made to suit the context of customers perception. These adjustments included modifying certain statements to align with the concept of credit culture. The scales covered various factors such as trust (Carlandar *et al.*, 2018), transparency (Otalora and Alkire 2019), service quality (Parasuraman *et al.*, 1991), accessibility (Muluka *et al.*, 2015), lending terms (Nkundabanyanga *et al.*, 2013), interest rate (Afrogha and Oluleye 2021) and credit culture (Bonga *et al.*, 2019). Participants were gathered using a five-point Likert scale.

4.2.1 Reliability Assessment

Assessment of reliability is one of the important means for quality criterion of composite. It includes internal consistency and indicator reliability.

(i) Internal Consistency

A construct's internal consistency is measured by Cronbach's alpha and Composite Reliability (CR). Cronbach alpha is a reliability estimate with a lower bound that is used to determine internal consistency. Comparatively speaking, Composite Reliability is an upper bound estimate of reliability because it does not take all the indicators into account

uniformly. According to Fornell & Larcker (1981) value of Cronbach's alpha and CR need to be 0.70.

Table 2 shows Cronbach alpha of Trust (T) is 0.807, Transparency (TR) is 0.785, for Service Quality (SQ) is 0.844, for Accessibility (AC) is 0.816, for Lending Terms (LT) is 0.789, for Interest Rate (IR) is 0.757 and for Credit Culture is 0.909. As all the values are greater than 0.70, therefore internal consistency in case of Cronbach alpha have been confirmed.

Composite reliability of Trust (T) is 0.867, Transparency (TR) is 0.861, for Service Quality (SQ) is 0.885, for Accessibility (AC) is 0.879, for Lending Terms (LT) is 0.876, for Interest Rate (IR) is 0.861 and for Credit Culture is 0.925. As all the values are greater than 0.70, therefore internal consistency in case of composite reliability have been confirmed as shown in Table 2.

(ii) Indicator Reliability

Indicator Reliability shows the reliability of indicators through the outer loadings of indicators. This shows that a particular indicator has relation with specific composite. To include a indicator in specific composite, it must have reliability equal to or greater than 0.70 (Hair *et al.*, 2012).

In this research work, outer loadings of 39 indicators are calculated, later 05 indicators are excluded as these do not meet the threshold limit. These 05 indicators are T4, SQ2, AC4, CC5, and CC7. Lastly,

outer loadings of 34 indicators were found as more than 0.70, as shown in Table 2.

4.2.2 Convergent Validity

Convergent Validity is also known as Construct Communality. The degree to which an indicator correlates favourably with various indicators of the same composite is known as convergent validity.

Convergent validity is measured with the medium of Average Variance Extracted (AVE). AVE is gross mean value of square of outer loadings concerned with composite (Hair *et al.*, 2017). The value of AVE is predicted as at least 0.5. It implies that a specific composite explains more than 50 per cent of the variance of its indicators (Fornell & Larcker 1981).

Table 2: Internal Consistency Reliability, Indicator Reliability and Convergent Validity about Credit Culture

Composite	Indicator	Outer loadings	Cronbach alpha	Composite reliability	Average variance extracted (AVE)
Trust	T1	0.624	0.807	0.867	0.567
	T2	0.755			
	T3	0.824			
	T5	0.76			
	T6	0.787			
Transparency	TR1	0.775	0.785	0.861	0.608
	TR2	0.763			
	TR3	0.794			
	TR4	0.787			
Service Quality	SQ1	0.717	0.844	0.885	0.563
	SQ3	0.773			
	SQ4	0.79			
	SQ5	0.703			
	SQ6	0.767			
	SQ7	0.746			
Accessibility	AC1	0.776	0.816	0.879	0.644
	AC2	0.809			
	AC3	0.825			
	AC5	0.801			
Lending Terms	LT1	0.845	0.789	0.876	0.702
	LT2	0.852			
	LT3	0.817			
Interest Rate	IR	0.756	0.757	0.861	0.675
	IR2	0.854			
	IR3	0.851			
Credit Culture	CC1	0.709	0.909	0.925	0.581
	CC2	0.788			
	CC3	0.814			
	CC4	0.802			
	CC6	0.803			
	CC8	0.802			
	CC9	0.795			
	CC10	0.704			
	CC11	0.618			

Source: Primary Data (Smart Pls 4)

In the Table 5 AVE of the Trust is 0.567, Transparency is 0.608, Service Quality is 0.563,

Accessibility is 0.644, Lending Terms is 0.702, Interest Rate is 0.675 and Credit Culture is 0.581. As

all the values are more than 0.5, convergent validity of all composites has been confirmed.

4.2.3 Discriminant Validity

The purpose behind the assessment of discriminant validity is to know how much one composite differs from another composite. Discriminant Validity includes cross loadings, Fornell and Larcker Criterion and Hetrotrait Monotrait (HTMT) Ratio. These three are discussed below:

(i) Cross Loadings

Cross loadings are also referred as item level discriminant validity, is one of the main tools to measure Discriminant Validity. Discriminant validity is verified when each observable indicator

has a weak correlation with all other composites aside from the one to which it is theoretically related, discriminant validity is verified (Henseler *et al.*, 2015). Table 3 depicts the discriminant validity of all such indicator. In this table the indicator with AC1, AC2, AC3 and AC5 correlates highly with AC only; CC1, CC2, CC3, CC4, CC6, CC8, CC9, CC10 and CC11 correlates highly with CC only; IR1, IR2, and IR3 correlates highly with IR only; LT1, LT2 and LT3 correlates highly with LT only; SQ1, SQ3, SQ4, SQ5, SQ6, and SQ7 correlates highly with SQ only; T1, T2, T3, T5 and T6 correlates highly with T only; TR1, TR2, TR3 and TR4 correlates highly with TR only. Hence, from the cross loadings, discriminant validity has been established.

Table 3: Cross Loadings about Credit Culture

	AC	CC	IR	LT	SQ	T	TR
AC1	0.776	0.488	0.519	0.552	0.386	0.377	0.349
AC2	0.809	0.484	0.496	0.567	0.374	0.37	0.359
AC3	0.825	0.541	0.544	0.641	0.406	0.395	0.36
AC5	0.801	0.562	0.589	0.669	0.415	0.388	0.384
CC1	0.561	0.709	0.601	0.497	0.397	0.371	0.331
CC10	0.457	0.704	0.542	0.468	0.342	0.379	0.283
CC11	0.36	0.618	0.446	0.388	0.316	0.297	0.223
CC2	0.538	0.788	0.591	0.555	0.41	0.407	0.322
CC3	0.566	0.814	0.613	0.576	0.428	0.393	0.347
CC4	0.497	0.802	0.525	0.501	0.346	0.368	0.308
CC6	0.46	0.803	0.54	0.469	0.334	0.355	0.287
CC8	0.474	0.802	0.531	0.46	0.307	0.279	0.231
CC9	0.489	0.795	0.526	0.488	0.382	0.378	0.318
IR1	0.538	0.555	0.756	0.563	0.334	0.292	0.263
IR2	0.544	0.575	0.854	0.568	0.337	0.346	0.329
IR3	0.571	0.643	0.851	0.532	0.324	0.322	0.295
LT1	0.635	0.538	0.566	0.845	0.394	0.343	0.331
LT2	0.664	0.592	0.6	0.852	0.428	0.413	0.34
LT3	0.609	0.491	0.522	0.817	0.415	0.377	0.339
SQ1	0.353	0.344	0.29	0.359	0.717	0.546	0.604
SQ3	0.352	0.365	0.305	0.319	0.773	0.561	0.597
SQ4	0.352	0.367	0.333	0.381	0.79	0.544	0.587
SQ5	0.31	0.323	0.278	0.273	0.703	0.435	0.417
SQ6	0.361	0.348	0.307	0.414	0.767	0.504	0.473
SQ7	0.475	0.404	0.301	0.452	0.746	0.567	0.557

T1	0.264	0.3	0.282	0.284	0.445	0.624	0.404
T2	0.367	0.38	0.315	0.331	0.501	0.755	0.507
T3	0.392	0.382	0.309	0.376	0.539	0.824	0.533
T5	0.372	0.326	0.277	0.369	0.559	0.76	0.599
T6	0.389	0.387	0.286	0.339	0.603	0.787	0.64
TR1	0.361	0.284	0.258	0.322	0.57	0.559	0.775
TR2	0.301	0.295	0.259	0.246	0.535	0.553	0.763
TR3	0.35	0.308	0.286	0.305	0.589	0.581	0.794
TR4	0.398	0.329	0.316	0.374	0.558	0.541	0.787

Source: Primary Data (Smart Pls 4)

(ii) Fornell and Larcker

Criterion Fornell and Larcker Criterion is one of the traditional criteria for the assessment of Discriminant Validity. When a composite explains the variation of its own indicators rather than the variance of other composites, it has demonstrated discriminant validity. The square root of the AVE of

each construct is compared to the correlations of the latent variables, with the idea being that the square root of the AVE of any given construct should be greater than the highest correlation between any two constructs. Table 4 shows values along the diagonal lines are bigger than those along their columns (Fornell & Larcker 1981; Henseler *et al.*, 2015).

Table 4: Fornell and Larcker Criterion about Credit Culture

	AC	CC	IR	LT	SQ	T	TR
AC	0.803						
CC	0.649	0.762					
IR	0.671	0.722	0.821				
LT	0.76	0.648	0.674	0.838			
SQ	0.493	0.48	0.404	0.492	0.75		
T	0.477	0.474	0.39	0.452	0.705	0.753	
TR	0.453	0.391	0.36	0.401	0.722	0.716	0.78

Source: Primary Data (Smart Pls 4)

(iii) Hetrotrait Monotrait Ratio (HTMT)

HTMT ratio is one of the latest and superior method to measure the discriminant validity (Hamid, *et al.*, 2017). The threshold limit for HTMT Ratio less than 0.90. Further, bootstrapping procedure shows that the lowest and upper limits of the 95 per cent confidence interval are displayed in the columns with the labels 2.5 per cent and 97.5 per cent. Here value equal to or more than 1 reflects lack of discriminant validity (Henseler *et al.*, 2015). Table 5

shows HTMT value and confidence interval. In this table, discriminant validity of T, TR, SQ, AC, LT and IR are less than 0.90 and confidence interval is less than 1. Hence, discriminant validity has been established.

The outer model was observed as reliable and valid base for the outcomes of internal consistency, indicator reliability, convergent validity, and discriminant validity.

Table 5: Hetrotrait Monotrait Ratio (HTMT) about Credit Culture

	AC	CC	IR	LT	SQ	T	TR
AC							
CC	0.744						

IR	0.85	0.864					
LT	0.94	0.756	0.871				
SQ	0.588	0.543	0.506	0.598			
T	0.585	0.549	0.501	0.565	0.851		
TR	0.563	0.457	0.465	0.508	0.883	0.898	

Source: Primary Data (Smart Pls 4)

4.2.4 Assessment of Structural Model (Inner Model)

Assessment of Structural Model is second step after the discriminant validity has been established. It includes exogenous and endogenous variables. It represents assessment of collinearity, Significance of path coefficients, Coefficient of determination R², Effect size f², Predictive relevance Q² and goodness of fit parameters SRMR.

4.3 Assessment of Collinearity

For the assessment of multicollinearity, this research work represents Inner Variance Inflation Factor

(VIF) and outer VIF. Outer VIF shows multicollinearity between indicator and latent variables. On the other hand, Inner VIF shows multicollinearity between the exogenous and endogenous variables. As per (Hair, *et al.*, 2019) ideal VIF value is less than 3, possible collinearity issue is when VIF is equal to 3 and less than 5 and critical issue arises when VIF value is 5 or more than 5. Table 6 shows that outer VIF value of all the twenty-five indicators ranges between 1.284 to 1.923. All these values are less than 5. Same in Inner VIF values ranges between 1 to 1 that are less than 5. All the VIF values are ideal and problem of multicollinearity does not exist.

Table 6: Indicator Assessment of Multicollinearity about Credit Culture

Indicator	Outer VIF	Composite	Inner VIF
AC1	1.624	Accessibility	1
AC2	1.814		
AC3	1.801		
AC5	1.617		
IR1	1.338	Interest Rate	1
IR2	1.82		
IR3	1.711		
LT1	1.709	Lending Terms	1
LT2	1.637		
LT3	1.628		
SQ1	1.534	Service Quality	1
SQ3	1.778		
SQ4	1.899		
SQ5	1.523		
SQ6	1.781		
SQ7	1.562		
T1	1.284		
T2	1.573		
T3	1.923		
T5	1.734		
T6	1.778		
TR1	1.569	Transparency	1
TR2	1.509		
TR3	1.599		
TR4	1.527		

Source: Primary Data (Smart Pls 4)

4.4 Significance and Relevance of Path Coefficients

The projections assessed from structural model relationships are known as Path Coefficients. These Path coefficients are the hypothesized associations between composites. To explain the results of structural model, test of significance of all structural model relationship is required. This testing is done using t statistics, p value and bootstrapping confidence interval. The link between these two variables is significant and has an acceptable level of statistical significance when the t value is greater than 1.96 and the p value is less than 0.5 (Chin 1998).

Table 7: Significance of Path Coefficients about Credit Culture

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
CC -> AC	0.649	0.651	0.031	21.105	0.000
CC -> IR	0.722	0.723	0.028	26.117	0.000
CC -> LT	0.648	0.65	0.032	20.026	0.000
CC -> SQ	0.48	0.484	0.042	11.4	0.000
CC -> T	0.474	0.478	0.043	11.115	0.000
CC -> TR	0.391	0.396	0.045	8.788	0.000

Source: Primary Data (Smart Pls 4)

Table 7 shows t statistics and p value that serve as the basis to support or not to support null hypothesis. This depends upon the level of significance.

Table 7 shows that the relationship between AC and CC was found significant with $p = 0.000$ and $t = 21.105$. This hypothesis is supported as accessibility has a significant association with Credit Culture at 0.05 significance level. The relationship between IR and CC was found significant with $p = 0.000$ and $t = 21.117$. This hypothesis is supported as interest rate has a significant association with credit culture at 0.05 significance level. The relationship between LT and CC was found significant with $p = 0.000$ and $t = 20.026$. This hypothesis is supported as lending

terms has a significant association with credit culture at 0.05 significance level. The relationship between SQ and CC was found significant with $p = 0.000$ and $t = 11.4$. This hypothesis is supported as service quality have a significant association with credit culture at 0.05 significance level. The relationship between T and CC was found significant with $p = 0.000$ and $t = 11.115$. This hypothesis is supported as trust have a significant association with credit culture at 0.05 significance level. The relationship between TR and CC was found significant with $p = 0.000$ and $t = 8.788$. This hypothesis is supported as transparency have a significant association with credit culture at 0.05 significance level.

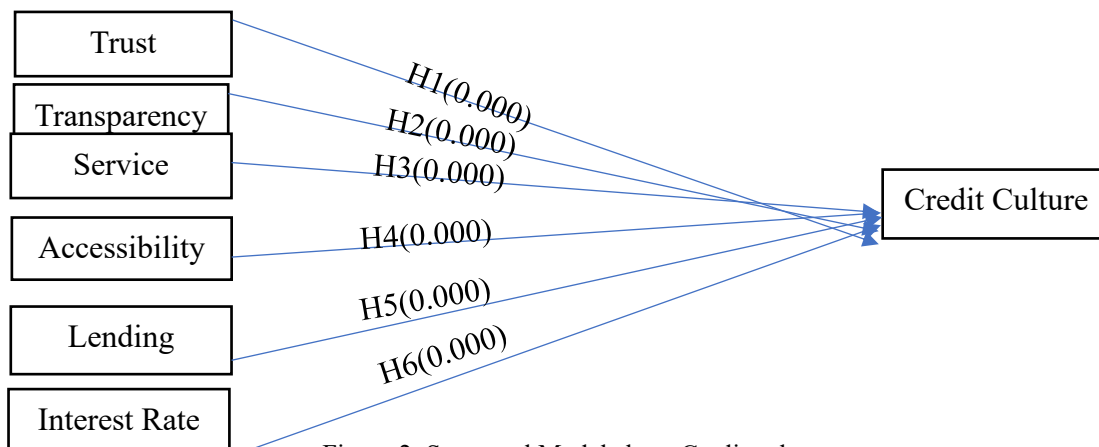


Figure 2: Structural Model about Credit culture

4.5 Coefficient of Determination R²

R² is also known as Coefficient of Determination. R² shows the consolidated effect of independent constructs on dependent construct (Hair *et al.*, 2017). R² values of 0.75, 0.50, and 0.25 are taken as significant, reasonable, and fragile (Hair *et al.*, 2019). As mentioned in Figure 4.2 and Table 8, R² value of AC, IR, LT, SQ, T and TR are respectively 0.421, 0.521, 0.419, 0.231, 0.225 and 0.153 is found reasonable.

Table 8: Assessment of R² about Credit Culture

	R-square	R-square adjusted
AC	0.421	0.420
IR	0.521	0.520
LT	0.419	0.418
SQ	0.231	0.229
T	0.225	0.224
TR	0.153	0.151

Source: Primary Data (Smart Pls 4)

4.6 Assessment of effect size f²

Effect size f² evaluates degree to which one independent construct explains certain Dependent construct.

$$f^2 = (R^2 \text{ included} - R^2 \text{ excluded}) / (1 - R^2 \text{ included})$$

According to Cohen, (1988) f² with 0.02 shows weak effect, 0.15 shows medium effect, and 0.35 has a large effect.

Table 4.10 shows effect size of various Exogeneous Variables.

	f-square	Effect
CC -> AC	0.726	Large
CC -> IR	1.088	Large
CC -> LT	0.723	Large
CC -> SQ	0.300	Medium
CC -> T	0.290	Medium
CC -> TR	0.181	Medium

Source: Primary Data (Smart Pls 4)

	Hypothesis	Results
1.	Trust has a significant association with credit culture.	Supported
2.	Transparency has a significant association with credit culture.	Supported
3.	Service Quality has a significant association with credit culture.	Supported
4.	Accessibility has a significant association with credit culture.	Supported
5.	Lending Terms has a significant association with credit culture.	Supported
6.	Interest Rate has a significant association with credit culture.	Supported

5. Conclusion

Theoretically, factors such as trust, accessibility, service quality, transparency, lending terms and interest rate has significant association with credit culture. This study indicates that customers perception towards credit culture is highly influenced by trust, accessibility, service quality, transparency, lending terms and interest rate. On the contrary conditional value impacts insignificantly.

The structural model shows the directional relationship between consumption values and credit culture. The present study contributes to the identification of indicators related to different facets of credit culture which holds considerable importance within the banking sector. Therefore, the research provides an enhanced comprehension of these variables. Additionally, it will assist banks in meeting their responsibilities concerning the monitoring of projects.

6. Practical Implications

Banks must ensure that their credit culture is in line not only with regulatory standards, but also with customer expectations and ethical practices. Additionally, the growing importance of financial inclusion in contemporary banking indicates that customers are now looking for institutions that embrace fairness and accessibility in their lending practices. Banks that offer flexible lending terms and show a sincere commitment to promoting financial inclusion can attract a wider customer base, especially from communities that have been underserved or marginalised until now. Banks can improve their image as agents of positive social change by adopting a credit culture that prioritizes equal opportunity and responsible lending. This improvement not only increases customer loyalty but also provides brand differentiation in a crowded market. In this era of rapidly changing financial landscapes, technological advancements, and changing customer preferences, banks need to pay attention to the nuances of customers' perception of their credit culture. Digital banking, fintech innovations, and alternative lending models are changing how customers engage with financial institutions. But despite all these changes, the core value of trust remains paramount. Therefore, banks must constantly adapt and refine their credit culture to not only meet regulatory requirements but also demonstrate a deep understanding of customer needs and concerns.

6.1 Limitations and future research direction

Although the study of customer perception of banks' credit culture provides important information, the existing research also has some limitations which should be taken into consideration. Customer perceptions are influenced by their personal experiences, socio-economic status, cultural background, and emotional factors, which can lead to varied and inconsistent results. In addition, the credit culture of banks does not remain static; it changes over time. These changes are caused by individual circumstances, macroeconomic conditions, and changes in the banking industry. This dynamic nature makes it a challenge for researchers to continually track these perceptions and assess how they evolve. Longitudinal studies,

which follow the same group of customers over time, can be helpful in addressing this challenge. However, such studies require significant resources and time.

The study of customers' perception of banks' credit culture is an evolving field, influenced by technological, economic, and social changes. Several future research directions can be identified to understand this dynamic relationship. The rapidly increasing use of digital banking, fintech platforms, and alternative lending models have changed the way customers view credit culture. Future research should focus on understanding how digital banks, Peer-to-Peer Lending Platforms, and other Non-Traditional Financial Services Providers shape customer perceptions. Customers' perception of credit culture may also change depending on economic conditions. For example, during financial crises or economic growth, customers may change their beliefs and attitudes towards banks' lending practices. Future research could also look at how customers' trust and attitudes towards banks' lending practices evolve in different economic environments.

References

1. Afrogha, O. O., & Oluleye, O. I. (2021). Effect of microfinance banks' interest rate on loan repayment capability of borrowers. *European Journal of Accounting, Auditing and Finance Research*, 9(9), 18-29.
2. Amadasun, D. O., & Mutezo, A. T. (2022). Influence of access to finance on the competitive growth of SMEs in Lesotho. *Journal of Innovation and Entrepreneurship*, 11(1), 56.
3. Barth, J. R., Caprio, G., & Levine, R. (2006). The design and governance of bank supervision. In *Risks bank Conference on the Governance of Central Banks*.
4. Beck, T., & Levine, R. (2004). Stock markets, banks, and growth: Panel evidence. *Journal of Banking & Finance*, 28(3), 423-442.
5. Berger, A. N., & Udell, G. F. (2004). The institutional memory hypothesis and the procyclicality of bank lending behavior. *Journal of financial intermediation*, 13(4), 458-495.

6. Bhimavarapu, V. M., Rastogi, S., & Kanoujiya, J. (2023). Ownership concentration and its influence on transparency and disclosures of banks in India. *Corporate Governance: The international journal of business in society*, 23(1), 18-42. <https://doi.org/10.1108/CG-05-2021-0169>.
7. Birchwood, A. (2001). Survey on the credit culture of commercial banks in a small open petroleum economy: The case of Trinidad and Tobago. *Saving and Development*, 25(3), 333-350.
8. Bonga, W. G., & Mlambo, N. (2016). Banks and financial literacy enhancement in Zimbabwe. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 7(2), 69-74.
9. Bonga, W. G., Chirenje, G., & Mugayi, P. (2019). Analysis of Credit Culture in the Zimbabwean Banking Sector. *DRJ-Journal of Economics & Finance (2019)*, 4(2), 45-55.
10. Bosire, M., Mugo, R., Owuor, G., Oluoch, W., & Kakiya, G. (2014). What are the factors that influence a wide interest rate band in micro-finance institutions in Kenya?
11. Boubakri, N., Cao, Z., El Ghouli, S., Guedhami, O., & Li, X. (2023). National culture and bank liquidity creation. *Journal of Financial Stability*, 64, 101086.
12. Boumphrey, R., Dickie, P., & Tukuafu, S. (2005). Instilling Credit Culture in State-owned Banks-Experience from Lao PDR.
13. Broekhoff, M. C., van der Crujisen, C., & de Haan, J. (2024). Towards financial inclusion: trust in banks' payment services among groups at risk. *Economic Analysis and Policy*, 82, 104-123.
14. Carlander, A., Gamble, A., Garling, T., Hauff, J. C., Johansson, L. O., & Holmen, M. (2018). The role of perceived quality of personal service in influencing trust and satisfaction with banks. *Financial Services Review: The Journal of Individual Financial Management*, 27(1), 83-98.
15. Chen, Q., Li, J. W., Liu, J. G., Han, J. T., Shi, Y., & Guo, X. H. (2021). Borrower learning effects: do prior experiences promote continuous successes in peer-to-peer lending? *Information Systems Frontiers*, 23, 963-986.
16. Chen, X., Arnoldi, J., & Chen, X. (2020). Chinese culture, materialism and corporate supply of trade credit. *China Finance Review International*, 10(2), 197-212.
17. Chen, Z., Jin, M., Andrikopoulos, A., & Li, Y. (2021). Cultural diversity and borrowers' behavior: evidence from peer-to-peer lending. *The European Journal of Finance*, 28(17), 1745-1769. <https://doi.org/10.1080/1351847X.2021.2007496>.
18. Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research/Lawrence Erlbaum Associates*.
19. Damberg, S. V., Hartmann, J., & Heese, H. S. (2022). Does bad press help or hinder sustainable supply chain management? An empirical investigation of US-based corporations. *International Journal of Production Economics*, 249, 108504.
20. Dattalo, P. (2008). *Determining sample size: Balancing power, precision, and practicality*. oxford university press.
21. De Groot, O., & Haas, A. (2023). The signalling channel of negative interest rates. *Journal of Monetary Economics*, 138, 87-103.
22. De Moraes, C. O., Grapiuna, L. S., & Antunes, J. A. P. (2023). What do we know about the relationship between banks' risk measures and social-environmental sustainability transparency? *Borsa Istanbul Review*, 23(3), 736-747.
23. Demircuc-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank Publications.
24. Dickenson, J. (2024). 'The poor man's overdraft': a longer history of Australian retail credit. *History Australia*, 1-20.
25. Dority, B., Tenkorang, F., & Ujah, N. U. (2019). Availability of private credit—does culture matter? *Studies in economics and finance*, 36(2), 207-223.
26. Eggertsson, G. B., Juelsrud, R. E., Summers, L. H., & Wold, E. G. (2024). Negative nominal interest rates and the bank lending

- channel. *Review of Economic Studies*, 91(4), 2201-2275.
27. Ennew, C., & Sekhon, H. (2007). Measuring trust in financial services: The trust index. *Consumer Policy Review*, 17(2), 62.
 28. Erel, I., & Liebersohn, J. (2022). Can FinTech reduce disparities in access to finance? Evidence from the Paycheck Protection Program. *Journal of Financial Economics*, 146(1), 90-118.
 29. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
 30. Gill, A. S., Flaschner, A. B., & Shachar, M. (2006). Factors that affect the trust of business clients in their banks. *International Journal of Bank Marketing*, 24(6), 384-405.
 31. Gorton, G., & Winton, A. (2003). Financial intermediation. In *Handbook of the Economics of Finance* (Vol. 1, pp. 431-552). Elsevier.
 32. Grable, J., Kwak, E. J., & Archuleta, K. (2023). Distrust of banks among the unbanked and banked. *International Journal of Bank Marketing*, 41(6), 1498-1520. <https://doi.org/10.1108/IJBM-10-2022-0441>.
 33. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
 34. Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science*, 40, 414-433.
 35. Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial management & data systems*, 117(3), 442-458.
 36. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43, 115-135.
 37. Hussain, A., Hannan, A., & Shafiq, M. (2023). Exploring mobile banking service quality dimensions in Pakistan: a text mining approach. *International Journal of Bank Marketing*, 41(3), 601-618. <https://doi.org/10.1108/IJBM-08-2022-0379>.
 38. Inan, D. I., Hidayanto, A. N., Juita, R., Soemawilaga, F. F., Melinda, F., Puspacinantya, P., & Amalia, Y. (2023). Service quality and self-determination theory towards continuance usage intention of mobile banking. *Journal of Science and Technology Policy Management*, 14(2), 303-328.
 39. Kashyap, A. K., & Stein, J. C. (2000). What do a million observations on banks say about the transmission of monetary policy? *American Economic Review*, 90(3), 407-428.
 40. Kidron, A., & Kreis, Y. (2022). Restoring trust after banks crisis: the Israeli case study. *Israel Affairs*, 28(3), 484-500. <https://doi.org/10.1080/13537121.2022.2066865>.
 41. Koomson, I., Koomson, P., & Abdul-Mumuni, A. (2023). Trust in banks, financial inclusion and the mediating role of borrower discouragement. *International Review of Economics & Finance*, 88, 1418-1431.
 42. Kowalewski, O., & Pisany, P. (2022). Banks' consumer lending reaction to fintech and bigtech credit emergence in the context of soft versus hard credit information processing. *International Review of Financial Analysis*, 81, 102116.
 43. Kowalewski, O., Pisany, P., & Ślęzak, E. (2022). Digitalization and data, institutional quality and culture as drivers of technology-based credit providers. *Journal of economics and business*, 121, 106069.
 44. Kwabi, F., Wonu, C., Ezeani, E., Owusu, A., & Leone, V. (2024). Impacts of cross-border equity portfolio flow and central bank transparency on financial development: The role of economic freedom and international bonds. *International Journal of Finance & Economics*.
 45. Laeven, L., & Levine, R. (2009). Bank governance, regulation and risk taking. *Journal of financial economics*, 93(2), 259-275.
 46. Li, W., Xu, X., & Long, Z. (2020). Confucian culture and trade credit: Evidence from Chinese

- listed companies. *Research in International Business and Finance*, 53, 101232.
47. Liu, T. Y., & Lee, C. C. (2022). Exchange rate fluctuations and interest rate policy. *International Journal of Finance & Economics*, 27(3), 3531-3549.
 48. Losada-Otálora, M., & Alkire, L. (2019). Investigating the transformative impact of bank transparency on consumers' financial well-being. *International Journal of Bank Marketing*, 37(4), 1062-1079.
 49. Luu, H. N., Nguyen, L. H., & Wilson, J. O. (2023). Organizational culture, competition and bank loan loss provisioning. *The European Journal of Finance*, 29(4), 393-418.
 50. Marcos, A. M. B. D. F., & Coelho, A. F. D. M. (2022). Service quality, customer satisfaction and customer value: holistic determinants of loyalty and word-of-mouth in services. *The TQM Journal*, 34(5), 957-978.
 51. Masoud, H. and Albaity, M. (2022), "Impact of general trust on bank risk-taking: the moderating effect of confidence in banks", *Journal of Economic Studies*, Vol. 49 No. 3, pp. 453-471. <https://doi.org/10.1108/JES-09-2020-0479>.
 52. Mir, R.A., Rameez, R. and Tahir, N. (2023), "Measuring Internet banking service quality: an empirical evidence", *The TQM Journal*, Vol. 35 No. 2, pp. 492-518. <https://doi.org/10.1108/TQM-11-2021-0335>.
 53. Moro, A., Belghitar, Y., & Mateus, C. (2021). National culture and small firms' use of trade credit: Evidence from Europe. *Global Finance Journal*, 49, 100655.
 54. Muluka, K. O., Kidombo, H., Munyolo, W., & Oteki, E. B. (2015). Effect of Digital Banking on Customer Satisfaction: A case of National Bank of Kenya, Bungoma County.
 55. Mushtaq, R., Gull, A. A., & Usman, M. (2022). ICT adoption, innovation, and SMEs' access to finance. *Telecommunications Policy*, 46(3), 102275.
 56. Narayan, S., & Nirupam, M. (2019). Loan Waivers and Bank Credit: Reflections on the Evidence and the Way Forward. *VIKALPA The Journal for Decision Makers*, 44(4), 198-210.
 57. Narayanan, S. (2016). The productivity of agricultural credit in India. *Agricultural Economics*, 47, 1-11.
 58. Nguyen, D. D., Nguyen, L., & Sila, V. (2019). Does Corporate Culture Affect Bank Risk-Taking? Evidence from Loan-Level Data. *British Journal of Management*, 30, 106-133.
 59. Nwidobie, B. M. (2014). Basel Accord, post consolidation growth in bank capital, cash reserve, deposit liability and volatility in bank credit in Nigeria. *African Journal of Economic and Sustainable Development*, 3(4), 330-345.
 60. Ojiako, U., Manungo, T., Chipulu, M., & Johnson, J. (2013). The Impact of Regulation on Risk Perception: Evidence from the Zimbabwean Banking Industry. *African Development Review*, 25(03), 276-288.
 61. Oliver de Groot, Alexander Haas (2023). The signalling channel of negative interest rates, *Journal of Monetary Economics*, Volume 138, 87-103, ISSN 0304-3932. <https://doi.org/10.1016/j.jmoneco.2023.05.011>.
 62. Ooh, C. C. (2002). Chinese banking reform of 1998–2000 and its effect on the development of a commercial credit culture. *Global Economic Review*, 31(1), 47-64.
 63. Pan, X., & Tian, G. G. (2018). Bank Work Experience Versus political Connections: Which Matters for bank Loan Financing. *International Review of Finance*, 1-32.
 64. Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of retailing*, 67(4), 420.
 65. Pathak, A., & Chattopadhyay, A. K. (2021). Debates on agricultural loan waiver schemes in India: myths and realities. *Contemporary South Asia*, 29(4), 560-570.
 66. Rajput, N., Gupta, M., & Chauhan, A. K. (2012). Profitability and credit culture of NPAs: an empirical analysis of PSBs. *International Journal of Marketing, Financial Services & Management Research*, 1(9), 91-109
 67. Remeikiene, R., Gaspareniene, L., & Grigaliune, G. (2016). The issues of the

- management of receivables: Lithuanian case. *Economics and Culture*, 13(1), 88-96.
68. S, S. M. (2016). Capital Risk and Capital Adequacy of Indian Banks under BASEL Accords: Need for the Hour. *SJCC Management Research Review*, 6(2), 121-129.
69. Sanderson, A., Hlalefang, K., Le Roux, P., & Mutandwa, L. (2018). Review of the banking sector profit persistence. *International Journal of Economics and Financial Issues*, 8(1), 54.
70. Schein, E. H. (1985). Increasing organizational effectiveness through better human resource planning and development. *Readings in human resource management*, 376.
71. Shetty, D. K., Perule, N., Potti, S. R., Jain, M., Malarout, N., Devesh, S., ... & Naik, N. (2022). A study of service quality in Indian public sector banks using modified SERVQUAL model. *Cogent Business & Management*, 9(1), 2152539.
72. Strischek, D. (2002). Credit Culture. *The RMA Journal*.
73. Wang, Q., Su, Z., & Chen, X. (2021). Information disclosure and the default risk of online peer-to-peer lending platform. *Finance Research Letters*, 38, 101509.