Topic: A Study potential factor investing from the relationship of ESG score, Intangible capital, and stock market performance: Evidence from Thailand

หัวข้อ: การศึกษาปัจจัยศักยภาพในการขับเคลื่อนผลตอบแทนหลักทรัพย์ (Factor Investing) จากการวิเคราะห์ความสัมพันธ์ระหว่างผลคะแนนการประเมิน ESG ระดับสินทรัพย์ไม่มีตัวตนของบริษัทและผลตอบแทนของหลักทรัพย์: หลักฐานจากตลาดหลักทรัพย์แห่งประเทศไทย

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บทคัดย่อ (Abstract)

As the rising of social and environmental movement & increasingly dematerialized world intangible assets, the paper will study the relationship between environmental, social, and corporate governance (ESG) score, Intangible assets and stock performance in Thailand. To measure ESG score, we will apply 2 aspects. First, the Thailand Sustainability Investment (THSI) which company voluntarily participate in SET’s annual Sustainability Assessment. Second, Refinitiv as a third-party assessment aspect. Investment in intangible assets such as R&D, technology and software, brand, customer, and human capital, has risen over the past quarter century, and the COVID-19 pandemic appears to have accelerated this shift toward a dematerialized economy. We will apply capitalized approach to value Intangible assets. ESG performance represented value creation gap in financial reporting and the value creation continues to shift to intangibles. Then we will examine the relationship between ESG score and Intangible assets as we will categorize in each quartile, especially to see relationship of high ESG score and high Intangible assets. After that, we will use buy-and-hold abnormal returns (BHAR) to further examine on the ESG score, Intangible assets, and stock return performance. From the result, we will further deep dive analysis and clarify firm’s characteristics and industry to the study. These could emphasize how interesting and important of ESG and Intangible assets not only over the world but also in Thailand as another factor investing focused.
Problem Statement:

Leading & significant future trends based on many research houses/forums such as the International Monetary Fund (IMF), Mckinsey and the Stock Exchange of Thailand (SET) have focused on Social and Environmental Movement & increasingly dematerialized world intangible assets. We also looked at the number of Google searches of the terms “ESG” and “Sustainable Finance” (Worldwide & Thailand) has grown exponentially in the past few years\(^1\). ESG concept play an important role as you can see from top global conference such as the United Nations (UN). Moreover, UN’s Principles for Responsible Investment (PRI) report presented number of signatories & AUM of asset owners, asset managers and service providers who incorporate ESG issues, in 2006, there are 63 investment companies with USD 6.5 trillion in AUM and this significantly increased into 2,750 signatories with USD 100 trillion AUM in 2020 (PRI 2020). This is the same trend with historical fund flows of sustainable fund in the US – from USD 5 billion in 2018 to USD 50 billion in 2020. Inflows into sustainable funds in the US accounted for 25% of total inflows into equity and fixed income funds of the US (Morningstar 2020). Thailand has also been riding on this trend, for example, the sustainability fund has a net asset value of THB 52 billion in Q4 2022, which significantly increased from less than THB 10 billion in 2019 (Morningstar 2022). On the other hand, today global GDP is more than in services and knowledge, where Intangible assets have become increasing components and make up between 60 and 80 percent of corporate worth (Caruso 2008). Investment in Intangible assets such as IP, R&D, technology and software, brand, customer, and human capital, has risen over the past quarter century, and the COVID-19 pandemic appears to have accelerated this shift toward a dematerialized economy. Percentage proportion of Intangible assets to S&P 500 index’s market cap increased to more than 90% in 2020 as the post-pandemic context. In addition, the topic about Intangible capital was also in the IMF’s focus as you can see from the 10th IMF Statistical Forum (IMF November 2022). These could emphasize how interesting and important of ESG and Intangible assets not only over the world but also in Thailand as another factor investing focused.

To further extent the statement that ESG will become another important role in decision making of investment to investors, there were research that presented the evidence that ESG performance can affect to stock performance. Kempf and Osthoff (2007), Eccles et al. (2014), Cornett et al. (2016) and Cheema-Fox et al. (2021) presented the evidence that high socially responsible ratings (SRI) or high ESG score provided high abnormal return as they buy high score group and sell low score group. Therefore, they found that the ESG performance has a significant impact of stock performance. However, there are some opposite studies have shown that ESG performance did not affect to stock performance X Chang, K Fu, Y Jin, PF Liem (2022), ESG score did not provide abnormal return Demers, Elizabeth, et al. (2021) and concern on agency theory that ESG investments are likely to reflect agency problems (B’enabou and Tirole, 2010). Moreover, in terms of risk aspects, MSCI concluded that high ESG-rated companies well manage both idiosyncratic risk and systematic risk that led to lower downside risk such as volatility. El Ghoul et al. (2011) also extent that strong ESG profile company show lower systematic risk then led to a lower cost of capital and higher valuations of stock price.

For the Intangible asset’s aspect, Generally Accepted Accounting Principles classify investments in Intangible assets as expenses (Financial Accounting Standards Board: FASB). Intangible assets is typically not

\(^1\) https://trends.google.com/trends/explore?date=2019-12-25%202023-01-25&q=ESG
captured on firms’ balance sheets. Falato, Kadyrzhanova and Sim’s (2013) linked that firm’s stock of Intangible capital is the sum of its knowledge capital and organizational capital. Firm’s knowledge capital was created by spending on R&D. In terms of organizational capital, SG&A spending represents investments in organizational capital through advertising, spending on distribution systems, employee training, etc. Therefore, Corrado, Hulten, and Sichel (2009) measured the stock of by accumulating a fraction of past SG&A expenses. Woosung Jung, Bong Chan Kho (2021) & Elizabeth, et al. (2021) also used capitalization method to value Intangible assets. Moreover, it can be concluded from the finding of Woosung Jung, Bong Chan Kho (2021) that firms with high Intangible Capital-to-Market equity (ICM) show larger cumulative abnormal returns than those with low ICM by using post-earnings announcement drift (PEAD). While Demers, Elizabeth, et al. (2021) conducted multiple regression of stock returns, buy-and-hold abnormal returns on firm’s ESG scores, after controlling other factors (including intangible asset investments) in Q1 2020 COVID market crisis period and full COVID year of 2020. The study show that a one-standard deviation increases in RD&SGA results in an economically significant 9.3% increase in full year abnormal returns for full COVID year of 2020.

Based on “A Framework to Assess ESG Value Creation” of International Valuation Standards Council (IVSC 2021) and CFA article (CFA, 2021), Intangible asset value drivers provide linkage on how E, S, and G investments result in Intangible value creation. ESG performance represented value creation gap in financial reporting and the value creation continues to shift to Intangibles. They concluded the potential value creation lifecycle through 3 separate stages: 1) Direct Assets – those intangible assets which may be directly impacted by the E, S, or G investment 2) Indirect Assets – those intangible assets which could benefit from the value accretion of the direct intangible asset(s) which was targeted with the E, S, or G investment and 3) Scalable Value Creation – intangible asset value creation via ESG investments can achieve scalable returns as a result of the interconnection with other intangible assets. A high ESG score could indicate & translate into increased Intangible assets and long-term value.

Purpose of Study:

In this paper, we targeted 3 main objectives focusing on the relationship between ESG score and Intangible assets level on the stock performance of Thai stock market which aim to study the relationship power of this relationship and further examine whether this relationship can create abnormal return and might be another factor investing focused for investor. Moreover, to analyze the result and point out the firm characteristics and industry.

The first objective is to examine the relationship between ESG score and Intangible assets as we will categorize in each quartile. ESG score assessment will be examined in 2 aspects. First, the Thailand Sustainability Investment (THSI) which company voluntarily participate in SET’s annual Sustainability Assessment. Second, Refinitiv as a third-party assessment aspect.

The second objective is to examine the relationship to stock performance of Thai listed companies by applying multiple regression of stock returns, buy-and-hold abnormal returns (BHAR) in accordance with Barber and Lyon (1997) and Demers, Elizabeth, et al. (2021) applied in their research about ESG & Intangible asset. ESG & Intangible asset investment are often made over a number of years, and the benefits are often long-term.
The third objective is to deep dive analyze on the result from the test above. We will indicate firm’s characteristics and industry of company that have high correlation on ESG score & Intangible assets to stock performance.

Significant of Research:
this paper shed further light on empirical evidence to study the relationship between ESG score and Intangible assets on stock performance. By utilizing data from Thai stock market, most of the existing studies focus on US data or developing countries, our research will not only extent the study on Thai stock market, but also expand study scope in both sides of interesting future trends, ESG score & Intangible assets, which did not have direct research paper on this focus. As such, there is plenty room for indicating the important of ESG score implication through Intangible asset value creation. These could emphasize how interesting and important of ESG and Intangible assets not only over the world but also in Thailand as another factor investing focused.

Research Design/ Research Methodology:

Data: ESG score assessment will be examined in 2 aspects. First, the Thailand Sustainability Investment (THSI) which company voluntarily participate in SET’s annual Sustainability Assessment. THSI created score as percent score which we have to make a request for score data from SET. Second, Refinitiv as a third-party assessment aspect. For Intangible assets, we used capitalization approach as Demers, Elizabeth, et al. (2021) study.

For the first objective, we categorized company with ESG scores & Intangible assets into quartiles. Hypothesis 1: high ESG score will have high Intangible capital, using OLS regression to run in each quartile. For the second objective is to examine the relationship of ESG score & Intangible asset to stock performance of Thai listed companies. Hypothesis 2: High ESG score & high intangible capital will provide abnormal return, using buy-and-hold abnormal returns (BHAR) to examine the relationship of ESG score & Intangible asset to stock performance of Thai listed companies. Then for the third objective, we will analyze the above result and indicate firm’s characteristics and industry of company that have high correlation on ESG score & Intangible assets to stock performance.

References:


International Valuation Standards Council (2021). A Framework to Assess ESG Value Creation