



DIES NATALIS  
UNIVERSITAS HAYAM WURUK  
PERBANAS - SURABAYA

magister  
manajemen

Proceeding Book



**UHW**  
UNIVERSITAS HAYAM WURUK



# ICOBBI

**MARKETING INTERNATIONAL SEMINARS  
AND THE 4<sup>th</sup> INTERNATIONAL CONFERENCE  
ON BUSINESS AND BANKING INNOVATIONS**

Surabaya, 29<sup>th</sup> January 2022

 [Pascasarjana.Perbanas.ac.id](http://Pascasarjana.Perbanas.ac.id)  [mmuhw.perbanas](https://www.instagram.com/mmuhw.perbanas)

 0822-4784-5434  [info.mm@perbanas.ac.id](mailto:info.mm@perbanas.ac.id)

**Published by :**

Program Studi Magister Manajemen  
Universitas Hayam Wuruk Perbanas  
Jl. Wonorejo Utara No. 16 Rungkut Surabaya  
Telp. 031-5947151 | Ext. 2402  
Fax. 031-87862621  
Website. [www.pascasarjana.perbanas.ac.id](http://www.pascasarjana.perbanas.ac.id)

# The 4<sup>th</sup> ICOBBI

*The Strategy of Digital in Business  
for Gaining Competitive Advantages after Pandemic*



DIES NATALIS  
UNIVERSITAS HAYAM WURUK  
PERBANAS - SURABAYA

magister  
manajemen



## Keynote Speakers :



UNIVERSITI SAINS MALAYSIA



SPU

SRIPATUM  
UNIVERSITY  
@Chonburi



## Co-Host :



## Sponsored by :

BENING'S  
SURABAYA

RESELLER  
@beningsurabaya



MSA GOLD  
Bright Shine Future





**Proceeding Book of  
The 4<sup>th</sup> International Conference on Business and Banking Innovations  
(ICOBBI) 2022  
“The Strategy of Digitalization in Business for Gaining Competitive  
Advantages after Pandemic”**

**Steering Committee**

Dr. Drs. Emanuel Kristijadi, M.M.

Dr. Lutfi., S.E.,M.Fin

Dr. Basuki Rachmat, S.E., M.M.

**Organizing Committee**

Manager : Prof. Dr. Dra. Tatik Suryani, Psi., M.M.

Vice Manager : Dr. Ronny, S.Kom., M.Kom., M.H.

Secretary and Treasury : Dewi Aliffanti, S.E.  
Tanza Dona Pratiwi, S.E.

Publication and Proceeding : Aditya Ramadhani, S.IIP., M.A

Technology Supporting : Sumantri., S.Kom  
Risky Andriawan, S.T.

Supporting : Anton Ghozali.,S.Kom

Supporting : Muhammad Ilham





## **Reviewers :**

1. Chonlatis Darawong, Ph.D (Sripatum University, Thailand)
2. Assoc. Prof. Dr. Elissha Nasruddin (University of Science, Malaysia)
3. Dr. Sanju Kumar Singh (Tribhuvan University, Kathmandu, Nepal)
4. Prof. Dr. Dra. Tatik Suryani, Psi., M.M ( Universitas Hayam Wuruk Perbanas, Indonesia)
5. Dr. Soni Harsono, M.Si (Universitas Hayam Wuruk Perbanas, Indonesia)
6. Prof. Abdul Mongid, Ph.D. (Universitas Hayam Wuruk Perbanas, Indonesia)
7. Dr. Lutfi, M.Fin. (Universitas Hayam Wuruk Perbanas, Indonesia)
8. Burhanudin, Ph.D. (Universitas Hayam Wuruk Perbanas, Indonesia)
9. Mohammad Shihab, Ph.D. (Universitas 17 Agustus 1945 Surabaya, Indonesia)
10. Dr. Yudi Sutarso, M.Si (Universitas Hayam Wuruk Perbanas, Indonesia)
11. Dr. Muazaroh, SE., MT (Universitas Hayam Wuruk Perbanas, Indonesia)
12. Abu Amar Fauzi, S.S., MM (Universitas Hayam Wuruk Perbanas, Indonesia)
13. Dr. Werner Ria Nurhadi, S.E, M.M (Universitas Surabaya, Indonesia)
14. Muhammad Sholahuddin, S.E, M.Si, Ph.D, (Universitas Muhammadiyah Surakarta, Indonesia)
15. Dr. Siti Mujanah, M.M (Universitas 17 Agustus 1945 Surabaya, Indonesia)
16. Dr. Miswanto, M.Si (STIE YKPN Jogyakarta, Indonesia)

## **Editor and Layout :**

1. Dr. Ronny, S.Kom., M.Kom., M.H.
2. Dewi Aliffanti, S.E.
3. Tanza Dona Pratiwi, S.E.

## **Published 29<sup>th</sup> January 2022**

Magister Manajemen Universitas Hayam Wuruk Perbanas, Surabaya, Indonesia  
Jalan Wonorejo Utara No. 16, Rungkut Surabaya, East Java 60296  
Telpon 082247845434  
Website : <http://pascasarjana.perbanas.ac.id/>  
Indexed by google scholar

## **ISBN :**

**The originality of the paper is the author's responsibility**



## FOREWORD

Alhamdulillah, praise be to Allah Subhanahu Wa Ta'ala for granting us the opportunity to organize and publish the proceedings of the 4<sup>th</sup> International Conference on Business and Banking Innovations (ICOBBI) with the topic "The Strategy of Digitalization in Business for Gaining Competitive Advantages after Pandemic". This proceeding contains several researches articles from many fields in Business & Marketing, Banking & Sharia Banking, Accounting & Financial Management, Human Resources Management, Operations Management, Investasi, Insurance & Capital Market, Strategic Management, Technology Management, and Information System.

The 4<sup>th</sup> International Conference on Business and Banking Innovations was held on 29<sup>th</sup> January 2022 by virtual (online) zoom meeting and organized by the Master Management Study Program of Universitas Hayam Wuruk Perbanas in Collaboration with five Higher Education Institutions in Indonesia and three Universities from Asia countries. Keynote speakers in this conference were: Chonlatis Darawong, P.hD (Sripatum University, Thailand), Associate Prof. Dr. Elisha Nasrudin (University of Science, Malaysia), Dr. Sanju Kumar Singh (Postdoctoral Fellowship in Universitas Airlangga, Tribhuvan University Nepal) and Prof. Dr. Abdul Mongid, MA., P.hD (Universitas Hayam Wuruk Perbanas, Indonesia).

I would like to give high appreciation to the Rector of Universitas Hayam Wuruk Perbanas for his support at this event. Acknowledgments and thank you to all the steering and organizing committees of the ICOBBI for the extra ordinary effort during the conference until this proceeding published. Thank you very much to all presenter and delegates from various Universities. Beside it, I would like to express our gratitude to the three universities, namely Universitas 17 Agustus Surabaya, STIE YKPN Yogyakarta, Universitas Negeri Gorontalo, Universitas Surabaya and Universitas Muhammadiyah Surakarta which has been the co-host of this event.

Hopefully, the proceeding will become a reference for academics and practitioners, especially the business and banking industry to get benefit from the various results of the research field of Business and Banking associated with Information Technology. Proceedings also can be accessed online on the website <http://eprints.perbanas.ac.id/>

Chair of the Master Management Study Program  
Universitas Hayam Wuruk Perbanas

**Prof. Dr. Tatik Suryani, M.M.**



## Tabel of Content

Cover.....	i
Co-Host and Sponsorship.....	ii
Committee .....	iii
Reviewers.....	iv
Foreword.....	v
Table of Content.....	vi

### **Accounting and Financial Management**

The Influence of The Level of Financial Literacy, Materialism and Impulsive Buying to Management Financial Behavior Students Master of Management in Surabaya ..... 1-7  
Dominika Rosvita Amadea Tarung; Muazaroh

The Effect of Perception of Confidentiality and Security, Perception of User Satisfaction, and Perception of Easy on The Implementation of E-Filing on Taxpayer Compliance in Submitting Annual SPT (Case Study at KPP Pratama Kebumen) ..... 8-17  
Wicak Ari Wibowo; Tri Ciptaningsih

The Effect of Attitude, Subjective Norms, Perceived Behavioral Control, And Tax Knowledge On Studentâ€™S Interest Who Join The Tax Volunteer Program For A Career In Taxation (Empirical Study In 2021)..... 18-26  
Dheanira Ayu Hapsari; Tri Ciptaningsih

Differences un the Strengh of Financial Ratios and Financial Distress of Transportation Companies in Indonesia During the COVID-19 Pandemic Era..... 27  
Ivana Oktarina Sopacua; Manggar Wulan Kusuma

The Causes of Audit Report Lag..... 28-34  
Rusmawan W. Anggoro; Anita Kristiana

Fluctuation Of Rupiah Exchange Value, Interest Rate And Changes In Share Price..... 35-44  
Hais Dama; Meriyana Franssisca Dunga

Fraud Financial Statement Detection: Fraud Hexagon Model Analysis in the Financial Sector Listed on the Indonesia Stock Exchange ..... 45-55  
Shinta Permata Sari; Diana Witosari

Attaining financial well-being: The essential effects of financial experience, status, and behavior..... 56-66  
Mochammad Zakariya Rosyid; Rr. Iramani



Determinant Analysis Affecting The Level of Disclosure of Operations Segments (Empirical Study on Companies Consumer Cyclicals Listed on the Indonesia Stock Exchange in 2017-2019) .....	67-75
Tetiana Fitriarningsih; Lintang Kurniawati	
The Effect of Asset Management, Leverage, and Free Cash Flow on Firm Value With Dividend Policy as Moderating Variable (Study on Consumer Goods Industry Sector Companies Listed on The Indonesia Stock Exchange (IDX) 2018-2020).....	76-84
Awalia Endang Setyorini; Triyono	
Analysis of Factors Affecting Audit Report Lag Mining Companies Listed On the Indonesia Stock Exchange 2018-2020.....	85-89
Yuli Tri Cahyono; Cindy Elisa Putri;	
The Effect of Dividend Policy and Capital Structure on Company Value with Profitability as Mediation Variable in The Food and Beverage Companies Listed on The IDX in 2015 – 2020.....	90-95
Atikah Resiana Fildzah; Wiwik Lestari	
Factors Affecting Firm Value : Theoretical Study on Public Textile and Garment Manufacturing Company in Indonesia .....	96- 104
Cholis Hidayati; Lintang Puspitasari Wijanarko	
Principles and Agents: The Phenomenon of Agency Theory in The Business Sector and The Public Sector .....	105-109
Maulidah Narastri;	
Company value of Indonesia State-Owned Enterprises during the Pandemic-Covid 19....	110
Hwihanus;	
Financial Knowledge, Financial Experience and Income as Determinant of Financial Well-Being in Bali, Indonesia.....	111
Mochamad Hanif Nuruddin; Rr.Iramani	
Behavior of Financial Management as a Mediation of The Influence of Financial Knowledge and Intention Behavior To Well-Being Family Finance .....	112-118
Dewi Candra Purwati; Rr. Iramani	



The Effect of Fundamental and Macroeconomic Factors to Stock Return..... 119-123  
Aprilia Setiadi Lukas; Werner R. Murhadi; Arif Herlambang

Balanced Scorecard Contribution to Business Strategy In PT XYZ National Shipping  
Company ..... 124-129  
Yudith Agusta; Lutfi

Analysis of The Effect of Current Ratio (CR), Return On Assets (ROA), Debt to Equity Ratio  
(DER) and Net Profit Margin (NPM) on Stock Price (Empirical Study on LQ45 Companies Listed  
on the Indonesia Stock Exchange for the 2017-2020 Period) ..... 130-136  
Ice Diana; Erma Setiawati

The Relationship of Sustainability Reporting Disclosure and Firm Performance, Risk, Value: Study  
on Banking Sub Sector Companies Listed Into Indonesia Stock Exchange (IDX) ..... 137-146  
Alfiana Mufti Ainuna; Rina Trisnawati

### **Banking and Shari'a Banking**

Stress Test of Financing Quality at Indonesian Islamic Rural Bank Using Montecarlo  
Simulation ..... 147-154  
Uvy Dian Rizky; Abdul Mongid

Macroeconomic Stress test of Credit Risk in Indonesian Banking using Monte Carlo  
Simulation ..... 155-162  
Nanda Diyah Syarifah; Abdul Mongid

The Effect of Credit Risk and Efficiency on Capital Adequacy With Profitability as Intervening  
Variables. .... 163-169  
Mochamad Syafruddin Aji; Emanuel Kristijadi

Analysis Of The Effect Of Inflation, Capital Adequacy Ratio, Operation Cost Of Operating Income,  
And Net Performing Financing On The Profitability Of Sharia Commercial Banks in  
Indonesia ..... 170  
Rias Hasna Rosabila; Abdul Mongid

The Effect of Liquidity Ratio, Asset Quality Ratio, Sensitivity Ratio, Capital Ratio and Efficiency  
Ratio Towards Return On Asset (ROA) on Foreign Exchange National Private Commercial  
Banks..... 171-174  
Oppi Putri Bunga; Muazaroh





Planned Behavior Theory Testing (Case Study Of Financial Management In A Muslim Family In Sidoarjo)..... 175-180  
Wiwik Lestari; Desy Sanggita Fitriany; Merita Dwi Nandasari

Does Competition Make Regional Development Banks More Efficient? ..... 181  
Zunairoh; Werner Ria Murhadi; Bertha Silvia Sutejo

Determinants of Indonesian Banking Profitability ..... 182-189  
Sholikha Oktavi Khalifaturofi'ah; Achmad Saiful Ulum

The Influence of the Britama Savings Marketing Strategy on Customer Satisfaction at PT. Bank Rakyat Indonesia (Persero), Tbk. Batua Raya Makassar Unit..... 190-200  
Dhita Pratiwi Ar; Rini L.; Abdul Gafar Samalam; Halida Sasmita; Hafipah

### **Business and Marketing**

Social Media Marketing Activities, Brand Love and Brand Trust In Willingness to Participate Online (Co-Creation) with Satisfaction as Mediation Variable ..... 201-204  
Amilia Jasmin Nabila ; Tatik Suryani

The Influence of Social Media Marketing and Personal Selling on Purchase intention during the pandemic Covid-19: The Case of Discovery Property Agency ..... 205-231  
Renaldo Giovanni ; Theresia Gunawan; Istiharini

Factors Influencing Mobile Banking Adoption In Covid 19 Pandemic Period: The Mediating Role Of Behavioral Interest..... 232-241  
Noormalita Primandaru; Gita Nirmalasari Triyana;

How Coolness Affects The Brand Image On The Vans Fashion Footwear?..... 242-247  
Nuning Kristiani; Andi Muntabilah Naida;

Implementation of Digital Marketing & Knowledge Transfer of Hollandpark Permaculture Products..... 248  
Syamsul B Biki; Umin Kango; Vetty D Pulukadang

Knowledge Management: Social Media & Public Knowledge About the Hazard of Mercury ..... 249-254  
Dyah Ayu Nuraini; Mohamad Agus Salim Monoarfa; Andi Juanna



Relationship Between Talent Management And Employees Performance: Case In Gorontalo .....	255-261
Rizan Machmud; Raflin Hinely; Tineke Wolok; Umin Kango	
The Effect Of Security, Responsiveness, Convenience, And Reliability Of Services On BRI Customer Satisfaction In Using Mobile Banking .....	262-270
Bramantiyo Adhi; Ronny	
Impact Of Wfh In Surabaya City The Effect Of Workload, Employee Burnout On Work Life Quality And Employee Performance .....	271
Nanis Susanti;	
Analysis Of Marketing Strategy, Product Quality And Service Quality To Repurchase Intention .....	272-278
Sumiati;	
The Effect of Customer Satisfaction and Trust on Performance Expectancy and Word of Mouth (WOM) at Shopee Applications Users.....	279-287
Annisa Eka Septiana; Tatik Suryani	
Does Brand Matter in Driving Purchase Intention of the Banking Services?.....	288-295
Muhammad Alvin Juanda; Burhanudin	
The Effect of Perceived Quality and Value on Brand Trust of Express Delivery Services during Pandemic Covid 19 in Indonesia .....	296
Fika Fahmi Firdaus; Yudi Sutarso	
The Determinants of Brand Equity in Banking .....	297-306
I Made Gde Pasek Bagiartana; Burhanudin	
Entrepreneurial Intention for Students at Universities in Sleman, Yogyakarta Special Region, Indonesia .....	307-316
Bambang Kharisma; Irhas Effendi; Dyah Sugandini	
The Effects of Commitment, Perceived Quality, and Satisfaction on Brand Equity: The Medating Role of Brand Trust and Brand Loyalty.....	317-326
Miftakhul Jannah; Burhanudin	
Behaviour Intention of Digital Banking Adoption UTAUT2 and Covid-19 Pandemic as Factors.....	327-335
Popy Novita Pasaribu; Auzi Naufal Rabbani	





Factors Influencing Online Purchase Intention Through E-Commerce in The Millennial Generation ..... 336-345  
Delta Sagita Riandana; Delta Sagita Riandana

Analyze of Customer Loyalty on Customer Oriented and Marketing Communication PT. Bank Syariah Indonesia Tbk. .... 346-348  
Verawaty;

The Effect Of Experiential Marketing On E-Wom (Electronic Word Of Mouth) And Customer Value As Intervening Variables In Tourism Destinations Rawa Bento Kerinci Regency Jambi Province. .... 349  
Deci Fachrosi; Johannes; Sylvia Kartika Wulan B

### **Human Resources**

The Effect Of Leadership Style, Work Environment, Compensation On Job Satisfaction At Pt Pln (Persero) Sikka Regency ..... 350-356  
Krisanty Natalia Mariani Parera, Emanuel Kristijadi, Tjahjani Prawitowati

The Mediating Role of User Satisfaction in the Influence of Organizational Learning Culture and Online Learning Engagement To Net Benefit Outcome In Indonesia During Covid 19 Pandemic Period ..... 357-362  
Heni Kusumawati;

Emotional Intelligence And Apparatus Performance ..... 363-371  
Mughtar Ahmad; Djoko Lesmana Radji; Hais Dama

The Internalization of Patient Safety Culture in The Quality of Performance of Nurses in Different Generations of Nurses at The XYZ Hospital, Surabaya ..... 372-377  
Sisilia Andri Soelistyani; Ika Yunia Fauzia

The Role of Work Ability and Servant Leadership on Employee Performance in a TIKI Delivery Service Companies in Surabaya..... 378- 384  
Siti Mujanah;

The Effect of Organizational Commitment, Organizational Culture,Self-Efficacy on Employee Performance with Job Satisfaction as Mediator Literature Review and Proposed Model .. 385-393  
Vega Hardikasari; Burhanuddin; Emma Julianti;

Determinants Of Millenials Employee Engagement In Indonesia: Systematic Literature Review ..... 394-400  
Febby Ayu Ramadhani; Tatik Suryani





The Effect Of Employee Engagement, Motivation, And Organizational Culture On Employee Performance During The Covid-19 Pandemic..... 394-400  
Ni Sheila Fairuz Ratnasar; Tatik Suryani

**Investment, Insurance and Capital Markets, Information System, and Technology Management**

The Effect Of Student Environment, Lecturer Environment, And Technology Dimensions On Software User Trust With Student Satisfaction As Intervening Variable (A case study of students taking ERP courses online)..... 405  
Prima Rosita Arini Setyaningsih; Lita Kusumasari

Technology Acceptance and Adoption of Mobile Application: A Systematic Review. .. 406-415  
Boonchai Wongpornchai; Chonlatis Darawong

Efficiency Level of Malaysian Family Takaful Using Stochastic Frontier Approach. ....416  
Labibah Salsabila; Zubaidah Nasution

The Role of Locus of Control in Examination of Private Sector Employee Retirement plan Model in Surabaya..... 417-425  
Ismawati; Rr. Iramani

Analysis of The Indonesia Capital Market Reaction to The Announcement Implementation of Emergency Community Activity Restriction (PPKM) (Event Study on Companies. .... 426-433  
Said Setiandika Pambudi; Suyatmin Waskito Adi

The Effects of Interpersonal Communication and Self-Efficacy on Job Satisfaction of LSP P1 Assessor of Higher Education Institutions in Surabaya, East Java Province, Indonesia. .  
Ida Aju Brahmasari; Irmasanthi Danadharta; Ida Aju Brahma Ratih



The 4<sup>th</sup>  
**ICOBBI**

MARKETING INTERNATIONAL SEMINARS  
AND THE 4<sup>th</sup> INTERNATIONAL CONFERENCE  
ON BUSINESS AND BANKING INNOVATIONS

Surabaya,  
29<sup>th</sup> January  
2022

**PROCEEDING BOOK OF  
THE 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON BUSINESS AND  
BANKING INNOVATIONS(ICOBBI) 2022  
“The Strategy of Digitalization in Business for Gaining Competitive Advantages after  
Pandemic”**

**29<sup>th</sup> January 2022  
At Zoom Meeting**

**Published by:**

Magister Manajemen Universitas Hayam Wuruk Perbanas, Surabaya, Indonesia  
Jalan Wonorejo Utara No. 16, Rungkut Surabaya, East Java 60296  
Telpon 082247845434 Website : <http://pascasarjana.perbanas.ac.id/>



# The Effect of Credit Risk and Efficiency on Capital Adequacy With Profitability as Intervening Variables

Mochamad Syafruddin Aji<sup>1</sup>, Emanuel Kristijadi<sup>2\*</sup>

<sup>1</sup> Universitas Hayam Wuruk Perbanas, Surabaya, Indonesia

<sup>2</sup> Universitas Hayam Wuruk Perbanas, Surabaya, Indonesia

\*Corresponding author. Email: 2020610504@students.perbanas.ac.id

## ABSTRACT

Bank is a financial institution whose main activity is collecting funds from the public which is often referred to as Funding and channeling funds back to the community which is often referred to as Lending in order to improve people's living standards. The Indonesian economy is strongly influenced by banking business activities. Economic activities require banks to be able to give trust to the public as financial intermediary institutions to run their business activities efficiently. Banking players are aware that in carrying out the function of financial services, banks are in a risky business. The risk faced by banks related to credit is credit risk and results in the emergence of non-performing loans. In addition, banks are also required to operate with a high level of efficiency so that the bank's performance is assessed as good. Credit risk, efficiency management, and profitability are indicators of banking performance measurement that will affect the capital capacity of a bank, it is the most appropriate parameter or measuring instrument to assess bank performance. The purpose of this study was to determine the significance of the effect of credit risk, efficiency, profitability on capital adequacy. The method used is a quantitative method with multiple regression analysis. To determine the population, a purposive sampling method is used, namely the National Private Commercial Bank.

**Keywords:** *Credit Risk, Profitability, Efficiency, Capital Adequacy, and Intervening variable.*

## 1. INTRODUCTION

Bank is a financial institution whose main activity is collecting funds from the public which is often referred to as Funding and channeling funds back to the community which is often referred to as Lending in order to improve people's living standards, as expressed by the Indonesian Bankers Association (2013). The main activity carried out by banks is to redistribute funds to the public in the form of credit, this cannot be separated from the risks of losses faced by banks. Poor credit services will trigger a decline in banking performance when credit risk has a high value. The role of the Bank as a financial institution cannot be separated from credit problems. According to Hasibuan (2004:87), credit is all types of loans that must be repaid with interest by the borrower in accordance with the agreed agreement.

Risk in banking is a difficult condition for a bank that appears in the financial sector as well as in the normal field or even becomes bankrupt (Sudirman, 2000:198). The risk faced by banks related to credit is

credit risk and results in the emergence of non-performing loans. The amount of non-performing loan risk can be measured by the ratio of Non-Performing Loans (NPL). The credit management process has been regulated in credit management as a procedure for implementing and granting credit. Handling non-performing loans is also the main focus of banks, to anticipate these risks, banks need to set aside reserve funds to cover the risk of losses on loans provided by banks to debtors.

In addition, banking regulations made referring to PSAK 50 and 55 to overcome the risk of credit losses that occur due to the counterparty failing to fulfill obligations when they fall due, or the risk of loss due to the borrower being unable to repay their obligations in whole or in part, the bank must establish a provision for funds commonly referred to as Allowance for Impairment Losses (CKPN). CKPN on earning assets must be established to overcome the risk of loss of higher income, it is proposed to cover losses due to loan problems.

In the banking world this financial ratio is used to assess the company's management within a certain period in achieving the targets that have been set, besides that it can also be used to assess management's ability to empower company resources effectively (Kasmir, 2010:104). In this case, the ratio of operating costs to operating income (BOPO) is a tool that is often used as a determinant of efficiency measures to provide an assessment of bank efficiency performance (Bank Indonesia Regulation Number 6/25/PBI/2004).

Management of risk management, especially in credit risk, which will affect the profitability of a bank, it is the most appropriate parameter or measuring instrument to assess bank performance. Profitability is one of the factors that determine the viability of the banking business which is used as an indicator of the good or bad assessment of banking performance. The higher the profitability value, the bank will earn higher profits. Profitability is the main goal for banks in order to maintain the continuity of their business and meet the needs of the community. Good credit risk will affect the level of bank profitability. An indicator that can be a tool to determine the value of Profitability is to use the ratio of the rate of return on assets or Return On Assets (ROA).

Based on POJK No. 12/POJK 03/2020 concerning the Consolidation of Commercial Banks which states that the minimum core capital for commercial banks is IDR 1 trillion in 2020, IDR 2 trillion in 2021, and IDR 3 trillion in 2022. An indicator that can be a tool to determine the Core Capital Adequacy value is to use the Capital Adequacy Ratio by looking at the risk of loss that will be faced and meeting the needs of depositors and other creditors by comparing the amount of capital with weighted assets according to risk or Capital Adequacy Ratio (CAR).

A serious problem in the banking world is the increase in non-performing loans. The management of non-performing loans is one of the highlights of banking in order to avoid credit risk which can cause profitability to decline, and also affect the decline in capital as well. The emergence of non-performing loans can be caused by the effects of a slowdown in the global economy, in addition to the credit policy of a bank and the application of a risk management system to lending is also one of the causes of the occurrence of non-performing loans.

In a study conducted by Eviyanti Yuanita Nur in February 2018 also identified the effect of credit risk on bank profitability by using efficiency as an intervening variable which concluded that (1) NPL had a positive and significant effect on BOPO, (2) CKPN had a positive and positive effect not significant to BOPO, (3) NPL has positive and insignificant effect on profitability, (4) CKPN has positive and significant

effect on profitability (5) BOPO has negative and significant effect on profitability, (6) NPL has negative and significant effect on profitability with BOPO as an intervening variable, (7) CKPN has a negative and insignificant effect on profitability with BOPO as the intervening variable. One of the problems of banking performance is how the bank's ability to earn profits can be measured through the ROA ratio, so based on the above background the researcher wants to know "The Effect of Credit Risk on Profitability With Efficiency as an Intervening Variable in Foreign Exchange National Private Commercial Banks".

This study aims to determine the significance of the positive effect of NPL, CKPN BOPO on ROA at National Private Foreign Exchange Commercial Banks. To determine the significance of the negative effect of NPL, CKPN, ROA on CAR at National Private Foreign Exchange Commercial Banks. To find out the significance of the role of ROA as an intervening variable in the relationship between NPL and CAR at National Private Foreign Exchange Commercial Banks. To find out the significance of the role of ROA as an intervening variable in the relationship between CKPN and CAR at National Private Foreign Exchange Commercial Banks. To find out the significance of the role of ROA as an intervening variable in the relationship between BOPO and CAR at National Private Foreign Exchange Commercial Banks.

Profitability is the bank's ability to earn profits efficiently and effectively. According to Kasmir (2010:115) that the profitability ratio is used to assess the company's ability to seek profit and the use of this ratio shows efficiency within the company. According to Dendawijaya (2009:118) stated that profitability is the ability or short efficiency of a bank in generating profits.

Fight (2004) which states that credit is based on all types of credit that should be returned by providing income to the Bank from interest by the debtor as agreed in the credit agreement between the Bank and the Debtor. According to Jesus & Gabriel (2006) that a high credit risk from a bank shows a declining level of credit quality and tends to have a high risk. It is necessary to control credit in providing credit both internally and externally to avoid loan problems or reduce the number of non-performing loans experienced by the Bank.

Siudek (2008) has defined efficiency as an indicator that shows the ability of company managers and staff to maintain the level of increase in revenue and profit above the level of increase in operating costs. In addition, efficient activities are efficient activities that not only lead to the achievement of certain goals but also guarantee higher economic benefits from the inputs used. Matthews & Ismail (2010) describe that the efficiency of companies, especially banking, is closely related to the efficiency of the banking market and the

efficiency of the intermediation process as well as efficiency in implementing monetary policy through regulations on bank loans. However, in this study, to measure the efficiency of the National Private Foreign Exchange Commercial Bank, the BOPO variable was used.

## 2. LITERATUR RIVEW

### 2.1 Agency Theory

Jensen and Meckling's (1976) theory called Agency Theory explains that a bank is a collection of contracts between owners of economic resources and managers who take care of the control and use of these resources. bank), and the debtor (the party who is given the funds with the obligation to return the funds according to the agreed period of time). The regulation produces an employment contract that regulates the proportion of rights and obligations of all parties while still considering and taking into account the overall benefit value. Optimally and efficiently fund raising and fund distribution activities by the Bank will be in line with the main objective of obtaining profitability (Miadalyini, 2013).

### 2.2 Capital Adequacy

Capital Adequacy is what will be examined in this study is the Capital Adequacy Ratio (CAR). Capital Adequacy Ratio (CAR) is a benchmark for assessing the capital ratio in the context of the soundness level of each bank. Capital Adequacy is how a bank is able to finance its activities with its capital ownership, in other words CAR is used to measure the capital adequacy of a bank to support assets that contain or generate risk, for example by providing credit to customers (Fahmi, 2014:181).

**Capital Adequacy Ratio (CAR).** Based on Bank Indonesia regulations, a bank that is declared healthy must have a CAR of at least 12% (Copy of Financial Services Authority Regulation no. 5/POJK.03/2015, concerning Minimum Capital Adequacy Requirements and Fulfillment of Minimum Core Capital for Rural Banks.) based on the provisions stipulated by Bank Indonesia as the standard for Bank soundness for capital. Projected Capital Adequacy with CAR is a comparison between total capital and risk-weighted assets in National Private Foreign Exchange Banks for the period 2018 – 2020. The unit of measurement for capital adequacy is in percentages.

### 2.3 Profitability

Profitability is the bank's ability to earn profits efficiently and effectively. According to Lukman Syamsudin (2011: 59) states that the calculation of the

company's profitability is each. The calculation is related to sales volume such as assets and own capital. According to Kasmir (2010:115) that the profitability ratio is used to assess the company's ability to seek profit and the use of this ratio shows efficiency within the company. According to Dendawijaya (2009:118) stated that profitability is the ability or short efficiency of a bank in generating profits.

Profitability is a measure in percentage used to assess the extent to which the company is able to generate profits at an acceptable level. To assess profitability, it is projected by ratios that can show the condition or level of profitability of a bank. The ratio used to measure profitability in this study is the ratio of Return On Assets (ROA).

Bank profitability performance can be calculated by the ratio of return on assets or the ratio of Return on Assets (ROA) because ROA can be obtained by focusing on the ability of banks to generate profits based on assets in their operational activities. When the Bank earns high profits and the use of high bank assets will result in the ROA value obtained by the Bank being high as well (Malintan & Herawati, 2012). According to Bank Indonesia Circular No.13/24/DPNP dated October 25, 2011, ROA can be calculated using the following formula:

$$\text{ROA} = \frac{\text{Profit before Tax}}{\text{Average total assets}} \times 100\%$$

### 2.4 Credit Risk

Credit Risk Theory by Ficht (2004) which states that credit is based on all types of credit that should be returned by providing income to the Bank from interest by the debtor as agreed in the credit agreement between the Bank and the Debtor. The provision of credit by banks to prospective debtors must be carried out carefully and selectively by conducting several good analyzes based on the regulations applied both internally and externally. According to Jesus & Gabriel (2006) that a high credit risk from a bank shows a declining level of credit quality and tends to have a high risk. Credit risk is the risk that comes from debtors who fail to pay or cannot fulfill their financial obligations as agreed (Hu, 2012). It is necessary to control credit in providing credit both internally and externally to avoid loan problems or reduce the number of non-performing loans experienced by the Bank.

**Non-Performing Loan (NPL).** The ratio of non-performing loans or non-performing loans (NPL) is a ratio that shows the ability of bank management to manage non-performing loans provided by banks. Non-Performing Loans (NPL) can be calculated by comparing the total non-performing loans with the total loans granted. According to Slamet Bank Indonesia





Circular Letter No.13/24/DPNP dated October 25, 2011, non-performing loans (NPLs) can be measured using the following formula:

$$\text{NPL} = \frac{\text{Troubled Credit}}{\text{Credit}} \times 100\%$$

## 2.5 CKPN

CKPN according to Statement of Financial Accounting Standards (PSAK) No. 55 in 2016, stated that the Allowance for doubtful accounts has been changed to Allowance for Impairment Losses (CKPN). According to Hasan and Wall (2014) that this CKPN is a reserve fund that must be provided by the bank with a percentage at a certain nominal which depends on the classification of the quality of productive assets. If a loan from a debtor is impaired, the bank must set aside funds or create a reserve fund to minimize losses caused by the loan. The formula for calculating Allowance for Impairment Losses (CKPN) for banks as required by Bank Indonesia Circular Letter No.13/24/DPNP dated October 25, 2011 is as follows:

$$\text{CKPN} = \frac{\text{CKPN for Credit}}{\text{Credit Total}} \times 100\%$$

## 2.6 Efficiency

Siudek (2008) has defined efficiency as an indicator that shows the ability of company managers and staff to maintain the level of increase in revenue and profit above the level of increase in operating costs. In addition, efficient activities are efficient activities that not only lead to the achievement of certain goals but also guarantee higher economic benefits from the inputs used. This is in line with Gordo's (2013) explanation that efficiency is the ratio between Output and Input. This measure refers to the optimal technical or operational efficiency (TE) of an input used, or vice versa, the company's ability to utilize at least an input to produce a certain amount of output. To measure efficiency is operating expenses compared to operating income (BOPO).

Operating expenses compared to operating income (BOPO) according to the financial dictionary are a group of ratios that take into account the value of the effectiveness and efficiency of operational activities by comparing one with another. The BOPO ratio can be calculated based on the comparison between total operating costs and total operating income which is used to measure the level of efficiency and the bank's ability to manage funds and carry out operational activities (Wijaya, 2009). The lower the value of the BOPO ratio indicates that the more efficient the costs spent by the bank for its operational activities. This can affect the increase in the ability of banks to earn profits. Efficiency in this study is projected by operating costs

compared to operating income (BOPO). In accordance with SE No.6/23/DPNP dated 31 May 2004, the efficiency of operating costs compared to operating income (BOPO) is formulated as follows:

$$\text{BOPO} = \frac{\text{Operating expenses}}{\text{Operating Income}} \times 100\%$$

Based on the image framework above, the hypothesis of this study is as follows :

H1: Non-performing loan (NPL) ratio has a significant positive effect on profitability (ROA).

H2: The ratio of allowance for impairment losses (CKPN) has a significant positive effect on profitability (ROA).

H3: Efficiency (BOPO) has a significant positive effect on profitability (ROA).

H4: Non-performing loan (NPL) ratio has a significant negative effect on Capital Adequacy (CAR).

H5: The ratio of allowance for impairment losses (CKPN) has a significant negative effect on Capital Adequacy (CAR).

H6: Efficiency (BOPO) has a significant positive effect on Capital Adequacy (CAR).

H7: Profitability Ratio (ROA) has a significant negative effect on Capital Adequacy (CAR).

H8: Profitability Ratio (ROA) has a significant role as an intervening variable in the relationship between NPL and CAR.

H9: Profitability Ratio (ROA) has a significant role as an intervening variable in the relationship between CKPN and CAR.

H10: Profitability Ratio (ROA) has a significant role as an intervening variable in the relationship between BOPO and CAR.

## 3. MATERIAL AND METHOD

This research is a quantitative research that emphasizes theory testing through measuring research variables with numbers and analyzing data using statistical procedures. Based on its nature, this research uses a qualitative research design. Quality research is research conducted to determine the effect of one or more variables on certain variables (Sugiono, 2013). Quality research in this study was conducted to test the truth of the hypothesis to explain the phenomenon in the form of a relationship or the effect of credit risk on profitability with efficiency as an intervening variable.

This study examines the effect of credit risk on bank profitability with efficiency as an intervening variable. Based on the research problem formulation, this research is an explanatory research. According to Sugiyono (2013) explanatory research is research that intends to explain the position of the variables studied and the causal relationship between one variable and another. The characteristics of this research are replication in which the results of hypothesis testing must be supported by previous studies which were repeated under more or less the same conditions.

In terms of the time dimension, this study uses a data pooling research approach because the data taken is the Financial Statements of national private foreign exchange commercial banks starting from the first quarter of 2018 to the third quarter of 2021.

The population used is the National Private Foreign Exchange Commercial Bank with a research period from 2018 to 2020. This study uses secondary data taken from the financial statements of the Foreign Exchange BUSN for the period 2018 to 2020 which have been published in the Financial Services Authority (OJK).

The sampling technique used in this research is purposive sampling. According to Hermawan & Yusran (2017) purposive sampling is sampling based on certain criteria. According to Sugiyono (2013:218-219) Purposive Sampling is a sampling technique of data sources with certain considerations. According to Efferin Sujoko, Hadi Darmaji Stefanus, and Tan Yuliawati (2012:86) Purposive Sampling is "a method of determining the sample by determining the target of the population element that is estimated to be the most suitable for data collection, where the sample is selected based on certain considerations". The criteria for the sample in this study are as follows:

1. Banks that have a minimum total asset of 1 Trillion.
2. Banks that have a negative average Trend ROA.

Secondary data sources are sources that do not directly provide data to data collectors through documents, magazines, information or other publications (Sugiyono, 2013: 193). This study uses data from quarterly banking financial statements in the first quarter of 2018 to the fourth quarter of 2021. In this study, data analysis techniques are used, namely descriptive analysis, multiple linear regression analysis, path analysis and Sobel test.

**Multiple Linear Regresy Analysis.** Multiple linear regression analysis (Multiple Regression Analysis) is a tool that can be used to predict the effect of several independent variables on one dependent variable. The equation model of Multiple Regression Analysis is as follows:

$$\begin{aligned} \text{CAR} &= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \\ \text{ROA} &= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \\ \text{CAR} &= \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 Z + \epsilon \end{aligned}$$

**Path Analysis.** The analytical technique used in this research is path analysis. Path analysis is a statistical analysis developed from multiple regression. According to Ridwan and Kuncoro (2012:2), the Path Analysis

Model is used to determine the direct and indirect effects described in the pattern of inter-variable relationships on the independent (exogenous) variables on the inhibiting (endogenous) variables. Besides According to Ghozali (2016: 237), path analysis is an extension of multiple linear regression analysis which is used to estimate causality relationships between variables (casual models) that have been previously determined based on theory. The main analysis of this subject is the variables that have a correlation and the model of the relationship between these variables was determined previously by the researcher. Testing the influence of intervention variables can be done by using the path analysis method. The test aims to determine the significance of the intervening role variables on the relationship between the influence of independent variables on certain variables.

Operational cost efficiency on operating income is used as an intervention variable because the effects of CKPN, NPL, and BOPO on CAR can be directly related conceptually to the efficiency ratio. Theoretically, the effect of CKPN, NPL, and BOPO on ROA can be seen directly, but can also be seen through efficiency. In this case, the confidence level used is 95% and the alpha used is 5%.

**Sobel Test.** According to Baron and Kenny (1986) in Imam Ghozali (2013) the variable referred to as a mediator is a variable that influences the relationship between the predictor variable (Independent) and the Criterion Variable (Dependent). The basis for calculating path coefficients is correlation and regression in calculations using software with IBM SPSS Statistics 23.0 software. Testing the mediation hypothesis (intervening) can be done with the procedure developed by Sobel (1982) and is known as the Sobel test. The Sobel test in this study was carried out by testing the strength of the indirect influence of the NPL, CKPN, and BOPO variables on CAR through ROA, where NPL, CKPN, and BOPO were X, CAR was Y, and ROA was Z. According to Sobel (1982) indirect X to Y through Z is calculated by the formula:

$$sab = \sqrt{b^2 sa^2 + a^2 sb^2 + sa^2 sb^2}$$

Description :

1. Coefficient a is Path X Z
2. Coefficient b is path Z Y
3. Sa is the standard error of the coefficient a
4. Sb is the standard error of the coefficient b
5. Sab is the size of the indirect effect standard error

According to Sobel (1982) to test the significance of the indirect effect, the following formula is used:

$$t = \frac{ab}{sab}$$

Description :

1.  $t$  is the significance of the indirect effect of the intervening variable
2.  $ab$  is the path product of the coefficient  $a$  and the coefficient  $b$
3. the value of  $sab$  is taken from the results of the calculation of the  $sab$  formula

## REFERENCES

- [1] Abidin, Z. 2007. "Kinerja Efisiensi Pada Bank Umum. Proceeding PESAT (Psikologi, Ekonomi, Sastra, Arsitek, & Sipil)", 2(8), 113-119.
- [2] Ariwidanta, Komang Triska. 2016. "Pengaruh Risiko Kredit Terhadap Profitabilitas Dengan Kecukupan Modal Sebagai Variabel Mediasi". Bali: E-jurnal Manajemen Unud, 5(4), 2311-2340.
- [3] Dendawijaya, L. (2009). Manajemen Perbankan. Jakarta: Ghalia Indonesia.
- [4] Efferin, Sujoko., Hadi Darmaji, Stevanus., & Tan, Yuliawati. 2012. Metode Penelitian Akuntansi Mengungkap Fenomena dengan Pendekatan Kuantitatif dan Kualitatif. Yogyakarta : Graha ilmu
- [5] Eviyanti, Suhartono, & Kristijadi. 2018. "The Effect of Credit Risk on Bank Profitability with Efficiency as the Intervening Variable". Russian Journal of Agricultural and Socio-Economic Sciences, 2(74), 179-186.
- [6] Fight. A (2004), "Credit Risk Management". Elsevier
- [7] Gordo, G. (2013). "Estimating Philippines bank Efficiencies Using Frontier Analysis". Philippines Management Review 2013, 20, 17-36.
- [8] Ghozali, Imam. (2016). Aplikasi Analisis Multivariat dengan Program IBM SPSS 23. Semarang : Badan Penerbit Universitas Diponegoro.
- [9] Hasan, I., & Wall, L. D. 2004. "Determinants of the loan loss Allowance: Some Cross-Country Comparisons", Financial Review, 39(1), 129-152.
- [10] Hasibuan, M. (2004). Dasar - dasar perbankan. Jakarta: PT Bumi Aksara.
- [11] Hermawan, A., & Yusran, H. L. (2017). PENELITIAN BISNIS Pendekatan Kuantitatif. Depok: PT Desindo Putra Mandiri.
- [12] Hery. (2016). Analisis Laporan Keuangan. Jakarta: PT. Grasindo.
- [13] Hu, X, Gao, J., Li, F., Lv, W., Zhang, X., & Zhang, Z. (2012) "Credit Risk Control". U.S: Alibaba Group Holding Ltd., Patent Application No.12/600. 978.
- [14] Ikatan Bankir Indonesia (2013). Memahami bisnis Bank. Jakarta: Gramedia Pustaka Indonesia
- [15] Jensen, C. Michael., and W.H. Meckling. 1976. "Theory of the firm: Managerial Behavior, Agency Costs, and Ownership Structure", Journal of Financial Economics, No.3
- [16] Jesus, S. & Gabriel, J. (2006). "Credit Cycles, Credit Risk, and Prudential Regulation". International Journal Of Central Banking, 2(5) July, 65-98.
- [17] Kasmir. (2010). Manajemen Perbankan. PT. Raja Grafindo Persada. Jakarta-Indonesia.
- [18] Kuncoro, M & Suhardjono. (2002).Manajemen Perbankan, Teori dan Aplikasi. BPFE: Yogyakarta
- [19] Louzis, D. P., Vouldis, A. T., & Metaxas, V. L. 2012. "Macroeconomic and Bank Spesific determinants of Non-Performing Loans in Greece: A Comparative Study of Mortgage, Business and Consumer loan portofolios". Journal of Banking & Finance, 36(4), 1012-1027
- [20] Lukman Syamsudin. 2011. Manajemen Keuangan Perusahaan. Edisi baru. Cetakan Ketujuh. Jakarta: PT. Raja Grafindo Persada.
- [21] Malintan, R., & Herawati, T. 2012. "Pengaruh Current Ratio (Cr), Debt to Equity Ratio (Der), Price Earning Ratio (Per), dan Return on Asset (Roa) terhadap Return Saham Perusahaan Pertambangan yang terdaftar di Bursa Efek Indonesia tahun 2005-2010". Jurnal Ilmiah Mahasiswa FEB.
- [22] Manurung, M., & Prathama, R. 2004. Uang, Perbankan, dan Ekonomi Moneter : Kajian Kontekstual Indonesia. Jakarta: Lembaga Penerbit FEUI.
- [23] Mattews, K., & Ismail, M. 2006. "Efficiency and Productivity Growth of Domestic and Foriegn Commercial Banks in Malaysia". Cardiff Economics Working Paper Series E2006/2.
- [24] Mauraga, A. (2011). Penilaian Profil Risiko Kredit. Jakarta: Bank Indonesia (Bankirnews).
- [25] Miadalyni, Putu Desi. 2013. "Pengaruh Loan to Deposit Ratio, Loan to Asset Ratio, Capital Adequacy Ratio, dan Kualitas Aktiva Produktif terhadap Profitabilitas pada PT. Bank Pengembangan Daerah Bali Kantor Pusat Denpasar". E-Jurnal Program Studi Manajemen Fakultas Ekonomi dan Bisnis Universitas Udayana, 1542-1558.



[26] Otoritas Jasa Keuangan (2018) Laporan Keuangan Perbankan  
<http://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/laporan-keuangan-perbankan/default.aspx>

[27] Peraturan Bank Indonesia dan Otoritas Jasa Keuangan (2006), Pernyataan Standart Akuntansi Keuangan No. 50 dan No.55

[28] Peraturan Bank Indonesia (2003), PBI Nomor : 5/8/PBI/2003 Tentang Penerapan Manajemen Risiko Bagi Bank Umum

[29] Peraturan Bank Indonesia (2004), Surat Edaran Bank Indonesia No.6/23/DPND. 31 Mei 2004. Tentang Sistem Penilaian Tingkat Kesehatan Bank Umum

[30] Peraturan Bank Indonesia (2011), Surat Edaran Bank Indonesia No.13/24/DPND. 25 Oktober 2011. Tentang Penilaian Tingkat Kesehatan Bank Umum

[31] Peraturan Bank Indonesia (2004), PBI Nomor : 6/25/PBI/2004 Tentang Rencana Bisnis Bank Umum.

[32] Peraturan Otoritas Jasa Keuangan (2016), POJK Nomor: 18/POJK.03/2016 Tentang Penerapan Manajemen Risiko Bagi Bank Umum.

[33] Ridwan & Engkos Achmad Kuncoro (2012), Cara Menggunakan dan Memakai Path Analysis (Analisis Jalur). Bandung: Alfabeta.

[34] Riyadi, Slamet (2006), Banking Asset & Liabilitas Manajemen. Jakarta: Fakultas Ekonomi Universitas Indonesia.

[35] Sarwindah, Bobby. (2014), "Analisis Pengaruh NPL, LDR, dan BOPO terhadap Perubahan Laba dengan CAR sebagai variabel intervening"

[36] Siudek, Tomasz. 2008. "Theoretical Foundation Of Banks Efficiency & Empirical Evidance From Poland". Social Research, 3(13), 150-158.

[37] Sohib. (2018). "Pengaruh Manajemen Laba Dan Net Interest Margin Terhadap Kinerja Keuangan Bank Umum Swasta Nasional". Jurnal Ilmiah Ilmu Akuntansi, Keuangan dan Pajak, 2(2) Juli, 29-36.

[38] Sudirman. (2000). Manajemen Perbankan. Denpasar: PT BP Denpasar.

[39] Sugiyono. (2009). Statistika untuk Penelitian. Bandung: Alfabeta.

[40] \_\_\_\_\_. (2013). Metode Penelitian Bisnis (Pendekatan Kuantitatif, Kualitatif, dan R&D). Bandung: Alfabeta.

[41] Taswan. (2010). Manajemen Perbankan, Konsep, Teknik, dan Aplikasi. Yogyakarta: UPP STIM YKPN.

Yamin, Sofyan & Heri Kurniawan. 2011. SPSS Complete Teknik Analisis Statistik Terlengkap dengan Software SPSS. Jakarta: Salemba Infotek.

