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Editor in Chief Foreword

Alhamdulilah for all the mercy of Allah and Allah's permission. STIE Jaya Negara published the first edition of "Tamansiswa Management Journal International" as the first edition of an international journal published by STIE Jaya Negara Tamansiswa Malang.

This international journal was published thanks to the hard work of contributors from Indonesia and Spain. We are very grateful for the hard work of the editors, reviewers and staff of "Tamansiswa Management Journal International" in Indonesia and Singapore.

We are very grateful and appreciative of the contributions of our contributors and friends from STIE Jaya Negara Tamansiswa Malang (Indonesia), University of Jember (Indonesia), UIN Syarif Hidayatullah Jakarta (Indonesia), University 17 August 1945 Banyuwangi (Indonesia) and universidad Autonoma de Madrid, (Spain).

We also thank friends of publishers and distributors from PT. Frost Yunior (Indonesia) and Triple Nine Communication (Singapore).

Thank you for all the hard work.

Best Regards
Editor in Chief
Dr Eny Lestari Widarni

Editorial List

OPENING SPEECH
Chairman of the Maju Jaya Negara Tamansiswa Foundation

Alhamdulillah, thanks be to Allah SWT for the publication of the International Journal "Tamansiswa Management Journal International" which was written by contributors both from the academic community of STIE Jaya Negara Tamansiswa Malang and partner universities in Indonesia and abroad. This international journal, God willing, will be published in Indonesia and in 100 countries in the world. May Allah make the writing of the contributors as alms to the author, as well as make knowledge a blessing for all of us. Aamiin.

Malang, April 03, 2021
Chairman of the Maju Jaya Negara Tamansiswa Foundation
Ki. Drs. Purnomo Adji, M.Pd

OPENING SPEECH
Registrar General of the Supreme Council
The Tamansiswa Union

Gratitude for the presence of Allah SWT, for the publication of the International Journal book "Tamansiswa Management Journal International". This international journal is the result of collaboration between STIE Jaya Negara Tamansiswa and triple nine communication Singapore and PT. Frost Yunior.

Hopefully, this international journal is useful in the world of education and provides an example of the international collaboration strived by STIE Jaya Negara Taman Siswa as an effort to become an international standard university. Where prioritizing education as a medium of learning, spreading knowledge, skills and good habits to form good behaviour.

The hope is that this journal will be a motivation to improve self-quality and charity for writers from Indonesia and around the world, as well as making knowledge that is useful and a blessing for us all.
Aamiin.

Malang, April 03, 2021
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Table Of Content

Content	Page
Education and Technology in Human Capital Management Studies in Indonesia Diah Rusmingsih,STIE Jaya Negara Tamansiswa Malang, Indonesia	1
Human Identity Factors in Human Capital Investment in Driving Financial Performance, Case Study of the Islamic Hospitality Industry in Indonesia Cahya Budhi Irawan, STIE Jaya Negara Tamansiswa Malang, Indonesia	3
Public Health Investment, Technology Inclusion, and Economic Recovery in the Covid-19 Pandemic Eny Lestari Widarni,STIE Jaya Negara Tamansiswa Malang, Indonesia	6
Study of Aggregate Human Resource Management, Education and Indonesian Economic Growth Sri Harnani,STIE Jaya Negara Taman Siswa Malang, Indonesia	10
ANALYSIS OF THE EFFECT OF HUMAN DEVELOPMENT INDEX ON ECONOMIC GROWTH, POVERTY AND INVESTMENT IN RIAU PROVINCE Wenny Ramadhani,Department of Development Economics, Faculty of Economics and Business University Of Jember, Indonesia	12
Internet and Prospects of Non-Sharia Hotels in Indonesia Murniati, Bina Nusantara University, Indonesia	16
FINANCIAL DEEPENING ANALYSIS ON ECONOMIC GROWTH IN INDONESIA Regina Niken Wilantary,University Of Jember, Indonesia	21
Communication and Information Technology in Encouraging Economic Growth Seni Soniansih,Department of Communication and Islamic Broadcasting, UIN Syarif Hidayatullah, Indonesia	28
Marketing Communication and Performance of Sharia Hotels in Indonesia Seni Soniansih, Yopi Kusmiati, Department of Communication and Islamic Broadcasting, UIN Syarif Hidayatullah Jakarta,Indonesia	31
Impact of Macro Economy on Financial Stability in Malaysia Sebastiana Viphindrartin, Economics Department, Faculty of Economics and Business, University of Jember,Indonesia	35
The Role of Education in Indonesia's Economic Development: Theoretical Perspective of Human Capital Imro'atul Husna Afriani, Education Study Program, University of 17 August 1945 Banyuwangi,Indonesia	40
Increasing the Resilience of Students in Educational and Economic Inequalities from a Psychological and Human Capital Point of View 1. Alejandra García-Ochoa,Universidad Autonoma de Madrid, Spain 2. Imro'atul Husna Afriani,Education Study Program, University of 17 August 1945 Banyuwangi,Indonesia	42

Walk in the woods ,Photo by Suryaning Bawono

Life Is Journey, We never know what happen tomorrow but we able to learn for prepare our future. That why knowledge is important. Because knowledge guide us to our journey of life

Education and Technology in Human Capital Management Studies in Indonesia

Diah Rusmingsih
STIE Jaya Negara Tamansiswa Malang, Indonesia

Abstract : Education is a mechanism for increasing human capital in understanding new information and knowledge, including the absorption of experience and the use of new technology. This research aims to understand the role of education in the absorption and adaptation of technological developments that are reflected in economic growth in the framework of human capital management. With the descriptive quantitative method, moving average autoregression model. We find that education in Indonesia can encourage economic growth through increasing human capital in the absorption of new knowledge and the use of new technology.

Keywords: Human Capital, Education, Indonesia
JEL Classification : A1,C0,J24

1 INTRODUCTION

Technology is developing and influencing in the education sector. Information technology can be useful in distance learning, so it is very effective in cross-regional learning to occur anywhere. Technology also allows free access to information so that learners can more easily learn many things. Technology helps the education sector in communication and learning (Gudanescu, 2010). Technology plays a role in the efficiency of education so that education distribution is more comfortable and faster. Technology also improves the quality of educational content and provides more comprehensive access to knowledge. Technology is developing very rapidly so that the education administration system is also helped to evaluate grades better and faster and monitor the development of students can be done correctly and efficiently (Koch et al., 2017).

During a pandemic like today (2021), technology's role is vital in learning because every student and teacher can use online learning and exchange information quickly thanks to the existence of information technology that continues to develop rapidly and massively. Technology is an economic driver that can help increase production more efficiently and assist in the business's supervision and management in the real sector. Technology also enables researchers to acquire and understand the necessary research data (Mishra, 2017). Technology continues to develop along with the development of science so that education is the basis for developing innovation and technology. Important discoveries such as steam engines and electricity generators to the internet are technological developments that come from the development of science, resulting from the educational process in developing human resources (Kavita, 2015). Technology continues to change and encourages rapid economic growth. The role of education is to prepare humans to adapt to technology and environmental changes due to technology. Education is a mechanism to accelerate the understanding of new knowledge and information to take advantage of the latest technology to improve performance (Hojeghan & Esfangareh, 2011).

2 LITERATURE REVIEW

Technological developments bring economic growth. But it also increases social wealth on the one hand by increasing the level of income and wealth and causing some social issues on the other. Technological developments make a significant contribution to economic and socio-cultural life (Abbott, 2020). Technology is considered a critical factor in economic development. Technology plays a vital role in enhancing human civilization and economic growth. In adapting and developing technology, education is a crucial factor in accelerating the understanding and development of human knowledge to understand, use and develop the latest technology (Litvinenko, 2020). Human capital is a significant factor in economic development supported by education, which plays a role in developing human capital. With adequate human capital, technology can be controlled and designed so that human performance can increase and encourage economic growth (Sulaiman et al., 2015).

The human capital theory states that increasing human capital through human capital investments such as education and training can increase income. This increase in revenue is obtained from an increase in performance due to the rise in human capital as a form of return on human capital investment (Robinson, 2019). The human capital theory explains that investing in human capital through education, training and work experience development processes and mechanisms can improve performance. Where this can make work results better and faster. Human capital makes a person trained in their field of work and increasingly skilled in their work field so that they deserve additional income because they can complete work better and faster and more (Stehr, 2015).

3 RESEARCH OBJECTIVE AND METHODOLOGY

With the econometric equation as follows:

GDPt = βt1IEt1 + βt2Tt2 c

4 Results and Discussion

The estimation results of the Autoregressive Moving Average are as follows:

GDP = 8484246182.25*IE + 41.5226214473*INOVATION_AND_TECHNOLOGY + 717698799238

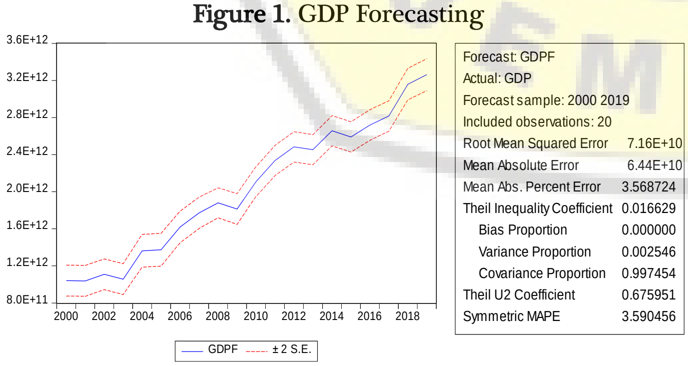
With the estimation result table as follows:

Table 1. Estimation Result

Variable	Coefficient	Std. Error	t-Statistic
Investment in Education (IE)	8.48E+09	9.34E+08	9.088626
INOVATION_AND_TECHNOLOGY (T)	41.52262	5.22864	7.941381
C	7.18E+11	3.99E+10	17.98613
R-squared	0.989869	Mean dependent var	2.03E+12
Adjusted R-squared	0.988677	S.D. dependent var	7.30E+11
S.E. of regression	7.77E+10	Akaike info criterion	53.12652
Sum squared resid	1.03E+23	Schwarz criterion	53.27588
Log likelihood	-528.2652	Hannan-Quinn criter.	53.15567
F-statistic	830.5356	Durbin-Watson stat	2.176888

Based on the estimation results, it can be seen that the relationship between education and technological innovation is in line with the economy so that it can be said that education in Indonesia is able to educate the community and increase the human capital of the community which is reflected in economic growth with the results of forecasting economic growth as an impact of improving education services as follows:

Figure 1. GDP Forecasting



The forecast shows an increase in economic growth along with an increase in education investment and the development of innovation and technology in Indonesia.

5 Conclusion

Education in Indonesia during the research period shows a positive relationship to economic and technological growth, which reflects that education in Indonesia can develop the human capital of the Indonesian people in adapting to new knowledge and technology to boost the economy..

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Human Identity Factors in Human Capital Investment in Driving Financial Performance, Case Study of the Islamic Hospitality Industry in Indonesia

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Abstract : This study aims to examine the effect of human identity on the success of human capital investment in encouraging the financial performance of the Islamic hotel industry. We use a combination of qualitative content analysis research methods by analyzing more than 150 annual reports from all Islamic hotels in Indonesia that are listed on the Indonesia Stock Exchange, magazines, scientific articles and books from 2000 to 2020. To triangulate the results of the analysis content carried out, we using the quantitative method Vector Error Correction Model to triangulate the qualitative conclusions that we use by analyzing the results of the aggregate estimation of human capital investment responses and impulses in all Islamic hotels listed on the Indonesian stock exchange with financial records of Islamic hotel performance from 2000 to 2019.We find that there are psychological driving factors of self-identification of human resources on the success of human capital investment in driving the financial performance of business organizations in the Islamic hotel industry in Indonesia.

Keywords: Human Resources, Investment, Syaria Hospitalityh

JEL Classification : C40,G0,O10

1 Introduction

The corona pandemic outbreak is endemic globally, including in Indonesia. The coronavirus pandemic is pressing the tourism industry, especially the hotel industry. The Islamic hotel industry is no exception (Brands & Gavin, 2020; Kaushal & Srivastava, (2020).

As a result of the Coronavirus outbreak in 2020, the hotel industry in Indonesia, including sharia hotels, relies on domestic tourists in the Republic of Indonesia's territory.

The majority of Indonesia's population is Muslim, which is good news for the sharia hotel industry in Indonesia. Islamic hotels that identify themselves as Muslim-friendly hotels must have an internal organisation that adapts to this identification (Shen et al., 2020; Ananta et al., 2015).

In theory, in human capital theory, employee self-identification associated with the organization they work for encourages attitudes and behaviours that reflect the organization's positive things (Doppelt, 2019; Brown, 2020).

This study examines the effect of Islamic hotel employees' self-identification factors on the success of human capital investment to encourage the financial performance of Islamic hotels.

2 Literature Review

Investments in human capital are not always in the form of investments in training and education. However, work equipment, work safety and employee health insurance are included in human capital investment. This is because human capital has five essential elements integrated into humans, namely knowledge, skills, health, innovation and creativity. These five elements need to be supported by work equipment, organizational structural capital and work protection, including social security and health (Psacharopoulos, 2015; Konara & Wei, 2019).

In human capital investment does not only pay attention to human capital contained in each individual but also social capital that supports each individual in completing his work. Social capital is a working relationship and personal relationship in a group of individuals to support each other and assist in solving work and problems at hand.

The human capital theory explains human potential both physically and outwardly in making contributions that can be valued economically. The concept of human capital is a combination of psychological and economic ideas. In giving the best gift to the organisation in the form of performance, human capital with the elements in it can be developed and improved through training and education mechanisms as well as equipment and technology support in improving individual performance in the organisation (Sankaran et al., 2020; Binhong, 2015).

Human resources in the form of knowledge and skills inherent in individuals so that physical and psychological health factors need to be considered. Because physical and mental health affects individual performance in making the best contribution to the organisation (Jones &

Spender, 2012; Marve, 2020).

Psychological factors have a significant share of individual performance in the workplace. This includes the self-identification factor. When individuals identify themselves as part of the organisation they work for, they will be motivated to make the best contribution to the organisation (Iqbal et al., 2020; Ones & Anderson, 2017).

Hotel Islam identifies itself as a Muslim friendly hotel and adheres to Islamic principles in conducting its business. This, of course, affects employee psychology. Employee psychology significantly influences human capital investment's success to boost organisational financial performance (Stephenson, 2014; Salleh et al., 2019).

3 Research Objective and Methodology

In this study, we used content analysis, a research method to identify patterns in the literature that can be trusted. In analysing content, we use hundreds of annual reports from all sharia hotels listed on the Indonesia Stock Exchange and from trusted media and literature studies from books and scientific journals from 2000 to 2020. This is done to analyse the contents of an association systematically. Text, whether written, spoken, or visual collected during the study period. This study combines qualitative content analysis from a collection of written, oral and visual texts to conclude with quantitative content analysis using secondary data collected during the study period which is estimated using the Vector Error Correction Model to see the relationship between human capital investment and financial performance. In the hospitality industry in Indonesia.

4 Results and Discussion

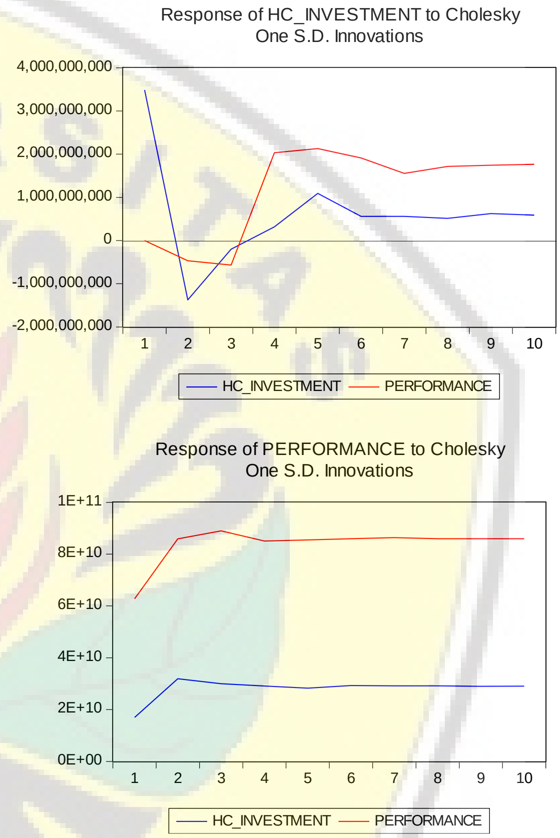
From the research results of 150 annual reports from all Islamic hotels listed on the Indonesian stock exchange, scientific magazines, books and previous research on human capital, we conclude that employee self-identification affects the urge to release potential or human resources to develop the organisation. However, this does not have a direct effect on employee performance in the organisation. What directly affects financial performance from a human capital point of view is the person's human capital.

Human identity has a role as the most significant influence on employee behaviour and self-image, reflecting action and support for the organisation as much as human capital. Human capital investment only increases human capital without directly affecting human identity when human capital is raised through human capital investment. Human capital affects employee performance, which impacts organizational financial performance.

The success of investing in human capital to boost financial performance depends on the human identity of the employees who receive the human capital investment.

To anticipate that human capital has an impact on organisational financial performance, triangulation is carried out using quantitative methods using a vector error correction model which is presented in the following graphic form:

Figure 1. Response Impulse Factor



From the VECM estimation results presented in graphical form, it can be seen that there are behavioural data between human capital investment and financial performance that influence each other with patterned flows where patterned flows are influenced by other factors outside of human capital investment. However, employees' psychological encouragement makes the best contribution to the organisation in the amount of capital they have. When money is raised, it directly impacts the organization's financial performance in the same direction. So that an employee's performance results do not represent one hundred per cent of the value of human capital. To improve performance, it is necessary to encourage the development of employee identity related to the organization to encourage social capital and structural capital.

5 CONCLUSION

There are other factors besides the skills and knowledge of employees in improving organizational performance. This factor comes from the psychological impact of employees who are willing to give their potential, in this case the human capital owned by the organization. Where one of the psychological factors that can affect the willingness of employees to contribute to the organization is human identity.

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Public Health Investment, Technology Inclusion, and Economic Recovery in the Covid-19 Pandemic

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Abstract : This study investigates the impact of technology and health investment on economic growth using secondary data from bank banks with the quantitative method of Smooth Transition Autoregressive (STAR) model. We have found that investment in human capital and technology can drive economic growth.

Keywords:: Health Investment,Technology, Covid 19

JEL Classification : C0, J0, J24

1 Introduction

Investments in the health sector and the design of health financing policies are linked to economic growth. The interaction between health and the economy is very close because economic growth cannot be separated from human resources, which play an active role in the economy.The accumulation of physical capital and health together contribute to determining long-term economic growth (Tandon et al., 2020; Torre et al., 2019). Health is an important asset for humans when a health epidemic such as the Covid-19 pandemic in 2020 is an obstacle to the development of various economic sectors which in turn suppress economic growth and lead to an economic crisis. Health is very important because health is a major factor in human performance (Higginson et al., 2020).

The development of the health system is vital in the economy. Because health is the main factor for humans to work well, humans cannot work properly without adequate health, and their performance will be impaired (Zhou et al., 2020; Cavagnero & Bilger, 2010). Health is an important factor in human life. Health enables humans to live well and work well. Alignment of health and economic policies is needed to improve human resources quality that will encourage economic growth as a capital for economic recovery after the Covid-19 outbreak.

Health is an important part of human capital or human capital. Health can increase worker productivity by increasing their physical capacities, such as strength and endurance, and increasing mental abilities, such as cognitive function and reasoning abilities (Flynn et al., 2014; Snell et al., 2016). Population health leads to economic growth. Population health in population productivity because health is the main reason people can work well and work well, which in turn provides productive human capital to spur economic growth (Lange & Vollmer, 2017).

Health is an instrument to increase human income, which collectively drives economic growth (Cole, 2019; Wang & Granados. 2019). Health is very influential on people's welfare and people's purchasing power because when people get sick easily it will be difficult to work properly and in the end, people's income will decrease(Kennelly et al., 2020; Tiirinki et al., 2020). Health significantly affects prospective lifespan and life cycle behaviour (Asdaq et al., 2020; Jenkins et al., 2020). Health investment is one of the human capital investments where health is an important component in human quality (Singh & Misra, 2020). Health substantially affects human productivity (Lackie & Murphy, 2020; Mujan et al., 2019).

Human capital is a determinant of economic growth where health is part of that human capital. (Zala et 2020; Tisdell, 2020). The individual and collective health of a population affect a country's economic development and performance (Sahn, 2014; Andrei et al., 2018). Health and economic growth are relevant to an investment in education, family planning, and economic productivity (Zuniga et al., 2013; Visaria & Ved, 2016).

2 Literature Review

Physical capital and health are the human capital that plays an important role in driving economic growth. Health performance and economic performance are interrelated. There is a strong relationship between economic growth, consumption, and health spending (Wang et al., 2018; Chen & Chen, 2020). Rich countries have healthier populations. Malnutrition and infant mortality adversely affect life expectancy. National income directly affects the health system's development, for example, through insurance protection and public spending on health, a form of government investment in public health. Human resources are an important factor in economic growth related to improving human quality. Undoubtedly, improving human quality will be difficult without government support in public health investment (Pickering et al., 2014).

Human capital is human capital in an intangible form in experience, health, knowledge, expertise and skills in completing work to earn income (Perez et al., 2020).

Knowledge growth encourages sustainable development in the amount of capital used per worker so that human resources are more efficient. Increasing knowledge and skills increase social work effectiveness and productivity (Sasongko et al., 2020). Technological progress is the driving force behind long-term economic growth. Technological progress comes from the development of human science. With efficient human resources, it will increase human resources' productivity, which in turn can drive economic growth (Yunxian & Wenjing, 2019; Bawono, 2017).

One model that includes innovation and technology in the model of economic growth is the Schumpeterian model. The Schumpeterian model is a model of economic growth that provides technology or design. The Schumpeterian theory is a club convergence theory. There are different degrees of convergence; a country moves towards the same borders as its technology partners (Berg et al., 2015; Gros, 2014).

3 Research Objective and Methodology

In writing this study, the scope of research will be discussed, namely analyzing the influence of the health investment variable (X1), Technology and Innovation (X2) on GDP (Y1) which is used as the basis for forecasting to obtain an alternative economy. Activities that can be done now and in the future. With the research period 2000-2019.

This research's type of data is quantitative data, while the data source in this study is secondary data. Secondary data is data obtained from library materials, while primary data is data obtained directly from the source (Saddhono, et, al, 2019).

The population in statistics includes all members of certain groups who are the object of research or collect information for data-based decision making (McEvoy, 2018). This study's population is Indonesia's GDP, All Health Investments in Indonesia that are recorded and not recorded by the World Bank, All investments in technology and innovation in Indonesia that are recorded and not recorded by the World Bank. A portion of the population is called a sample (McEvoy, 2018). This study's sample is Indonesia's GDP; the world bank records all health investment in Indonesia; the world bank records all technology investment and innovation in Indonesia. To obtain representative data (samples), as a basis for determining this sample, the authors do several ways, including:

a) Library research, namely by studying the literature related to the proposed title and lecture materials on the issues discussed to serve as a theoretical basis.

b) Documentation is a method of collecting data by examining and reviewing documents published by the company. Documentation studies were carried out by collecting all secondary data from world banks.

This research is a hotel industry business research where the data analysis used is business analysis. Data analysis in business research is a method for determining what the business is currently doing (its activities) and what data is needed to support these activities (Evans, 2019). In analyzing nonlinear time series forecasting statistical data, this study uses non-linear (dynamic) Threshold Autoregressive (TAR) time-series data analysis. The model adopted research from Bawono et al. (2019), which focuses on behaviour data or behavioural data analysis.

The threshold model allows the variable change process to behave differently when the variable's value exceeds a certain threshold. The threshold model can simulate the possible data movements in the past (Chen et al., 2012). The autoregressive threshold (TAR) model is a nonlinear time series or time series autoregressive (AR) model with a segmented model so that between different segments it is possible to have different AR (autoregressive) models (Weigend, 2018). The Smooth Transition Autoregressive (STAR) model is applied to time series data to improve the automatic threshold model (TAR, to allow a higher degree of flexibility in model parameters through better transitions.

This study adopts a research framework from Lange & Vollmer, 2017 to analyze the effect of human health as human capital on economic growth according to the Schumpeterian theory, which we translate into a mathematical model as follows:

$$\beta Y_{t} = \beta HI_{t-1} + \beta IT_{t-1} + e_{t-1}$$

Where βY_{t} is the current GDP (t0 or t) which is influenced by βHI_{t-1} as the level of investment in health services by the government for the community in the previous period (t-1), IT as technology development and community innovation as the success rate of efforts to educate people in the past (t-1) and other factors e_{t-1}.

4 Results and Discussion

TOURISM ECONOMIC IMPACT ANALYSIS

Human Capital is a physical and psychological form of human beings and human knowledge that can boost productivity. Human Capital has an important role in improving a country's economy. Health is an important means of maintaining and supporting human capital as a whole, and health becomes a part of human capital itself. Good human resources will encourage knowledge, which in turn creates technology that boosts human productivity. In the end, it will boost the economy as a whole which is manifested in GDP.

Nonlinear Statistical Analysis Time Series Forecasting Gross Domestic Product in the realm of technology investment and innovation as well as health investment in Indonesia. Based on the method presented in the method, we estimate the investment in health, innovation and technology, and GDP with the threshold variable: GDP (-3) as follows:

Threshold Variable (linear portion)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HI	-5.36E + 11	6.03E + 14	-0.000888	0.9993
C	-1.63E + 15	1.83E + 18	-0.000891	0.9993

Threshold Variable (nonlinear part)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
HI	5.39E + 11	6.03E + 14	0.000893	0.9993
C	1.64E + 15	1.83E + 18	0.000893	0.9993

Non-Threshold Variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IT	19.40795	6.355413	3.053767	0.0110

Slope

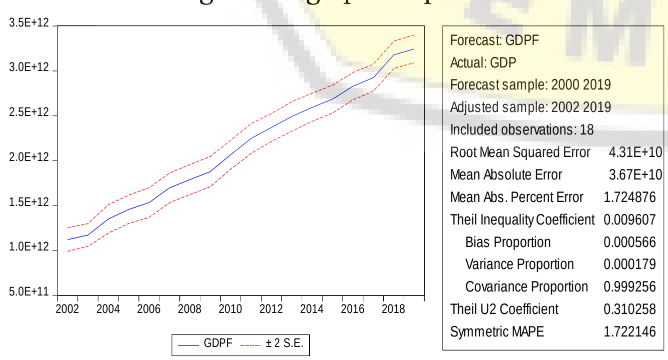
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Slope	1.92E-13	1.16E-12	0.165205	0.8718

Threshold

Variable	Coefficient	Std. Error	t-Statistic	Prob.
THRESHOLD	-3,10E + 13	5,96E + 15	-0,005203	0,9959

R-squared	0.994305
Mean dependent var	2.14E+12
Adjusted R-squared	0.991199
S.D. dependent var	6.82E+11
S.E. of regression	6.39E+10
Akaike info criterion	52.88587
Sum squared resid	4.50E+22
Schwarz criterion	53.23213
Log likelihood	-468.9729
Hannan-Quinn criter.	52.93362
F-statistic	320.0871
Durbin-Watson stat	1.440398
Prob(F-statistic)	0.000000

With the following Forcast graphic depiction:



Source: Author Computing

With an R-squared level: 0.994305, it shows a fairly strong level of influence between government investment for improving the health of Indonesians and the development of technology and innovation in Indonesian society on economic growth as reflected in GDP. This gives a signal that Human Capital is in the form of health, welfare, which is reflected in the level of public consumption and efforts to educate the community, which is reflected in the development of technology and innovation in Indonesian society which greatly affects economic growth. This is a strong signal that improving the quality of Indonesia's human resources can accelerate Indonesia's economic recovery after the corona virus pandemic ends.

5 Conclusion

Human resources are important capital for economic recovery after the Covid-19 pandemic, especially the improvement of affordable health services that can be enjoyed by the Indonesian people optimally through public health investments made by the Indonesian government, Improved social safety nets to maintain the welfare of the Indonesian people as reflected in public consumption. Affordable and quality education to encourage technological improvement and innovation in Indonesian society.

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Study of Aggregate Human Resource Management, Education and Indonesian Economic Growth

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Abstract : Education is an important element in economic growth. The purpose of this study is to observe government investment in education with economic growth within the frame of work management of aggregate human resources using descriptive quantitative methods of the Ordinary Least Squares (OLS) model. We find a significant positive relationship between investment in education and economic growth in the study period 2000 to 2019.

Keywords: : Human Resources, Education, Indonesia

JEL Classification : C0,G0,E4

1 Introduction

Human Resource Theory states that investing in education benefits a higher wage (Warner, 2013). Learning in developing self and knowledge is early, but learning can last until the end of life. Humans can continue to learn and develop themselves in improving the quality of themselves and experience until old age as provisions for younger people through the transfer of expertise and knowledge. Investments in skilled or skilled workers at any age yield higher returns than investments in less skilled or skilled workers. Abilities or skills are formed at an early age. One reason for the changing patterns of return on education investment is the race between technology and education (Guryan, 2009), as the labour market adapts to automation. In this new world, workers' ability to compete is hampered by the education system's poor performance in most developing countries. Technological changes and global competition require the mastery of competencies and new skills for many people.

An education system that prepares children well from an early age continues to reform and uses education improvement and accountability information. Countries need to improve quality, do their best, and expand opportunities, based on efficiency and equity. This means that it must be equitable and can serve the educational needs of all levels of society. Aggregate education investment carried out by the government should boost the economy, which in turn, the growth of education quality and the economy go hand in hand.

2 LITERATURE REVIEW

Education directly affects economic growth because teaching is a mechanism to improve the quality of human resources. And, human resources are an essential element in the production of an economy. Human resources include human physical capital, technology and the number of workers, and their quality. The quality of human resources is primarily determined by human capital (knowledge, skills and habits). Increasing the level of workers' education increases human capital to increase human productivity in improving economic outcomes (Marquez-Ramos & Mourelle, 2019).

Education is one of the mechanisms for improving self-quality and human capital. Human capital enables people to work better and faster. Education is, of course, critical because instruction can boost productivity which in turn drives economic growth. Humans become the workforce, where human capital is an element to increase labour productivity, and thus production growth will increase along with the development of human capital (Marianaa, 2015). Education is a mechanism for increasing economic innovation and technological development which is an essential factor in driving growth. Education is a knowledge enhancement mechanism needed to understand and process new information and new technology created by others so that it can be used to drive economic growth (Sabates, 2010).

Education, in all respects, is one of the fundamental factors of development. Education is the basis of human capital development, which is the foundation of knowledge development and has an impact on technological development which in turn increases economic growth (Neaum, 2019). Government spending on education or government investment in education to improve education services for the public has a positive relationship with economic growth. Increasing government spending on education or increasing government investment to enhance education quality can increase participation rates and boost economic growth (Shafuda & De, 2020).

3 Research Objective and Methodology

The method used in this research is descriptive quantitative Ordinary Least Square. Ordinary Least Squares (OLS) is the most common estimation method for linear models.With the econometric equation as follows:

GDPt1 = β t1IEt1 +c

4 Results and Discussion

Estimation results of the Ordinary Least Square of Education Investment in Indonesia with Indonesia's Economic Growth

GDP = 93.180508432*IE + 2030.16809113

With the estimation table as follows:

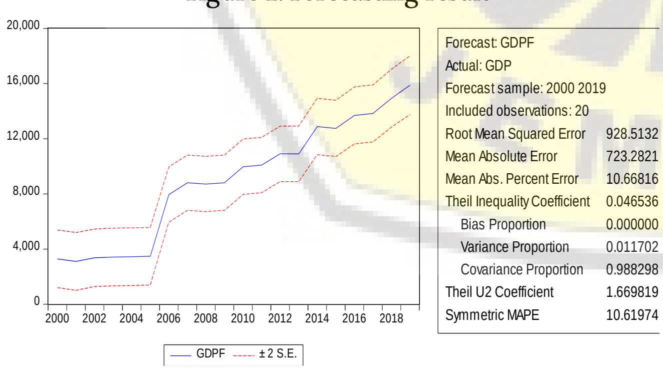
Table 1. Estimation Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IE	93.18051	4.808045	19.38012	0
C	2030.168	421.2559	4.819323	0.0001
R-squared	0.954267	Mean dependent var		9005.937
Adjusted R-squared	0.951726	S.D. dependent var		4454.63
S.E. of regression	978.7389	Akaike info criterion		16.70505
Sum squared resid	17242737	Schwarz criterion		16.80462
Log likelihood	-165.0505	Hannan-Quinn criter.		16.72448
F-statistic	375.5892	Durbin-Watson stat		1.153162

From the estimation results, it can be seen that the relationship between education investment is significant and positive, which means that the higher investment in education has an impact on increasing people's human capital so that people's performance can increase and can encourage economic growth.

To see the forecast or forecasting of education investment on economic growth is presented in the following diagram:

Figure 1. Forecasting result



Source : Author Computing

From the results of computer computation, it can be seen that the increase in education investment carried out by the government is in the same direction and that it can boost the Indonesian economy with a very significant leap in 2005.

5 Conclusion

Based on the estimation results, education in Indonesia has a positive relationship to economic growth and is one of the driving factors for economic growth. Education is an essential element in the economy because education can increase human capital, which improves performance and encourages economic productivity, promoting economic growth.

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ANALYSIS OF THE EFFECT OF HUMAN DEVELOPMENT INDEX ON ECONOMIC GROWTH, POVERTY AND INVESTMENT IN RIAU PROVINCE

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Abstract : The high human development index in Indonesia is an indicator that the quality of human productivity in Riau Province is categorized as good, but the economic growth rate is still low and tends to be negative, the level of poverty is high and investment is low. The purpose of this study was to determine whether there is an effect of the human development index on the rate of economic growth, poverty and investment in Riau Province. The data used are secondary data from 2011-2019 using the Eviews analysis tool which shows that the human development index and the rate of economic growth have a significant negative effect by having a probability of 0.002 while the human development index variable has a significant positive effect on investment and there is no intermediate influence human development index on poverty.

Keywords: HDI, economic growth rate, poverty and investment

JEL Classification : C40,J24,O10

1 INTRODUCTION

Human development is one of the most important factors in economic growth where human development creates quality human resources so as to increase economic growth. Quality human resources have better productivity so that the role of human resources to increase economic growth is very large, this is supported by the theory regarding the role of labor capital in economic growth, this is a neo-classical theory pioneered by Robert Solow who stated his opinion that the growth of national products determined by the growth of two types of input, capital growth and labor growth and this opinion is also by Denison who analyzed economic growth in developed countries can use the use of sources of capital goods.
According to research from Gustav Ranis, his research entitled Economic Growth and Human Development says that with a high level of the Human Development Index (HDI) which leads to high growth and high growth, the Human Development Index (HDI) increases. In fact, a weak Human Development Index (HDI) can lead to low growth and its poor damage to an improved Human Development Index (HDI). The growth of the GRDP rate will accelerate the process of increasing per capita output in the long term 'process' because it contains dynamic or developmental elements (Rapana, page 9).
According to Dr. Singer, the order form consists of items that look like factories, machine tools, as well as goods that do not appear to be high quality education, health, scientific traditions and research (Jhingan ,: 337). The main objective of economic development is to build capital equipment on a scale sufficient to increase productivity in agriculture, plantations and industry.

Capital is also needed to prepare schools, hospitals, roads, trains, and so on (Jhingan: 338). According to Schumpeter, the increase in state income from time to time, its development is very unstable and the situation is determined by the possibility of carrying out profitable capital orders that will be carried out by entrepreneurs. So according to Schumpther, investment in the economy can be divided into two groups, namely: autonomous investment (autonomous investment) and capital investment (induced investment). The neoclassical theory of low working capital ratios in developing countries increases the level of investment that is unusually high. Hence, free market reforms imposed on heavily indebted World Bank and IMF countries should increase investment, increase productivity, and raise living standards. (Todaro, 2000: 169). But the classical view differs from that of Keynes who said that " Supply determines its own Demand. " This means that the increase in goods and capital in society will create an increase in national production for economic development.

2 LITERATURE REVIEW

Economic and poverty development is one of the indicators in economic development by reducing poverty levels so that economic development continues to increase. Poverty is one of the problems in every region and the government is always trying to reduce the level of poverty in each region. Data released by the Central Statistics Agency of Riau Province, the number of poor people every year in Riau Province tends to increase every year but tends to be unstable, sometimes experiencing an increase and the following year experiencing a decrease, it is undeniable that one of the other factors that affect economic growth is a high level in where the community is unable to buy or fulfill their needs which results in decreased community welfare and results in the inability of the community to send their children which results in low levels of education and high increase will also affect the level of crime which will interfere with regional security which will be considered as consideration for investors in investing their capital then this makes the level of poverty an important role in influencing it in the stability of development.

According to Mankiw, poverty is an economic disease that affects all groups in the population, although the size of the effect is not the same for each group. The poverty rate itself is the percentage of the family population whose income is below an absolute level or number called the poverty line (Mankiw: p. 574). According to Marx the causes of poverty occur due to the exploitation by the owners of capital or capitalists against the workers or the proletariat, the pattern of exploitation differs from one era to another according to what is called the mode of production, quoted from Rahardjo's book. . Myrdal sees poverty as a political problem, that is, a problem that requires state political decisions, but besides that he also sees the problem of poverty as an economic reality (Rahardjo Hal: xxii). The number of poor people who are expected to continue to experience a decline every year is the hope of every district / city leader. The decline in the number of poor people is a factor in driving economic growth in the regencies / cities of Riau Province.
From the background description of this study, the aim of the study was to determine the effect of the human development index on the rate of economic growth, investment and poverty in Riau Province.

3 RESEARCH OBJECTIVE AND METHODOLOGY

The type of data used is secondary data which means secondary data is data obtained indirectly (Saleh page 5). The sources obtained in this study are from the Central Bureau of Statistics (BPS), related agencies in the writing of this research and related institutions in this research. In detail, the data used in this study are:
1. Data on the rate of economic growth from the 2011-2019 period from the Central Statistics Agency (BPS)
2. Human Development Index (HDI) data from the 2011-2019 period from the Central Statistics Agency
3. Data on investment for foreign investment (PMA) and domestic investment (PMDN) in the province for the 2011-2019 period, Riau, the data obtained is sourced from the Investment Coordinating Board
4. Data on the number of poverty in districts / cities in Riau Province for the period 2011-2019 from the Central Statistics Agency (BPS)

3.1 Panel Data Method

Data is a collection of numbers / information / sentences that describe an event or event in a certain period. (Seran, Page: 27). Panel data is data consisting of a combination of time series data and cross-section data in other words, panel data consists of data from several objects and includes several times (Pambuko, page: 6). Users of panel data in observation have several advantages: First, panel data is able to provide more data so that it will produce a greater degree of feedom. Second, panel data can overcome problems that arise when there are omitted-variable problems. (Seran, Page: 30). The advantages of panel data compared to time series and cross sections are as follows (Pambuko, Page: 83)
1.Can control heterogeneous individuals, where individual data such as companies, between regions, varies widely. Without controlling, these data will be biased
2.By combining time series data and cross section data, panel data provides more informative, more varied data, low levels of collinearity between variables, increases the degree of freedom (degee of freedom), and is more efficient
3.By studying repated cross-section data, panel data is suitable for dynamics of change studies.

Quoted from the research of Mirza (2011), there are 3 fundamental approach techniques used in analyzing panel data:
1.Pooled Least Square Model (Common Effect)
This model is known as common effect estimation, which is the simplest regression technique for estimating panel data by only combining time series and cross section data, this model only combines the two data regardless of the difference between time and individuals so that it can be said that this model is the same. with the OLS (Ordinary Least Square) method because it uses ordinary small squares

2.Fixed Effect Approach Model (Fixed Effect)
This model approach uses a dummy variable known as a fixed effect modal or the Least Square Dummy Variable or also known as the Covariace Model. In the Fixed Effect method, estimation can be done without weight (no weighted) or Least Square Dummy Variable (LSDV) and with weight (cross section weight) or general Least Square (GLS).

3.Random Effect Approach Model (Random Effect)
The third approach panel data model is the random effects model. In a random effects model, parameters that differ between regions and over time are entered into the error. Because of this, the random effects model is also called an error component model. By using this random effects model, it can save the use of degrees of freedom and not reduce the number as is done in the fixed effects model.

Econometrically, the relationship between the rate of economic growth, the human development index, investment and poverty in the districts and cities of Riau

Province can be analyzed by the following equation:
IPM it = αi + β1GRWT + β2 KMS + β3 INV + uit
Where :
HDI = Human Development Index
GRWT = The rate of economic growth
KMS = Poverty
INV = Investment
Descriptive analysis is an analysis that explains the general description of the data used. An overview of the data in this study is the variable rate of economic growth, the human development index, investment and poverty. Table 3.1. will explain the descriptive analysis in this study.

Table 3.1. Descriptive Statistical Analysis Table

	Economic Growth Rate	Human Development Index	Investation	Poverty
Average	3.481944	69.52824	39409.29	41.74306
Median	4.010000	69.65000	863.6450	39.41000
Maximum	8.390000	81.35000	822129.0	72.28000
Minimum	-3.850000	60.38000	0.000000	10.95000
Std. Dev.	2.816586	4.300102	149196.3	16.38861
Observation	108	108	108	108

The economic growth rate used in this study has an average value of 3.481944. The economic growth rate in 2011 -2019 has a maximum value of 8,390 with a minimum value of -3.85. The standard deviation value is 36525.33. The human development index variable in this study in 2011-2019 has a maximum and minimum value of 81.350 and 60.38. The average development of the human development index also shows 69.52. The standard deviation value of the human development index variable is 4.30. The investment variable has a standard deviation of 149196.3. The maximum and minimum values for the investment variable in 2011-2019 are 822129.0 and 0. The average value of the investment variable is 39409.29. Poverty used in this study has an average value of 41.74. Poverty in 2011-2019 has a maximum value of 72.28 with a minimum value of 10.95. The standard deviation value is 16.38.

4 RESULTS AND DISCUSSION

The impact of the human development index, poverty and investment has an influence on the rate of economic growth. The analysis tool uses panel data to explain the relationship between the dependent and independent variables. Table 4.1 shows the results of the analysis using panel data.

Table. 4.1 Results of panel data analysis

Variable		Panel Least Square	Fixed Effect Model	Random Effect Model
Economic Growth Rate	Coefficient	-0,062	-0,224	-0,238
	Probability	0,642	0,004*	0,002*
Investment	Coefficient	3999	1810	1832
	Probability	0,115	0,007*	0,069**
Poverty	Coefficient	-0,113	0,062	0,017
	Probability	0,000*	0,150	0,630
R-Squared		0,21	0,90	0,131
Adj. R-Squared		0,18	0,88	0,106
Chow test			0,000	
Hausman test			0,155	
Lagrange Multiplier			0,000	

* α=1%, ** α=5%, *** α=10%

The research model used in this study is the Random Effect Model (REM). This can be seen from the chow test used to select the best model between the Least Square Panel (PLS) and the Fixed Effect Model (FEM) showing the Fixed Effect Model (FEM) with a value of 0.00 less than 0.05. In the hauman test used to compare the Fixed Effect Model (FEM) with the Effect Model (REM), it has a value of 0.155 which is greater than 0.005, so it shows the best Random Effect Model (REM). In the Lagrange Multiplier test which is used to compare the Random Effect Model (REM) with the Least Square Panel (PLS) has a value of 0.00 less than 0.05, so the Random Effect Model (REM) is the best. The use of the Random Effect Model (REM) shows the variable rate of economic growth with significant investment affects the human development index. The variable rate of economic growth with a negative coefficient value of 0.238 and a probability of 0.002 is smaller than the alpha value (α = 1%). These results indicate that the variable rate of economic growth has a significant negative effect on the human development index. Thus, when the rate of economic growth shows an increase, the human development index will decline.

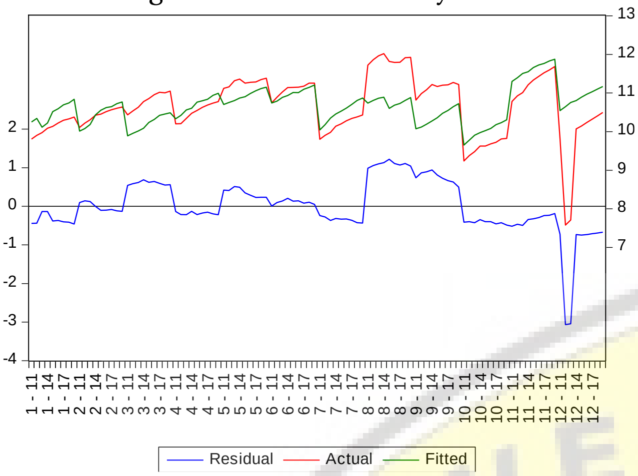
The investment variable with a positive coefficient of 1832 and a probability of 0.069 is smaller than the alpha value (α = 5%). This shows that the investment variable has a significant positive effect on the human development index. Thus, when investment increases, it will be accompanied by an increase in the human development index. The results differ with the poverty variable which is not significant negatively on the human development index. This is due to the probability value of 0.630 which is greater than the alpha value (α = 1%, 5%, 10%). Conditions can be interpreted that the fluctuating human development index is not followed by the development of the number of poor people.

Table 3.2 Classical Assumption Results

Classic Assumptions	Result	Conclusion
Normality	0,000	Nothing
Autocorrelation	DW = 0,411 > DU = 2,127	Nothing
Multicollinearity	nilai tidak melebihi 0,90	Nothing
Heteroscedasticity		Nothing

The value in autocorrelation which shows diai from DW is 0.411 greater than the DU value of 2.127 which means there is no autocorrelation. The muticollinearity value of each correlation between variables does not show a ditas value of 0.90, so there is no multicollinearity in the correlation between variables.

Figure 4.1 Heteroscedasticity Results



Heteroscedasticity does not show any heteroscedasticity which can be seen from the fluctuating heteroscedasticity graph. While the results of normality occur in the data normality with a probability of 0.000.

5 Conclusion

Based on the results of this study using panel data analysis tools, it can be concluded as follows.
1. The economic growth rate variable has a significant negative effect on the human development index with a probability value of 0.002 smaller than the alpha value
2. The investment variable has a significant positive effect on the human development index with a probability value of 0.069 smaller than the alpha value
3. The poverty variable does not have a significant effect on the human development index with a probability value of 0.630 greater than the alpha value

Suggestion

The suggestions obtained in this study based on the results of this study are divided into two parts as follows
1.Riau provincial government to stimulate human resources so that human development continues to increase with the aim of human development will be successful and lead to high economic growth.
2.Based on the results of research for the government, the results of this research can be used as reference related to factors that affect the human development index in terms of economic growth, poverty and investment.
3.The government must maintain the human development index because it has a positive impact on increasing investment in Riau Province
For further research, it should involve other variables which are thought to affect the rate of economic growth, poverty and investment so as to obtain better research findings

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Internet and Prospects of Non-Sharia Hotels in Indonesia

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Abstract : This journal aims to determine the business prospects for the Non Sharia hotel industry in Indonesia. We carry out simulations based on estimates of internet user growth, tourism arrival and hotel performance using data from the annual report of all hotels listed on the stock exchanges both in Indonesia every year from 2000 to 2019. In making hotel performance forecasting, this study uses a model Autoregressive moving average (ARMA). The estimation results are used to compare the performance of the hospitality industry in Indonesia from 2000 to 2019. We find that massive internet inclusion makes it easier for consumers to make decisions in choosing accommodation.

Keywords: economic growth, consumption, MSME credit, capital expenditure, Least Square Panel

JEL Classification : C0,G0,E4

1 INTRODUCTION

Indonesia is a country with a Muslim majority population. Indonesia, of course, the majority of its population is influenced by the understanding and teachings of Islam in carrying out their lives. The Indonesian hotel industry is grouped into the sharia hotel industry and the non-sharia hotel industry. The majority of Indonesia's population is Muslim, what is the perspective of the local market, namely the domestic market in the non-sharia hotel industry in the domestic market with a Muslim majority population.

In consumer behaviour theory, consumers are influenced by perspectives and mindsets that are motivated by beliefs and life experiences and information (Close,2012). The development of information suggestions follows the development of technology. Technology development to adapt to the increasingly varied challenges in the hotel industry. Although pandemic era policies are still being developed in hotels around the world including hotels in Indonesia. It can be said that guests will see major changes when they check in anywhere. For the foreseeable future until vaccines, widely effective treatments or direct testing for the coronavirus are available.

Staying at hotels tends to be an easy affair, especially in high-end hotels where personalized services and amenities for hotel customers have long been part of the hotel business itself. Guests will want keyless and contactless check-ins and checkouts as well as some personalized interactions. The role of technology is very important. The development trend of check-in and check-out is increasing in the hotel business in the era of the Covid-19 pandemic. Including the development of digital technology that adapts to a pandemic. Hotels must survive and adapt to the pandemic (Hao, et, al, 2020)

The outbreak of the Covid-19 virus reduces the performance of the hotel business and increases the risk of the hotel business, especially in hotel occupations (Filimonau, et, al, 2020). Focusing on technological innovations to reduce guest interactions with employees and improve hygiene has the potential to play a key role in the recovery of the hotel industry from the 2020 coronavirus pandemic (Shin & Kang, 2020).

2 LITERATURE REVIEW

To understand the prospects of the hotel business, especially hotels, it is necessary to understand the performance of the hotel itself (Dredge & Gyimóthy, 2017). To understand hotel performance, an understanding of production output is required. Because a hotel is a service business, its production output is in the form of a service which is very different from the production output in the form of goods. Where the hotel occupancy rate is an indicator in measuring hotel performance. Of course, this does not conflict with production theory (Feiertag, 2020).

In understanding the concept of future business prospects, besides understanding production theory, it is also necessary to understand the theory of the firm (Melin, et, al, 2014; Rohn & Evens, 2020). The firm theory is a microeconomic concept founded in neoclassical economics. In neoclassical economics, an economic approach focuses on the production, consumption and distribution of income in the market through supply and demand. The firm theory is a microeconomic concept which states that companies are decision-makers to maximize profits (Brown & Nwagbara, 2019).

The company's theory explains that company revenue depends on the demand for the company's products, both goods and services (Drucker, 2017). This is explained in the following model:
TR = P x Q
Where TR is total revenue, P is Price and Quantity is production output where production output that generates income is production output sold (Chapman, 2012). Thus becoming
P x S = TR
Where S is the total production output sold or it is also called sales.

Because the origin of income is production output and production output which produces income is the production output sold, two points of view are needed, namely the point of view on supply and the point of view on-demand (Varian, 2019).

One production function that is known and still used in modern times is the Cobb – Douglas Function (Prajapati, 2020). The Cobb-Douglas Production Function represents the relationship between production output and a combination of production input factors, namely capital and labour used to obtain production output (Besanko & Braeutigam, 2020).

The Cobb-Douglas production function was developed by economist Paul Douglas and mathematician Charles Cobb, the Cobb-Douglas production function is usually used in macroeconomic and microeconomic models because it has a number of realistic properties (Arredondo & Garcia, 2020). The equation for the Cobb-Douglas production formula, where K represents capital, L represents labour with the following mathematical equation:

$Q = f(L, K)$

Where Q is Production output, L is labour input and K is Capital input (Aryasri, 2020).

The modern era which is full of technology makes production more efficient and technology is an important factor in the production process (Zheng, D. 2016). Solow introduces technological factors as production inputs. The Solow model is developed through a production function that describes the relationship between input and output at the aggregate level. The Cobb - Douglas function is a production function that can be used in the Solow model (Berg, 2016). In its simplest form the Cobb - Douglas function is as follows:

$Q = f(L, K)$

Where $Q(L, K) = \alpha\ L\beta K1\text{-}\beta$

Where α and β are constants (Uskov, et, al, 2020)

Solow includes two factors into the Solow model, namely labour growth and technology growth (Dudley & Poston, 2019). Specifically, at time t, output (Qt) is determined by the input of capital (Kt) and labour (Lt) and technology (At) according to the production function adopted from the Cobb Douglas function as follows:

$Qt = K\alpha t\ (AtLt)\ 1\text{-}\alpha$

The new variable At represents the level of technology at time t. Both the Lt labour input and the technological level At are assumed to grow at a constant rate. This technological formulation is referred to as labour enhancement. Technology makes labour more effective so that effective labour input is the same as At Lt (Ahiakpor, 2013).

In the hotel business, understanding the level of production can not only be seen from the supply side but also from the demand side because the hotel business is a service business that can only be produced when consumers come with as many production levels as the arrivals of consumers who stay at hotels or use hotel services (Christou, 2016).

The production function can be used to understand the supply side. To understand the demand side, namely consumers, the theory of absolute income can be used. Returns to the company's income from the production output that is sold or bought by consumers. Of course, the consumer who buys this has the purchasing power of his income which is translated into the following equation:

$Y = C$

Where Y is income and C is consumption or income spent. Theory Absolute Income explains this equation (Keynes, 2019). Based on this equation and the previous function so that the new equation can be understood, namely

$C = P \times S$

Where C is the amount of money used to make consumption at the price of the goods or services consumed (P) x the price of the goods or services purchased. So that

$Q = S$

$C = Y$

$Y = TR$

$TR = C$

Where Q is the production output sold for sales Production output (S) purchased by consumers is C = P x S with consumer income of Y. Consumers in buying production output are influenced by consumer perspectives (Bracamonte, et, al, 2020; Chawla, et, al, 2020). In the service industry, including hotels, the consumer's perspective on hotel service attributes is very important (Liu, et, al, 2020; Akhtar, et, al, 2019).

3 RESEARCH OBJECTIVE AND METHODOLOGY

To analyze the prospects for future Islamic hotels, especially after the coronavirus pandemic ends, we adopt the theory of the firm and absolute income as a supply and demand perspective using the Cobb-Douglas function and the Sollow model to determine variables and analyze quantitatively using the Autoregressive moving average (ARMA) model for creating hotel performance forecasting. The forecasting results form the basis for the analysis of hotel business prospects and potential threats and opportunities through the estimated variable behaviour.

The ARMA model combines the autocorrelation (AR) method and moving averages (MA) into a time series composite model (Weiss, 2018). With the following model:

$xt = \varphi 1xt - 1 + \varphi 2xt - 2 + \ldots + \varphi pxt - p + t + \theta 1t - 1 + \ldots + \theta qt - q.$

In general, this form of the combined ARMA model can be used to model the time series in fewer terms overall than the MA or AR model itself. It expresses the estimated value at time t as the number of q terms representing the average variation of the random variation over the previous q period (a component of the MA), plus the number of AR p terms which computes the current x-value as the weighted sum of the most recent p values.

As previously explained, this research adopts the theory of the firm, absolute income theory, the Cobb Douglas function and the Solow model. Starting from the equation of the theory of the firm which is described in the literature review as follows:

TR = P x Q
TR = P x S
S = Q
TR = Y
Y = C

Where TR is the income or total revenue from sales of production output, P is the price of the output of production and Q is the total output of production. The production output that generates income is the production output sold (S). Where the level of sales depends on the level of consumer purchasing power which is described in Absolute Income Theory with the following equation:

Y = C

Where Y is the expendable income of C. Because what generates income is the production output sold, P x S = TR. So Q = S in the hotel business, S is the financial performance of hotels or hotel revenue.

Adopt the cobb-Douglas function with the general equation of the cobb Douglas function as follows:

$Q = f(L, K)$

Where Q is the production output which is a function of L as the input for labour or human resources and the input for K as capital. Where

$Q(KL) = \alpha\ K\beta\ L\beta\text{-}1$

Where Q (KL) is the production output for K and L where α and β are constants with a value of 0 to 1. It can be denoted as follows:

$Q = \alpha\ K\beta\ L1\text{-}\beta$

Adopting a solow model with a general model for the Cobb Douglas function as follows:

$Qt = K\alpha t\ (AtLt)\ 1\text{-}\alpha$

Where t is the time series over time. When simplified without time series or time t0 becomes

$Q = K\alpha\ (AL)\ 1\text{-}\alpha$

When the constant is 1 it becomes

Q = K (AL) or Q = KAL or Q = A K L

Where A is a technological factor. With the previous equation, Q = S is observed to be S = A KL because KL = Q and in the hotel business Q = Total guests, Q can be represented on the total arrival of travellers which we notify as Tourism Arrival by considering the following equation

S = A Q

Where S is the supply viewpoint which is denoted as the total production output sold and A is the demand or consumer point of view so that A for technology can be represented on the use of technology used by consumers to order services or hotel production output which in this study is represented as the internet Inclusion represented by total internet users in the study area which in this study is notated as TIS. And Q is the total output of production. Where is the total production output. Because TR = C and C = P x S or P x S = TR. So that PS = AQP. Where, QP = APS So that TR = f (A, C) So this research focuses on three variables, namely:

Hotel total revenue or TR Hotel as the dependent variable
Tourism Consumptions or C as an independent variable
Total Internet Users or A.

Adopt the general ARMA equation as follows:

$St = \beta 1St\text{-}1 + \beta 2St\text{-}2 + \ldots + \beta 1At\text{-}1 + \beta 2At\text{-}2 + \ldots. + B1Ct\text{-}1 + \beta 2Ct\text{-}2\ldots. + Et$

Where e is an error notation or a variable outside the estimate.

Where
S = Sum of Hotel Performance
A = Total Internet Users
TC = Tourism Consumptions

4 Results and Discussion

In this section, sub-sections are divided, namely the results as a sub-estimation result containing the ARMA estimation results and the MATRIX SWOT analysis results. The second is Sub Discussion which is a sub discussion of the research results.

The estimation results of the non-sharia ARMA Hotel are as follows

S = -24.6545476396 * A + 774.490300768 * TC - 662180522,362

From the estimation results, it can be seen that the total internet user direction (A) is negative or the constant is negative. This means that the increasing inclusion of the internet on hotel consumers where hotel consumers can be anyone, both local consumers and consumers from out of town or abroad. The deeper the inclusion of the internet, the more alternative accommodation options are so that tourism arrival can choose other accommodation besides hotels such as inns or hostels which are relatively cheaper than hotels. Or choose a sharia hotel with a variety of perspectives such as Muslim friendly. Because what is estimated in this estimate is non-sharia hotels.

Tourism Arrival is positive, meaning that hotel revenue relies on the arrival of travellers where the more tourists come, the more potential consumers use hotel services.

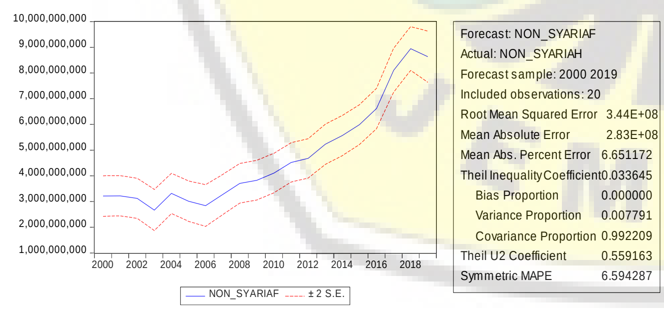
To make it easier to read our estimates, we summarize them in the following :

Variable	Coefficient	Std. Error	t-Statistic	Prob.
A	-24.65455	16.72012	-1.474543	0.1586
TC	774.4903	164.5115	4.707818	0.0002
C	-6.62E+08	7.54E+08	-0.878694	0.3918

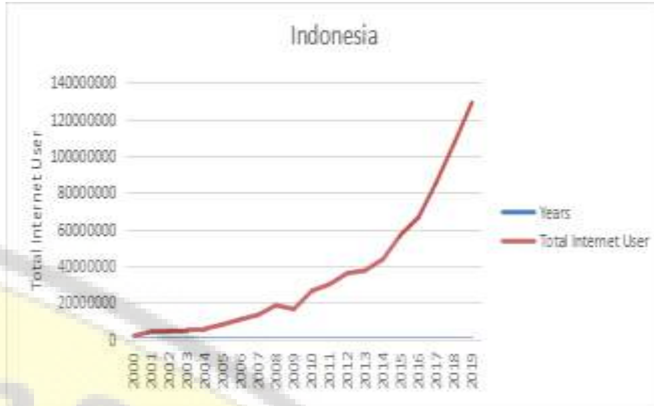
S-squared : 0.969315
Mean dependent var: 4.73E+09
Adjusted R-squared : 0.965705
S.D. dependent var : 2.02E+09
S.E. of regression : 3.73E+08
Akaike info criterion: 42.45166
Sum squared resid : 2.37E+18
Schwarz criterion : 42.60102
Log likelihood : -421.5166
Hannan-Quinn criter: 42.48081
F-statistic : 268.5112
Durbin-Watson stat : 1.409951

To see the performance trend of Non- Islamic hotels, the following ARMA forecasting is presented:

Figure 1. ARMA forecasting Result



The total hotel performance trend tends to increase where every time there is a decline in performance it is followed by a recovery trend. With the internet that has more and more users and is increasingly unlimited. Making both an opportunity and a threat to the hotel industry. To increase the chances of becoming a request for hotel services and minimize the threat of misinformation or slander.



Source: World Bank, 2020 (processed)

With a fairly large demographic, Indonesia is a large enough market for the hotel business for domestic guests with internet inclusion increasing dramatically since 2014. Of course, the opportunity to gain occupation via the internet can continue to be improved.

5 Conclusion

The hotel industry, both Sharia and Non-Sharia hotels, were hit hard by the 2020 corona pandemic. However, with internet inclusion and New Normal behaviour, the hotel industry has hopes of recovering when the corona is over. Based on the estimation results, the identity of majority belief does not determine the behaviour of the type of hotel in Indonesia. Even though the majority of the population is diverse in Islam, the non-Sharia hotel industry still has a high occupation and tends to grow in the research period, namely 2000-2019. The development of the Internet facilitates the dissemination of information and makes it easier for consumers to choose the hotel where they want to stay.

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FINANCIAL DEEPENING ANALYSIS ON ECONOMIC GROWTH IN INDONESIA

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Abstract : Financial deepening is an effort to increase the financial sector to reduce dependence on foreign savings. Efforts are made by increasing the volume of financial institutions and the number of instruments available in the market and increasing the number of services. The purpose of this study was to determine the effect of the ratio of the money supply, the ratio of bank credit, and the ratio of domestic savings to economic growth in both the short and long term. Empirically this study uses secondary data in the form of quarterly annual data during 2008Q1-2018Q4. This study uses the Error Correction Model (ECM) method. Based on the research results, the money supply ratio variable in the short and long term has a positive and significant effect. The bank credit ratio variable in the short term has a positive and significant effect. In contrast, it has a negative and insignificant effect; the domestic savings ratio variable in the short and long term. Long has a positive and significant effect on economic growth in Indonesia.

Keywords: Economic Growth, Ratio Money Supply, Ratio Credit Bank, Ratio Domestic Saving, ECM

JEL Classification : C0, C33,G21, G11

1 INTRODUCTION

Economic growth in a country can be seen from the progress and stability of the economy. An economy can be stable when there is no continuous decline or increase (ideal conditions), and economic variables fluctuate, especially in commodity prices and moving income in reasonable conditions (United Nations,2020). To advance and stabilize the country's economy, the financial sector is needed as an intermediary function. The financial sector's development is expected to reduce macroeconomic volatility, reduce poverty, and promote economic growth (Bhattacharyya,2019).

Keynes explained that economic growth is influenced by aggregate demand, one of which is influenced by investment spending (O'Connor,2014). In line with Keynes, Harrod-Domar explained that economic growth could be steady; it requires income to grow steadily, accompanied by smooth investment. Harrod-Domar explained that the capital stock owned by the community increases output. The output realized is not the same as the potential output because it is influenced by the amount of aggregate demand (Kurihara, 2014).

Solow understood differently from Keynes and Harrod-Domar. Solow said that economic growth is influenced by technology. According to Solow, economic growth is influenced by exogenous factors, namely technology (Ashford & Hall,2018). Technological advances in this modern era are increasingly empowering the people's economy from developing the digital economy. With the digital economy's presence, many trading businesses based on applications (e-commerce) and electronics have sprung up due to fintech services so that people feel easy access to invest.

Financial deepening is needed in the financial sector to achieve high economic growth (Zhu,2012). The impetus for the financial sector has a positive impact on the economy, and conversely, the weakening of the financial sector will hamper the economy. It is hoped that financial deepening in the banking sector will contribute well in raising funds. With the expansion of financial institutions and the money market to distribute productive and investment credit in large numbers, the financial sector is getting better at mobilizing funds to increase economic growth.

The financial sector needs banking as a system for channeling funds and for more productive reinvestment. Financial intermediaries are a function of increasing the financial sector over a certain period of time to show financial deepening. Financial deepening is an increasing process in the financial sector, which is marked by an increase in the volume of financial institutions and the number of instruments available on the financial market coupled with an increase in the number of services (Wright & Zeiler,2014).

Financial deepening can be measured using monetary aggregate indicators, the money supply, and the ratio of total credit to GDP as a representation to measure the rate of monetization and intermediation in the economy to increase real interest rates. The presence of financial deepening in the financial sector has a positive impact on the economy. Financial intermediaries in the financial sector can improve the function and effectiveness of the financial sector (Maier & Pischke,2013).

Deepening in the financial sector can reduce dependence on foreign savings because the financial sector can mobilize people's savings to be an alternative source of funding during a crisis. So the existence of productive activities in the financial sector implies that the ratio of financial deepening in a country has increased.

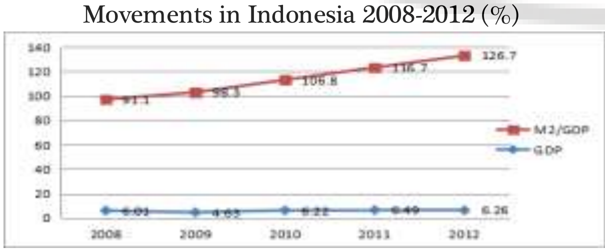
The main objective of financial deepening is to increase income by increasing the national saving ratio. Financial deepening in the financial sector can improve the monetary system's size with the hope of providing a favorable climate for investors so that savings allocation and mobilization can expand (Kohsaka,2015).

The low financial depth in the financial sector is partly due to high temperatures. The financial sector's lack of financial deepening is due to limited costs and alternatives on the investment side, insurance protection facilities (risk), and value protection facilities for bedding.

Financial deepening and economic growth are directly proportional to being able to utilize resources effectively and efficiently to reduce dependence on foreign capital and be able to survive from exposure to global issues. However, Financial deepening and economic growth have no reciprocal relationship, namely the money ratio, which has a negative and insignificant effect on GDP.
Financial deepening in the financial sector is one of the important factors in economic growth (Baland,et al.,2020). Financial deepening can be measured by bank credit, savings, and domestic savings to achieve economic growth. The relationship between bank credit and economic growth is mutually stimulating.

Banking credit increases business and investment enthusiasm (Chang,et al.,2019). Where investment can directly stimulate demand for new credit and ultimately provide a multiplier effect. In line with bank credit, the amount of money has a positive impact on economic growth—the more people who transact indirectly, the greater amount of money, the more rapid the economic movement. And domestic saving has a causal relationship with economic growth. Keynes explained that the interest rate's effect is very complex on domestic saving. The higher the domestic saving, the greater the government's source of funds to support the economy. So it can be said that the bank credit ratio, the amount of money ratio, and the domestic saving ratio have a causal relationship with economic growth.

Figure 1. Economic Growth and Financial Deepening Movements in Indonesia 2008-2012 (%)



Source : Bank Indonesia, 2020

Figure 1 above illustrates that Indonesia's financial deepening movement for 2008-2012 has a positive trend. Even though financial deepening continues to increase, it is not the opposite with economic growth. In the 2008-2012 period, economic growth fluctuated. Because at the end of 2008, it was due to economic turmoil, namely subprime mortality that occurred in 2008, which changed the world economic order. This crisis was caused by the desire of the “Lehman Brother” banking industry to get high profits by providing housing loans to people with low or non-permanent income, which could be called subprime mortgages, with the hope of increasing income by channeling housing loans (KPR) by estimating the benefits obtained from an investment. In the real estate market. However, it did not go smoothly, and The Fed raised interest rates to control the inflation rate, so it impacted interest rates and mortgage installments. As a result, the subprime mortgage community stated that they were unable to pay. This condition made "Lehman Brothers" bankrupt because mortgage installments bound the community that was more than the house's value so that people were unable to pay; in the end, it impacted the US economy (Ball,2018).

Indonesia has also felt the impact of the global financial crisis, especially in institutional institutions that invest in America's financial sector, which indirectly reduces liquidity and increases interest rates. Causing commodity prices to fall and weak resource growth, and ultimately, the level of consumer and investor confidence. After the 2008 financial crisis or the subprime mortgage crisis, several countries attempted to restore economic conditions by aggressively easing monetary (Posen & Changyong,2013).

Based on the explanation above, explicitly, the purpose of this study is to determine the effect of financial deepening as measured by the ratio of the money supply, the ratio of bank credit, and the ratio of domestic savings to economic growth short and long term.

2 LITERATURE REVIEW

Economic growth is an increase in production capacity, which is reflected in the increase in national income due to goods and service production activities, resulting in the same amount of output (goods and services). Economic progress indicates society's welfare, as seen from the growth of economic growth on the output side. Kuznets explained that economic growth is an increase in the capacity to provide goods for the population. Advances in technology, institutions, and ideology are increasing in goods' capacity (Oryani,et al.,2020) . Schumpeter explained that the main factor affecting economic growth is the emergence of innovation (Bazhal,2017). The more innovations that are created, the greater the output produced. Because more and more innovations will be accompanied by technological developments.

According to Neo-Classics, economic growth is based on the increase in the supply of production factors (capital accumulation, population, and labor) and the level of technological advancement (Chisholm,2015). This theory has developed since the 1950s; neo-classical views the economy based on its analysis assumptions. That the economy will experience (full employment) or use of the full level of labor and use of capital in the form of equipment capacity to be used throughout the period.

Keynes explained that economic growth is influenced by aggregate demand (Foxon,2017). Where the aggregate demand includes: consumption expenditure, investment expenditure, and expenditure for the government.

In John Maynard Keynes's theory, the amount of current consumption expenditure (current consumption) in the household sector is influenced by current disposable income (current disposable income). Where is disposable income, namely the amount of boiling income that is ready to be consumed after deducting tax costs and transfer fees.

Keynes, explaining the amount of one's consumption, is absolutely influenced by income level or known as the absolute income hypothesis. The greater the income received, the greater the consumption. Keynes considered the magnitude of economic fluctuation in a country based on consumption and expenditure income in the household sector. Expenditures for consumption in the household sector continue even though they do not have income; it can be called autonomous consumption expenditure or autonomous consumption.

According to Keynes, aggregate spending always changes from one period to another. This change is due to an acceleration in consumption, namely the change level due to investment changes. The higher the acceleration of consumption, the faster the economy runs; this is due to the big changes in new production capacity.

Keynes explained that fiscal policy expands through aggregate demand, which is influenced by the interest rate, which can push the level of investment or be called the Keynes effect, namely the investment multiplier rate. Investment occurs due to the use of money to increase production capacity, hoping to increase the level of national income. The size of the investment that comes out does not provide additional value to national income.

The amount of money demanded by the average price level in the economy and the great public demand for transaction purposes, then by the price of goods and services. The higher the price level, the more money it takes care of.

The high selling price of the demand for money, when the demand for large money equals the quantity of money coming in, is equilibrium. This explanation is in line with the theory of the quantity of money (the quantity theory of money), which explains that the price level changes with changes in the quantity of money coming in. In general terms, the theory of the quantity of money explains the effect of the amount of money in circulation to determine the value of money in the economy.

Financial deepening or financial deepening is the accumulation of financial assets, the more liquid the accumulation of wealth. Financial deepening is a strategy to increase the rate of economic growth by deepening the financial sector (Ho,et al.,2018).

Economic growth in a country describes economic growth in the growth of goods and services in a region in a certain period (Reyes & Sawyer,2015). With the high growth of economic growth in the region, the resulting output growth is getting higher. There are four theories of economic growth. According to Keynes, the first is the theory of growth, the second according to Neo-classical, the third according to Harrod-Domar, and the fourth to economic growth according to Solow.

The Neo-classical theory explains that the economic growth of the stock of production factors (population, labor, and capital accumulation) and the rate of technological progress. Keynes explained that, according to him, economic growth is based on demand by aggregate demand. The aggregate demand from the expenditure is consumption, investment spending, and government spending. The money demand-side built these three instruments.

Keynes Liquidity Preference theory divides into three motives: the money motive for transactions, the precautionary money motive, and the money speculation motive. Also, the money demand theory states by Irving-Fisher pursuing his theory. Quantity of Money explains what affects the demand for money, namely price changes.

The higher the price, the demand for money will increase—the amount of money is directly proportional to price changes (Bawono & Prestianawati, 2019). Economic growth can also affect the amount of bank credit, where Solow explained that to achieve output required technological progress, labor, and additional capital, where someone needs capital. One of the steps taken is borrowing funds or bank credit. There are three types of bank credit, namely consumption, investment, and working capital purposes. Furthermore, Harrod-Domar explained to achieve steady growth is kept. Of these 3 variables, the amount of money taken, bank credit, and savings are derived from each theory to influence the Indonesian economy's growth.

3 RESEARCH OBJECTIVE AND METHODOLOGY

This type of research is quantitative research. Quantitative research is a type of research that focuses more on numerical data (Baldwin,2018), which are then reprocessed using statistical methods. This quantitative research is widely used because of the desire to know about the facts of a concept or theory that describes the relationship between the dependent variable and the independent variable in statistical form.

This study uses secondary data, namely time series data with variables using the 2008Q1 - 2018QIV time frame, and the research object used is Indonesia's state. The use of data with a time span is based on several reasons above, for economic reasons and the methodological reasons used. First, for economic reasons, at the beginning of 2008, a subprime mortgage crisis originating in the United States caused a global financial crisis that affected the Indonesian economy, especially in the weakening economic growth. Second, it is intended for the reported error data with the selected time frame and can meet the VBLUE (Best Linear Un bias Estimator) assessment criteria. The data sources used are from the official websites of FRED, OJK, BPS. The research variables used are economic growth, bank credit ratio, money entry ratio (Total Money Supply), and domestic tube ratio.
The research model specification is aimed at solving problems in research. Where this research aims to determine the effect of the money supply ratio (M), domestic savings ratio, and banking credit ratio in the short and long term on economic growth in Indonesia. This study, adopting a model from the research of Ningrum (2015) and Ramadhani (2017) so; it can be written as follows:
Y = f(M2/GDP,BC/GDP.DS/GDP)
Then the model is transformed into an econometric model, namely

GDPt = α0 + α1 M2t + α2BCt + α3 DSt
information :
GDP = determinant economic growth in period t
M2t = the ratio of the Money Supply in period t
BCT = ratio of total bank credit in period t
DST = the ratio of total domestic savings in period t
αo, α1, α2, α3 = short term coefficient
This study uses descriptive and quantitative analysis methods that aim to support the analysis results and answer empirical questions in the study. Quantitative research is the result of data processing collected and then analyzed to produce new facts and produce actual information.
Quantitative analysis in this study is used to analyze the effect of the dependent variable on economic growth in Indonesia in the short and long term, using the Error Correction Model (ECM) analysis. This method will estimate the parameters of economic growth and determine the dynamic relationship between economic growth and the dependent variable used to influence it.
The specification of the model used in the VINIV research is the error correction model or ECM (Error Correction Model). Where is the short-run coefficient, is the equilibrium correction coefficient, and is the long-run coefficient.

The advantages highlighted by the ECM method have advantages in analyzing phenomena, both in the short and long term, compared to other dynamic methods. This ECM model is an empirical model consistent in testing economic theory and can deal with non-stationary data, irregular regression, or sharp correlation in econometric analysis. However, the ECM method also has drawbacks; namely, there is a bias in the first step and will be re-tested at the second step. Furthermore, it will be reformulated in the ECM both in the short and long term. Then the ECT calculation can be done with the following equation:

ECT = β0 + β1 DMt-1 + β2DBCt-1 + β3 DDSt-1
Information:
ECT = Error Correction Term
DM2 = Difference in the Money Supply period t-1
DBC = Bank Credit Differentiation t-1 period
DDS = Domestic Savings Differentiation for period t
In the ECM model, the ECT equation is needed to be used as a basis for long-term measurements. Because ECT is used to see the value and significance of the ECM model.

4 RESULTS AND DISCUSSION

To find out the estimation model results, the Error Correction Model (ECM) can be known by comparing the t-statistic value with the t-table. It is connected with the magnitude of each independent variable with the dependent variable in the research model. Also, there are other ways to determine the estimation results, namely looking at the VR-square adjustment, the probability of the F-statistic, and its ECT (Error Correction Model) value. Furthermore, it can be seen the value of the estimation results from the variable coefficient value that partially describes the dependent variable and the independent variable. The following short-term ECM test results can be seen in the table below as follows:

Table 1 Short-Term ECM Estimation Results

Variable	coefficient	t-statistics	probability
C	0.003015	0.111672	0.9117
D(M)	-0.782150	-9.108111	0.0000
D(BC)	0.094254	2.320644	0.0258
D(DS)	0.068408	7.761726	0.0000
U(-1)	-0.712055	-4.531226	0.0001
Adjusted R-squared		0.925862	
Prob.F-statistics		0.000000	

The short-term Error Correction Model (ECM) test results show that the money supply ratio (M) variable affects economic growth. This is reflected in the probability value <5%, which is 0.0000. The independent variable of the money supply ratio (M) affects Y (GDP), reflected in the significant p-value at the level of α = 5% with a coefficient value of -0.782150. These results indicate that the money supply ratio (M) hurts economic growth (GDP) in the long run. Meanwhile, the bank credit ratio and domestic savings ratio positively and significantly affect economic growth. Evidenced by the probability value <α = 5%, the bank credit ratio with a probability value of 0.0258, and the domestic savings ratio with a probability value of 0.0000. And it can be seen by comparing the t-statistic value with the t-table.

This shows that partially the independent variable, namely the money supply ratio (M), the ratio of bank credit, and the ratio of domestic savings, have a short-term effect on economic growth.

When the independent variable and the dependent variable are not in the same direction, partially the independent variable, namely the ratio of the amount of money based on, the banking credit ratio and the domestic saving ratio have a proportion to explain the dependent variable. The abTheendent variable's abilities that the dependent variable is supported by a probability value of F-statistic of 0.000000, reflecting the independent variable, can explain the dependent variable. With an adjusted R-square value of 0.925862, the independent variable explains the dependent variable by 92%. The rest is influenced by other factors outside the research model, which is reflected in calculating the degree of freedom.

Table 2 Long-term ECM Estimation Results

Variable	coefficient	t-statistics	probability
C	7.263661	223.7143	0.0000
M	-0.659067	-5.646251	0.0000
BC	0.109789	1.934084	0.0602
DS	0.054446	4.662681	0.0000
Adjusted R-squared		0.817514	
Prob.F-statistics		0.000000	

The money supply ratio (M) variable affects economic growth. This is reflected in the probability value <5%, which is 0.0000. The independent variable of the money supply ratio (M) affects Y (GDP) as reflected in the significant p-value at the level of α = 5% with a coefficient value of -0.659067. These results indicate that, in the long run, the money supply ratio (M) hurts economic growth (GDP). It is also assumed that every 5% change in the money supply ratio will reduce economic growth (GDP) by 0.6%.

Another independent variable is the ratio of significant domestic savings to GDP. The probability value proves this <5%, namely 0.0000. The domestic saving ratio's independent variable has a positive effect on Y or economic growth (GDP) with a significant p-value at the level of α = 5%. These results indicate that partially the domestic saving ratio variable affects long-term economic growth (GDP). It is also estimated that every 5% change in the domestic saving ratio will increase economic growth (GDP) by 0.05%.

Based on the estimation results, the bank credit ratio variable shows no effect on GDP. The probability value evidence this> 5%, namely the bank credit ratio variable of 0.0602. Then tTheendent variable bank credit ratio does not affect variable Y or economic growth (GDP) in the long run. The result is that the p-value is not significant at the 5% level. It can be concluded that partially the bank credit ratio does not affect economic growth in the long term.

The F-statistic probability value's power reflects the strength of the independent variable in influencing the dependent variable simultaneously. And the adjusted R-square value is 0.817514, reflecting calculating the degree of freedom, where all independent variables can explain in detail the dependent variable by 81%, and other factors explain the remaining 19% in the research model.

The existence of a reciprocal relationship between financial deepening and economic growth in Indonesia is known by using the Error Correction Model (ECM) method approach, which shows that 3 variables become indicators in financial deepening, namely the ratio of the money supply, the banking credit ratio and the domestic savings ratio. In research, it certainly has good short-term and long-term effects, the results of which create a positive or negative response from each of the variables used in the study. This response can be seen from the short-term estimation results and the long-term estimation results in the Error Correction Model (ECM). By looking at the estimation results, one can read the effect and the deepening response in the financial sector to economic growth as well as empirical conditions in Indonesia can be used as a consideration in making government policies related to financial deepening to become one of the sectors that contribute to the establishment of the Indonesian economy.

Based on the test results using the Error Correction Model (ECM) in the short term, both in the long term, the domestic savings ratio variable has a positive and significant impact on the domestic saving variable on economic growth in Indonesia. In the domestic economy, saving has a positive and significant relationship in the economy. This study's results are by the Harrod-Domar theory, which states that to achieve steady economic growth requires saving and national savings in the amount of total investment. Harrod-Domar explained that investment would increase the stock of capital in the long run, which means that society's productivity affects the increase in aggregate supply. The higher the saving rate, the higher the output growth because saving is positively correlated with output growth.

In 2008, in line with the global financial crisis, domestic savings and deposits declined in line with weakening economic growth. It is undeniable that the financial crisis impacts the level of the domestic saving ratio, due to lower levels of exports and commodity prices, as a result of the continuing global financial crisis. However, in 2009 the ratio of domestic savings showed a stable development; however, in 2012-2014, the ratio of domestic savings fluctuated. In the form of spending, energy subsidies, and external liabilities. Country. On the public side, due to the depreciation of the rupiah exchange rate, reduced income, the difference is for savings due to the weakening of the rupiah, then used for consumption purposes.

Judging from the last 3 years, 2016-2018, the domestic saving ratio shows a positive trend. In 2016, a stable level of economic growth was supported by fiscal stimuli and the positive impact of easing monetary and macroprudential policies so that consumer confidence could maintain household consumption levels. This condition has a positive impact on the domestic saving ratio. The condition of the deposit ratio reflects the conditions of economic stability. Although global uncertainty has increased, giving rise to the US dollar, stronger trade tensions, and crises in several developing countries, domestic economic growth and the domestic saving ratio have strengthened domestic economic growth.

This applies to an appreciated exchange rate and a low rate of inflation. The results of production activities carried out by the community produce a high output; the higher the community's production activities and activities, the resulting output increases, and the income received increases.

The amount of income is directly proportional to public consumption because the greater the income received, the greater the money spent on consumption. And saving by increasing income is by Keynes's theory, namely the Absolute Income Hypothesis theory, which explains that the size of average consumption or APC will decrease when income increases. The high domestic saving ratio encourages the level of intermediation in the financial sector. The positive impact of the domestic saving ratio has been responded well to financial deepening. This is because this domestic ratio will be used as an alternative resource in the economy. Therefore, the higher the domestic saving ratio, the deeper the financial sector will be and reflect the domestic economy's stability because one of these economic growths is supported by financial sector stability.

Based on the results of the empirical estimate of the Error Correction Model (ECM). This shows that in the short term, the ratio of the amount of money has a positive response while stating that the ratio of the amount of money in (Total Money Supply) has a positive and significant effect, the results of the study with ECM are brief. The term is following the hypothesis. And in the long term, the variable ratio of the sum insured (Total Money Supply) gets a positive response so that the long-term ECM research results follow the hypothesis.

According to the Error Correction Model (ECM) estimation results, the bank credit ratio variable empirically shows that the credit ratio charged in the short term has a positive and significant response so that it is following the hypothesis. Whereas in the long term, the bank credit ratio has a negative and insignificant response; it does not follow the hypothesis in the long term. Furthermore, the domestic saving ratio variable, both short and long term has a positive response; the study results follow the hypothesis.

5 Conclusion

The discussion results have been described in the form of test estimates using the Error Correction Model (ECM) regarding the effect of financial deepening on economic growth in Indonesia. In this study, Financial Deepening is in the financial sector, which is proxied by the ratio of the money supply, bank credit ratio, and the ratio of domestic savings. The money supply ratio (M2) variable is the variable used as a proxy for financial deepening. In short and long-term testing, the money supply ratio (M2) has a negative and insignificant effect. Positive, which means that an increase in the ratio of the amount of money in circulation in the community can reduce economic growth. The bank credit ratio variable, in the short term ECM test, bank credit has a positive and significant effect. In contrast, in the long term, the bank credit ratio has a negative and insignificant effect on economic growth in Indonesia. The domestic saving ratio variable, using ECM both in the short and long term, has a positive and significant effect on economic growth in Indonesia.

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Communication and Information Technology in Encouraging Economic Growth

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Abstract : The purpose of this research is to understand the role of communication and information technology in economic growth using the Threshold Autoregression model in the study period 1990 to 2019. We found that the development of information and communication technology reflected in the inclusion of internet technology has a positive relationship with economic growth so that it can it is said that communication and information technology can encourage economic growth.

Keywords: VECM, Microfinance, Education, Poverty

JEL Classification : A2,M12,M2

1 INTRODUCTION

The digital era that is felt in the 21st century is an era that may not have been imagined in the previous century. However, the development of digital technology began in 1990. Where the internet was first discovered and developed (Petrick, 2015).

The increasing number of internet users shows the inclusion of a more established technology. The development of the internet has become a technological innovation in the field of information and communication, which has become a very fast technological innovation in terms of its development. Technological innovation and employment are a complex collection of interdependent economic elements that have become central questions in economic theoretical debates (Vicini, 2016). It is feared that technological innovation will cause mass unemployment. Technological innovation is needed for the efficiency of production costs without reducing the quality of goods and services produced because technology increases labour productivity so that technological innovation is driven by economic efficiency motives (Colombo, et al, 2011). This economic efficiency motive causes the need for labour to decrease due to technological factors. This is what then becomes a separate concern among the community. However, it turns out that this technology is not merely an obstacle for workers to access employment opportunities but technological innovation creates jobs and new types of work to compensate for the reduced need for labour affected by technological innovation (Gordon, 2013).

Economic growth is an economic element that is clearly driven by the development of internet-based information technology. The increasingly massive development of information technology strengthens the influence of communication and coordination so that new opportunities emerge such as internet-based companies (Li, et al., 2019).

Information and communication technology cannot be separated from the transfer of information which is the fundamental thing of publication (Jarvis & Watts, 2012). Publications here are not only about books and media or magazines but the delivery of marketing information that increases sales as well as information and work coordination that is not limited by roar and time and online meetings are information transfer and communication and coordination.

2 LITERATURE REVIEW

Economic growth is a reflection of the productivity of a society in a country because it is a collection of production produced by a country or region. Production is a human effort in generating economic benefits to achieving prosperity. In producing production, it will be more efficient to work together for that the role of communication and information technology is important in encouraging production which in turn drives economic growth (Kanth, 2016).

The purpose of production is to obtain general economic benefits in order to achieve prosperity (Barnes, 2012). That is why humans work to make a profit because of the welfare motive. Achieving prosperity is the main goal of each individual in carrying out economic motives. However, it seems that economic motives are not the only ones that have an important role in the welfare of an individual. Such as political disturbances that cause economic conditions to become sluggish, for example, the Trade War between the US and China which originated from political appetite has an impact on the economies of countries in the world.

Public distrust of the government apparently plays a role in the process of strengthening or weakening the economy (Cooper, 2018). This proves that communication and information transfer affect the level of productivity of society. Public distrust of the government is shown by the massive demonstration and destruction of public facilities and infrastructure, making investors who will enter will think again about investing because these conditions are considered conditions that are not conducive to their business. Things like that happen because of the communication and coordination factors. Talking about the process of achieving community welfare, where the process also creates social conflict. For example, land disputes, illegal business, corruption and so on. So that the motive for achieving prosperity actually has a complex dimension. Here the need for communication and coordination factors to reach agreement and general economic benefits that can be shared.

One of the steps to achieve social welfare is by working (Aspalter, 2014). Working more is defined by doing something productive that can produce value-added for both himself and the environment in which he works. Working in a social context is more defined as an act to earn profits or wages that can be used to meet their primary, secondary and tertiary needs. When many people need land to work, that is where they have to prepare whatever is needed to work and get wages.

The role of technology is to facilitate human work, which means that humans will be more productive with technology (Hendry, 2015). The absorption of technology in society will have an impact on the growth and development of productivity, which in turn will stimulate general economic growth.

The invention of the Internet in 1990, is the forerunner of the digital era in the 21st century. The Internet makes people connected and collaborates with each other and accelerates the transfer of information including new knowledge and technology. Internet technology changes many things in this world (Kettemann, 2020).

Internet technology has given birth to new types of businesses and new jobs such as online shops, company websites, social media and so on. The internet provides many new opportunities such as easy access to information and economic transactions (Paiola & Gebauer, 2020).

The internet encourages technological innovation which in turn creates new types of jobs from the results of these innovations. Bircan & Gençler's (2015) study of the world's 500 largest companies, found that the spread of innovation-based human resources will be accelerated by the emergence of new business fields, knowledge, skills, and expansion of high value-added production. Technological innovation has the potential to create new jobs based on technology with high added value. New jobs and can create new opportunities.

3 RESEARCH OBJECTIVE AND METHODOLOGY

The research method used in this research is descriptive statistical method using the Threshold Autoregression model which is an Auto regression model using regression thresholds so that it is possible to observe the behavior or behavior of the data movement between variables.

4 RESULTS AND DISCUSSION

The inclusion of technology in the world, especially internet technology, has changed the world economy from faster economic transactions. The development of the type and variety of work to work that is not limited by place and increased human productivity. Inclusion of technology has an impact on production output which is aggregately reflected in economic growth. The following are the estimation results of the Threshold Autoregression:

PERTUMBUHAN_EKONOMI (Economic Growth) = 3.05681601185e+13 + 2.5069746797e+13*@LOGIT(1.33600123857e-12*(PERTUMBUHAN_EKONOMI(-6)-3.29853016616e+13)) + 67.8172291305*INTERNET_USER

With forecasting results as follows:

Figure 1. Economic Growth Forecasting

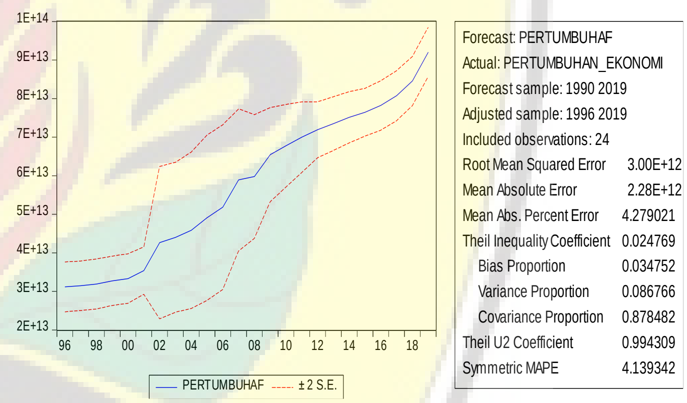
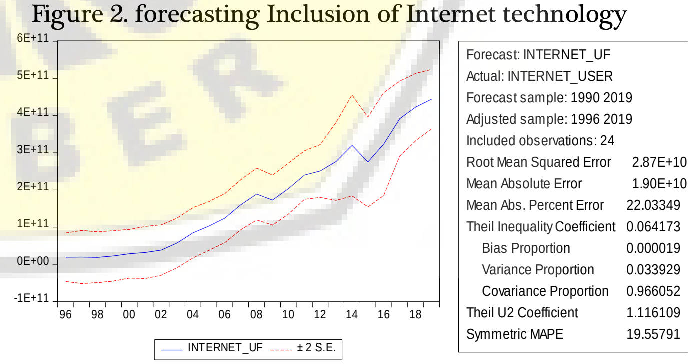


Figure 2. forecasting Inclusion of Internet technology



From the estimation results, it can be seen that the correlation between economic growth and internet users or technology inclusion is positive, which means that the higher the level of technology inclusion, the higher the economic growth.

5 CONCLUSION

Technological inclusion is something that naturally continues to increase along with the absorption of technology and information around the world. With increased inclusion, technology encourages economic growth

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Marketing Communication and Performance of Sharia Hotels in Indonesia

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Abstract : This study observes marketing communications for Islamic hotels in Indonesia through content analysis methods from various trusted media such as magazines, newspapers and brochures and hotel advertisements coupled with annual financial reports published or reported to financial service authorities of all sharia hotels or those applying registered sharia principles. in the Indonesian stock exchange from 2000 to 2020. Triangulated with descriptive analysis of the vector error correction model. We find a positive relationship between human capital investment in the field of marketing communication skills and the performance of Islamic hotels.

Keywords: Human Resources, Sharia Hospitality Marketing Communication

JEL Classification : C10,M12,M2

1 INTRODUCTION

Islamic hotels are identified with Muslim-friendly hotels and apply Islamic principles in their management. Of course, this requires marketing communication that can convey the intent and objectives of the Islamic hotel organization in a good marketing communication package (Shen, et al., 2020; Ananta, et al., 2015).

Good communication skills are certainly needed in reducing the risk of miscommunication. In theory, in human capital theory, employee skills including communication skills have an impact on performance (Doppelt, 2019; Brown, 2020).

This study examines the marketing communication skills of employees of Islamic hotels in Indonesia through trusted print and online media to be analyzed objectively and systematically in order to understand the capabilities of Islamic hotels which are the object of research in marketing communication.

Communication skills are one of the elements of skills from the point of view of human capital that can be improved through training and education mechanisms. In human capital, there are five basic elements that are integrated into humans, namely knowledge, skills, health, innovation and creativity. These five elements need to be supported by work equipment, organizational structural capital and work protection, including social security and health (Psacharopoulos, 2015; Konara & Wei, 2019).

In increasing human capital, it does not only pay attention to the human capital contained in each individual but also social capital that supports each individual in completing his work. Language skills are a determining factor in building and developing social capital. Social capital is a working relationship and personal relationship in a group of individuals in the ability to support each other and help in solving work and problems at hand.

The human capital theory explains the human potential outwardly in making contributions that can be valued economically. The concept of human capital is a combination of psychological and economic concepts. In providing the best contribution to the organization in the form of performance, human capital with the elements in it can be developed and improved through training and education mechanisms as well as equipment and technology support in improving individual performance in the organization (Sankaran, et al., 2020; Binhong, 2015).

Human resources in the form of knowledge and skills inherent in individuals so that physical and psychological health factors need to be considered. Because physical and psychological health affects individual performance in making the best contribution to the organization (Jones & Spender, 2012; Marve, 2020).

Effective communication in the workplace is essential for good organizational performance. Managers with good communication skills can convey their ideas clearly so that subordinates understand what is needed from themselves and can make a positive contribution to the organization. Conversely, lack of communication can lead to employee frustration, lower productivity, absenteeism, and increased employee turnover rates (Goel, 2012).

To be effective, communication must be a two-way process. More than simply keeping employees informed of the latest business developments, communication should be a step-by-step process that involves exchanging information between two or more parts at all levels of the organization. In addition, it should include behavioural patterns, including body language and facial expressions, rather than simple word exchanges (Maccoy, 2014). There are several other factors that influence employee performance, including management style, organizational culture, and social relationships, but creating effective communication channels is the most cost-effective way to increase productivity.

Under democratic leadership, organizational members are required and allowed to participate in strategic decision making to facilitate business processes towards achieving organizational goals. In addition, employees share organizational responsibilities and voice their opinions on issues related to organizational flexibility. In doing so, not only are they committed to the organization, but they also keep their morale high, feeling that they are contributing positively to the organization's performance. On the other hand, under authoritative leadership, active listening is not facilitated. By blocking open communication and being critical of employee feedback, authoritative leaders disapprove of creative collaboration. Organization members cannot interact openly with their leaders and are not encouraged to point out possible leadership weaknesses. As a result, they are unable to improve their understanding of the drivers behind business practices and decisions (Kiril, 2014).

From a managerial perspective, open communication is invaluable because leaders gain insight into employee commitment, ensure a creative organizational climate, and foster equality. In today's competitive market reality, team structures are highly preferred for improving organizational performance. By empowering employees to take responsibility and engage in a broader scheme, teamwork increases employee engagement which reflects a shift from individuality to collectivity (Rubenzer, 2014). Echoing the interdependent interactions of various individuals to achieve organizational goals, teamwork includes shared commitment and accountability. The same mission, common vision, clear roles and functions, complementary skills, balanced efforts, synergy and common responsibility are the basic attributes of a team, which facilitate team effectiveness.

2 LITERATURE REVIEW

Every organization is a social system in which different individuals with unique characteristics are called upon to work together to fulfil a common vision. By establishing feedback mechanisms, managers can monitor results; making strategic adjustments to anticipate changing market realities, and devise new strategies to promote their vision. In addition, they achieve organizational alignment by optimizing the maximum use of resources for organizational development and greater success. Managers look for ways to increase employee morale through the creation of a supportive work environment that encourages stress reduction and effective decision making. By improving the work environment, employee performance will increase because employees feel free to voice their opinions and become more productive. In addition, they feel more important because they are well informed about company developments, organizational policies, company goals, but most importantly how all these changes might affect them and their future in the organization (Smither, et al., 2016).

Because employees know how to do their job, productivity is increased and organizational efficiency is improved. Moreover, in learning organizations where communication channels are open, knowledge is spread and ideas are exchanged to improve procedures and methods of operation. Therefore, operations management is effective, maximizes quality and productivity.

Effective communication builds good interpersonal and working relationships and facilitates collaboration. Conversely, ineffective communication can have a negative impact on business relationships, employee performance, and organizational efficiency. Language skills are part of communication skills. The increasing organizational performance will ultimately improve financial performance. Building effective working relationships with every employee takes time and effort. The best managers make sure every employee feels connected and valued. Competent managers personalize their efforts to communicate with employees, recognize employee strengths, and support their development (Daniel, 2018).

Communication skills can be used in various areas of business within the Islamic hotel industry including marketing communications. Marketing Communication refers to the way adopted by companies to convey messages about the products and brands they sell, either directly or indirectly to customers with the intention of persuading them to buy in the hotel industry is to persuade guests from all over the world to stay at the hotel. Of course, making marketing communications for international guests requires good English skills.

Islamic hotels not only focus on the domestic market but can also be comfortable hotel for anyone around the world. To convey this message, English skills are needed as one of the international languages commonly used throughout the world as the language of marketing communication. The hotel identifies itself as a Muslim friendly hotel and adheres to Islamic principles in conducting its business. This of course has an effect on employee psychology. Employee psychology has a major influence on the success of human capital investment to boost organizational financial performance (Stephenson, 2014; Salleh, et al., 2019).

3 RESEARCH OBJECTIVE AND METHODOLOGY

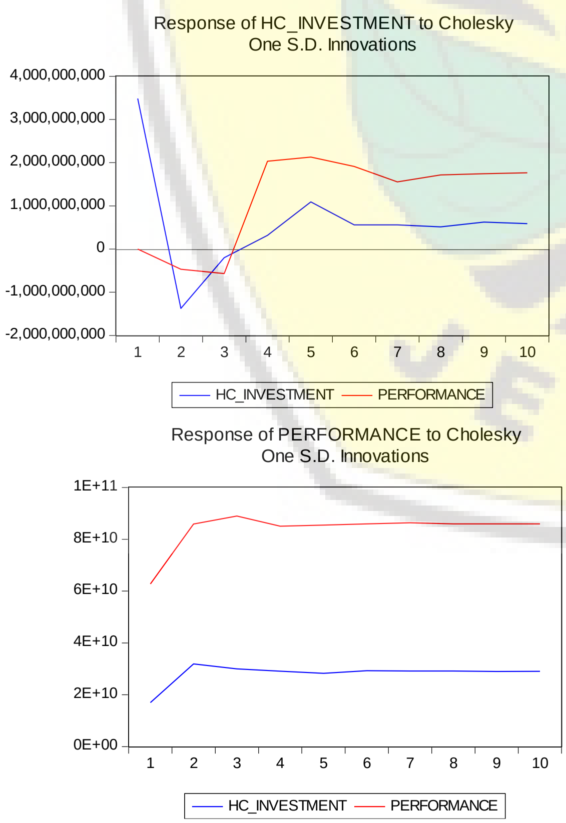
In this study, we used a combination of qualitative and quantitative research methods. We use the qualitative method of content analysis, which is a research method to identify patterns in the literature that can be trusted by using the critical reading analysis method. In analyzing content, we use hundreds of annual reports from all

Islamic hotels listed on the Indonesia Stock Exchange and from trusted media as well as literature studies from books and scientific journals from 2000 to 2020. This is done to systematically analyze the contents of an association. text, whether written, spoken, or visual that was collected during the study period. This study combines qualitative content analysis from a collection of written, oral and visual texts to conclude with quantitative content analysis using secondary data collected during the study period which is estimated using the Vector Error Correction Model to see the relationship between human capital investment and financial performance. in the hospitality industry in Indonesia.

4 Results and Discussion

From the results of research and observations in the research period from 2000 to 2020 in Islamic hotels throughout Indonesia using the random sampling method in selecting samples with great care and respect for the privacy of the object of research. We conclude that the ability and skills of employees' English and communication can improve the performance of Islamic hotels in Indonesia. To anticipate that human capital will have an impact on the performance of Islamic hotels in Indonesia, triangulation is carried out using quantitative methods using a vector error correction model which is presented in the following graphic form:

Figure 1. Response Impulse Factor



From the VECM estimation results presented in graphical form, it can be seen that there are behavioural data between human capital investment and financial performance that influence each other with patterned flows where patterned flows are influenced by other factors outside of human capital investment. So it can be concluded that communication skills that are part of Human Capital can affect the performance of Islamic hotels. Where investment in the form of increased skills and employee education has a direct impact on the performance of Islamic hotels.

5 Conclusion

Employee communication skills are capital assets owned by employees that can be used to improve the performance of Islamic hotels in Indonesia. This is triangulated by analyzing the results of testing marketing communication skills which can be observed openly in hotel marketing media having an impact on hotel performance using the content analysis method or content analysis using the critical reading analysis method which is then triangulated again using a quantitative approach vector error correction model that provides the same conclusion.

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Impact of Macro Economy on Financial Stability in Malaysia

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Abstract : Uncertain macroeconomic conditions can affect the level of non-performing credit risk at banks. The effect of macroeconomic conditions on NPLs has a different response for each economic sector. The main objective of this study is to determine the effect of macroeconomic factors (inflation, exchange rates, and interest rates) and bank-specific factors (credit) on Rural Bank Non-Performing Loans (NPLs) in Malaysia for the period 2015 to 2018. This study uses the Vector Error Correction Model (VECM) to determine the effect of independent variables consisting of macroeconomic factors and bank-specific factors. Based on the VECM estimation results, three variables that have a positive and significant effect on long-term NPL are credit, inflation, and interest rates. Meanwhile, in the short term, there are only two variables that have a positive and significant effect on NPL, namely credit and interest rates. Inflation and exchange rate variables have a negative and insignificant effect on NPL in the short term.

Keywords: Rural Banks, Macroeconomic Indicators, NPLs, Financial System Stability, VECM

JEL Classification : C10,M12,M2

1 INTRODUCTION

Several factors that affect financial system stability, in theory, are capital flows, exchange rates, interest rates, inflation, the ratio of non-performing loans (Non-Performing Loans), and others. The ratio of non-performing loans (NPL) to total credit, commonly known as the ratio of NPL to total credit, is the ratio between the number of loans classified as substandard, doubtful, and non-performing, to total credit (Lehner, 2016).

In line with the increase in the amount of credit to microfinance institutions (Rural Bank), there are indications that financial risk will also increase. Thus, it turns out that this increase is still not effective in resolving economic problems, especially its effect on financial system stability, so this study was conducted to determine the level of financial risk in Malaysia and the effect of credit from microfinance institutions, as well as the influence of several macroeconomic variables, namely inflation, interest rates, and value exchange rate against credit risk (NPL). Macroeconomic variables are taken because macroeconomic indicators can affect bank liquidity so that they become one of the determining factors for the level of bad credit (Cornock, 2018).

Macroprudential and macroprudential can act as indicators of financial system stability (Dombret & Lucius, 2013). Macroprudential indicators include capital flows, exchange rates, interest rates, and the ratio of bad loans. Meanwhile, according to Akerlof's 1970 research in Ramlall (2018), financial system stability rests on three pillars, namely information asymmetry, adverse selection, and moral hazard. The three pillars are traditional factors that cause bad credit. The existing theoretical gaps are caused by differences in the assumptions used in the study.

2 LITERATURE REVIEW

Microfinance is a financial service for low-income groups of people that includes credit, savings, installment, payment, and money transfer services. In general, microfinance services are aimed at low-income groups of people (Schmidt, et al., 2016).

Microfinance institutions help low-income people access financial services. Where low-income people generally cannot access banking services. Microfinance institutions generally operate with easier and simpler terms than services provided by banks because they are intended for people who have not been able to access banking services, small companies, or micro-companies that do not have banking access or cannot access banking services are also included in the target. microfinance services that aim to help micro enterprises develop and succeed in managing and developing their businesses through microfinance services. Micro companies certainly need capital services. However, because banks have not been able to serve micro-businesses, microfinance services have become an alternative financial service that can help micro businesses to obtain capital services and other financial services.

According to Keynes in Cammarosano (2016), he explains that money is a form of wealth that a person has. In this study, the authors emphasize the speculative motive as a derivative of Keynes' grand theory of money demand. Keynes differs from the classics in his emphasis on speculative motives and the role of the interest rate in determining the demand for money for speculative purposes.

The theory of bank behavior is a derivative of Keynes's theory of money demand. The theory of bank behavior states that human interactions determine the interest rate in banks. Public behavior in using banking products can cause banks to become more or less liquid so that every banking product offered has risks. This risk will be detrimental to all aspects involved. Moreover, it will disrupt financial system stability. The theory of bank behavior is a derivative of Keynes' money demand theory with speculative motives (Fontana & Setterfield, 2016). An increase in interest rates will worsen the quality of the loan, the higher the cost of debt, the more difficult it will be for debtors to repay the loan. In addition, high-interest rates are an alternative that has the potential to harm debtors (Bofondi, et al., 2011).

Inflation is a macroeconomic factor that affects the efficiency of banking activities. Inflation lowers the value of money, which reduces the general rate of return. The decline in capital investment has a negative impact on economic performance. The inflation rate is an indicator that is often used to measure the stability of the prices of goods and services. Inflation is defined as a continuous increase in the general price level over a certain period. According to Mankiw (2013), currency exchange rates are the exchange rates of currencies against other currencies in international trade. NPL theory related to bank stability rests on three pillars: (i) information asymmetry, (ii) adverse selection, and (iii)) moral hazard theory. The theory mentions the traditional causes of bad credit loans which translate into banking system instability (Scardovi, 2015).

The definition of credit is the provision of money or an equivalent bill, based on a loan agreement or agreement between the lender and the borrower, which requires the borrower to pay off his debt after a certain period of time with interest (Green, 2016). According to several types of literature, excessive credit growth is often associated as a key factor causing crises in the financial sector, particularly in developing countries. The major banking crisis in the last 30 years that occurred in Chile in 1982 (Oberfield, 2013), Denmark, Finland, Norway, and Sweden was called The Nordic Banking Crisis occurred in the early 1990s (Schweiger, 2014), the Mexican crisis in 1994 (Sosa & Ortiz, 2015), the Asian financial crisis in 1997 (Joe & Oh, 2018) and the subprime mortgage credit crisis in the United States that occurred in 2008 (Flavin & Sheenan, 2015) and the European debt crisis that occurred in 2010 - 2013 (Keddad & Schalck, 2020) also began with a credit boom period.

3 RESEARCH OBJECTIVE AND METHODOLOGY

Based on the research objectives, namely to determine the effect of bank-specific factors (credit) for Rural Banks and macroeconomic variables (inflation, interest rates, exchange rates) on Non-Performing Loans without ensuring the existence of cause and effect in Malaysia, the type of data used in this study is secondary data in the form of time series data with the period 2015 January to 2018 in December with all Rural Banks in Malaysia as objects. Then the data is analyzed to determine the effect between variables using the Vector Error Correction Model (VECM). This type of research is a type of quantitative research because this study aims to find results in the form of data in the form of numbers which are used as a means of analyzing information about what you want to know.

The model specification used is the VAR method adopted from the research of Sigh and Sudana (2017). Sigh and Sudana (2017) in their research include the variable Non-Performing Loan (NPL), credit, bank size, ROA, IRL, and CAR as proxies of bank-specific factors. And using the variables GDP, exchange rates, inflation, and interest rates as proxies of macroeconomic variables. Sigh and Sudana (2017) consider that this model can explore the relationship between direct aspects and models that are relevant for the analysis of the effect of macroeconomic variables and bank-specific factors on Non-Performing Loans (NPL). The models used in Sigh and Sudana (2017) are as follows:

$$NPL = \beta 0 + \beta 1GDP1 + \beta 2\ INF2 + \beta 3\ EX3 + \beta 4\ Bank\ Size4 + \beta 5\ ROA5 + \beta 6\ CAR6 + \beta 7IRL7 + e$$

Specifically, the above equation is formed in the econometric model as follows:

$$NPL = \beta 0 + \beta 1\ CDR1 + \beta 2\ INF2 + \beta 3\ NTR3 + \beta 4SBA4 + e$$

Where:
NPL = Non Performing Loan
CDR1 = Credit growth of microfinance institutions
INF2 = Inflation rate
NTR3 = Exchange rate
SBA4 = Interest rate
ui = Error rate
$\beta 0$ = Parameter constant / Intercept
$\beta 1$, $\beta 2$, $\beta 3$, = The coefficient of the independent variable is x1, x2, x3

4 RESULTS AND DISCUSSION

The unit root test results as shown in the table below show that all the variables to be estimated are: NPL, credit, inflation, exchange rates, and interest rates are not stationary. Whereas in the unit root test at the first different level, all the variables to be estimated do not contain unit roots so they are stationary. Following are the results of the stationarity test:

Table 1: Stationarity Test Results

	Level		First Different	
	Probability	Caption	Probability	Caption
NPL	0.2548	not stationary	0.0000	stationary
CDR	0.8247	not stationary	0.0000	stationary
INF	0.0000	stationary	0.0000	stationary
NTR	0.2548	not stationary	0.0000	stationary
SBA	0.0010	stationary	0.0000	stationary

Information: 5% probability

The selection of lag four as the optimal lag in this study is based on the use of the minimum Akaike Information Criteria (AIC) value of the variables estimated in the equation, namely Non Performing Loans (NPL), credit, inflation, exchange rates. and interest rates. The fourth lag was chosen because it produced a minimum Akaike Information Criteria (AIC) value, meaning that the model was able to explain the relationship between variables in this study

Table 2: Optimal Lag Test Results

Lag	LR	FRE	AIC
0	NA	1.99E+10	37.90345
1	324.5806	12205249	30.4982
2	28.75294	16651642	30.7633
3	41.7045	13192312	30.4102
4	43.06198	8094131	**29.6743***

Note: The asterisk and bold type indicate the smallest AIC value

VAR modeling is declared stable if in determining the optimum lag, all variables have a Modulus Roots of Characteristic Polynomial value that is smaller than one (Levendis, 2019). If the VAR system is unstable, the results obtained, such as IRF and VD, are invalid. After testing the stability of the VAR, the VECM can be estimated. In this study, the VAR model is stable; that is, the average modulus value of the variable is 0.896584, which is less than 1.

The results of the Johansen Cointegration Test show that the Trace Statistic value has a greater value than the Critical Value. So based on these four equations, the Vector Error Correction Model (VECM) model can be used in this study.

Table 3: Cointegration Test Results

	Eigenvalue	Trace Statistic	Critical Value	Probability
None*	0.759435	149.5263	69.81899	0.0000
At most 1*	0.580723	88.26137	47.8561	0.0000
At most 2*	0.529874	50.8847	29.7971	0.0001
At most 3*	0.347615	18.43027	15.4947	0.0175

Information: 5% probability

The test results indicate that credit causes NPL and vice versa NPL causes credit. Followed by interest rates cause inflation and vice versa inflation causes interest rates. Then the interest rate causes credit and credit to also generate interest rates because these variables have a probability value that is smaller than the Critical Value of 5% so that it is stated to have a causal relationship.

Table 4: Granger Causality Test Results

NPL	Credit	Inflation	Exchange rate	Interest Rates
-	0.0321*	0.0517**	0.1597**	0.7711**
0.3324**	-	0.6226**	0.5870**	0.0010*
0.0215*	0.6018**	-	0.8444**	0.3304**
0.9287**	0.6841**	0.6247**	-	0.0885**
0.2772**	0.0341*	0.7206**	0.5135**	-

Information: 5% probability

Note: * (has a causality relationship), ** (does not have a causality relationship)

Table5. Short Term VECM Estimation Results

Variable	Coefficient	T-statistics
Long-term		
D(CDR(-1))	0,00011	-4,70396
D(INF(-1))	0,39959	-5,93812
D(NTR(-1))	0,00026	-0,05960
D(SBA(-1))	0,16596	-0,240687
C	-0,048474	
Short-term		
CointEq1	0,20325	-4,36820
D(NPL(-1),2))	0,19307	-2,05044
D(NPL(-2),2))	0,24322	-3,22031
D(CDR(-1),2))	0,00017	0,99419
D(CDR(-2),2))	8,2E-05	1,21928
D(INF(-1),2))	0,32772	-4,99535
D(INF(-2),2))	0,38153	-5,57208
D(NTR(-1),2))	0,00013	-0,76731
D(NTR(-2),2))	0,00019	-0,47660
D(SBA(-1),2))	0,07707	-4,31502
D(SBA(-2),2))	0,09106	-1,15329
C	0,03106	-1,38357

In the short term, the credit variable has a significant effect on NPL. This result causes the credit growth of the Rural Bank to increase in the short term so that the NPL, which is an indicator of financial system stability, will increase. This means that the higher the NPL, the instability of the financial system or in other words, the financial system stability will be disrupted. The short-term variable inflation does not have a significant effect on the NPL level. This is known by looking at the T-statistics value of the inflation variable below the T-table value. This means that if there is an increase in the inflation rate in the short term it will not affect the NPL level. Another macroeconomic variable that does not affect the NPL rate is the exchange rate. In this study, the interest rate variable affects the NPL level. This happens because if the interest rate is raised, the debtor will not be able to pay the instalments that he borrowed, causing the NPL level to increase.

In this study, the regression test results state that there is a relationship between variable credit and variable NPL. In the long run, there is a relationship between inflation and NPL. Inflation and NPLs have a significant positive relationship in the long run. Inflation and NPL have a significant positive relationship in the long term of 0.39959. This means that if there is an increase in the exchange rate by one per cent, in the long term the NPL will increase by 0.39959 per cent. There is a positive relationship between interest rates and NPLs. Then, in the long run, the increase in the exchange rate does not have a significant effect on NPL.

In this study, it can be seen that exchange rate fluctuations are inversely proportional to the NPL level from 2015 to 2018. This is because other NPL variables such as credit, inflation, and interest rates in Malaysia have increased.

In this study, in the 2015 to 2018 period, there were various kinds of economic turmoil which caused credit figures, inflation, exchange rates and interest rates for non-performing loans (NPLs) to fluctuate. So far, there have been at least a number of macroeconomic symptoms affecting the Malaysian economy which can directly affect the banking sector, especially Rural Banks. Several monetary events that occurred in the 2015-1 to 2018-12 period were financial pressures and global political uncertainty related to the global economy. Based on this study, where macroeconomic indicators are measured using inflation, exchange rates, and interest rates, specific factors for rural banks are measured using credit growth, and NPL shows that there is a good long-term and short-term relationship.

Credit variable as an indicator of bank-specific factors which in this study is more devoted to microcredit, namely Rural Banks throughout Malaysia have a significant positive effect on NPL of Rural Bank. An increase in credit caused by public consumption, an increase in public income, or for the productive sector in micro-business development raises the risk of an increase in the level of NPL (bad credit) which will disrupt the stability of the financial system in Malaysia. the banking sector itself. The high credit growth of rural bank was also accompanied by high quality, where the NPL ratio was able to be maintained up to 0.3%. According to the Finance authority, this crisis did not really disrupt credit growth; However, credit at rural banks, rural banks, and conventional banks is experiencing a slowdown.

Furthermore, the inflation variable as a macroeconomic indicator has a significant effect on the NPL level. Because the increase in inflation means the increase and decrease in the price of goods are not stable during the study period 2015 to 2018.

Other macroeconomic variable indicators used in this study are exchange rate and interest rate variables. In this study, the exchange rate is detrimental to the NPL, which means that it does not have a significant effect on the NPL level. In 2018, when facing economic turmoil such as the US and China trade wars, the fall in world oil prices and the dispute between the United States and Russia, the rupiah exchange rate depreciated against the US dollar. This resulted in companies exporting abroad unable to handle the pressure generated if this crisis continued until the fourth quarter of 2018.

5 Conclusion

Test results for macroeconomic variables and bank specific factors for Non-Performing Loans (NPL) in Malaysia using VECM. Provides results that the NPL Variable provides a positive and significant response to credit increases in the short and long term. This means that high and low credit levels lead to high and low NPL levels.

The inflation variable used as a macroeconomic indicator has different effects on the level of NPL in the short and long term. In the short run, variable inflation is detrimental to the NPL level. This means that the increase in the inflation rate does not affect the NPL level. Meanwhile, in the long term, inflation has a positive and significant effect on the NPL level. That is, an increase in the inflation rate increases the NPL level. Inflation that increases this increase is caused by government policies to increase the price of goods which causes prices to also rise. Then this can affect people's purchasing power so that the business world weakens. Resulting in hampered credit.

The next macroeconomic variable is the exchange rate variable. The exchange rate has a negative and insignificant effect on NPL in the long and short term. This means that depreciation or exchange rate appreciation does not affect credit payments provided by Rural Banks / Non-Performing Credit Rates (NPLs) in the long or short term.

Interest rate variable has a positive and significant effect on the NPL level. This means that an increase in interest rates will also increase the level of long-term and short-term non-performing loans (NPL) in Malaysia.

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The Role of Education in Indonesia's Economic Development: Theoretical Perspective of Human Capital

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Abstract : The purpose of this study is to understand the role of education in Indonesia's economic development from a theoretical perspective of human capital. This study uses a descriptive quantitative method with a moving average auto regression model to see the relationship between education and health, technological development, poverty and GDP in Indonesia. We found that education plays a role in promoting economic, health, technological development and suppresses or is negatively related to poverty.

Keywords: Education, Poverty, GDP

JEL Classification : C10,J24,N10

1 Introduction

Indonesia is a very large country with millions of people living in it. Of course, the very large population of Indonesia needs to be managed properly and the quality of life and environment of all Indonesian people needs to be improved (Maxton-Lee, 2020). Education plays an important role in economic development (Nnadozie & Jerome, 2019). Education is a mechanism for developing human resources through increasing knowledge and human behaviour that is more productive and is an effort to increase human capital. Education increases labour productivity, alleviates poverty, develops technology, increases income. Education provides a foundation for economic development and social welfare (Psacharopoulos, 2014).

Education increases economic efficiency and social consistency. By increasing the value and efficiency of human labour. Helping alleviate poverty, increase the productivity of society as a whole and educate the community (Averett, et al., 2018). Education increases the competitiveness of a country with a world market that is wide open with changes in technology and fast production methods. Education plays a role in nation-building and interpersonal tolerance so as to build stronger social capital (David-Hadar, 2018).

2 LITERATURE REVIEW

Education is a major determinant of a country's standard of living by increasing the development and empowerment of people's skills and knowledge by providing the best educational services to all levels of society (Thomas, 2014). Education is one of the human capital investment mechanisms and plays a very important role in economic development (Min & Zhu, 2019). Unequal education tends to have a negative impact on welfare and social justice because it will create social distancing and income inequality or increase the gap in economic inequality. The impact of economic inequality in society creates an increase in crime which has a negative impact on the economy as a whole in a country. Education makes a major contribution to technological development and industrial technical changes that have an impact on economic efficiency and increase production output so as to drive GDP as a whole (Presenza & Sheehan, 2017).

Education has the potential to reduce economic inequality, help alleviate poverty and encourage community participation in the economy thereby increasing per capita income (Samuels, 2017). Education for groups of people who are at the poverty line can encourage them to make better and healthier life decisions, in the end, push them out of poverty by increasing income and increasing economic productivity. There is a positive relationship between health and education where both are important elements in human capital. Education has the potential to cut the cycle of poverty and improve the welfare of the poor and improve the quality of life of the community (Samani & Marinova, 2020). Equitable education is an important thing that cannot be ignored because the equal distribution of education is one of the efforts in economic equality which in turn improves social welfare (Yu, 2014). Education is very important in economic development. Economic development is very dependent on the quality of education. A good education system not only promotes economic development, but community productivity, and increases the per capita income of the community so that the quality of life of the community is economically and socially better and increases (Erçetin, et al., 2019).

3 Research Objective and Methodology

The method used in explaining the effect of This study uses a descriptive quantitative method with a moving average auto regression model with an econometric model as follows:

$$Y_t = \beta_1 E_t + \beta_2 T_t + \beta_3 H_t + \beta_4 P_t + e$$

Where
Y = GDP
E = Education
T = Technology
H = Health
P = Poverty

The research period starts from 2007 to 2019 in Indonesia

4 Results and Discussion

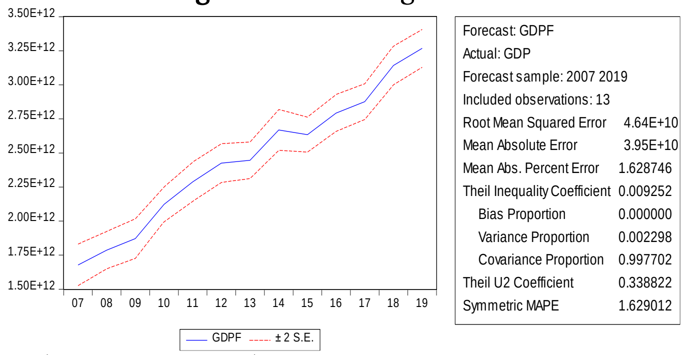
This section will explain the results of the descriptive The estimation results of the autoregressive moving average:
GDP = 14.9395698386*Technology - 36394.7112561*Poverty + 1116090629.8* Health + 8335238501.11*Education + 2.07206279216e+12
With the estimation table as follows :

Table 1. Esimation Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Technology	14.93957	9.621891	1.552665	0.1591
Poverty	-36394.71	14108.67	-2.579599	0.0326
Health	1.12E+09	1.36E+09	0.818375	0.4368
Education	8.34E+09	3.23E+09	2.583746	0.0324
C	2.07E+12	6.00E+11	3.453438	0.0087
R-squared	0.990849	Mean dependent var	2.46E+12	
Adjusted R-squared	0.986274	S.D. dependent var	5.05E+11	
S.E. of regression	5.92E+10	Akaike info criterion	52.72912	
Sum squared resid	2.80E+22	Schwarz criterion	52.94641	
Log likelihood	-337.7393	Hannan-Quinn criter.	52.68446	
F-statistic	216.5659	Durbin-Watson stat	2.321188	
Prob(F-statistic)	0			

Based on the estimation results, the direction of the relationship between technological innovation, Health and Education are positive with GDP, which means that these three elements are the driving elements of the economy. Where the direction of the Poverty relationship is negative, which means that GDP can reduce the Poverty number. Forecasting is presented to predict the impact and role of Education on GDP.

Figure 1. Forecasting Result



Increasing education in Indonesia is followed by economic growth that continues to grow and develop. This shows that education plays a very important role in the Indonesian economy.

5 Conclusion

Education plays a very important role in the development of the Indonesian economy. Where Education is an element in human capacity in developing knowledge and understanding of new information and productive and good behaviour. So it can be said that education is the basis or foundation of human capital.

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Increasing the Resilience of Students in Educational and Economic Inequalities from a Psychological and Human Capital Point of View

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Abstract : The ability of students to successfully face the typical daily challenges of college life. This study investigates the distinguishing features of student resilience in Indonesia. This study investigates the concept of student resilience and resilience to help understand the decision to stay in college / leave college early, against a background of persistent differences in the level of completion of lectures between people. young people from fortunate and disadvantaged backgrounds in Indonesia. A mixed method approach was used in this study. The ethnographic method was used in two case study colleges consisting of 50 students. Passionate students demonstrate an extraordinary ability to examine their own experiences and compare them with others in society. This research questionnaire allows students to reflect on their resilience or resilience and is given to 571 students in Indonesia with a random sampling system from two different groups, the first group from disadvantaged economies and the second group from the economically disadvantaged group. The data obtained from this questionnaire shows that the results of the in-depth interviews with the 50 students are valid or in accordance with the results of the questionnaire as triangulation, and display some qualifying predictive validity. Students who scored significantly higher on the Belief, Planning, and Persistence measures have the potential to continue their studies to the end despite their economic constraints. The results of the study concluded that increasing student endurance or fortitude was by encouraging the best student competencies according to their talents and interests without negatively labelling deficiencies in both academic and non-academic deficiencies. It takes the attention and support of the lecturer as the closest mentor, especially students who live outside the city or abroad.

Keywords: Human Resource Development, Human Capital, Education, Psychological Factors

JEL Classification : C10,J24,N10

1 INTRODUCTION

Social class or socioeconomic inequality remains a feature of education systems around the world. In thinking about and researching such inequalities, it is common to look at the focus on the "risk" factors associated with low educational attainment. For example, there is a reference to high school students who are "at-risk" of leaving College early reference such as risk are also often found in the academic literature on early leave from college (Meloche, et al., 2020). The words "risk" and "loss of education" are often used interchangeably. Factors correlating with low educational attainment are often used as a way of identifying "at-risk" students so that these students can be targeted through initiatives (such as additional resources or alternative curricula). For example, students are identified as being at risk if they experience a number of different conditions, including living in a very poor community, have unemployed parents, or are in a family receiving state assistance with respect to medical care. Additional resources are then provided for lectures that educate such "at-risk" students (Halpern-Manners, et al., 2020).

The concept of "risk" is based on an epidemiological model borrowed from health science. In the health sciences, however, there has long been an attempt to rethink the notion of risk with reference to its equivalent - resilience. The concept of resilience originated from the psychological study of schizophrenia. It should be noted that schizophrenics, who are able to maintain a working life and other relationships before suffering from the disease, tend to suffer from the mildest forms of the disease (Meesters, 2014). This suggests the need to focus on factors that help isolate and protect those at risk. The more positive repositioning of the research agenda also resulted in other studies of social phenomena including relatively low educational attainment. Related to the concept of resilience is 'academic buoyancy' which is defined as the ability of students to navigate and withstand the daily stresses and challenges of college life (Creaven, et al, 2020).

Education can be linked to social contexts and other factors outside of students; however, there is also evidence that personality type factors can play a role in endurance. High self-esteem and autonomy are markers of resilience. However, such personality factors should not be considered only as innate to learners. Lectures can help students to develop interpersonal skills and dispositions that will help their endurance. The foundation for inculcating endurance and fortitude in education focuses on supporting autonomy by helping students become responsible for achieving high expectations, promoting high student self-esteem, and developing interpersonal skills for building healthy interpersonal relationships through methods such as cooperative learning which consists of " confidence "(self-efficacy)," coordination "(planning)," control "," calmness "(low anxiety), and" commitment "(persistence). This disposition has been found to be related to the lecture process, as well as general self-esteem (Boyle & Scanlon, 2018). The personality model is five factors (Murphy, et al., 2021) and, as such, can be assessed through an inventory of personality styles. Such inventories can be useful when their primary focus is to encourage lecturers and students to think about their approaches to teaching and learning.

The aim of this study was to develop an understanding of students' resilience processes in the face of economic and non-economic inequality and to develop an inventory of resilience factors that would meet the basic criteria for reliability and psychometric validity and be used instead. to label or "diagnose" students as "at-risk" but rather to help lecturers and students to reflect on and develop skills and dispositions related to students' endurance in self-development in educational mechanisms.

2 Method and Result

A two-stage mixed-methods approach was used to answer the research question: whether there are identifiable distinguishing features of academic buoyancy in sophomore students in the Indonesian context, and whether the concept of buoyancy can help to understand the decisions made. by young people to stay in college or leave College early. The first stage of data collection was carried out using a qualitative approach, the results of which were continued to the second stage - which used quantitative methods.

2.1 Phase One

The first stage of data collection consisted of two case studies. The two case studies track the progress of different second-grade (third-semester students) and first-degree (new-semester or first-semester students) class groups over a three-month period. The second level of the college experience for students consists of a one-semester cycle, culminating in a final semester exam. The first case study tracks the cohort (C1) in the last year of the cycle, and the second case study tracks the cohort (C2) in the first year of the program. Interviews or deep interviews are conducted with students who do not intend to continue their education at the third level, or for students whose needs, aspirations and talents are not fulfilled by the existing educational series at the university. The number of students observed was n = 50 (n = 20 in C1, n = 30 in C2). This study aims to understand the strong reasons for the students to leave the university and the fighting power of the students to continue their studies. Ethnographic methods were used in case studies. To facilitate this approach, approval was obtained from the chancellor, lecturers, and students concerned about maintaining the confidentiality of students' privacy data. All individuals concerned are free to refuse consent prior to data collection, as well as to withdraw their consent before data collection is complete. Higher education staff assist researchers in providing background information on the academic history of students who are involved in research, as well as assessing the likelihood of students completing the lecture. Classroom observations were carried out by one of the members of the research team, who joined the class group during the study period, and who documented the students' daily experiences. To support observations, an FGD or focus group discussion is also used with students who agree to make this commitment. Students and researchers agreed on the location and duration of these focus groups which were held during regular teaching and learning hours in all cases. Focus groups serve to clarify the researcher's understanding of context and to allow a narrative platform for students to interpret their experiences.

The emerging results of the two object groups of the study showed a significant difference between the students who were likely to complete the lecture and those who were unlikely. The most striking difference relates to the higher level of involvement shown by students who were rated as likely to complete the course relative to those who were judged unlikely to do so. This involvement manifests in several different ways. College students are more likely to complete homework, report that they study long after college, and show more adherence to the behavioural requirements of their lecturers in class. It should be emphasized that no student in any case study is universally involved in all subjects.

The process by which engagement appears is very nuanced and is largely mediated by the degree to which students value particular subjects and how useful they are at predicting those subjects in their future lives (with the greater degree of involvement shown in the classroom apparently relevant), but also by other factors such as how “easy” students interpret this as (easier subjects indicate higher involvement), and how much homework and classwork are assigned to students (classes with less homework show a higher level of engagement). The second important finding was that students who were viewed by professors as unlikely to leave articulated that although they may not always "enjoy" or "appreciate" lectures, they are aware of its importance in terms of their future life opportunities and regardless of their own desire to do the opposite at times, they should "play the game" of College, to maximize their chances of success later on. Even though they are not valued by them, they are able to place their perspectives differ from the perspectives of others in society, a kind of social metacognition that is not different from those predicted. On the other hand, those who seemed unlikely to finish College did not show a desire to "play games" or have fun outside of class.

2.2 Phase Two

In addition to the differences in experience reported above, a number of different competencies were demonstrated by students who were likely to finish college. They share a sense of calm and confidence with respect to their prospects for successful completion of college. They believe that they are in control of their success and that it is a function of their ongoing efforts and planning. Guided by these competencies, the existing literature on academic resilience and leverage is examined, and the most relevant of which is the discourse on academic leverage. This competency is the basis for the second stage of research, namely the design and validity of an instrument to help students and lecturers reflect on these competencies. The student's leveraging power instrument. The instrument was developed through a process of "Self-Efficacy", "Planfulness", "Anxiety", "Industry" and "Locus of Control". Development was carried out by ensuring ethical suitability for use by students, and the readability of the instruments was assessed in a two-stage trial. The first pilot was completed by a group of first-year high school students who had an average age of 19 years. These high school students made suggestions that informed the second trial, conducted with a group of high school students who were nearing the end of the course aged 23 to 25 years.

Triangulation using a sample with a total number of n = 571 students. The research team was able to estimate that a high school student with a reading age equivalent to their chronological age should be able to complete the instrument in 30 minutes or less based on the strength of the trials, and this knowledge allowed the chancellor to select the appropriate window. for the distribution of instruments to their students. The result of giving this instrument is that the validity and reliability of the instrument are acceptable. Following principal component analysis in five broadly different factors was as expected. Five factors accounted for 42.21% of the total variance observed. The names of the factors and the variances calculated respectively are as follows: "Confidence" (19.04% of observed variance), "Poise" (8.72%) "Planning" (7.11%), " Anxiety "(5.14%) and" Persistence "(4.04%). Convergent validity between items on each scale was assessed using the Rho Spearman analysis and was found to be significant at the 0.01 level (2-tailed, p = .000). The observed correlations ranged from low/moderate to moderate/substantial. Divergent validity was also established using the Rho Spearman analysis, where the highest observed correlation between the two measures was a low/medium correlation between Confidence and Persistence.

N = 571 students who conducted interviews and measured interviews were drawn from a non-representative sample of lectures, and therefore this paper does not explore the predictive validity of the instrument in detail. With this caveat in mind, in terms of discussing whether academic buoyancy could help to understand the decision to stay on / leave college early, the results show value in further exploration. The results of the estimation on the object of the study show that students are significantly less likely to report that they are likely to leave college early if they show higher scores on the measures of Confidence, Planning and Persistence. Human resource development in the concept of human capital is very important, especially for young people by developing their competencies, providing support and empathy and not labelling deficiencies. So that the endurance and fighting power of students can be formed.

3 Conclusion

Under-education of children from lower socio-economic groups remains a problem worldwide. Although most research focuses on the risk factors associated with underachievement, it may also be productive to ask what factors serve to protect or protect students who are in situations that would be identified as "at-risk". This isolation factor is a feature in 'academic leverage'. The qualitative data presented here highlight a number of factors associated with leverage, including the ability to reflect on the 'game' about staying in college and choose a strategy for 'playing the game'. Qualitative data, like the wider literature, also highlight the possible contribution of a number of personality type factors including self-confidence, composure, planning, low anxiety, and persistence. These factors should not only be considered innate to the learner, this capacity can be learned and developed. The personality type self-report instrument can be used by lecturers and students as a means of reflecting on and developing metacognitive abilities in relation to these features. The instrument developed - the Student's Understanding Endurance Instrument shows that the validity and reliability are acceptable for the five scales. Therefore, there is reason to see this scale as useful for students and lecturers.

In addition, the qualitative and quantitative results converged and showed that the highest reported personality type characteristics were self-confidence and composure (with planning being third). High self-esteem is essential for successful resilience and defines self-esteem as consisting of self-efficacy. Both self-esteem and self-efficacy (and control) were positively mediated by strong self-concept clarity. Self-concept is a state and a trait and means having a self-defined, confident self. Having a strong clarity of self-concept allows individuals to create a stable frame of reference for themselves that allows interaction and assimilation with the external environment (in this case, lectures). With this in mind, two caveats need to be entered regarding this scale. First, such a scale should not be used to label students (as 'risky' vs. 'tough', for example). The goal of such a scale should help faculty and students to think about existing abilities, the abilities they want to develop, and how they can do so. Further labelling of already disadvantaged students would be an unfair use of such a tool. This stance is confirmed by important findings in Phase One. That is, the behaviour of students (staying in college) is positively influenced by the attitude of the lecturer (they think their students will continue to study). Research has gathered evidence that has shown that attributes and implicit bias can be transferred from recipients to perceptions. Obviously, this can have a negative impact on student success because it can promote stereotypical threats to 'at-risk students. Second, it should be noted that, while personality type factors can play a role in resilience, much of the reason for their structural inequalities in education lies in the organization of their education systems and curricula rather than in pupils' personalities. While a focus on developing personal resilience skills can be of assistance to students as individuals in fighting harm, there is a need to take seriously the role that educational policy plays in creating adverse processes in the first place.

The findings gathered from current research provide educators with 'at-risk students with a reliable and valid tool that can be used to assess the resilience of their students. This allows them to use metacognitive strategies to reduce their dropout rates. The direction of future research should be focused on examining processes (is the clarity of self-concept mediated/moderated by the attitude of the lecturer / meta-cognition or vice versa? From such an analysis, concrete models can be proposed)

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