

STUDY ON CREDIT RISK MANAGEMENT IN APTUS VALUE HOUSING INDIA PVT LTD

Submitted in partial fulfillment of the requirements for the award of Degree in

MASTER OF BUSINESS ADMINISTRATION

by

LEKHA.G

Register No.41410178



**DEPARTMENT OF BUSINESS ADMINISTRATION
SCHOOL OF MANAGEMENT STUDIES**

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE

JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119

MAY 2023



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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the Bonafide work of **G.LEKHA 41410178** who carried out the project entitled "**STUDY ON CREDIT RISK MANAGEMENT IN APTUS VALUE HOUSING INDIA PVT LTD**" under my supervision from January 2023 to march 2023.

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Submitted for Viva voce Examination held on

06/05/2023

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CONSENT & COMPLETION LETTER IN COMPANY LETTER HEAD



APTUS



04/01/2023

TO WHOMSOEVER IT MAY CONCERN

Sub: MBA Project Confirmation

We hereby confirm the below student pursuing the final year MBA in Sathyabama Institute of Science and Technology, Chennai, has been offered to do the Finance project in our concern from 04/01/2023 to 04/03/2023.

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We wish you to complete this final year project successfully.

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DECLARATION

I **LEKHA.G (41410178)** hereby declare that the Project Report entitled "**STUDY ON CREDIT RISK MANAGEMENT IN APTUS VALUE HOUSING INDIA PVT LTD**" done by me under the guidance of **DR.K. SANTHANALAXMI** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE:06/05/2023

PLACE:Chennai

A handwritten signature in black ink, appearing to read 'Lekha G', with a long horizontal stroke extending to the right.

LEKHA G

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LEKHA.G

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ABSTRACT

The title of the project is “study on the credit risk analysis in Aptus Value Housing India Pvt Ltd” The objective of the project is to study the various financial risk of Aptus Value Housing India Pvt Ltd and to analyze how it managing such risks and to know the credit position of Aptus Value Housing India Pvt Ltd. The study is based on the analytical research design as it employs the data from the financial statement of the company; the data so collected are analysed and interpreted using financial tools such as cash flow statement analysis, commonsize statement analysis, regression and correlation coefficient. Based on the analysis done appropriate suggestions are provided for the betterment of the company. Aptus Value Housing India Pvt Ltd can apart from various appraisal techniques also develop systematic credit rating model, according marks to different aspects of an enterprise before taking a credit decision. Thus, the study on credit risk management with reference to Aptus Value Housing India Pvt Ltd enables us to make suitable suggestion in order to mitigate the credit risk faced by the Aptus Value Housing India Pvt Ltd.

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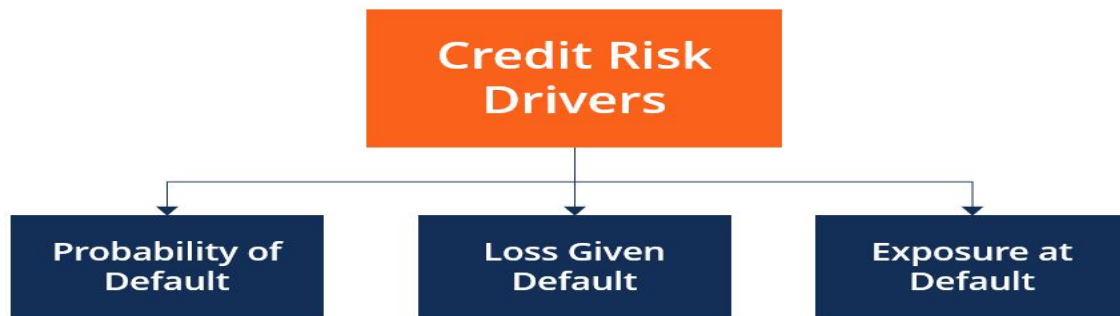
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CHAPTER 1

INTRODUCTION

1.1.CREDIT RISK ANALYSIS

Credit risk may be defined as the potential that a borrower or counter-party will fail to meet their obligations in accordance with agreed terms. In short, credit risk is the probability of loss from a credit transaction. Credit risk management is the assessment of risk that comes in an investment. NBFCs have been playing a complementary role to the other financial institutions including banks in meeting the funding needs of the economy. NBFCs account for 12.3% assets of the total financial system. Non-banking finance companies (NBFCs) are at a higher risk of defaults than traditional banks, due to their higher exposure to non-traditional segments of the market. Therefore, there is a need to study the techniques of credit risk management employed in NBFCs. Credit risk analysis extends beyond credit analysis and is the process that achieves a lender's goals by weighing the costs and benefits of taking on risk. By balancing the costs and benefits of granting credit, lenders measure, analyse and manage risks their business is willing to accept. The creditworthiness of the borrower, derived from the credit analysis process, is not the only risk lenders face. When granting credit, lenders also consider potential losses from non-performance, such as missed payments and potential bad debt. With such risks come costs, so lenders weigh them against anticipated benefits such as risk-adjusted return on capital (RAROC).



Credit risk analysis determines a borrower's ability to meet their debt obligations and the lender's aim when advancing credit.

- Expected losses, risk-adjusted return, and other considerations all serve to inform the outcome of the credit risk analysis process.
- Three factors to quantify the expected loss (cost of credit risk) include the probability of default, loss given default, and exposure at default.
- Credit risk is the potential for a lender to lose money when they provide funds to a borrower.
- Consumer credit risk can be measured by the five Cs: credit history, capacity to repay, capital, the loan's conditions, and associated collateral.
- Consumers who are higher credit risks are charged higher interest rates on loans.
- Your credit score is one indicator that lenders use to assess how likely you are to default.

1.1.1.Purpose of Credit Risk Analysis

Credit risk analysis aims to take on an **acceptable level of risk to advance** the lenders' **goals**. Goals can include profitability, business growth, and qualitative factors. Management crafts policies that drive their business to achieve its goals.

Although credit analysis can rate risks and estimate the probability of default, default risk is only one entity-specific risk factor. Lenders consider costs and benefits holistically when determining if the anticipated outcomes are acceptable to their business and financial exposure.

To estimate the **cost of risk**, lenders employ a multitude of information from the borrower, the lender, and external parties such as credit agencies. Some measures,

such as credit scores and credit risk analysis models, are tools that allow lenders to estimate their **expected loss (EL)** via the probability of default (PD), loss-given default (LGD), and exposure at default (EAD).

The direct benefit of taking on credit risk is interest, a combination of default risk premium, liquidity premium, and other factors; however, benefits extend beyond interest revenue. For example, lenders may take on additional credit risk to grow a credit portfolio (their asset base), gain market share and expand relationships, or ensure their portfolio achieves an acceptable risk-adjusted return on capital.

Individual outcomes of credit risk analysis include granting credit with specific credit conditions or even approving exceptional credit to borrowers who may not qualify within standard policies. Management's goal is to mitigate the portfolio credit risks sufficiently to optimize the firm's accepted risks in aggregate.

For example, credit risk analysis can determine that lending in the absence of financial risk (e.g., cash-secured lending) is still not acceptable, perhaps due to headline risk specific to the borrower's owner or the industry that the company operates in.

Conversely, credit risk analysis may support lending to a newer business model (i.e., without proven cash flow) as a business strategy to expand relationships and increase exposure to a growing segment.

1.1.2.Credit problems and risk management

Credit risk management is a key issue that lenders of all forms must address. BIS^[1] has identified three key areas: concentration, credit processes, and market and liquidity-sensitive exposures.

- **Concentration** reflects not the largest borrowers per se but exposures where the expected loss can sizably deplete the capital. For example, in trade credit, if a lender offers the same terms (amount, repayment, etc.) to a business with no track record and a publicly traded company, the credit concentration is considered more significant with the former compared to

the latter. If this exposure has an expected loss that will deplete the lender's capital to an unacceptable level, that risk must be adjusted accordingly.

- **Credit processes** encompass lenders' steps to assess, measure, and conduct credit risk analyses. Errors in the process lead to credit problems for the lender, for example:
 - Leveraging value-at-risk (VAR) models with unvalidated tail risks and loss.
 - Decisions that are not easily replicable, resulting in inconsistent results and unmanaged portfolio risk.
 - Poor monitoring and control of collateral and fraud, leaving any losses higher than expected.
 - Consistent mispricing and assessment of non-financial collateral in light of market conditions or business cycles, resulting in poor risk-adjusted return and higher than planned concentration risk.
- **Market and liquidity-sensitive exposures** include foreign exchange risks, financial derivatives, and contingent liabilities. There is a difference between willingness and ability to pay, particularly for illiquid collateral or volatility, causing an outsized increase in exposure compared to the collateral value. If the borrower cannot access sufficient liquidity, the risk to the lender will rise regardless of willingness to repay. Stress testing is one way to structure and manage credit risk.

1.1.3. Understanding Credit Risk

When lenders offer mortgages, credit cards, or other types of loans, there is a risk that the borrower may not repay the loan. Similarly, if a company offers credit to a customer, there is a risk that the customer may not pay their invoices. Credit risks are calculated based on the borrower's overall ability to repay a loan according to its original terms. Some companies have established departments responsible for assessing the credit risks of their current and potential customers. Technology has afforded businesses the ability to quickly analyse data used to assess a customer's risk profile. Bond credit-rating agencies, such as Moody's Investors Services and Fitch Ratings, evaluate the credit risks of corporate bond issuers and municipalities and then rate them. If an investor considers buying a bond,

they will often review the credit rating of the bond. If a bond has a low rating (< BBB), the issuer has a relatively high risk of default. Conversely, if it has a stronger rating (BBB, A, AA, or AAA), the risk of default is lower. Banks can manage credit risk with a number of strategies. They can set specific standards for lending, including requiring a certain credit score from borrowers. Then, they can regularly monitor their loan portfolios, assess any changes in borrowers' credit worthiness and then make any adjustments. Credit risk is a lender's potential for financial loss to a creditor, or the risk that the creditor will default on a loan. Lenders take several factors into account when they assess a borrower's risk, including their income, debt, and repayment history. When a lender sees you as a greater credit risk, they are less likely to approve you for a loan and more likely to charge you higher interest rates if you do get approved.

1.1.4. Factors Affecting Credit Risk Modelling:

In order to minimize the level of credit risk, lenders should forecast credit risk with greater accuracy. Listed below are some of the factors that lenders should consider when assessing the level of credit risk:

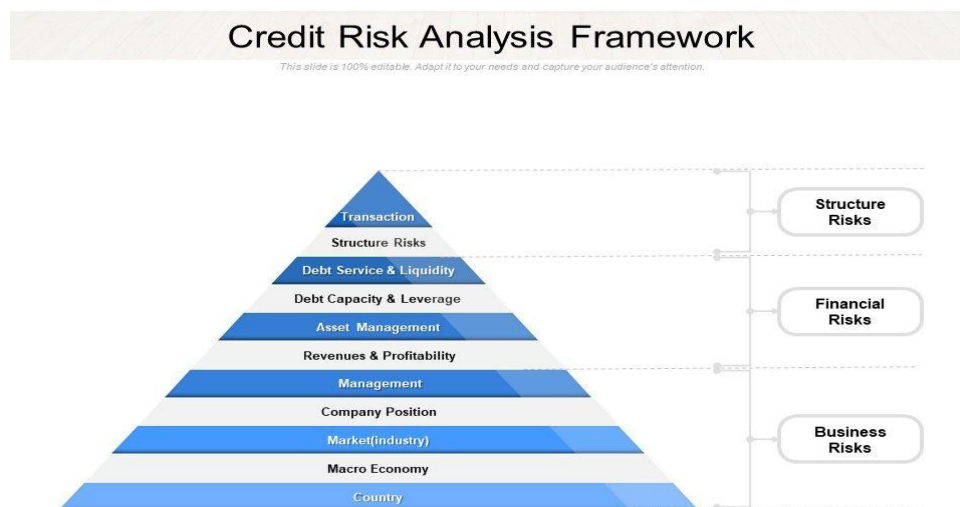
- **Probability of Default (POD)** The probability of default, sometimes abbreviated as POD, is the likelihood that a borrower will default on their loan obligations. For individual borrowers, POD is based on a combination of two factors, i.e., credit score and ratio. The POD for corporate borrowers is obtained from credit rating agencies. If the lender determines that a potential borrower demonstrates a lower probability of default, the loan will come with a low interest rate and low or no down payment on the loan. The risk is partly managed by pledging collateral against the loan.
- **Loss Given Default (LGD)** Loss given default (LGD) refers to the amount of loss that a lender will suffer in case a borrower defaults on the loan. For example, assume that two borrowers, A and B, with the same debt-to-income ratio and an identical credit score. Borrower A takes a loan of \$10,000 while B takes a loan of \$200,000. The two borrowers present with different credit profiles, and the lender stands to suffer a greater loss when Borrower B defaults since the latter owes a larger amount. Although there is

no standard practice of calculating LGD, lenders consider an entire portfolio of loans to determine the total exposure to loss.

- **Exposure at Default (EAD):** Exposure at Default (EAD) evaluates the amount of loss exposure that a lender is exposed to at any particular time, and it is an indicator of the risk appetite of the lender. EAD is an important concept that references both individual and corporate borrowers. It is calculated by multiplying each loan obligation by a specific percentage that is adjusted based on the particulars of the loan.

1.1.5. CREDIT RISK FRAMEWORK:

Credit Risk Assessment involves an analysis of qualitative and quantitative factors affecting the creditworthiness of an organization. The framework for assessing the credit quality of an organization entails the four broad areas of Business Risk Assessment, Financial Risk Assessment, Industry Risk Assessment, and Management Risk Assessment.



- **Industry risk:** Industries come in various shapes and sizes so it indicates how the Credit will perform. Industry risk includes growth prospects, cyclic ability, competitive intensity, and regulatory risk to define overall industrial risk factor.
- **Business risk:** Business risks include scale of the industry, its market position & portfolio diversification, its operating efficiency, and projects.

- **Financial risk:** Financial risk measures profitability, leverage, coverage and cash flows with liquidity into account. Statistical approach in financial risk calculation is useful to represent facts and its generally easy to identify.
- **Management risk:** Quality of Management, financial policies, governance structure and practices fall under the management risk. The management risk defines the trust factor between borrower and lender.

1.1.6. LIMITATIONS OF CREDIT RISK:

Inefficient Data Management: Credit risk management solutions require the ability to securely store, categorize and search data based on various criteria. Any database needs to be updated in real-time to avoid potentially outdated information and be keyword optimized to ensure the easy location of information.

Getting data out of silos and into models: Data in the financial industry can be highly siloed, causing inefficiencies across the lending life cycle. Siloed data can mean vital information is overlooked at a critical step in the lending process or that data is duplicated, causing difficulty in risk modelling. Streamlining how data is gathered, segmented, stored, and accessed is critical to effective risk management. Centralizing data storage and un-siloing data to create comprehensive datasets can provide a clearer picture of any individual or business and their creditworthiness. Risk can be more accurately assessed with all data readily available for analysis and modelling, and candidates can be qualified based on all available information.

Limited Group-Wide Risk Modelling Infrastructure: Sometimes it's not enough to examine the risk qualities a single entity poses—a broad, comprehensive view of all risk measures, as seen above, is key to understanding the risk a new borrower poses to the group. Robust stress-testing capabilities and model management that span the entire modelling life cycle are key to ensuring accurate risk assessment.

1.1.7. IMPORTANCE OF CREDIT RISK

Credit risk implies a potential risk that the counterparty of a loan agreement is likely to fail to meet its obligations as per the original loan agreement, and may

eventually default on the obligation. Credit risks can be classified into many forms such as options, equities, mutual funds, bonds, loans, and other financial issues as well, which in extensions of guarantees and the settlement of these transactions. Risk is always associated with financial activities, and taking a risk is an important part of any financial operation, there is hardly any operation without the risk. Most of the financial institutions are said to be sound when they have a clear overview of what is the amount of risk involved in the current transaction and they make sure that some of the partly earnings are therefore kept for these risks. The granting of any form of credit is the common form for any financial institution and this risk is very common and this is the source of risks the institutions are always exposed to. By being exposed to credit risk nbfc's have been faced with a lot of problems. The NBFC's couple of years ago realized that credit risk is important and the need to monitor, identify, control, and measure it is very significant. Due to this, the effective management of credit risk has become a critical component of approaching risk management. This approach will be especially important in terms of the long-term success of any financial institutions. NBFC's now ensure that they have a large amount of capital against any form of credit risks so that they can be in a position to adequately tackle any risks which will be incurred.

1.2. INDUSTRY PROFILE

Non-Banking Financial Companies (NBFC) in India made a humble beginning way back in the 1960's to serve the need of the savour and investor whose financial requirements were not sufficient covered by the existing banking system in India. The NBFCs began to invite fixed deposit from investor and work out leasing deal for big industrial firms. Initially, they operated on a limited scale and could not make a significant impact on the financial system. However, between 1980's and 1990's, NBFCs gained good ground and started to inveigle a huge number of investors owing to them customer friendly reputation. Non-Banking Financial Companies or NBFCs in India are registered companies conducting business activities similar to regular banks. Their banking operations encompass making loans and advances available to consumers and businesses, acquisition of marketable securities, leasing of hard assets such as automobiles, hire-purchase

and insurance business. Though they are akin to banks, they differ in couple of ways. NBFCs cannot accept demand deposits, cannot issue cheques to customers and the deposits with them are not insured by DICGC (Deposit Insurance and Credit Guarantee Corporation). Either the RBI (Reserve Bank of India) or SEBI (Securities and Exchange Board of India) or both regulate NBFCs. The NBFC sector in India has witnessed significant vicissitude over the past few years and has come to be recognized as a systematically key element of the financial system. The NBFC segment has witnessed consolidation over the recent past, especially in the NBFCND-SI segment. Indeed, it is evident in India that with the development of NBFCs segment within the overall financial system, it challenged the other segments, i.e. banks to innovate, to improve quality and competence, and deliver at flexible timings and at competitive prices. In fact, in a number of un-treaded trajectories, NBFCs were the ones to foray first to explore the market and develop before banks entered the field. NBFCs are broadly classified into two categories based on whether they accept public deposits, i.e., NBFC-Deposit taking (NBFC-D) and NBFCs-Non-Deposit taking (NBFC-ND). Besides, there are only two residuary non-banking finance companies (RNBCs) which are also deposit taking companies of different character. In the recent years, infrastructure finance has gained steam, and NBFCs engaged in infrastructure finance are called 'Core Investment Companies'.

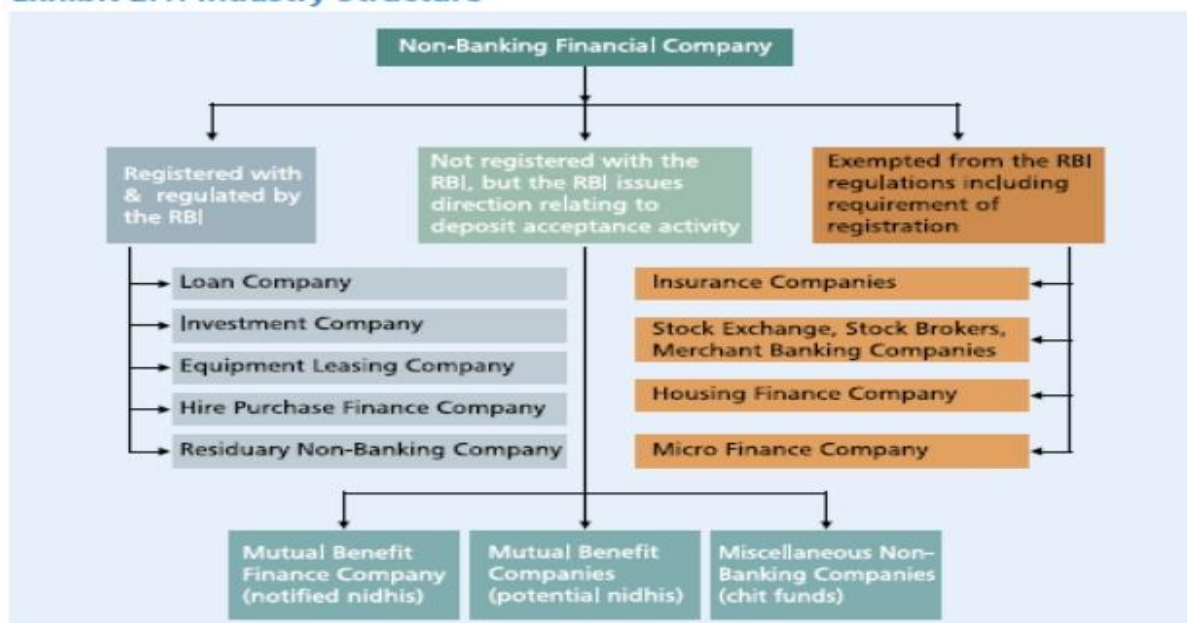
Non-Banking Financial Companies (NBFC) have rapidly emerged as an important segment of the Indian financial system. Moreover, NBFCs assume significance in the small business segment as they primarily cater to the credit requirements of the unorganized sector such as wholesale & retail traders, small-scale industries and small borrowers at the local level. NBFC is a heterogeneous group of financial institutions, performing a wide range of activities like hire-purchase finance, vehicle financing, equipment lease finance, personal loans, working capital loans, consumer loans, housing loans, loans against shares and investment, etc. NBFCs are broadly divided into three categories namely:

- (i) NBFCs accepting deposits from banks (NBFC-D)
- (ii) NBFCs not accepting/holding public deposits (NBFC-ND)

- (iii) core investment companies (i.e., those acquiring share/securities of their group/holding/subsidiary companies to the extent of not less than 90% of total assets and which do not accept public deposits.)

The segment has witnessed considerable growth in the last few years and is now being recognized as complementary to the banking sector due to implementation of innovative marketing strategies, introduction of tailor-made products, borrower oriented services, attractive rates of return on deposits and simplifies procedures.

Exhibit 2.1: Industry Structure



Source: RBI

1.2.1. Growth of NBFCs

It can be said without an iota of doubt that NBFCs have scripted a great success story. Their contribution to the economy has grown substantially from 8.4% in 2006 to more than 14% in March 2015. In terms of financial assets, NBFCs have registered a robust growth, i.e., a compound annual growth rate (CAGR) of 19% over the past few years, consisting of 13% of the total credit and estimated to reach nearly 18% by 2018-19. The success of NBFCs can be clearly attributed to their superior product lines, lower cost, broader and effective reach, robust risk management capabilities to check and control bad debts, and proper comprehension of their customer segments. Not only they have displayed success in their conventional citadel (passenger and commercial vehicle finance) but they

have also managed to build significant assets under management (AUM) in the personal loan and housing finance sector which have been the bread and butter for retail banks. Moving ahead, the latent credit demand of an emerging India will permit NBFCs to bridge the gap, particularly where traditional banks have been cagey to serve. Additionally, improving macroeconomic conditions, higher credit penetration, enhanced consumption and disruptive digital trends will allow NBFCs credit to rise at a robust rate of 7-10% in the coming years (Please refer exhibit 1). Within NBFC space, different sub-segments have surfaced up which are more dominant than others. Mortgages, microfinance and unsecured loans appear to be driving growth. According to estimates, credit grew at an astounding 30 percent (y-o-y) for mortgages and 80 percent plus for microfinance as of December 2015. Housing finance companies have enhanced their share of the overall pie from 26 percent in FY09 to 38 percent in FY15. NBFCs also have giant share in niche segments, like, commercial vehicle finance, the share estimated to have risen from 42 percent to 46 percent in the last three years ending FY15. According to a report by BCG, India's credit-GDP ratio stood at 97 percent as of FY15 versus 165 percent in China, 149 percent in Germany, 244 percent in the US and 447 percent in the UK. This means huge scope for credit market in India as a whole. Interestingly, for the same year, the NBFC-credit-to-GDP ratio in India was merely 13 percent, versus 33 percent in China, 29 percent in Germany, 130 percent in the US and 264 percent in the UK. If one observes this fact that largest segment in the banking sector is witnessing some challenges, then the opportunities to grow is expected to be higher. Non-banking financial companies improved their performance on most metrics in the fiscal year 2015, as the banking industry struggled under the weight of a rising pile of bad loans. According to the financial stability report (FSR) released on June 2016 mentioned that NBFC loans expanded 16.6% in the year, twice as fast as the 8.8% credit growth across the banking sector on an aggregate level. The aggregate balance sheet of the NBFC sector expanded 15.5% in fiscal 2016 compared with 15.7% in the year 2015. Looking at the non-food credit data compiled by Reserve Bank of India it can be observed that NBFCs have started moving at twice the pace of the banks. An inflection point was reached around September 2014, when, for the first time, NBFCs crossed scheduled commercial banks in terms of year-on-year credit growth (please refer exhibit 2). In August 2016, the union cabinet has given nod

for foreign direct investment (FDI) under the automatic route in regulated NBFCs. According to a report released in the beginning of 2016 by consulting firm PwC India stated that by 2020, credit lending by Indian NBFCs is estimated to account for anywhere between 18.2% and 20.9% of the total credit off-take in the country. How NBFCs differ from Bank:

- Provide banking services to persons without banking licenses.
- NBFCs cannot demand deposits.
- It is not part of the payment and settlement system.
- NBFCs are not required to retain backup risks (CRR, SLR, etc.)

Advantages of NBFC's:

- Financial decisions are taken quickly.
- Less rules and regulations.
- Transaction value is low.
- Compare the interest rates of other banks with high interest rates.
- Targeted customers services and fast service.

Role of NBFC'S:

As Recognized by the RBI the specific roles of a non-banking financial companies are:

- Substantially generate Employment.
- Increase the wealth creation.
- Develop the sectors like transport and infrastructure.
- Base economic development.
- Supplement to bank credit in rural segments.

Role of NBFC'S in economic Development:

- Converts the savings into investments.
- Helps to increase the capital stock of the company.
- Creation of employment opportunity.

- Providing long-term credit.
- Developing financial markets.
- Attracting the foreign customers.
- It breaks the circle of poverty by serving as a government instrument.

1.2.2. LIMITATIONS OF NBFC'S:

- NBFCs cannot accept demand deposits as it falls within the realm of activity of commercial banks
- An NBFC is not a part of the payment and settlement system and as such an NBFC cannot issue cheques drawn on itself
- Deposit insurance facility is not available for NBFC depositors unlike in case of banks
- All NBFCs cannot accept deposits; only some can. Only those NBFCs holding a valid Certificate of Registration with authorisation to accept Public Deposits can accept/hold public deposits
- The regulatory mechanism for NBFCs is stringent

RBI has prescribed strict norms on capital adequacy and NPA in order to bridge the regulatory gaps between NBFCs and Banks, asking NBFCs to maintain minimum capital adequacy norms. It is reflected from a statement of the RBI which said that seven NBFCs were not able to meet the regulatory minimum capital adequacy norms of 15% as of March 2016.

1.3. COMPANY PROFILE

Aptus Value Housing Finance India Ltd is a Home Loan Company. Aptus has been formed to primarily address the housing finance needs of self-employed, belonging to Low- and Middle-Income Families primarily from semi urban and rural markets. Despite the vibrant growth of the housing finance sector especially over the past few years, India still has one of the most severe housing shortages today. The majority of India's population and especially the self-employed business segment from semi urban areas lack access to housing finance.

There is thus an urgent need to respond to the needs of these underserved, last mile customers. Housing being one of the essential needs of mankind, the demand for shelter grows in line with the increase in population and the standard of living. Every one dreams of owning a home. House is one of the best investments people make with their hard-earned money during their lifetime. The housing finance institutions fulfil the dreams of people, aspiring to own their first home and contribute to the growth of the housing sector. Growing Indian economy, rising income, urbanizing population, government tax incentives, over the years, has led to a vibrant housing finance market. Most of the housing finance Institutions today cater to the needs of upper middle- and high-income customers belonging to the formal segment. Availability of IT returns, salary certificates and income proofs have made the credit assessment to this segment relatively easy. This over the years has led to a situation of finance and housing stock being made available mainly to the formal and high-income segment while the housing demand remains with the informal, low income and middle-income segments. This, the aspirational first home till date remains a dream for most of the Indians from lower / middle income backgrounds. Lack of finance availability has prevented the fulfilment of their dreams for long. This segment of self-employed, low, middle-income customers belong and perform different nature of work. The financial strength and income generation capability of each customer is different. It would be difficult to club these customers, who are prone to the vagaries of the economy, under any homogeneous group. Understanding their financial needs call for a high level of empathy and awareness of the impact of the economic vicissitudes in their lifestyle. Common financing norms may not be suitable for this segment of customers. While their housing finance needs may be common in a broad sense, these customers, carry on varied businesses ranging from provision store to bakery, from tailoring to transportation, from running a two-wheeler service centre to managing a pharmacy, they perform different business. In the lack of adequate documents, assessing their income could be a challenging task and calls for an individualistic approach. The credit assessment needs to be unique and appropriate and suitable to each of these businesses. This is a concept we at APTUS embrace in the way we try to understand and assess the customers, in the company. Aptus in Latin means 'appropriate', suitable'. We make an effort to understand the fact that every customer is unique and so is his work environment.

We feel it is absolutely necessary not to treat them a homogeneous group of borrowers but appreciate the individual customers and offer housing finance solutions that are appropriate and suitable in scale and ambition to them. Aptus extends this beyond credit assessment. We keep this as a driving philosophy in every facet of the organization; be it designing our policies for lending, collection or developing systems, or recruiting employees. We strive to understand and treat each stakeholder in a suitable manner, while creating a work environment conducive to finding the most effective, innovative and suitable solutions for every challenge.

Vision: To be an efficient, innovative and admired housing finance company, focused on making a positive impact on the standard of living of our customers through appropriate housing finance solutions at an affordable cost and personalized service.

Mission: To be a leader in the affordable housing finance segment and make an impact in the lives of a million people by 2025. **Core Values:** Our core values guide the decisions we make and the actions we take.

Accountability: We take responsibility for the financial, social, environmental and economic impacts of our decisions and actions and disclose our performance in a transparent manner. We honour the trust placed in us by the customers by taking care of their financial needs.

Professionalism: We consistently produce results of the highest quality and exhibit professional conduct and sound judgment in standards and service. We ensure to do the right thing by being transparent, honest and ethical in all we do. We deepen our relationship with the customers by providing remarkable service.

Team work: We are a highly skilled, dedicated, and diverse workforce that is empowered to achieve outstanding results. We operate with honesty, integrity, and the highest of ethical standards, without exception.

Unity: We believe that unity inspires stronger personal commitment and greater collective achievement.

Success: We believe that achieving complete customer satisfaction through service excellence is the key to our success. We focus on achieving results that add the best possible value for all our stakeholders.

1.3.1. PRODUCT PROFILE

1.Home Loans: The primary product offered by Aptus is aimed at addressing the long-term housing finance needs of our customers. The housing loan could be to

- Construct a house/flat on the land owned
- Purchase of a flat or a house from a builder
- Construct or purchase a house/flat on a second-hand basis
- Renovation or extension of a house
- Purchase of a plot of land for construction.

Loan amount: While the minimum amount is Rs 5,00,000 Aptus would be primarily be focusing on the affordable housing segment where the customers are buying or building homes of value between Rs 6 lakhs to Rs 30 lakhs and looking for finance between Rs 5 – Rs 25 lakhs. The loan amount in case of Loan against property and renovation of existing homes would be lesser and Aptus would look at financing these needs for minimum loan value of Rs 5 lakhs.

Tenure and Funding: The maximum Tenure offered is 15 years and amounts upto 85% of the Value of the Property.

Interest Rate: The interest rate offered to the customers is based on the Aptus Base Rate. While offering the interest rate, Aptus would offer the following options to the customers - **17.25%**

2.Loan Against Property (LAP): These are loans given basically for refinancing of funds used for the purpose of construction/purchase of house. Typically, if you have used up your funds for constructing/purchase of a house and you are in financial need currently, these loans are tailor made for you. LAP has two products, namely, LAP – Construction and LAP – Purchase. Eligible customers can get a high loan amount up to Rs. 30 lakhs at affordable interest rates. The customers can select a tenure ranging from 5 to 15 years and repay the loan conveniently.

3. Insurance: Aptus is currently offering products pertinent to housing finance viz Credit Shield Insurance and Property Insurance.

It offers credit shield insurance to customers wherein the entire loan outstanding is repaid by the insurance company in the event of death of a customer. aptus have also entered into arrangements with insurance companies to offer credit shield insurance and property insurance to our customers. Aptus has negotiated with the Insurance Companies to get competitive rates and offers these rates to customers for the purpose of insurance cover. While the customers have the option to choose their own insurance company for insurance covers, Aptus will recommend names of the insurance companies for these covers based on the coverage terms and service.

1.3.2. Factors affecting Loan Interest Rate and Related Loan Products:

1. Type of Interest Rate: Aptus offers fixed rate and floating rate to its customers. Floating interest rates change based on changes by the Aptus Prime Lending Rate. With a fixed interest rate, you get the same rate of interest throughout the tenure of your loan.
2. Income proof - Proof of income-by-Income tax returns, GST returns, salary slip, salary credited into bank statement, is very important parameter for fixing the interest rates
3. Bank statement – The inflows, outflows, average balances in bank statement, bounces in bank statement, minimum balances etc., plays an important factor in interest rates
4. Loan to Value Ratio (LTV): LTV refers to the percentage of the property value that can be financed through the loan. A larger quantum of loan to value attracts a higher rate of interest because it is a higher credit risk.
5. Property's Location and Condition: The location of property, its current location, age of property and amenities available determine its resale value. A higher resale value of property means financial institution incentivizing them to offer lower interest rates to borrower and vice- versa.
6. Customer Profile: Customer profile includes various factors to determine interest rate such as Income source. Income source can be categorized as

Salaried and Self-employed. Whichever category the applicant falls into, a steady and regular source of income is must.

7. Applicant's Financial Profile: Credit report is a statement of repayment history, financial discipline or habits, and creditworthiness. A lower credit score or a no score shows portrays a high credit risk, which would cause lenders to charge a higher rate of interest in order to cover their risks and vice versa.

8. Nature of Business: The nature of business is defined by activities that individual engages in. It is a crucial factor in determining term loan interest rates as it helps the lender in examining whether business is profitable or not.

9. Business Vintage: Established businesses have a proven track record of handling credit. Unlike new businesses, they provide the lender with a sense of security, which translates into lower interest rates.

10. Credit History: Credit score has emerged as a critical factor in securing loans at reasonable interest rates. Credit score is a statement of repayment history, financial discipline or habits, and creditworthiness. A lower credit score shows portrays a high credit risk, which would cause lenders to charge a higher rate of interest in order to cover their risks and vice-versa.

11. Factors affecting MSME Business Loan and Related Loan Products: End use of funds: Use of money for productive or non-productive purpose. End use of funds for business purpose or Personal purpose like marriage, education, Vacation, etc.

1.4. STATEMENT OF THE PROBLEM:

This study is taken to analyse and interpret the credit risk and credit management of the aptus value housing company by way of using financial and statistical tools and how it overcomes and manage the credit risk in the aptus.by using common size statement analysis, cashflow analysis regression and correlation analysis to find out the existing result of the company and identifying keys for effective risk management. In this study we are focussing on the financial aspects of aptus value housing private ltd by collecting the financial data form the company and also giving suggestions and recommendations to the company.

1.5. OBJECTIVES OF THE STUDY:

Primary objective:

- To study about the various aspects of credit risk management in Aptus Value Housing India Pvt Ltd, Chennai.

Secondary objective

- To study the risk process used in Aptus Value Housing India Pvt Ltd.
- Identifying Keys for effective risk management.
- To study financial tools to evaluate profitability.

1.6. NEED FOR THE STUDY:

The need for the study is to analyze credit risk factors in Aptus Value Housing India Pvt Ltd can in order to reduce the loss and mitigate the risk. The most critical areas to focus on is to protect the Aptus Value Housing India Pvt Ltd from bankruptcy. In such conditions Credit and Risk Department plays a key role in growth of Aptus Value Housing India Pvt Ltd. Any delay in realizing the receivables would adversely affect the working capital, which in turn effects the overall financial management of a firm. No financial institutions can be successful if it's over dues are not collected, monitored and managed carefully in time. Thus, credit Risk management is important in sustaining the Aptus Value Housing India Pvt Ltd can and its growth. The process involved in loan disbursement has been studied to identify the weak area, faults committed in disbursement or in the design of disbursement process.

1.7. SCOPE AND SIGNIFICANCE OF THE STUDY:

The scope of preparation of the report is to focus on credit risk management system of Aptus Value Housing India Pvt Ltd with reference to Aptus Value Housing India Pvt Ltd, Chennai. The study intended to cover the degree and extent of default by the institutional customers of Aptus Value Housing India Pvt Ltd. The risk process itself has the potential for some loans to be no recoverable hence to identify the probable causes, the risk process has been studied and documented. Based on the profile and the data of default loans, an analysis has been made in order to establish the links between default and other variables like location of loan, amount of loan taken, gender, profession etc. The financial analysis of the credit risk management is done by analyzing the financial statements.

1.8. LIMITATIONS OF THE STUDY:

- The research was limited because of the fact that the major source of data was from the annual reports of Aptus Value Housing India Pvt Ltd, which were subject to accounting policies and practices followed by the Aptus Value Housing India Pvt Ltd can.
- Due to strict confidential policy of Aptus Value Housing India Pvt Ltd only screened information are provided.
- Study is conducted only with 5 years data.
- Time is a major constraint.

CHAPTER 2

REVIEW OF LITERATURE

2.1. INTRODUCTION

The risks contained in the NBFC'S can's principal activities, i.e., those involving its own balance sheet and its basic business of lending and borrowing, are not all borne by the NBFC's can itself. In many instances the institution will eliminate or mitigate the financial risk associated with a transaction by proper business practices; in others, it will shift the risk to other parties through a combination of pricing and product design.

The NBFC's caning industry recognizes that an institution need not engage in business in a manner that unnecessarily imposes risk upon it; nor should it absorb risk that can be efficiently transferred to other participants. Rather, it should only manage risks at the firm level that are more efficiently managed there than by the market itself or by their owners in their own portfolios. In short, it should accept only those risks that are uniquely a part of NBFC's array of services. Elsewhere, Oldfield and Santo Mero (1995), it has been argued that risks facing all financial institutions can be segmented into three separable types, from a management perspective. These are:

- (i) Risks that can be eliminated or avoided by simple business practices,
- (ii) Risks that can be transferred to other participants.
- (iii) Risks that must be actively managed at the firm level.

2.2. REVIEW OF LITERATURE

Srishti Khanchandani. (2022) studied "RISK MANAGEMENT OF NON-BANKING FINANCIAL COMPANIES: A CASE OF INDIA" and attempt to explore with data collected within last 10 year. This study the data collection was based on secondary data and major source of date is the annual report of the non-banking financial companies. Several statistical like regression tool is used to interpret the data. The regression results clearly indicate that Interest Coverage Ratio (ICR) and Asset Turnover Ratio (ATR) has positive impact on Return on Investment

(ROI) of Non- Banking Financial Companies. Overall, the study found that there is no impact of Current Ratio (CR), Debt- Equity Ratio (DER), Operating Profit Ratio (OPR) and Quick Ratio (QR) on Return on Investment (ROI) of Non-Banking Financial Companies. This attempts to explore the relationship of liquidity, operation and credit risk and return of NBFC.

MR RAGHAVA H, (2022) aimed at exploring “A STUDY ON CREDIT RISK MANAGEMENT AT PIRAMAL CAPITAL AND HOUSING FINANCE LIMITED, BENGALURU”. The information was collected through secondary source: Historical data, annual report income statement of the company. The study was limited to Bengaluru. The results study that The NPA against gross loan increasing regularly which not a good sign for the company. For managing risk, company need to focus on credit scoring which help in finding credit worthiness of the clients.

Dr. Geeta Sharma. (2022) researched about the” Consumer Credit Default Predictors and Risk Modeling: A Case Study”, this was combination of exploratory study as well as descriptive study. Data was collected by the primary mean The sampling frame comprised of customers from Madhya Pradesh and Chhattisgarh region to whom loan was disbursed with in a period of six months ranging from January-to-August 2012 by a leading National NBFC. In this study author analyze some factor by the help of two model which help in predicting future default by retail borrower. The two model were logistic regression and discriminant analysis. Result of both the model was same and indicates that NBFC should focus and rely more upon the existing borrower rather than exploring new borrowers and increase proportion of medium-term loans in their portfolio and also percentage of single customers as compared to married ones.

G. Mary Benita (2022) Basically the research is qualitative research type. The researcher has adopted the descriptive research method for this study. Data collection: Primary data and secondary data collection was made, on which primary data was collected by issuing questionnaire to the respondents which is inclusive of employees of Investment and Finance Company Chennai, only. Sampling Method: Complete enumeration method was used in our study, Covering the units of employees working in Investment and Finance Company

Chennai. Findings – From the research we here to conclude NBFC's offers wide product segment to the customers, this offers a greater choice to customer. This firmly helps the firm to strengthen their CRM. Originality/value – This paper communicates the ways and means credit risk can be managed.

Dhanjuman, Ibrahim (2022) explain that credit risk management and customer satisfaction. It illustrates the optimistic relationship between credit risk management and customer satisfaction and does not encourage bank management to pay interest on other customer satisfaction factors other than receiving a loan. The bank should focus on its credit policy to make additional income.

Ahmed, Sufi Fizan, Malik (2022) assesses credit risk management and prevent the introduction of microfinance banks. The value of the test shows that there is a positive correlation between credit access and credit risk collection, but they are insignificant in complex fronts

Ijaz & Maha (2022) start that inspection in credit risk management has significantly moved from inference of credit risk to the evaluate of credit risk which is more critical process for the bank. There is consistent augmentation in the zone of interest rate risk. In any case, different parts of the region are not yet mindful of its fullest prospective.

Sukri,Sriani (2021) set up that insecure sector financing dogmatic capital and contract are very considerable to credit risk. For conventional Banks, provisions made equipment causing of loan, debt of the bank to the total assets, size, earn management and liquidity are the main factor influence credit risk.

Hussain, Al Ajmi & Jasim (2021). examine the administration of risk practice follow by the ordinary banks and initiate that the risk levels confront by banks are higher in case of conventional bank. Hence, all over the country, residual and agreement, functioning risks are seen to be higher if there must be an occasion to happen in conventional bank.

NANDHINISHETTY (2021) analysed the amalgamation of environmental risks into the credit management. The quantitative and qualitative analysis made propose

that Canadian must manage environmental risk in credit management in order to evade the financial risk.

RAJENDRAN (2021) found that association between companies environmental and financial performance exists. Bank pay sustainable notice to the role that criterion pertaining to environmental course and sustainability play a vital role in the progression of credit risk management. It shows that sustainability criterion can be used to 31 envisage the debtor's financial performance and improve the predictive legitimacy in the process of credit rating.

Dr. Yogieta S. Mehra (2021) analysed the impact of banks' size and ownership rights on the operational risk management practices used in banks through the questionnaire survey. The study aims to explore the range of Indian banks' practices in risk management that are needed to reach the Indian Bank Cross-Border (AMA) cross-cutting approach and to conduct a comparative analysis with banks. AMA Complaints all over the world.

S Varma & Richa (2021) analyse that for the credit risk management, a huge part of the bank is exposed playing out a few performances similar to studying about industry occasional credit calls, intermittent plant visits, creating MIS, credit scoring what's more yearly audit of records. In case the bank in India is refuse the exploitation of subsidiaries items as risk supporting device.

Thirushlam & Philip E (2021) the liquidity risk that the banks are face which is recognized to transactions deposits and their prospective to spark runs. In its place of the transaction deposits help the bank to hedge liquidity risk from loans that are not used.

Jose M Paul (2020) the efficiency and credit risk of every bank in the euro area using one stage parametric method which allocate one identity whether the activities towards the risk of the bank was more careful during the period of investigation. The result indicates that the modification for risk is very important in case of profit efficiency but not in case of cost efficiency.

Hasan Banu, S and Jeya Shree (2020) studying factors that affect public and private sector borrowers. They have come to the conclusion that in India there is a

vital area for housing promotion and banks can play a vital role by promoting the construction of the village by introducing more dynamic schemes.

Alfred Lehar (2020) set up a new method to compute and supervise the risk in the banking system which can help the commercial banks. Standard tools and rules are required by the bank to handle their internal risk which are functional at the level of banking system to measure the risk of controller portfolio.

A Siman & Philip E Stephen (2019) examined that how dynamic supervision of credit risk expose through the advance deals advertise which manipulate 32 capital structure, loaning, benefits and risk. Banks that rebalance their advance deals advance portfolio exposure by both purchasing and offering credits, banks that exploitation the advances in the bank, It recommends that the banks that enhance their capacity to oversee acknowledge risk may work for more prominent use and may loan more cash to unsafe barrowers.

JULPA KUMARI (2019) analysed regardless of whether the government wellbeing is seen by market as it is stretched out past. Stores to other bank deposits and even in the deposits of bank holding organizations securities are evaluated by the auxiliary market in connection shockingly chance for less promoted backers recommending that propositions obliging banks to issue obligations may enhance advertise and valuable in regulatory discipline.

Koshy George (2019) Together with paying salaries in Kerala, she conducted a study and reviewed the percentage of home construction and home investment. It also examines a socioeconomic accident due to the leakage of workers from other countries and the flow of funds from other countries in the form of building materials imported from other countries.

Aron (2019) The HDFC article in the Financial Express article indicates that HDFC has grown business volumes, but the stock market inspires little. In his opinion, the impact of the low credit interest rate is absorbed and the spread of interests has begun to improve.

Sensarma R & Jayadev M (2019) analysed the credit risk management work over the part 20 years. It taken into consideration the credit risk measurement of individual loan and portfolio loan. It also focused on the new approach around the

mortality risk to measure the return on loans and bonds. It analysed the risk return structures of portfolio of credit risk exposed debt instruments.

Kenneth A Froot & Jeremy C Stein (2019) capital distribution and determination of the capital structure of financial institutions. It came with peculiarities, as the banks with the highest value have a good concern about risk management, and not all the risks facing the bank can be protected in the capital market. This has shown how banking risk management is an important factor in the risks that are not easily covered by the capital market.

Leelavathy loganathan (2019) by tentative the risks that are most risky and the banks will have a higher impact on the interest rate risk, they will get the interest rate on the loan and 33 deposit to reach higher interest rates. The commercial bank reflects the default risk and interest rate. The expected net cash flows only affect the default risk and not the interest rate. Prepayments are reliable on their short-term assets and instruments of hedging and unpaid balances. Regional managers of the Accounting Agency are dedicated only to the risk of credit risk and not the default option.

Devi Suganda Pagadala (2018) has proposed a research study on, "Risk Management Practices of Selected Microfinance Institution in Telangana, India," the main objectives after this research are to study the risk management methods of microfinance in India. It usually studies the relationship between risk management methods and risk variables and he founds that MFIs in Telangana state are in the process of establishing sound risk management. This study concludes that there is a positive relationship between risk management methods of MFIs and risk variables.

Harelimana JB (2018) has proposed research on, "The Role of Risk Management on Financial Performance of Banking Institutions in Rwanda". The main objective of this research is to judge the role of risk management on financial performance in Rwanda. It was found that there is a very strong relationship between financial performance and risk management. It was found that banks in Rwanda are having profit because of good risk management because the main role of risk management is to improve profitability.

Akwasi A & Gilbert (2018) another researcher carried out the study on “An Appraisal of Risk Management Practices of Microfinance Institutions”. It was discovered that microfinance institutions have to face numerous obstacles in their way to success. Studies tell us that institutions managements are ignorant about the risks their organizations face with risk management techniques arrange reactively. By embedding a structured approach to enterprise risk management within MFI’s potential benefits such as reducing the over-management of risks towards MFI’s can be realized.

Ramesh Subramanian (2018) has proposed research on “Financial Inclusion-Microcredit-Risk Management” the main objective of this research is to provide credit finance to the public without any collateral. It was found that MFIs use to adopt proper risk management methods so that they can secure themselves against various risks.

Seyram Pearl Kumar (2018) has purposed a study on “Risk Management Practices among Commercial Banks in Ghana”; the main objective of this study is to compare the risk management methods among the various commercial banks in Ghana. It was found that there is a negative relationship between risk management methods and its determinants and it was also found that banks in Ghana are efficient in managing risk.

Malavika Madhya Agarwal(2018) has purposed a study on “Banking and unbankable: an empirical study of risk and risk management of micro financial institutions in Ghana” its main objective is to explore the risks that microfinance institutions (MFIs) face in their operations and the risk management strategies they adopt to mitigate their risks. It was found that MFIs in Ghana are well known about the risk associated with their process and had designed proper risk management to manage risks.

MenakhaT. (2018) has a purpose a study on Determinants of operational and financial self-sufficiency: An Empirical Evidence of Ethiopian Microfinance Institutions. The overall objective of the study was to study the relationship between microfinance outreach and financial sustainability in Ethiopia. The study specifically aimed at establishing an environment where microfinance institutions’ can carry on its operations easily and smoothly in Ethiopia. It was found that the

average loan balance per borrowers and profit on gross loan portfolio affects the operational sustainability of Ethiopian MFIs significantly.

SSn Gumparathi Sriniv. (June 2018) has proposed a research study on, “Risk Assessment Model for Assessing NBFC’s (Asset Financing) Customers” the main objective of this study is to build a Risk Assessment Model for NBFC’s. This report consists of the study of the whole industry. Most of NBFC’s are operating at high risk because they use to lend money on credit to small and medium enterprises, which is called as high risk. It was found that customers with high credit score use to repay the loan amount on time whereas customers with a low score were found, defaulters.

Rosman(2018) has proposed a research framework on RMPs and aspects of risk management Processes. This usually focuses on four aspects of the risk management process. i.e., a) Understanding Risk and Risk Management. b) Risk identification c) Risk analysis d) Risk Monitoring. Gaps between Research Papers

After going through many research papers, it makes us know that there are many researchers who had all conducted several studies in banking and other financial areas on Risk Management topics.

gulfaasim (2018) aims to propose a new method for credit risk allocation among economic agents. Their paper considers a pool of bank loans subject to credit risk and develops a method for decomposing the credit risk into idiosyncratic and systematic components. The paper shows how financial contracts might be redesigned to allow for banks to manage the idiosyncratic component for their own account, while allowing systematic component to be retained, passed off to capital market or shared with borrower.

Bandy Pandey (2017) aims at developing an early warning signal model for predicting corporate default in emerging market economy like India. He also presented the method for directly estimating probability of default using financial and non-financial variable. For predicting corporate bond default multiple discriminant analysis is used and logistic regressions model is employed for estimating probability of default (PD). The author concluded that by using ‘Z’ score model banks and investors in emerging market like India can get early warning signals about the firm’s solvency status and reassess the magnitude of default

premium they require on low grade securities. The PD estimate from logistic analysis would help banks for estimating credit risk capital and setting corporate pricing on a risk adjusted return basis. Because this model has high classification power of sample and high prediction power in terms of its ability to detect bad firm in sample.

Thulasi bai (2017) developed and compared discriminant power and warning effect of models based upon logistic regression and discriminant analysis for assessing credit risk of listed companies.

Allen M. Featherstone, (2017) developed credit risk model for agricultural loans. They examined the performance of logistic regression, artificial neural networks and adaptive neuro-fuzzy inference system in predicting credit default using data from Farm Credit System.

Maria Gaurav 2017 a sample set of applicants from a large Brazilian financial institution was focused on in order to develop three models each one based on one of the alternative techniques: Logistic Regression, Neural Networks and Genetic Algorithms. Finally, the quality and performance of these models are evaluated and compared to identify the best one.

krishnakumaran, 2016 developed a specification of the credit scoring model with high discriminatory power to analyze data on loans at the retail banking market. They applied Parametric and nonparametric approaches to produce three models using logistic regression (parametric) and one model using Classification and Regression Trees (CART, nonparametric)

CHAPTER 3

RESEARCH METHODOLOGY

3.1. METHODOLOGY

Research methodology is mainly needed for the purpose of framing the research process and the designs and tools that are to be used for the project purpose. Research methodology helps to find the credit risk management at aptus. This time research methodology is framed for the purpose of finding the various credit risk analysis by using financial tools.

- ▶ This section answers two main questions:
- ▶ How was the data collected or generated?
- ▶ How was it analyzed?

3.2. RESEARCH DESIGN

A “research design is a specification of methods and procedures for acquiring the information needed to structure or to solve problems”. It is the overall operation pattern or frame work of the project that stipulates what information is to be collected, from which sources, and by what procedures. It includes research methodologies, tools and techniques to conduct the research. It helps to identify and address the problem that may rise during the process of research and analysis. Descriptive research design_is used in this study. It is the scientific method which involves observing and describing the behavior of a subject without influencing it in any way.

SAMPLING TECHNIQUE

3.3. SOURCES OF DATA

SECONDARY DATA:

Secondary data refers to information that has been collected, processed, and published by someone else, rather than the researcher gathering the data first

hand. This can include data from sources such as government publications, academic journals, market research reports, and other existing datasets. secondary data was collected for the review of the literature in this study. It is obtained through websites, books, articles and journals to facilitate a proper understanding of the study. The secondary data_such as financial statements were used here for analyzing the credit risk of Aptus.

3.4.SAMPLE SIZE:

DATA COLLECTION: Past 5 years financial statement were collected for this research study.

3.5. PERIOD OF STUDY:

The period of study is to determine the research process carried out for 3 months.

3.6. PROFILE AREA OF THE STUDY:

This study was carried out in Aptus value housing finance India Ltd located in Chennai and the financial statements of the company are used for this study.

3.7. HYPOTHESIS:

- **HYPOTHESIS -1**

H0: There in no significant relationship between change in cash affects change in credit at aptus.

H1: There is a significant relationship between change in cash affects change in credit at aptus.

- **HYPOTHESIS -2**

H0: There in no significant relationship between change in investment affects change in capital at aptus.

H1: There is a significant relationship between change in investment affects change in capital at aptus.

- **HYPOTHESIS -3**

H0: There is no significant relationship between investment and capital involved in aptus.

H1: There is a significant relationship between investment and capital involved in aptus.

3.8.TOOLS FOR ANALYSIS:

In this research we used financial tools for analysis:

- common size statement analysis.
- Cash flow statement analysis.
- Regression analysis
- Correlation analysis

3.8.1.COMMON SIZE STATEMENT:

Common size statement is a form of analysis and interpretation of the financial statement. It is also known as vertical analysis. This method analyses financial statements by taking into consideration each of the line items as a percentage of the base amount for that particular accounting period. Common size statements are not any kind of financial ratios but are a rather easy way to express financial statements, which makes it easier to analyse those statements.

Common size statements are always expressed in the form of percentages. Therefore, such statements are also called 100 per cent statements or component percentage statements as all the individual items are taken as a percentage of 100.

Types of Common Size Statements

There are two types of common size statements:

1. Common size income statement
2. Common size balance sheet

3.8.2. CASH FLOW STATEMENT:

A cash flow statement is a financial statement that provides aggregate data regarding all cash inflows that a company receives from its ongoing operations

and external investment sources. It also includes all cash outflows that pay for business activities and investments during a given period.

A company's financial statements offer investors and analysts a portrait of all the transactions that go through the business, where every transaction contributes to its success. The cash flow statement is believed to be the most intuitive of all the financial statements because it follows the cash made by the business in three main ways: through operations, investment, and financing. The sum of these three segments is called net cash flow.

These three different sections of the cash flow statement can help investors determine the value of a company's stock or company as a whole.

3.8.3. REGRESSION ANALYSIS:

Regression analysis is a reliable method of identifying which variables have impact on a topic of interest. The process of performing a regression allows you to confidently determine which factors matter most, which factors can be ignored, and how these factors influence each other.

In order to understand regression analysis fully, it's essential to comprehend the following terms:

Dependent Variable: This is the main factor that you're trying to understand or predict.

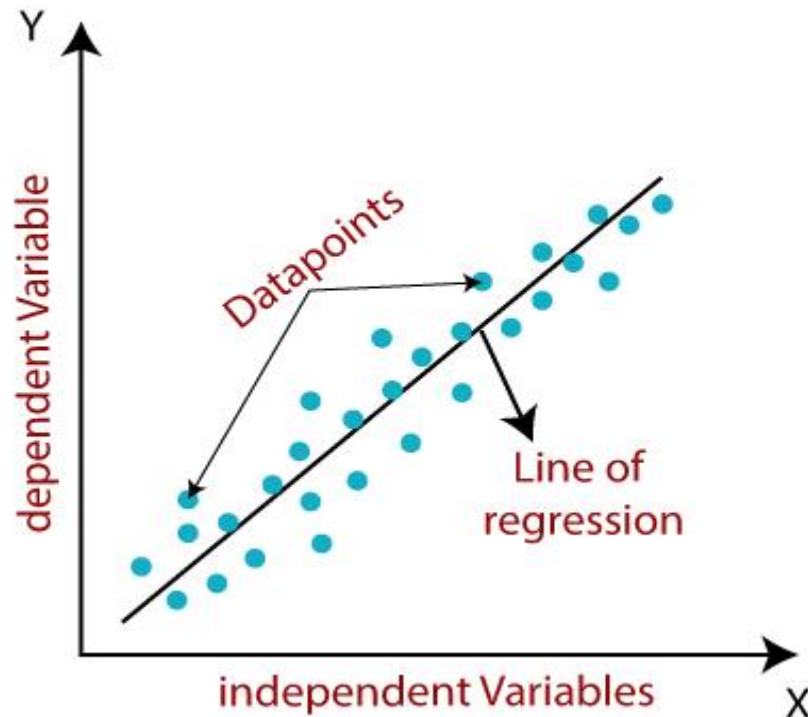
Independent Variables: These are the factors that you hypothesize have an impact on your dependent variable

TYPES OF REGRESSION:

- Linear regression
- Logistic regression
- Polynomial regression
- Ridge regression
- Lasso regression
- Quantile regression

- Bayesian linear regression
- Principle components regression

LINEAR REGRESSION:

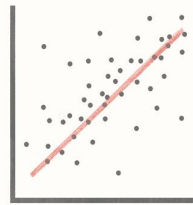


Linear regression analysis is used to predict the value of a variable based on the value of another variable. The variable you want to predict is called the dependent variable. The variable you are using to predict the other variable's value is called the independent variable.

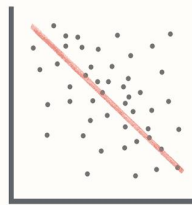
3.8.4. CORRELATION ANALYSIS

Correlation is a statistical tool which studies the relationship between two variable, and correlation analysis involves various methods and techniques used for studying and measuring the relation extent of the relationship between two variables. Correlation may be defined as a tendency towards interrelated variation and the coefficient of correlation is a measure of such a tendency i.e., the degree to which the two variables are interrelated is measured by a coefficient which is called the co efficient of correlation. It gives the degree of correlation.

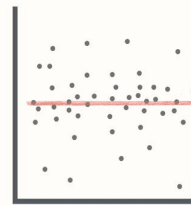
Correlation Coefficient



Positive Correlation



Negative Correlation



No Correlation

ThoughtCo.

Pearson's Coefficient Correlation

Karl Pearson's coefficient of correlation is an extensively used mathematical method in which the numerical representation is applied to measure the level of relation between linearly related variables. The coefficient of correlation is expressed by "r".

FORMULA:

$$r = \frac{\sum(X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum(X - \bar{X})^2} \sqrt{\sum(Y - \bar{Y})^2}}$$

Where, $\bar{X}$ = mean of X variable

$\bar{Y}$ = mean of Y variable

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1. COMMON SIZE STATEMENT

**4.1.1. Table showing common size statement for the year ended march
2021 and 2022.**

Particulars	2022		2021	
	Amount Rs. In 000's	Percentage [%]	Amount Rs. In 000's	Percent age [%]
ASSETS				
Cash balance	204,612,935	4.31	209,069,73	5.15
Balance with Bank can and money at call and short notice	157,680,199	3.32	131,831,18	3.25
Investments	1,595,600,430	33.69	1,346,859,630	33.16
Advances	2,537,276,579	53.57	2,163,659,014	53.26
Other assets	195,153,889	4.12	163,474,662	4.02
Fixed asset	46,146,870	0.97	47,442,551	1.16
Total assets	4,736,470,902	100	4,062,336,688	100
LIABILITIES				
Deposits	2,554,999,561	53.94	2,256,021,077	55.53
Borrowings	1,401,649,073	29.59	1,095,542,771	26.96
Other liabilities and provisions	175,769,846	3.71	159,863,467	3.93
Capital	11,527,683	.002	11,518,200	.002

Reserves and surplus	592,500,885	12.50	539,388,244	13.27
Employees stock options o/s	23,854	-	2,929	-
	4,736,470,902	100	4,062,336,688	100

INTERPRETATION:

The cash decreases in 2022(4.31%) while comparing to 2021, investment increases in 2022(33.69%) than 2021(33.16%), assets got increased in 2022(9.12%) but in 2021(4.02%), borrowings increased in 2022(29.59%) in 2021 it was (26.96%).

4.1.2. Table showing common size statement for the year ended march 2020 and 2021

particulars	2021		2020	
	Amount Rs. In 000's	Percentage [%]	Amount Rs. In 000's	Percentage [%]
ASSETS				
Cash balance	209,069,703	5.15	2,75,142,920	7.58
Balance with Bank can and money at call and short notice	131,831,128	3.25	113,594,020	3.13
Investments	1,346,859,630	33.16	1,208,928,005	33.26
Advances	2,163,659,014	53.26	1,812,055,971	49.86
Other assets	163,474,662	4.02	192,149,336	5.28
Fixed asset	47,442,551	1.16	32,126,899	.008
Total assets	4,062,336,688		3,633,997,151	100

LIABILITIES				
Deposits	2,256,021,077	55.53	2,020,165,972	55.60
Borrowings	1,095,542,771	26.96	942,635,686	25.93
Other liabilities and provisions	159,863,467	3.93	155,011,834	4.26
Capital	11,518,200	.002	11,148,892	.003
Reserves and surplus	539,388,244	13.27	505,034,767	13.90
Employees stock options o/s	2,929	-	-	
Total liabilities	4,062,336,688	100	3,633,997,151	100

INTERPRETATION:

Investment decreases in 2021(33.16%), advances increase in 2021(53.26%) than 2020(49.86%) but liabilities got decreased in 2021(3.93%) than 2020(4.26%).

4.1.3. Table showing common size statement for the year ended march 2019 and 2020

particulars	2020		2019	
	Amount Rs. In 000's	Percent age [%]	Amount Rs. In 000's	Percent age [%]
ASSETS				
Cash balance	275,142,920	7.58	175,363,342	4.63
Balance with Bank can and money at call and short notice	113,594,020	3.13	124,302,296	3.27
Investments	1,208,928,005	33.26	1,030,583,080	27.17
Advances	1,812,055,971	49.86	2,183,108,492	57.55

Other assets	192,149,336	5.28	241,636,204	6.37
	32,126,899	.008	38,016,209	.001
Total assets	3,633,997,151	100	3,793,009,623	100
LIABILITIES				
Deposits	2,020,165,972	55.60	2,183,478,249	57.56
Borrowings	942,635,686	25.93	931,554,542	24.55
Other liabilities and provisions	155,011,834	4.26	182,646,642	4.81
Capital	11,148,892	.003	11,132,898	.002
Reserves and surplus	505,034,767	13.90	484,197,292	12.76
Total liabilities	3,633,997,151	100	3,793,009,623	100

INTERPRETATION:

cash and reserves got increased in 2020 i.e. (7.58%) and (13.90%) while comparing 2019 i.e. (4.63%) and (12.76%) liabilities decreased to (4.26%) in 2020.

4.1.4. Table showing common size statement for the year ended march 2018 and 2019

particulars	2019		2018	
	Amount Rs. In 000's	Percentage [%]	Amount Rs. In 000's	Percentage [%]
ASSETS				
Cash balance	175,363,342	4.63	293,775,337	7.35

Balance with Bank can and money at call and short notice	124,302,296	3.27	86,635,952	2.17
Investments	1,030,583,080	27.17	1,114,543,415	27.88
Advances	2,183,108,492	57.55	2,256,160,827	56.43
Other assets	241,636,204	6.37	205,746,256	5.14
Fixed asset	38,016,209	.001	41,088,975	1.02
Total assets	3,793,009,623	100	3,997,950,762	100
LIABILITIES				
Deposits	2,183,478,249	57.56	2,444,310,502	61.13
Borrowings	673,336,886	24.55	656,484,338	16.42
Other liabilities and provisions	437,464,298	4.81	428,953,827	10.72
Capital	14,632,898	.002	14,626,786	.003
Reserves and surplus	484,197,292	12.76	453,575,309	11.34
Total liabilities	3,793,009,623	100	3,997,950,762	100

INTERPRETATION:

Cash, deposits and liabilities decreases in 2019 i.e. (4.63%), (57.56%) and (4.81%) but in 2018 it was (73.5%), (61.13%) and (10.72%). here advances increase in 2019(57.55%) than in 2018(56.43%).

4.2. CASH FLOW ANALYSIS

4.2.1. Table Showing Cash flow statement for the year 2022

PARTICULARS	31.3.2022(IN 000'S)	RS. IN 000'S
CASH FLOW FROM OPERATING ACTIVITIES:		
Profit before taxes	88,034,223	
ADJUSTMENTS FOR:		
Provisions & Contingencies	11,698,514	
Depreciation	17,024,071	
Loss on sale of assets	16,876	
Income from subsidiaries, joint ventures & consolidated entities	(7,625,631)	
Employees stock options grants	20,925	
Net cash flow before changes in Working Capital		109,168,978
CHANGES IN WORKING CAPITAL:		
LIABILITIES: Increase/Decrease in		
Deposits	298,978,483	
Borrowings	249,218,173	
Other Liabilities	11,538,969	
ASSETS: Increase/Decrease in		
Investments	(127,636,008)	
Advances	(388,801,703)	
Other Assets	(34,417,248)	8,880,666
Refund/payment of direct tax	(21,211,450)	(21,211,450)

CASH FLOW FROM INVESTING ACTIVITIES:		
Purchase of Fixed Assets	(4,530,919)	
Sale of Fixed Assets	90,174	
Purchase of held to maturity securities	(125,986,553)	
Investments in subsidiaries or joint ventures (incl application money)	-	
Income from subsidiaries, joint ventures and consolidated entities	7,625,631	(122,801,667)
CASH FLOW FROM FINANCING ACTIVITIES:		
Proceeds from issue of share capital	591,128	
Net proceeds of bonds	55,861,251	
Dividends Paid	(18,152,914)	38,299,465
EFFECT OF EXCHANGE FLUCTUATION OF TRANSLATION RESERVE		9,056,310
NET CASH AND CASH EQUIVALENTS TAKEN OVER FROM ERSTWHILE THE BANK CAN OF RAJATAN LTD ON AMALGAMATION		-
Cash flow for the year		21,392,302
Cash & Cash equivalents at the beginning of the year		340,900,832
Cash & Cash equivalents at the end of the year		362,293,134

INTERPRETATION

From the above cash flow statement for the year ended 2022, it is interpreted that the net cash from operating activities has been increased and it shows a decrease in cash from investing and financing activity. Aptus has increased its purchase of asset.

4.2.2. Table Showing Cash flow statement for the year 2021

PARTICULARS	31.3.2021(IN 000'S)	RS. IN 000'S
CASH FLOW FROM OPERATING ACTIVITIES:		
Profit before taxes	67,607,025	
ADJUSTMENTS FOR:		
Provisions & Contingencies entities	20,830,210	
Depreciation	20,277,650	
Loss on sale of assets	(411,695)	
Income from subsidiaries, joint ventures & consolidated entities	(4,358,221)	
Employees stock options grants	2,969	
Net cash flow before changes in Working Capital		103,947,898
CHANGES IN WORKING CAPITAL:		
LIABILITIES: Increase/Decrease in		
Deposits	100,567,606	
Borrowings	102,920,003	
Other Liabilities	(15,973,315)	

ASSETS: Increase/Decrease in		
Investments	(56,232,153)	
Advances	(310,048,851)	
Other Assets	24,232,654	(154,534,056)
Refund/payment of direct tax		(18,503,060)
CASH FLOW FROM INVESTING ACTIVITIES:		
Purchase of Fixed Assets	(4,557,106)	
Sale of Fixed Assets	552,792	
Purchase of held to maturity securities	(18,926,154)	
Investments in subsidiaries or joint ventures (incl application money)	(2,516,000)	
Income from subsidiaries, joint ventures and consolidated entities	4,358,221	(21,088,247)
CASH FLOW FROM FINANCING ACTIVITIES:		
Proceeds from issue of share capital	1,404,886	
Proceeds from bonds	44,680,138	
Dividends Paid	(15,025,283)	31,059,741
EFFECT OF EXCHANGE FLUCTUATION OF TRANSLATION RESERVE		(490,685)
NET CASH AND CASH EQUIVALENTS TAKEN OVER FROM ERSTWHILE THE BANK CAN OF RAJATAN LTD ON AMALGAMATION		11,772,300
Cash flow for the year		(47,836,109)
Cash & Cash equivalents at the beginning of the year		388,736,940

Cash & Cash equivalents at the end of the year		340,900,831
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INTERPRETATION

It has decreased its investing activity while comparing to the previous year, so that there is slight decrease from the activity.

4.2.3. Table Showing Cash flow statement for the year 2020

PARTICULARS	31.3.2020(IN 000'S)	RS. IN 000'S
CASH FLOW FROM OPERATING ACTIVITIES:		
Profit before taxes	53,453,218	
ADJUSTMENTS FOR:		
Provisions & Contingencies entities	43,895,123	
Depreciation	13,793,078	
Loss on sale of assets	(1,345,173)	
Income from subsidiaries, joint ventures & consolidated entities	(3,933,959)	
Employees stock options grants	-	
Net cash flow before changes in Working Capital		105,862,287
CHANGES IN WORKING CAPITAL:		
LIABILITIES: Increase/Decrease in		
Deposits	(163,312,277)	
Borrowings	(17,220,942)	
Other Liabilities	(28,694,588)	
ASSETS: Increase/Decrease in		
Investments	(243,844,179)	

Advances	327,300,630	
Other Assets	54,586,538	(71,184,818)
Refund/payment of direct tax		(15,985,360)
CASH FLOW FROM INVESTING ACTIVITIES:		
Purchase of Fixed Assets	(5,101,617)	
Sale of Fixed Assets	3,164,763	
Purchase of held to maturity securities	60,623,375	
Investments in subsidiaries or joint ventures (incl application money)	(1,113,156)	
Income from subsidiaries, joint ventures and consolidated entities	3,933,959	61,507,324
CASH FLOW FROM FINANCING ACTIVITIES:		
Proceeds from issue of share capital	610,429	
Proceeds from Bonds	26,946,780	
Dividends Paid	(13,731,041)	13,826,168
EFFECT OF EXCHANGE FLUCTUATION OF TRANSLATION RESERVE		(4,954,299)
NET CASH AND CASH EQUIVALENTS TAKEN OVER FROM ERSTWHILE THE BANK CAN OF RAJATAN LTD ON AMALGAMATION		-
Cash flow for the year		89,071,302
Cash & Cash equivalents at the beginning of the year		299,665,638
Cash & Cash equivalents at the end of the year		388,736,940

INTERPRETATION

From the above table it has been interpreted that the performance of cash flow from operating activity and financing activity has been increased when comparing to year 2019.

4.2.4. Table showing Cash flow statement for the year 2019

PARTICULARS	31.3.2019(IN 000'S)	RS. IN 000'S
CASH FLOW FROM OPERATING ACTIVITIES:		
Profit before taxes	51,169,693	
ADJUSTMENTS FOR:		
Provisions & Contingencies entities	37,105,254	
Depreciation	21,947,518	
Loss on sale of assets	(175,113)	
Income from subsidiaries, joint ventures & consolidated entities	(3,636,999)	
Employees stock options grants	-	
Net cash flow before changes in Working Capital		106,410,353
CHANGES IN WORKING CAPITAL:		
LIABILITIES: Increase/Decrease in		
Deposits	260,832,253	
Borrowings	32,785,480	
Other Liabilities	32,683,319	
ASSETS: Increase/Decrease in		
Investments	26,560,241	

Advances	34,618,121	
Other Assets	33,283,816	(232,835,546)
Refund/payment of direct tax		(15,459,704)
CASH FLOW FROM INVESTING ACTIVITIES:		
Purchase of Fixed Assets	(10,568,742)	
Sale of Fixed Assets	667,236	
Purchase of held to maturity securities	86,859,726	
Investments in subsidiaries or joint ventures (incl application money)	(42,016,414)	
Income from subsidiaries, joint ventures and consolidated entities	3,636,999	38,578,805
CASH FLOW FROM FINANCING ACTIVITIES:		
Proceeds from issue of share capital	452,016,414	
Proceeds from Bonds	29,492,463	
Dividends Paid	(13,691,338)	16,253,589
EFFECT OF EXCHANGE FLUCTUATION OF TRANSLATION RESERVE		6,306,853
NET CASH AND CASH EQUIVALENTS TAKEN OVER FROM ERSTWHILE THE BANK CAN OF RAJATAN LTD ON AMALGAMATION		-
Cash flow for the year		80,745,650
Cash & Cash equivalents at the beginning of the year		380,411,288
Cash & Cash equivalents at the end of the year		299,665,638

INTERPRETATION

The cash flow statement for the financial year ended 2019 shows that the net profit as per profit and loss account has been increased and there has been decrease in liability i.e., refinance has facility has been reduced. The net cash flow before changes in working capital has been increased when compared to the previous year.

4.2.5. Table Showing Cash flow statement for the year 2018

PARTICULARS	31.3.2018(IN 000'S)	RS. IN 000'S
CASH FLOW FROM OPERATING ACTIVITIES:		
Profit before taxes	50,560,977	
ADJUSTMENTS FOR:		
Provisions & Contingencies entities	28,423,278	
Depreciation	17,990,619	
Loss on sale of assets	(656,069)	
Income from subsidiaries, joint ventures & consolidated entities	(12,783,599)	
Employees stock options grants	-	
Net cash flow before changes in Working Capital		83,535,206
CHANGES IN WORKING CAPITAL:		
LIABILITIES: Increase/Decrease in		
Deposits	126,079,339	
Borrowings	43,122,293	
Other Liabilities	(22,330,716)	
ASSETS: Increase/Decrease in		

Investments	(25,015,908)	
Advances	(320,850,355)	
Other Assets	(27,149,533)	(181,483,448)
Refund/payment of direct tax		(18,363,292)
CASH FLOW FROM INVESTING ACTIVITIES:		
Purchase of Fixed Assets	(9,592,487)	
Sale of Fixed Assets	1,064,035	
Purchase of held to maturity securities	(135,486,579)	
Investments in subsidiaries or joint ventures (incl application money)	(44,379,917)	
Income from subsidiaries, joint ventures and consolidated entities	12,783,799	(175,611,149)
CASH FLOW FROM FINANCING ACTIVITIES:		
Proceeds from issue of share capital	197,897,060	
Proceeds from bonds	112,316,167	
Dividends Paid	(10,565,000)	299,648,227
EFFECT OF EXCHANGE FLUCTUATION OF TRANSLATION RESERVE		(890,065)
NET CASH AND CASH EQUIVALENTS TAKEN OVER FROM ERSTWHILE THE BANK CAN OF SANGLI ON AMALGAMATION		2,362,563
Cash flow for the year		9,198,042
Cash & Cash equivalents at the beginning of the year		371,213,247

Cash & Cash equivalents at the end of the year		380,411,289
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INTERPRETATION

From the above table the cash flow statement for the financial year ended 2018 shows that the cash flow from investing activity has been reduced. There has been increase in deposits and refinance and decrease in other liabilities. The dividend paid by the Aptus has been reduced and the overall cash flow statement has been increased.

4.3. REGRESSION ANALYSIS:

4.3.3. REGRESSION ANALYSIS

- H0: There is no significant relationship between change in cash affects change in credit at aptus.
- H1: There is a significant relationship between change in cash affects change in credit at aptus.

OUTPUT:

Correlations

	credit	cash
Pearson's correlation	1.000	-.601
Correlation	-.601	1.000
Sig. (1-tailed)	.	.142
N	5	5
	5	5

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1757744894.642	587669784.781		2.991	.058	-112482640.662	3627972429.946
cash	-3.248	2.491	-.601	-1.304	.283	-11.175	4.679

INTERPRETATION: By using regression for finding whether the change observed in the independent variable(cash)are associated with change in one or more of the dependent variables(credit). We found that there is a negative regression and We found that the P value is greater than 0.05. Hence, Null hypothesis is accepted and H1 gets rejected.

4.3.2. REGRESSION ANALYSIS:

- H0: There in no significant relationship between change in investment affects change in capital at aptus.
- H1: There is a significant relationship between change in investment affects change in capital at aptus.

OUTPUT: correlation

		credit	cash
Pearson Correlation	Investment	1.000	.605
	capital	.605	1.000
Sig. (1-tailed)	investment	.	.143
	capital	.143	.
N	Investment	5	5
	capital	5	5

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14169095.359	4765903.718		2.973	.059
	investment	-.002	.004	-.258	-.463	.675

INTERPRETATION:

By using regression for finding whether the change observed in the independent variable(investment)are associated with change in one or more of the dependent variables(capital). there is a positive regression and We found that the P value is greater than 0.05 hence, Null hypothesis is accepted.

4.4. CORRELATION ANALYSIS:

H0: There is no significant relationship between investment and capital involved in aptus.

H1: There is a significant relationship between investment and capital involved in aptus.

OUTPUT:

Correlations			
		capital	investment
capital	Pearson Correlation	1	-.258
	Sig. (2-tailed)		.675
	N	5	5
investment	Pearson Correlation	-.258	1
	Sig. (2-tailed)	.675	
	N	5	5

INTERPRETATION

By using correlation, we found that the capital is negatively correlated with investment with the value of 0.01 level of significance and also found the strong relationship $r = -.258$ found between each variable.

CHAPTER 5

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1. FINDINGS

5.1.1. COMMON SIZE STATEMENT ANALYSIS:

- ❖ The cash decreases in 2022(4.31%) while comparing to 2021, investment increases in 2022(33.69%) than 2021(33.16%), assets got increased in 2022(9.12%) but in 2021(4.02%), borrowings increased in 2022(29.59%) in 2021 it was (26.96%). For increasing their investment activity in various areas, it has borrowed more funds and raised their capital in 2022 for the purpose to increase profit after covid period.
- ❖ Investment decreases in 2021(33.16%), advances increase in 2021(53.26%) than 2020(49.86%) but liabilities got decreased in 2021(3.93%) than 2020(4.26%). In 2021 it decreased its investing activities in high risky areas for stabilizing in the crucial covid period and standardizing their other areas and that results in positive aspect reduced their liabilities.
- ❖ cash and reserves got increased in 2020 i.e. (7.58%) and (13.90%) while comparing 2019 i.e. (4.63%) and (12.76%) liabilities decreased to (4.26%) in 2020. In 2019 it has maintained its reserves for future purposes. And the investment got decreased due to pandemic and the purpose to avoid loss to the company.
- ❖ Cash, deposits and liabilities decreases in 2019 i.e. (4.63%), (57.56%) and (4.81%) but in 2018 it was (73.5%), (61.13%) and (10.72%). here advances increase in 2019(57.55%) than in 2018(56.43%). To make progress in their business it also increased its advances.

5.1.2. CASH FLOW STATEMENT ANALYSIS:

- ❖ In 2022 the net cash from operating activities has been increased for higher profitability purpose and it shows a decrease in cash from investing and financing activity. Aptus has increased its purchase of asset for the purpose of growth in retained earnings.

- ❖ In 2021 it has decreased its investing activity while comparing to the previous year, so that there is slight decrease from the activity because of fluctuations happening in the financial market.
- ❖ In 2020 it has been interpreted that the performance of cash flow from operating activity and financing activity has been increased when comparing to year 2019 because of the profit earned in subsidiary and joint ventures made with company.
- ❖ The cash flow statement for the financial year ended 2019 shows that the net profit as per profit and loss account has been increased and there has been decrease in liability i.e., refinance facility has been reduced. The net cash flow before changes in working capital has been increased when compared to the previous year.
- ❖ the financial year ended 2018 shows that the cash flow from investing activity has been reduced. There has been increase in deposits and refinance and decrease in other liabilities. The dividend paid by the Aptus has been reduced and the overall cash flow statement has been increased.

5.1.3. REGRESSION ANALYSIS

- ❖ By using regression for finding whether the change observed in the independent variable(cash)are associated with change in one or more of the dependent variables(credit). We found that there is a negative regression (-.601) and we found that the P value is greater than 0.05 hence, Null hypothesis is accepted.
- ❖ By using regression for finding whether the change observed in the independent variable(investment)are associated with change in one or more of the dependent variables(capital). We found that regression is positively correlated and We found that the P value is greater than 0.05 hence, Null hypothesis is accepted.

5.1.4. CORRELATION ANALYSIS

- ❖ By using correlation, we found that the capital is negatively correlated with investment with the value of 0.01 level of significance and also found the strong relationship -.258 found between each variable.

5.2. SUGGESTIONS & RECOMMENDATIONS

- ❖ The company should need to focus on diversifying its funds in order to make proper utilization of funds.
- ❖ Risk assessment of the customer must be made by the Aptus before sanctioning loan to them.
- ❖ The company need to adopt new technology in financial activities of the Company.
- ❖ They should also consider the current income and assets of the Borrower.
- ❖ Need to provide proper training for the staff.
- ❖ Credit rating of customer must be update periodically.
- ❖ It should follow the credit management policies in order to control credit risk.
- ❖ The performance and reports must be regularly reviewed in order to detect errors.
- ❖ It can make periodic analysis based on the asset classification viz. Standard Assets (STD), Sub-standard Assets (SUB), Doubtful Assets (DOUB) and Loss Assets (LOSS). It will be helpful for converting remaining NPA into sub-standard assets
- ❖ It can make assessment and the continuous monitoring of counterparty and portfolio credit.
- ❖ It can have a regular balance between the operating activity and investing activity even though it was done for stabilizing their business balance is important.
- ❖ The NBFC's should work to better their current Ratios this can help them in meeting their short-term liabilities.
- ❖ The customers should invest in aptus that give higher interest yield and in the aptus which can return back the deposits when needed.
- ❖ The aptus should take care of their loan portfolio. This helps in maintain good asset turnover Ratio.
- ❖ The aptus should limit their operational expenses if the operational expenses are large part of the companies' total expenses.
- ❖ The aptus operational expenses should help the aptus to bring in optimum growth and maintenance.
- ❖ Aptus should maintain proper Detailed outsourcing agreement.

- ❖ Aptus internal controls, risk management, and governance related systems and processes are adequate to deal with risk faced by it.

5.3. CONCLUSION

Credit risk management starts with the process and comes to an end by repaying the debt along with interest. For managing the risk, banks or financial institution needs to focus on credit scoring and credit rating aspects which improves process of credit lending and also helps in identifying the credit worthiness of the NBFC'S.

Today, a NBFC'S is a risk intermediary rather than a financial intermediary. They are providing risk management consultancy services especially to the medium sized units. It is in this endeavor, their caners do works like meeting, measuring, mitigating and minimizing the various risk including the credit risk. In order to ensure that the asset remains quality the financial institution caner gives larger attention in selection of the borrowers. Adverse selection is considered as one of the important reasons for an asset turning bad. Apart from various appraisal techniques they should develop systematic credit rating model and understand different aspects of an enterprise before taking a credit decision. Thus, the study on credit risk management with reference to NBFC's enables us to make suitable suggestion in order to mitigate the credit risk faced by them.

REFERENCES

BOOKS:

- Credit Risk Management-Jiri witzany
- Credit risk management-K. Vaidyanathan
- Risk management and derivatives - Rahul Ghosh
- Credit appraisal, risk analysis, decision making-Rajaraman

JOURNALS:

- Ahmed, sufi fizan malik (2022), Merits and Demerits of moratorium offered by banks and non-banking financial companies in India, Asia Pacific journal of Research, ISSN 2320-5504, Page no 24-27.
- A siman and Philip E Stephen (2019), Performance of Non-banking financial intuitions in India, International Journal of Business and Administration Research Review, Volume 1, issue 23, page no 4-17
- Aron (2019), performance evaluation of non-banking finance companies (nbfcs) in Kerala, research department of commerce st Thomas' college - university of Calicut.
- Akwasi A and gilbert (2018), credit risk management in nbfcs-a comparative analysis - b. jetir June 2018, volume 5, issue 6 www.jetir.org (issn-2349-5162).
- Allen M feather stone (2017), performance of nbfcs – an Indian context -,2 dr.d. -international journal of pure and Applied Mathematics Volume 119 No. 18 2018, 3747-3757-ISSN: 1314-3395
- Bandy Pandey (2017) Enterprise risk management policy & framework, Malappuram finance limited.
- Danjuman Ibrahim (2022), A calibrated approach to risk management needed to avert nbfcs crisis, magma financial corporation.
- Devi suganda pagadala (2018), Evaluation of Banks' Interest Rate Risk: An Alternative Approach - Applied Economics and Finance Vol. 5, No. 6, November 2018 ISSN 2332-7294 E-ISSN 2332-7308

- Geeta sharma (2022), The Framework for Risk Identification and Assessment, Technical Report No. 113, Financial stability department, Bank of Canada.
- Gulfassim (2018), Banking on Deposits: Maturity Transformation Without Interest Rate Risk. SSRN: <https://ssrn.com/abstract2938236>.
- Hussain al ajmi & Jasim (2021). Basel I to Basel III: Impact of Credit Risk and Interest Rate Risk of Banks in India. Journal of Emerging Market Finance.
- Hasun banu sandjeyashree (2020) Who Bears Interest Rate Risk? (September 24, 2020). ECB Working Paper No. 2176
- Harelimana (2018), An overview of non-banking financial companies in India- -international journal of recent scientific research research vol. 8, issue, 8, pp. 19127-19144, august, 2018-issn: 0976-3031
- Ijaz, maha (2022), Asset-liability management of select commercial banks in India, department of commerce svu college of commerce, management & computer science sri Venkateshwara university Tirupati.
- Jose M Paul (2020), A study on asset liability management of new generation private sector banks in India -faculty of management sciences, anna university, Chennai
- Julpa Kumari (2019). An Asset-liability management in regional rural banks – a case study of karnataka Vikas grameena bank, Dharwad - kapparashetty -pg. department of studies in commerce Karnataka university, Dharwad.
- Koshy George (2019), Camel ratio on profitability banking performance– (Malaysia and Indonesia), international journal of management, innovation & entrepreneurial research- eissn 2395-7662, vol-3, no-1, – pg. 30-39
- Kennet A Froot&Jeremy C stein (2019) Journal of Accounting Research & Audit Practices, Apr2019, Vol. 16 Issue 2, p43-70. 28p.
- Krishna Kumaran 2016. "Why do banks bear interest rate risk?" Discussion Papers 35/2017, Deutsche Bundesbank.
- Leelavathy Loganathan (2019), Asset and Liability Management of Commercial Banks- - Institute of Management Studies and Research Maharshi Dayanand University, Rohtak.

- Mary Benita G (2022). Asset - liability management of select scheduled commercial. Banks in India- -department of management rathinavel Subramaniam college of arts & science-(autonomous), institution affiliated to bharathiar university. Accredited with 'a' grade by naac) Coimbatore, tamilnadu, India.
- Malavika Madhya Agarwal2018 Rex1, Udoh, Elijah2, Udoh (2018), Loan Risk (LR), Loan Risk Management (LRM) and Commercial Bank Profitability: A Panel Analysis of Nigerian Banks - Fond M3 -IOSR Journal of Economics and Finance (IOSRJEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925.Volume 7, Issue 1. Ver. III (Jan. - Feb. 2018), PP 38-50.
- Menakha T (2018). risk management in banking sector – a study of select banks in Andhra Pradesh- -department of commerce university college of commerce and business management Osmania university Hyderabad - 500 007, India.
- Nandhini Shetty (2021). Performance Evaluation of Gold Loan NBFCs using CAMEL Model - Pacific Business Review International Volume 1, Issue 1, (Research Scholar, Department of Commerce, Punjabi university, Patiala.
- Ragava H (2022). Performance Analysis of Non-Banking Financial Institutions International Journal of Research in Economics and Social Sciences (IJRESS) Vol. 6 Issue 11, November - 2022, pp 1~14 ISSN(o): 2249-7382
- Rajendran (2021). Efficiency analysis of Islamic banks in India. Humanomics.32. 19-32. 10.1108/H-07-2015-0054.
- Ramesh Rao2018, Risk management: a study of selected urban cooperative banks in Gujarat-kadi sarva vishwavidyalaya, gandhinagar, Gujarat, India.
- Rosman (2018), A study on assets and liabilities management of cooperative banks in Kolhapur district, Chhatrapati Shahu institute of business education and research, Kolhapur, Department of commerce & management Shivaji university, Kolhapur.

- Srishti khanchandani (2022), Risk management in non-banking financial companies a study of select companies in India, University of Mysore, B N Bahadur Institute of Management Sciences
- Sukri sriani (2021), Comparison of Growth between Non-Banking Financial Companies and Banks & Their Contribution in the Indian Economy – International Journal of Arts, Humanities and Management studies. – Volume 01, No.8.
- Sensarma R&jayadev (2021). Microfinance and risk management: Impact evaluation of a financial education programme, Cambodia- Microfinance for Decent Work Working Paper No. 68, Social Finance Programme & Mannheim University International Labor Office.
- Seyram pearl kumar (2018). Credit Risk Management Practices in Microfinance: Evidence from Selected Microfinance Institutions in Togo, International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 -Index Copernicus Value
- Thirushlam&Philip E (2021). Service preference of customers of banks and non-banking financial companies in kerala: a study, The Gandhi gram rural institute – deemed university Gandhi gram – 624 302 dindigul district tamilnadu India
- Thulasi bai (2017). Latest Trends in Nonbanking Financial Institutions, Academician: An International Multidisciplinary Research Journal. 4(1):225-235.
- S Varma & richa (2021), Camel analysis of nbfc's in Tamil Nādu. international journal of business and administration research review. 2021; 2(4):226-232.
- vedhathri (2017) Analysis of Financial Performance of Non-Banking Financial Companies in India, Indian Journal of Applied Research. Volume: 4, Issue 12, ISSN - 2249-555X.
- vedharajR (2017). A study on the performance of non-banking housing finance companies in sivagangai district of tamil nadu, Madurai Kamaraj university Madurai, tamilnadu.

- Yadav (2017). liquidity risk management in bank: a conceptual framework, Aima journal of management & research, volume 7, issue 2/4, issues no 0974 – 497

WEBSITES:

- www.google.com
- www.nbfc.com
- <http://www.canarabank.com/english/scripts/CanSurveyform.aspx>
- <http://www.SBI.projectreport.com>
- <http://creditriskmanagement.com>
- <http://www.articlesbase.com/bankingarticles/astudyontheroleofcreditriskmanagement.html>

ANNEXURE I

CONSOLIDATED BALANCESHEET OF APTUS VALUE HOUSING PVT LTD

Particulars	2022	2021	2020	2019	2018
	Amount Rs. In 000's	Amount Rs. In 000's	Amount Rs. In 000's	Amount Rs. In 000's	Amount Rs. In 000's
ASSETS					
Cash balance	204,612,935	209,069,703	275,142,920	175,363,342	293,775,337
Balance with Bank can and money at call and short notice	157,680,199	131,831,128	113,594,020	124,302,296	86,635,952
Investments	1,595,600,430	1,346,859,630	1,208,928,005	1,030,583,080	1,114,543,415
Advances	2,537,276,579	2,163,659,014	1,812,055,971	2,183,108,492	2,256,160,827
Other assets	195,153,889	163,474,662	192,149,336	241,636,204	205,746,256
Fixed asset	46,146,870	47,442,551	32,126,899	38,016,209	41,088,975
Total assets	4,736,470,902	4,062,336,688	3,633,997,151	3,793,009,623	3,997,950,762
LIABILITIES					
Deposits	2,554,999,561	2,256,021,077	2,020,165,972	2,183,478,249	2,444,310,502
Borrowings	1,401,649,073	1,095,542,771	942,635,686	931,554,542	656,484,338
Other liabilities and provisions	175,769,846	159,863,467	155,011,834	182,646,642	428,953,827
Capital	11,527,683	11,518,200	11,148,892	11,132,898	14,626,786

Reserves and surplus	592,500,885	539,388,244	505,034,767	484,197,292	453,575,309
Employees stock options o/s	23,854	2,929			
	4,736,470,902	4,062,336,688	3,633,997,151	3,793,009,623	3,997,950,762

ANNEXURE II

RESEARCH ARTICLE

STUDY ON CREDIT RISK MANAGEMENT IN APTUS VALUE HOUSING INDIA PVT LTD

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ABSTRACT:

The title of the project is “study on the credit risk analysis in Aptus Value Housing India Pvt Ltd” The objective of the project is to study the various financial risk of Aptus Value Housing India Pvt Ltd and to analyze how it managing such risks and to know the credit position of Aptus Value Housing India Pvt Ltd. The study is based on the analytical research design as it employs the data from the financial statement of the company; the data so collected are analysed and interpreted using financial tools such as cash flow statement analysis, common size statement analysis, regression and correlation coefficient. Based on the analysis done appropriate suggestions are provided for the betterment of the company. Aptus Value Housing India Pvt Ltd can apart from various appraisal techniques also develop systematic credit rating model, according marks to different aspects of an enterprise before taking a credit decision. Thus, the study on credit risk management with reference to Aptus Value Housing India Pvt Ltd enables us to make suitable suggestion in order to mitigate the credit risk faced by the Aptus Value Housing India Pvt Ltd.

KEYWORDS:

NPTEL, Credit risk management, financial tools, Analytical design.

INTRODUCTION:

Credit risk may be defined as the potential that a borrower or counter-party will fail to meet their obligations in accordance with agreed terms. In short, credit risk is the probability of loss from a credit transaction. Credit risk management is the assessment of risk that comes in an investment. NBFCs have been playing a complementary role to the other financial institutions including banks in meeting the funding needs of the economy. NBFCs account for 12.3% assets of the total financial system. Non-banking finance companies (NBFCs) are at a higher risk of defaults than traditional banks, due to their higher exposure to non-traditional segments of the market. Therefore, there is a need to study the techniques of credit risk management employed in NBFCs. Credit risk analysis extends beyond credit analysis and is the process that achieves a lender's goals by weighing the costs and benefits of taking on risk. By balancing the costs and benefits of granting credit, lenders measure, analyse and manage risks their business is willing to accept. The creditworthiness of the borrower, derived from the credit analysis process, is not the only risk lenders face. When granting credit, lenders also consider potential losses from non-performance, such as missed payments and potential bad debt. With such risks come costs, so lenders weigh them against anticipated benefits such as risk-adjusted return on capital (RAROC).

OBJECTIVES OF THE STUDY:

Primary objective:

- To study about the various aspects of credit risk management in Aptus Value Housing India Pvt Ltd, Chennai.

Secondary objective

- To study the risk process used in Aptus Value Housing India Pvt Ltd.
- Identifying Keys for effective risk management.

- To study financial tools to evaluate profitability.

SCOPE AND SIGNIFICANCE OF THE STUDY:

- The scope of preparation of the report is to focus on credit risk management system of Aptus Value Housing India Pvt Ltd with reference to Aptus Value Housing India Pvt Ltd, Chennai.
- The study intended to cover the degree and extent of default by the institutional customers of Aptus Value Housing India Pvt Ltd.
- The risk process itself has the potential for some loans to be no recoverable hence to identify the probable causes, the risk process has been studied and documented.
- Based on the profile and the data of default loans, an analysis has been made in order to establish the links between default and other variables like location of loan, amount of loan taken, gender, profession etc.
- The financial analysis of the credit risk management is done by analyzing the financial statements.

NEED FOR THE STUDY:

The need for the study is to analyze credit risk factors in Aptus Value Housing India Pvt Ltd can in order to reduce the loss and mitigate the risk. The most critical areas to focus on is to protect the Aptus Value Housing India Pvt Ltd from bankruptcy. In such conditions Credit and Risk Department plays a key role in growth of Aptus Value Housing India Pvt Ltd. Any delay in realizing the receivables would adversely affect the working capital, which in turn effects the overall financial management of a firm. No financial institutions can be successful if it's over dues are not collected, monitored and managed carefully in time. Thus, credit Risk management is important in sustaining the Aptus Value Housing India Pvt Ltd can and its growth. The process involved in loan disbursement has been studied to identify the weak area, faults committed in disbursement or in the design of disbursement process.

REVIEW OF LITERATURE:

MR RAGHAVA H, (2022) aimed at exploring “A STUDY ON CREDIT RISK MANAGEMENT AT PIRAMAL CAPITAL AND HOUSING FINANCE LIMITED, BENGALURU”. The information was collected through secondary source: Historical data, annual report income statement of the company. The study was limited to Bengaluru. The results study that The NPA against gross loan increasing regularly which not a good sign for the company. For managing risk, company need to focus on credit scoring which help in finding credit worthiness of the clients.

S Varma & Richa (2021) analyse that for the credit risk management, a huge part of the bank is exposed playing out a few performances similar to studying about industry occasional credit calls, intermittent plant visits, creating MIS, credit scoring what's more yearly audit of records. In case the bank in India is refuse the exploitation of subsidiaries items as risk supporting device.

Alfred Lehar (2020) set up a new method to compute and supervise the risk in the banking system which can help the commercial banks. Standard tools and rules are required by the bank to handle their internal risk which are functional at the level of banking system to measure the risk of controller portfolio.

Aron (2019) The HDFC article in the Financial Express article indicates that HDFC has grown business volumes, but the stock market inspires little. In his opinion, the impact of the low credit interest rate is absorbed and the spread of interests has begun to improve.

Ramesh Subramanian (2018) has proposed research on “Financial Inclusion-Microcredit-Risk Management” the main objective of this research is to provide credit finance to the public without any collateral. It was found that MFIs use to adopt proper risk management methods so that they can secure themselves against various risks.

Allen M. Featherstone, (2017) developed credit risk model for agricultural loans. They examined the performance of logistic regression, artificial neural networks and adaptive neuro-fuzzy inference system in predicting credit default using data from Farm Credit System.

krishnakumaran, (2016) developed a specification of the credit scoring model with high discriminatory power to analyze data on loans at the retail banking market. They applied Parametric and nonparametric approaches to produce three models using logistic regression (parametric) and one model using Classification and Regression Trees (CART, nonparametric)

RESEARCH DESIGN:

A “research design is a specification of methods and procedures for acquiring the information needed to structure or to solve problems”. It is the overall operation pattern or frame work of the project that stipulates what information is to be collected, from which sources, and by what procedures. It includes research methodologies, tools and techniques to conduct the research. It helps to identify and address the problem that may rise during the process of research and analysis. Descriptive research design is used in this study. It is the scientific method which involves observing and describing the behavior of a subject without influencing it in any way.

SOURCES OF DATA

SECONDARY DATA:

Secondary data refers to information that has been collected, processed, and published by someone else, rather than the researcher gathering the data first hand. This can include data from sources such as government publications, academic journals, market research reports, and other existing datasets. secondary data was collected for the review of the literature in this study. It is obtained through websites, books, articles and journals to facilitate a proper understanding of the study. The secondary data such as financial statements were used here for analyzing the credit risk of Aptus.

SAMPLE SIZE:

DATA COLLECTION: Past 5 years financial statement were collected for this research study.

TOOLS FOR ANALYSIS:

In this research we used financial tools for analysis:

- common size statement analysis.
- Cash flow statement analysis.
- Regression analysis
- Correlation analysis

AREA OF THE STUDY:

- This study was carried out in Aptus value housing finance India Ltd located in Chennai and the financial statements of the company are used for this study.

HYPOTHESIS:

• HYPOTHESIS -1

H0: There in no significant relationship between change in cash affects change in credit at aptus.

H1: There is a significant relationship between change in cash affects change in credit at aptus.

• HYPOTHESIS -2

H0: There in no significant relationship between change in investment affects change in capital at aptus.

H1: There is a significant relationship between change in investment affects change in capital at aptus.

- **HYPOTHESIS -3**

H0: There is no significant relationship between investment and capital involved in aptus.

H1: There is a significant relationship between investment and capital involved in aptus.

LIMITATIONS OF THE STUDY:

- The research was limited because of the fact that the major source of data was from the annual reports of Aptus Value Housing India Pvt Ltd, which were subject to accounting policies and practices followed by the Aptus Value Housing India Pvt Ltd can.
- Due to strict confidential policy of Aptus Value Housing India Pvt Ltd only screened information are provided.
- Study is conducted only with 5 years data.
- Time is a major constraint.

DATA ANALYSIS:

REGRESSION ANALYSIS:

➤ H0: There in no significant relationship between change in cash affects change in credit at aptus.

➤ H1: There is a significant relationship between change in cash affects change in credit at aptus.

OUTPUT:

Correlations

		credit	cash
Pearson Correlati on	credit	1.000	-.601
	cash	-.601	1.000
Sig. (1- tailed)	credit	.	.142
	cash	.142	.
N	credit	5	5
	cash	5	5

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1757744894.642	587669784.781		2.991	.058	-112482640.662	3627972429.946
cash	-3.248	2.491	-.601	1.304	.283	-11.175	4.679

INTERPRETATION: By using regression for finding whether the change observed in the independent variable(cash)are associated with change in one or more of the dependent variables(credit). We found that there is a negative regression and We found that the P value is greater than 0.05. Hence, Null hypothesis is accepted and H1 gets rejected.

REGRESSION ANALYSIS:

- H0: There in no significant relationship between change in investment affects change in capital at aptus.
- H1: There is a significant relationship between change in investment affects change in capital at aptus.
- **OUTPUT:**

correlations

		credit	cash
Pearson Correlation	Investment	1.000	.605
	capital	.605	1.000
Sig. (1-tailed)	investment	.	.143
	capital	.143	.
N	investment	5	5
	capital	5	5

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14169095.359	4765903.718		2.973	.059
	investment	-.002	.004	-.258	-.463	.675

INTERPRETATION:

By using regression for finding whether the change observed in the independent variable(investment)are associated with change in one or more of the dependent variables(capital). there is a positive regression and We found that the P value is greater than 0.05 hence, Null hypothesis is accepted.

CORRELATION ANALYSIS:

H0: There is no significant relationship between investment and capital involved in aptus.

H1: There is a significant relationship between investment and capital involved in aptus.

OUTPUT:

Correlations			
		capital	investment
capital	Pearson Correlation	1	-.258
	Sig. (2-tailed)		.675
	N	5	5
investment	Pearson Correlation	-.258	1
	Sig. (2-tailed)	.675	
	N	5	5

INTERPRETATION

By using correlation, we found that the capital is negatively correlated with investment with the value of 0.01 level of significance and also found the strong relationship $r = -0.258$ found between each variable.

FINDINGS:

REGRESSION ANALYSIS:

- ❖ By using regression for finding whether the change observed in the independent variable(cash)are associated with change in one or more of the dependent variables(credit). We found that there is a negative regression (-.601) and we found that the P value is greater than 0.05 hence, Null hypothesis is accepted.
- ❖ By using regression for finding whether the change observed in the independent variable(investment)are associated with change in one or more of the dependent variables(capital). We found that regression is positively correlated and We found that the P value is greater than 0.05 hence, Null hypothesis is accepted.

CORRELATION ANALYSIS:

- ❖ By using correlation, we found that the capital is negatively correlated with investment with the value of 0.01 level of significance and also found the strong relationship $r = -0.258$ found between each variable.

SUGGESTIONS & RECOMMENDATIONS

- ❖ The company should need to focus on diversifying its funds in order to make proper utilization of funds.
- ❖ Risk assessment of the customer must be made by the Aptus before sanctioning loan to them.
- ❖ The company need to adopt new technology in financial activities of the Company.
- ❖ They should also consider the current income and assets of the Borrower.
- ❖ Need to provide proper training for the staff.
- ❖ Credit rating of customer must be update periodically.
- ❖ It should follow the credit management policies in order to control credit risk.
- ❖ The performance and reports must be regularly reviewed in order to detect errors.
- ❖ It can make periodic analysis based on the asset classification viz. Standard Assets (STD), Sub-standard Assets (SUB), Doubtful Assets (DOUB) and Loss Assets (LOSS). It will be helpful for converting remaining NPA into sub-standard assets
- ❖ It can make assessment and the continuous monitoring of counterparty and portfolio credit.
- ❖ It can have a regular balance between the operating activity and investing activity even though it was done for stabilizing their business balance is important.
- ❖ The NBFC's should work to better their current Ratios this can help them in meeting their short-term liabilities.
- ❖ The customers should invest in aptus that give higher interest yield and in the aptus which can return back the deposits when needed.
- ❖ The aptus should take care of their loan portfolio. This helps in maintain good asset turnover Ratio.
- ❖ The aptus should limit their operational expenses if the operational expenses are large part of the companies' total expenses.
- ❖ The aptus operational expenses should help the aptus to bring in optimum growth and maintenance.
- ❖ Aptus should maintain proper Detailed outsourcing agreement.
- ❖ Aptus internal controls, risk management, and governance related systems and processes are adequate to deal with risk faced by it.

CONCLUSION

Credit risk management starts with the process and comes to an end by repaying the debt along with interest. For managing the risk, banks or financial institution needs to focus on credit scoring and credit rating aspects which improves process of credit lending and also helps in identifying the credit worthiness of the NBFC'S.

Today, a NBFC'S is a risk intermediary rather than a financial intermediary. They are providing risk management consultancy services especially to the medium sized units. It is in this endeavor, their caners do works like meeting, measuring, mitigating and minimizing the various risk including the credit risk. In order to ensure that the asset remains quality the financial institution caner gives larger attention in selection of the borrowers. Adverse selection is considered as one of the important reasons for an asset turning bad. Apart from various appraisal techniques they should develop systematic credit rating model and understand different aspects of an enterprise before taking a credit decision. Thus, the study on credit risk management with reference to NBFC's enables us to make suitable suggestion in order to mitigate the credit risk faced by them.

REFERENCES:

- Ahmed, sufi fizan malik (2022), Merits and Demerits of moratorium offered by banks and non-banking financial companies in India, Asia Pacific journal of Research, ISSN 2320-5504, Page no 24-27.
- A siman and Philip E Stephen (2019), Performance of Non-banking financial intuitions in India, International Journal of Business and Administration Research Review, Volume 1, issue 23, page no 4-17
- Aron (2019), performance evaluation of non-banking finance companies (nbfcs) in kerala, research department of commerce st Thomas' college -university of Calicut.
- Akwasi A and gilbert (2018), credit risk management in nbfcs-a comparative analysis - b. jetir June 2018, volume 5, issue 6 www.jetir.org (issn-2349-5162).
- Allen M feather stone (2017), performance of nbfcs – an Indian context -,2 dr.d. -international journal of pure and Applied Mathematics Volume 119 No. 18 2018, 3747-3757-ISSN: 1314-3395
- Bandy Pandey (2017) Enterprise risk management policy & framework, Malappuram finance limited.
- Danjuman Ibrahim (2022), A calibrated approach to risk management needed to avert nbfcs crisis, magma financial corporation.
- Devi suganda pagadala (2018), Evaluation of Banks' Interest Rate Risk: An Alternative Approach - Applied Economics and Finance Vol. 5, No. 6, November 2018 ISSN 2332-7294 E-ISSN 2332-7308
- Geeta sharma (2022), The Framework for Risk Identification and Assessment, Technical Report No. 113, Financial stability department, Bank of Canada.
- Gulfassim (2018), Banking on Deposits: Maturity Transformation Without Interest Rate Risk. SSRN: <https://ssrn.com/abstract2938236>.
- Hussain al ajmi & jasim (2021). Basel I to Basel III: Impact of Credit Risk and Interest Rate Risk of Banks in India. Journal of Emerging Market Finance.
- Hasun banu sandjeyashree (2020) Who Bears Interest Rate Risk? (September 24, 2020). ECB Working Paper No. 2176
- Harelimana (2018), An overview of non-banking financial companies in India- -international journal of recent scientific research research vol. 8, issue, 8, pp. 19127-19144, august, 2018-issn: 0976-3031
- Ijaz, maha (2022), Asset-liability management of select commercial banks in India, department of commerce svu college of commerce, management & computer science sri Venkateshwara university Tirupati.
- Jose M Paul (2020), A study on asset liability management of new generation private sector banks in India -faculty of management sciences, anna university, Chennai

- Julpa Kumari (2019). An Asset-liability management in regional rural banks – a case study of karnataka Vikas grameena bank, Dharwad - kapparashetty -pg. department of studies in commerce Karnataka university, Dharwad.
- Koshy George (2019), Camel ratio on profitability banking performance– (Malaysia and Indonesia), international journal of management, innovation &entrepreneurial research- eissn 2395-7662, vol-3, no-1, – pg. 30-39
- Kennet A Froot&Jeremy C stein (2019) Journal of Accounting Research & Audit Practices, Apr2019, Vol. 16 Issue 2, p43-70. 28p.
- Krishna Kumaran 2016. "Why do banks bear interest rate risk?" Discussion Papers 35/2017, Deutsche Bundesbank.
- Leelavathy Loganathan (2019), Asset and Liability Management of Commercial Banks- - Institute of Management Studies and Research Maharshi Dayanand University, Rohtak.
- Mary Benita G (2022). Asset - liability management of select scheduled commercial. Banks in India- -department of management rathinavel Subramaniam college of arts & science-(autonomous), institution affiliated to bharathiar university. Accredited with ‘a’ grade by naac) Coimbatore, tamilnadu, India.
- Malavika Madhya Agarwal2018 Rex1, Udoh, Elijah2, Udoh (2018), Loan Risk (LR), Loan Risk Management (LRM) and Commercial Bank Profitability: A Panel Analysis of Nigerian Banks - Fond M3 -IOSR Journal of Economics and Finance (IOSRJEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925.Volume 7, Issue 1. Ver. III (Jan. - Feb. 2018), PP 38-50.
- Menakha T (2018). risk management in banking sector – a study of select banks in Andhra Pradesh- -department of commerce university college of commerce and business management Osmania university Hyderabad - 500 007, India.
- Nandhini Shetty (2021). Performance Evaluation of Gold Loan NBFCs using CAMEL Model - Pacific Business Review International Volume 1, Issue 1, (Research Scholar, Department of Commerce, Punjabi university, Patiala.
- Ragava H (2022). Performance Analysis of Non-Banking Financial Institutions International Journal of Research in Economics and Social Sciences (IJRESS) Vol. 6 Issue 11, November - 2022, pp 1~14 ISSN(o): 2249-7382