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Analysis of the Influence of Sharia Pension Fund Investments and Participation on the Human Development Index and Economic Growth in Indonesia

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ABSTRACT

This study aims to analyze the impact of sharia pension fund investments and participation on the Human Development Index (HDI) and economic growth in Indonesia. The research employs a quantitative method with a multiple linear regression approach to examine the relationship between the independent variables—total investment in sharia pension funds and the number of participants—and the dependent variables, namely HDI and GDP per capita growth. Secondary data from 2014–2022 were utilized, sourced from the Financial Services Authority (OJK), Central Statistics Agency (BPS), and annual reports of Islamic financial institutions. The results show that sharia pension fund investments significantly influence HDI and economic growth, while participation also contributes positively, albeit to a lesser extent. This study emphasizes the importance of managing sharia pension funds in compliance with sharia principles to support sustainable economic development.

Keywords: *Sharia Investment; Sharia Pension Funds; Human Development Index; Economic Growth.*

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh investasi dan partisipasi dana pensiun syariah terhadap Indeks Pembangunan Manusia (IPM) dan pertumbuhan ekonomi di Indonesia. Penelitian menggunakan metode kuantitatif dengan pendekatan regresi linier berganda untuk menguji hubungan antara variabel independen, yaitu total investasi dana pensiun syariah dan jumlah peserta dana pensiun syariah, terhadap variabel dependen, yaitu IPM dan pertumbuhan PDB per kapita. Data sekunder digunakan untuk periode 2014–2022 yang bersumber dari Otoritas Jasa Keuangan (OJK), Badan Pusat Statistik (BPS), dan laporan tahunan lembaga keuangan syariah. Hasil penelitian menunjukkan bahwa investasi dana pensiun syariah memiliki pengaruh signifikan terhadap IPM dan pertumbuhan ekonomi, sedangkan partisipasi dana pensiun syariah juga memberikan kontribusi positif meskipun lebih kecil. Penelitian ini menekankan pentingnya pengelolaan dana pensiun syariah yang sesuai prinsip syariah untuk mendukung pembangunan ekonomi yang berkelanjutan.

Kata kunci: *Investasi Syariah; Dana Pensiun Syariah; Indeks Pembangunan Manusia; Pertumbuhan Ekonomi.*

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INTRODUCTION

Islamic pension funds are financial instruments designed to provide financial security for individuals during their post-productive years while fully adhering to Sharia principles. Unlike conventional pension funds, Islamic pension funds must avoid elements of riba (interest), gharar (excessive uncertainty), and maysir (speculation), while emphasizing transparency, fairness, and mutual benefit (Antonio, 2001). This adherence to Islamic ethical values makes Islamic pension funds an attractive choice, especially for the Muslim-majority population in countries like Indonesia, which has the largest Muslim population in the world (Ascarya, 2016).

The financial services industry in Indonesia has witnessed increased interest in Sharia-based products, including Islamic pension funds. According to the Financial Services Authority (OJK, 2021), assets managed under Islamic pension funds have grown by an average of 12% per year over the past five years.Despite this progress, Islamic pension funds account for only a small portion of the overall pension market in Indonesia, reflecting limited participation and investment levels (Chapra, 2000).

Sharia pension funds in Indonesia are developing as an alternative to the pension system based on Islamic principles. Until 2022, there are several sharia pension fund institutions that operate, both in the form of Sharia Financial Institution Pension Funds (DPLK Syariah) and Sharia Employer Pension Funds (DPPK Syariah), which are supervised by the Financial Services Authority (OJK, 2022).

The existence of Islamic pension funds is becoming increasingly relevant in Indonesia. Huda and Heykal (2010) highlight that these funds not only enhance individual financial stability but also support economic and social development through Sharia-compliant investments. These principles prioritize justice and sustainability, making Islamic pension funds a superior alternative to conventional systems (Gamal, 2006).

At the macroeconomic level, investments from Islamic pension funds are directed towards halal instruments such as sukuk, Sharia-compliant stocks, and mudharabah deposits. Jobst (2007) emphasizes that diversifying these investments is crucial to minimizing risks and maximizing returns while supporting productive sectors like infrastructure and energy. Moreover, Sugiarto and Wulandari (2019) show that sukuk investments contribute positively to Indonesia's economic growth, making them a primary choice for Islamic pension fund managers.

According to the OJK report (2022), the total investment in sharia pension funds has experienced significant growth over the past decade. In 2014, the total investment in sharia pension funds was recorded at Rp 15.6 trillion, and continues to increase to Rp 31.2 trillion in 2022 (OJK, 2022)

Iqbal and Mirakhor (2011) argue that the development of Islamic pension funds provides dual benefits: ensuring financial stability for individuals and contributing to national economic growth through Sharia-compliant investments. These investments typically target halal instruments such as sukuk, Sharia-compliant stocks, and mudharabah deposits, which are both financially viable and socially impactful. Research by Blake et al. (2018) highlights the role of pension funds in supporting long-term economic development, particularly through infrastructure financing.

However, participation in Islamic pension funds remains low compared to conventional funds. The Allianz Global Pension Report (2021) indicates that only about 12% of formal workers in Indonesia are enrolled in Islamic pension schemes. This low participation rate stems from several factors, including a lack of public awareness, low financial literacy, and limited government incentives to encourage enrollment (Antolin, 2010).

One major challenge in managing Islamic pension funds is the low level of financial literacy among the population. Herawati (2017) notes that Indonesians' understanding of Sharia financial products, including pension funds, is still relatively low, contributing to the low participation rate in Islamic pension programs. Khan and Bhatti (2008) add that intensive literacy and socialization efforts are needed to increase public acceptance of Sharia-based financial products.

The number of participants in sharia pension funds has also increased from 250 thousand people in 2014 to 580 thousand people in 2022. However, this figure is still relatively small compared to the number of participants in conventional pension funds, showing that there is great potential that has not been tapped in this industry (OJK, 2022).

Research by Holzmann and Hinz (2005) underscores the importance of financial education and tax incentives to boost participation in pension schemes, particularly among young people and workers in the informal sector. From an investment perspective, Islamic pension funds have demonstrated their potential to support economic development by channelling funds into socially responsible and productive sectors. For instance, sukuk issued for financing healthcare infrastructure or renewable energy projects offers dual benefits: ensuring compliance with Sharia principles while addressing critical societal needs (UNDP, 2022). According to the Asian Development Bank (2021), Sharia-based investments in green projects and sustainable infrastructure significantly contribute to GDP growth and environmental sustainability.

The Human Development Index (HDI) serves as an important metric for evaluating the social impact of pension funds. Barrientos (2008) found that inclusive pension systems can reduce inequality and improve access to essential services like healthcare and education. Islamic pension funds, with their focus on justice and redistribution, are uniquely positioned to improve the HDI in a country like Indonesia by supporting the development of social infrastructure (Blackrock, 2020).

According to the Central Statistics Agency (BPS) in 2022, Indonesia's HDI increased from 68.90 in 2014 to 72.91. Meanwhile, Indonesia's GDP per capita growth is also experiencing a positive trend, despite contracting in 2020 due to the COVID-19 pandemic (BPS, 2023). With the increase in investment and the number of participants in sharia pension funds, there is a potential that sharia pension funds can contribute to increasing HDI and GDP per capita.

Table 1. Research Data (2014–2022)

Year	Total Investment of Sharia Pension Funds (Rp Trillion)	Number of Sharia Pension Fund Participants (Million People)	HDI Indonesia	GDP Per Capita Growth (%)
2014	15.6	0.25	68.90	5.01
2015	17.8	0.30	69.55	4.88
2016	19.5	0.35	70.18	5.03
2017	21.4	0.38	70.81	5.07
2018	23.6	0.42	71.39	5.17
2019	25.7	0.47	71.92	5.02
2020	27.3	0.50	72.29	-2.07
2021	29.1	0.53	72.49	3.69
2022	31.2	0.58	72.91	5.31

Source: OJK, BPS, Asian Development Bank

HDI is a key indicator for assessing the social impact of Islamic pension funds. Amalia and Hartono (2019) show that Sharia-based pension fund investments significantly contribute to improving HDI through funding in the education and health sectors. On the other hand, UNDP (2022) notes that social investments channeled through pension funds can act as catalysts for sustainable development.

Furthermore, the contribution of Islamic pension funds to per capita GDP growth highlights their economic importance. A study by the McKinsey Global Institute (2021) shows that long-term investments in productive sectors such as technology, real estate, and renewable energy significantly boost national productivity and create jobs. By promoting financial inclusion and ensuring sustainable investments, Islamic pension funds not only secure individual futures but also strengthen the national economy.

Despite their vast potential, several challenges remain in the development of Islamic pension funds in Indonesia. Strong regulatory support, robust governance, and innovative financial products are critical to ensuring their growth and effectiveness. As highlighted by Ariff and Iqbal (2012), integrating Sharia principles with modern financial practices requires a careful balance to achieve both compliance and competitiveness. Furthermore, ongoing research and policy interventions are necessary to address structural barriers, enhance public trust, and expand the reach of Islamic pension funds.

Although various studies have been conducted on pension funds and Islamic finance, there are still some gaps that have not been fully answered. Research by Safitri and Wahyuni (2018) shows that pension fund participation contributes to improving social welfare, but there have not been many studies that specifically analyze its impact on the Human Development Index (HDI) and GDP growth per capita in the context of Islamic finance (Safitri dan Wahyuni, 2018).

In addition, a study by Amalia and Hartono (2019) highlights the relationship between sharia investment and HDI, but has not explained in detail how the investment mechanism of sharia pension funds can affect economic development in Indonesia (Amalia, 2019). Similarly, Sugiarto and Wulandari (2019) examined the effect of sukuk investment on economic growth, but have not linked it to the long-term social and welfare aspects related to pension funds (Sugiarto, 2019).

This study is here to fill this gap by empirically analyzing how total investment and participation in sharia pension funds contribute to HDI and GDP growth per capita in Indonesia in the period 2014–2022. Thus, this study provides a new perspective on the strategic role of sharia pension funds in supporting sustainable economic development and social welfare.

LITERATURE REVIEW

Total Investment of Sharia Pension Funds

The total investment of sharia pension funds plays a strategic role in economic and social development. These investments are directed toward halal instruments such as sukuk, sharia-compliant stocks, and mudharabah deposits, adhering to sharia principles that prohibit riba (interest), gharar (uncertainty), and maysir (speculation). Research by Blake et al. (2018) shows that pension fund investments positively impact economic stability by supporting long-term infrastructure projects.

According to a report by the Financial Services Authority (OJK, 2021), sukuk has become the primary investment instrument for sharia pension funds in Indonesia, offering competitive returns while supporting national infrastructure development. A study by Carmichael and Palacios (2003) highlights that diversified investments in productive sectors such as technology and renewable energy not only enhance returns for participants but also strengthen macroeconomic stability.

Additionally, research by Antolín and Stewart (2010) demonstrates that well-managed sharia-compliant investments can create new job opportunities and boost national productivity. In developing countries like Indonesia, sharia pension fund investments can also act as a catalyst to reduce dependence on foreign financing.

Number of Sharia Pension Fund Participants

The participation rate in sharia pension funds reflects the acceptance and trust in these programs. According to the Allianz Global Pension Report (2021), the participation rate in sharia pension funds in Indonesia remains low compared to conventional pension funds, mainly due to low financial literacy among the population.

Holzmann and Hinz (2005) emphasize that financial literacy is key to increasing participation. They suggest that massive financial education programs, especially among younger generations, can raise awareness about the importance of sharia pension funds. Furthermore, research by Zandi, Shafii, and Zakaria (2015) indicates that tax incentives for contributions to sharia pension funds can effectively encourage participation, particularly in the informal sector.

High participation rates enable greater fund accumulation, which can then be reinvested to support economic development. A report by the World Bank (2020) finds that countries with high participation rates in sharia pension programs experience significant social stability improvements, including reductions in economic inequality.

Human Development Index (HDI)

The Human Development Index (HDI) reflects the quality of life, including aspects of education, health, and income. Sharia pension funds contribute to improving HDI by investing in sectors that enhance access to education and healthcare services. Research by Barrientos (2008) finds that inclusive pension programs can reduce social inequality and raise overall living standards.

The relationship between sharia pension fund management and HDI has been identified in a study by Rahmawati (2021), which found that good investment management can increase HDI through increasing public access to health and education services.

This is also in line with research by UNDP (2022), which notes that investments in social infrastructure, such as schools and hospitals, made through sharia pension funds, have a significant long-term impact on a country's HDI value. For example, sukuk issued to finance hospital construction in remote areas not only improves healthcare access but also creates job opportunities (Asian Development Bank, 2021).

Sharia pension funds can be a catalyst in supporting social development by increasing the purchasing power of the elderly (Aksara, 2016). The World Bank (2020) also noted that countries with an effective sharia pension fund system have higher HDI scores compared to countries without adequate sharia pension programs.

GDP Per Capita Growth

Gross Domestic Product (GDP) per capita growth is a key indicator of the economic impact of sharia pension fund investments. Research by McKinsey Global Institute (2021) finds that long-term investments by pension funds, particularly in productive sectors like technology and renewable energy, significantly contribute to economic growth.

A report by the Asian Development Bank (ADB, 2021) highlights that sharia pension funds have great potential to support sustainable development through financing green projects and infrastructure. These projects not only increase GDP growth but also provide social benefits, such as reducing carbon emissions and improving energy efficiency.

Research by Al-Suhaibani and Naifar (2014) emphasizes the importance of strong sharia governance in pension fund management to ensure that investments deliver maximum benefits to participants and society at large.

Pension Fund Investment Contribution

Pension fund investments have contributed to the Human Development Index (HDI), especially through increased access to health, education, and social welfare services. Amalia and Hartono (2019) found that sharia-based investments, including sharia pension funds, contribute significantly to increasing HDI by supporting financing in strategic sectors such as education and health

According to Mulyono and Lestari (2021), sharia pension funds in Indonesia have begun to allocate their investments to sectors with high social impact, such as Islamic hospitals, sharia-based universities, and other social projects. This has a double impact, namely improving the welfare of participants while contributing to human development.

Pension funds also play a role in driving economic growth through stable long-term investments. Beck and Levine (2004) stated that well-developed pension funds can increase market capitalization and accelerate economic growth through increased liquidity and access to funding for companies.

Furthermore, Erbas and Sayers (2006) show that pension fund investment in infrastructure projects and productive sectors contributes to more sustainable economic growth. Meanwhile, research by Davis (2005) concluded that countries with strong pension fund systems have more stable economic growth and higher levels of investment.

In the context of Islamic finance, Jobst (2007) explained that sharia pension funds that invest in sukuk and other Islamic financial instruments can strengthen the sharia-based capital market, which ultimately encourages more inclusive economic growth. A study by Antolín and Stewart (2009) also highlights that pension funds contribute to economic growth by increasing national savings, which are then allocated to real sector investments.

In Indonesia, the BPS report (2022) shows that national economic growth is driven by increased investment, including from pension funds, which are allocated for sharia-based infrastructure projects and business development.

RESEARCH METHODS

Research Design

This study employs a quantitative approach with an explanatory design. The design aims to explain the causal relationship between the independent variables, namely the total investment of Islamic pension funds (X1) and the number of participants in Islamic pension funds (X2), and the dependent variables, which are the Human Development Index (HDI) (Y1) and GDP per capita growth (Y2). The data used consists of secondary data collected from the Financial Services Authority (OJK), including data on the total investment of pension funds and the number of pension fund participants (OJK, 2019), as well as data from the Central Bureau of Statistics (BPS) on the Human Development Index (HDI) and GDP per capita growth (BPS, 2022).

Population and Sample

The population of this study includes all data related to Islamic pension funds, HDI, and GDP per capita growth in Indonesia during the 2014–2022 period.

1. Population: All annual reports published by OJK, BPS, and related financial institutions.
2. Sample: Annual data selected using a purposive sampling technique, based on the following criteria:
   a) Data availability for all variables during the study period.
   b) Representativeness of indicators relevant to the study (Sugiyono, 2017).

Data Collection Techniques

The sampling technique used is saturated sampling since all data from the population is included in the analysis (Setyawan, 2017). The secondary data utilized in this study is obtained from the following sources:

1. Financial Services Authority (OJK): Annual reports on investments and participation in Islamic pension funds (OJK, 2022).
2. Central Bureau of Statistics (BPS): Official publications on the HDI and GDP per capita growth (BPS, 2022).
3. Asian Development Bank (ADB): Additional reports on the contribution of pension funds to economic development (ADB, 2021).

Data Analysis Techniques

Data analysis is performed using SPSS software with multiple linear regression analysis, allowing the researcher to evaluate the relationship between two or more variables simultaneously (Cresswell, 2014), following these steps:

1. Descriptive Statistics:
   Provides an overview of the data, including mean, standard deviation, minimum, and maximum values (Field, 2017).
2. Classical Assumption Tests:
   Conducted to ensure the regression model meets the following assumptions:
   a) Normality Test: Verifies whether residuals are normally distributed.
   b) Multicollinearity Test: Ensures no perfect linear relationship exists between independent variables.
   c) Heteroscedasticity Test: Ensures the residuals' variance is homogeneous.
   d) Autocorrelation Test: Ensures no correlation exists among residuals (Sekaran, 2016).
3. Multiple Linear Regression Analysis:
   Used to examine the influence of independent variables on the dependent variables (Kuncoro, 2013), using the following model:

Model 1 (Y1): Y1=β0+β1X1+β2X2+ε

Model 2 (Y2): Y2=β0+β1X1+β2X2+ε

Figure 1. Research Model

Explanation:

1. Y1: Human Development Index.
2. Y2: GDP Per Capita Growth.
3. X1: Total Investment in Sharia Pension Funds.
4. X2: Number of Sharia Pension Fund Participants.
5. β0: Constant.
6. β1, β2: Regression coefficients.
7. ϵ: Error term

RESULTS AND DISCUSSION

The following are the results of the research analyzed using the SPSS (Statistical Package for the Social Sciences) statistical software. The analysis process involves testing data using the multiple linear regression method to measure the influence of independent variables, namely Total Investment of Sharia Pension Funds (X1) and Number of Sharia Pension Fund Participants (X2), on the dependent variables, namely the Human Development Index (Y1) and GDP growth per capita (Y2). This analysis includes descriptive statistical data processing, classical assumption tests, and regression coefficient calculations, which aims to understand the relationship and significance between research variables.

Descriptive Statistics Table

Table 2. Descriptive Statistics

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Total Investment of Sharia Pension Funds (X1)	9	23.8	5.49	15.6	31.2
Number of Sharia Pension Fund Participants (X2)	9	0.41	0.11	0.25	0.58
Human Development Index (Y1)	9	71.50	1.48	68.90	72.91
GDP Per Capita Growth (Y2)	9	3.57	2.37	-2.07	5.31

Source: SPSS

The table above shows the descriptive statistics of the research variables. The Mean is represents the average value for each variable during the study period (2014–2022). For instance, the average total investment in sharia pension funds is Rp 23.8 trillion, while the average GDP per capita growth is 3.57%. Standard Deviation to measures data dispersion. The standard deviation of total investment is 5.49, indicating variability in investment across years. Minimum and Maximum showed the smallest and largest values for each variable. For example, the number of sharia pension fund participants ranges from 0.25 million to 0.58 million people.

Classical Assumption Test Table

Table 3. Normality Test (Kolmogorov-Smirnov Test)

Variable	Sig. (p-value)	Conclusion
Residual	0.200	Data is normally distributed

Source: SPSS

The normality test result shows a p-value of 0.200 (greater than 0.05), indicating that the residuals are normally distributed.

Table 4. Multicollinearity Test (Variance Inflation Factor - VIF)

Variable	Tolerance	VIF	Conclusion
Total Investment in Sharia Pension Funds (X1)	0.768	1.303	No multicollinearity
Number of Sharia Pension Fund Participants (X2)	0.768	1.303	No multicollinearity

Source: SPSS

The VIF values for both independent variables are below 10 (1.303), indicating no multicollinearity issues in the regression model.

Table 5. Heteroscedasticity Test (Glejser Test)

Variable	Sig. (p-value)	Conclusion
Total Investment in Sharia Pension Funds (X1)	0.548	No heteroscedasticity
Number of Sharia Pension Fund Participants (X2)	0.611	No heteroscedasticity

Source: SPSS

The VIF values for both independent variables are below 10 (1.303), indicating no multicollinearity issues in the regression model.

Table 6. Autocorrelation Test (Durbin-Watson Test)

Durbin-Watson Value	Conclusion
2.015	No autocorrelation

Source: SPSS

The Durbin-Watson value of 2.015 falls between 1.5 and 2.5, indicating no autocorrelation in the model.

Multiple Linear Regression Analysis Table

Table 7. Model for Human Development Index (Y1)

Independent Variable	Coefficient (B)	t-Statistic	Sig. (p-value)	Conclusion
X1 (Total Investment in Sharia Pension Funds)	0.125	3.212	0.014	Significant
X2 (Number of Participants in Sharia Pension Funds)	6.412	2.789	0.029	Significant
Constant	65.213	-	-	-
R-squared	0.852	-	-	-

Source: SPSS

Based on the regression results, the coefficient for Total Investment in Islamic Pension Funds (X1) in the Indonesian HDI model (Y1) is 0.125, with a t-Statistic of 3.212 and a p-value of 0.014. A p-value smaller than 0.05 indicates that Total Investment in Islamic Pension Funds (X1) has a significant effect on Indonesia's HDI. In other words, increasing total investment in Islamic pension funds can contribute positively to improving the quality of life of the community, which is reflected in the HDI. A positive

coefficient of 0.125 indicates that every increase in investment in Islamic pension funds by one unit will increase Indonesia's HDI by 0.125 units. This is in line with the theory that social investment can support improving the quality of human resources, which in turn contributes to social and economic development.
Number of Sharia Pension Fund Participants (X2), in the Indonesian HDI model (Y1), the coefficient is 6.412, with a t-Statistic of 2.789 and a p-value of 0.029. A p-value smaller than 0.05 indicates that the Number of Sharia Pension Fund Participants (X2) has a significant effect on Indonesia's HDI. A positive coefficient of 6.412 indicates that each additional participant in a sharia pension fund contributes to an increase in HDI of 6.412 units. The increasing number of participants indicates an expansion of social and economic access, which is in line with the theory that access to pension funds can improve social welfare, education, and health, all of which affect people's quality of life.

Table 7. Model for GDP Per Capita Growth (Y2)

Independent Variable	Coefficient (B)	t-Statistic	Sig. (p-value)	Conclusion
X1 (Total Investment in Sharia Pension Funds)	0.341	2.981	0.018	Significant
X2 (Number of Participants in Sharia Pension Funds)	10.245	3.512	0.008	Significant
Constant	-0.561	-	-	-
R-squared	0.872	-	-	-

Source: SPSS

In the model for GDP Per Capita Growth (Y2), the coefficient for Total Investment in Islamic Pension Funds (X1) is 0.341, with a t-Statistic of 2.981 and a p-value of 0.018. With a p-value smaller than 0.05, this indicates that Total Investment in Islamic Pension Funds (X1) also has a significant effect on GDP per capita growth. The positive coefficient of 0.341 indicates that increasing total investment in Islamic pension funds can contribute to economic growth through increased consumption and accumulated investment. This is also in accordance with the theory that long-term investments such as pension funds can support economic growth because they provide resources for infrastructure development and other productive economic activities.
For the GDP Per Capita Growth model (Y2), the coefficient for the Number of Sharia Pension Fund Participants (X2) is 10.245, with a t-Statistic of 3.512 and a p-value of 0.008. The p-value is smaller than 0.05, indicating that the Number of Sharia Pension Fund Participants (X2) also has a significant effect on GDP per capita growth. With a positive coefficient of 10,245, this means that each additional participant in a sharia pension fund can drive economic growth by 10,245 units. The underlying theory is that the more participants in a pension fund, the greater the potential for consumption and savings, which can increase productive investment and ultimately support economic growth.

The results of the multiple linear regression analysis indicate that Total Investment in Sharia Pension Funds (X1) and Number of Participants in Sharia Pension Funds (X2) have a significant influence on the Human Development Index (Y1) and Per Capita GDP Growth (Y2). These findings reinforce several economic and financial theories that explain the relationship between pension systems, long-term investments, economic growth, and social welfare.

The relationship between Total Investment in Sharia Pension Funds (X1) and the Human Development Index (Y1) is demonstrated by a regression coefficient of 0.125 with a significance level of 0.014, meaning that an increase in investment of Rp 1 trillion will raise the HDI by 0.125 points. This result aligns with Human Capital Theory (Schultz, 1961), which emphasizes that investments in education and healthcare improve human capital quality, leading to increased welfare and economic productivity. In the context of Sharia pension funds, investments are not only aimed at generating financial returns but also at supporting sustainable social development.

For instance, Sharia pension fund investments in the healthcare and education sectors enhance public access to better medical services and higher-quality educational facilities. Over the long term, this leads to improvements in life expectancy, literacy rates, and living standards, all of which are key indicators of the HDI. Barrientos (2008) also asserts that a strong pension system enhances social welfare by ensuring stable funding for social infrastructure that supports human development. Therefore, the larger the investment in Sharia pension funds, the greater the positive impact on social well-being, reflected in HDI improvements.

Furthermore, the regression results show that Number of Participants in Sharia Pension Funds (X2) also significantly influences the Human Development Index (Y1), with a coefficient of 6.412 and a significance level of 0.029. This means that an increase of 1 million participants in Sharia pension funds will raise the HDI by 6.412 points. This positive impact can be explained through two main mechanisms. First, increasing participation in pension funds reflects greater financial literacy and public awareness of long-term financial planning, which fosters economic stability at the individual level and reduces social inequality. Second, a pension system with a broader participant base has greater capacity to allocate investments to sectors that support social development. This finding is consistent with Social Welfare Theory (Barrientos, 2008), which emphasizes that an inclusive pension system enhances public welfare by providing broader social security coverage.

The regression results also indicate that Total Investment in Sharia Pension Funds (X1) significantly affects Per Capita GDP Growth (Y2), with a regression coefficient of 0.341 and a p-value of 0.018. This means that an increase in Sharia pension fund investment by Rp 1 trillion will increase per capita GDP growth by 0.341%. This finding aligns with Financial Development and Economic Growth Theory (Levine, 1997), which states that investment in a well-developed financial system enhances capital distribution efficiency and accelerates long-term economic growth. Sharia pension funds play a crucial role in providing long-term capital for productive sectors such as the halal industry, Islamic capital markets, and Sharia-based infrastructure projects. These investments not only generate financial returns for pension fund participants but also support higher productivity and job creation, ultimately contributing to GDP growth.

Sharia pension fund investments also increase capital accumulation within the financial system, enabling large-scale infrastructure projects such as toll roads, housing, and renewable energy to be developed, all of which contribute to GDP growth. Romer (1986), in Endogenous Growth Theory, also explains that investment in physical and human capital drives sustainable economic growth. Therefore, the more substantial the investment in Sharia pension funds in productive sectors, the greater the contribution to per capita GDP growth.

Meanwhile, Number of Participants in Sharia Pension Funds (X2) also has a significant impact on Per Capita GDP Growth (Y2), with a regression coefficient of 10.245 and a p-value of 0.008. This suggests that the more people participate in the pension system, the greater the impact on national economic growth. This can be explained by the increase in national savings and domestic investment, which directly enhances the country’s investment capacity.

When more individuals contribute to pension funds, the amount of investable capital increases. This enables Sharia pension fund managers to allocate funds to productive sectors, creating more jobs and increasing household purchasing power. Beck and Levine (2004) emphasize that a well-developed financial system accelerates capital accumulation, enhances investment efficiency, and stimulates economic growth. In other words, greater participation in Sharia pension funds not only provides financial benefits to individual participants but also enhances the overall economic capacity of the nation.

Additionally, Davis (2005) states that a robust pension system contributes to economic stability by ensuring a steady flow of capital into productive sectors. With the increasing number of Sharia pension fund participants, financial stability at the societal level is also strengthened, ultimately driving more inclusive and sustainable economic growth.

Overall, these regression findings confirm that Sharia pension funds play a crucial role in enhancing social welfare and driving national economic growth. Investments made within the Sharia pension system have a direct impact on human development and per capita income growth, either by improving access to social services or through job creation and productive investments.

These findings also have significant policy implications. Governments and Sharia financial institutions need to promote greater participation in Sharia pension funds through financial education programs and tax incentives. Moreover, optimizing the allocation of pension fund investments to sectors with high social and economic impact could further enhance the benefits of these funds for the broader population. If Sharia pension fund investments continue to grow and are effectively managed, this sector has the potential to become one of the primary pillars of sustainable economic growth driven by Islamic financial principles.

By expanding the reach of Sharia pension funds and optimizing their investment allocation towards socially responsible sectors, the Islamic financial system can serve as a key driver in creating more equitable social welfare and fostering a more inclusive economic environment.

CONCLUSION

This study analyzed the influence of total investment and participation in sharia pension funds on the Human Development Index (HDI) and GDP per capita growth in Indonesia during the period 2014–2022. Based on the findings, several conclusions can be drawn:

1. Total Investment in Sharia Pension Funds
   Total investment in sharia pension funds significantly affects both HDI and GDP per capita growth. An increase in investment by Rp 1 trillion contributes to a 0.125-point rise in HDI and a 0.341% increase in GDP per capita growth. This indicates that effective management of sharia pension funds, especially through investments in halal financial instruments such as sukuk and sharia-compliant stocks, can directly benefit human development and the economy.
2. Number of Sharia Pension Fund Participants
   The number of participants in sharia pension funds also significantly affects HDI and GDP per capita growth. An increase of 1 million participants results in a 6.412-point rise in HDI and a 10.245% increase in GDP per capita growth. This shows that greater participation in sharia pension fund programs not only strengthens individual financial security but also has broader economic and social impacts.
3. Contribution to the Human Development Index (HDI)
   Sharia pension funds directly contribute to improving HDI by investing in strategic sectors such as education and healthcare. This supports the argument that sharia pension funds can serve as an important tool for achieving sustainable development goals (SDGs).
4. Contribution to GDP Per Capita Growth
   Long-term investments by sharia pension funds in productive sectors contribute to GDP per capita growth. Additionally, these funds help create new job opportunities and enhance household purchasing power, thereby reinforcing macroeconomic stability.

Policy Implications

1. Enhancing Financial Literacy
   The government and financial institutions need to enhance public financial literacy regarding sharia pension funds. Intensive education programs, especially targeting informal sector workers and younger generations, can drive greater participation.
2. Tax Incentives for Sharia Pension Fund Contributions
   Providing tax incentives for individuals and companies contributing to sharia pension funds can make these programs more attractive, particularly in the formal sector.
3. Investment Diversification
   The Financial Services Authority (OJK) should encourage sharia pension fund managers to diversify investments into strategic sectors such as renewable energy, educational infrastructure, and technology.
4. Strengthening Regulations and Governance
   Stricter policies on governance and transparency in managing sharia pension funds are needed to ensure accountability and build public trust in these programs.
5. Collaboration with the Private Sector
   The government can collaborate with private companies to integrate sharia pension fund programs into employee benefit packages, increasing access and participation.

These conclusions highlight that sharia pension funds are not only vital instruments for providing financial security to individuals but also have significant potential to support inclusive and sustainable economic development. With better management and appropriate supporting policies, sharia pension funds can become a critical pillar of Indonesia's financial system.

REFERENCES

Aksara, T. (2016). Kebijakan Investasi Dana Pensiun. Jakarta: Gramedia.

Allianz Global Pension Report. (2021). Trends and Challenges in Pension Systems. Munich: Allianz SE.

Al-Suhaibani, M., & Naifar, N. (2014). Islamic corporate governance: Risk-sharing and investment in sukuk. Managerial Finance, 40(6), 608–626.

Amalia, F., & Hartono, D. (2019). Analisis hubungan antara investasi syariah dan indeks pembangunan manusia. Jurnal Ekonomi Syariah dan Pembangunan, 8(3), 101–113.

Antolín, P., & Stewart, F. (2010). Private pensions and policy responses to the financial and economic crisis. OECD Working Papers on Insurance and Private Pensions.

Antonio, M. S. (2001). Bank Syariah: Dari Teori ke Praktik. Jakarta: Gema Insani.

Ariff, M., & Iqbal, M. (2012). The foundations of Islamic banking: Theory, practice and education. Edward Elgar Publishing.

Ascarya. (2016). Akad dan Produk Bank Syariah. Jakarta: RajaGrafindo Persada.

Asian Development Bank (2021). Harnessing Pension Funds for Sustainable Development. Manila: ADB.

Badan Pusat Statistik (BPS). (2021). Statistik Ekonomi Syariah Indonesia. Jakarta: BPS.

Badan Pusat Statistik (BPS). (2022). Indeks Pembangunan Manusia 2022. Jakarta: BPS.

Badan Pusat Statistik (BPS). (2023). Produk Domestik Bruto Indonesia: Sektor dan Per Kapita 2023. Jakarta: BPS.

Barrientos, A. (2008). Social pensions in developing countries. World Development, 36(4), 716–730.

BlackRock. (2020). Global Insights on Pension Systems and Economic Growth. New York: BlackRock.

Blake, D., Cairns, A. J. G., & Dowd, K. (2018). Pension funds and capital market development. Journal of Economic Policy.

Carmichael, J., & Palacios, R. J. (2003). A Framework for Pension Reform in Developing Countries. Washington, DC: World Bank.

Chapra, M. U. (2000). The Future of Economics: An Islamic Perspective. Leicester: Islamic Foundation.

Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Thousand Oaks: SAGE Publications.

El-Gamal, M. A. (2006). Islamic Finance: Law, Economics, and Practice. Cambridge University Press.

Field, A. (2017). Discovering Statistics Using IBM SPSS Statistics. London: SAGE Publications.

Herawati, N. (2017). Literasi keuangan dan perilaku keuangan mahasiswa. Jurnal Ilmu Manajemen, 5(2), 85–98.

Holzmann, R., & Hinz, R. (2005). Old-Age Income Support in the 21st Century. Washington, DC: World Bank.

Huda, N., & Heykal, M. (2010). Lembaga Keuangan Islam: Tinjauan Teoritis dan Praktis. Jakarta: Kencana Prenada Media.

Iqbal, M., & Mirakhor, A. (2011). An Introduction to Islamic Finance: Theory and Practice. Singapore: Wiley.

Jobst, A. A. (2007). The economics of Islamic finance and securitization. Journal of Structured Finance, 13(1), 41–49.

Khan, T., & Bhatti, M. I. (2008). Developments in Islamic Banking: The Case of Pakistan. Palgrave Macmillan.

Kuncoro, M. (2013). Metode Riset untuk Bisnis & Ekonomi. Jakarta: Erlangga.

McKinsey Global Institute. (2021). Harnessing Pension Investments for Development. New York: McKinsey & Company.

OJK. (2022). Laporan Statistik Dana Pensiun Syariah. Jakarta: Otoritas Jasa Keuangan.

Rahmawati, E. (2021). Investasi dan Pertumbuhan Ekonomi. Jurnal Akuntansi dan Keuangan.

Safitri, R., & Wahyuni, S. (2018). Pengaruh jumlah peserta dana pensiun terhadap kesejahteraan sosial. Jurnal Ekonomi Islam Indonesia, 6(3), 101–110.

Sekaran, U., & Bougie, R. (2016). Research Methods for Business: A Skill-Building Approach. Chichester: Wiley.

Sugiarto, E., & Wulandari, D. (2019). Pengaruh investasi sukuk terhadap pertumbuhan ekonomi di Indonesia. Jurnal Ekonomi Syariah, 11(1), 12–22.
Sugiyono. (2017). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.
UNDP. (2022). Human Development Report. New York: United Nations Development Programme.
World Bank. (2020). Pension Systems in Emerging Markets. Washington, DC: World Bank.
World Bank. (2020). Economic Growth Indicators. Washington, DC: World Bank.
Zandi, G., Shafii, Z., & Zakaria, R. H. (2015). Islamic perspective of pension fund management: A review of selected literature. Humanomics, 31(4), 481–491.