A new decade for social changes
The Influence of Intellectual Capital and Innovation on the Performance of SOEs in the Banking Sector in Indonesia

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Abstract. Purpose- This study aims to determine the effect of intellectual capital, which includes Human Capital (HC), Structured Capital (SC), Capital Employed (CE), and innovation on the performance of SOEs in the Banking Sector in Indonesia. Methodology- This study uses various research and secondary data from journals and books. Findings- The findings indicate that Intellectual capital, including Human Capital, Structural Capital and Capital Employed, relates positively to organisational performance in the banking sectors. The results also support the argument that innovation played an important role in organisational performance in the banking sectors. Research Implications- This study limits its generalisations since it is limited to the effect of intellectual capital and innovation on the performance of the company (issuer) in SOEs in the Banking Sector. Practical Implications- The present study provides insight and knowledge for investors before making financial decisions, such as investment decisions and other investment instruments, to minimise possible risks. This study is expected to be used as a source of information and learning to measure the performance of the company (issuer) and to improve the quality of the company so that it is effective and improves the welfare of the company and its customers. It is hoped that this research can be used as a source of reference and consideration as well as theories for future research.

Keywords. Intellectual Capital, Innovation, Company’s Performance, Indonesian Banking Sector

1. Introduction
Over the last decade, there has been a rapid increase in global economic competition due to globalisation. Global economic competition has been deferred due to the emergence of knowledge-based industries. According to Pulic (2004), the capacity of a business to use knowledge determines its performance. Knowledge, as a type of intangible asset, has emerged as a new source of financial performance and competitive advantage. Several researchers have been confronted by the shift from power-based business to knowledge-based business to discover a new method to assess intangible assets such as intellectual capital. This phenomenon has been perceived as a transition from an industrialised society to a knowledge-based society. According to Schiavone et al. (2014) and Chowdhury et al. (2019), intellectual capital is not only the main driver and a vital resource in the value creation and long-term development of a company, but it is also a source of innovation and a critical feature in profitability.

The banking industry is one of the economic sectors that has shifted due to this phenomenon. Since the banking industry is highly knowledge-based, it is critical for market
players to improve their infrastructure. In addition to improving its physical infrastructure, the banking industry must fortify its businesses with intellectual capital.

Intellectual capital is "formalised, captured, and leveraged" intellectual resources to generate greater assets (Alrowwad et al., 2020). Knowledge, information, intellectual property, and experience are examples of intellectual property (IC). Intangible assets are notoriously difficult to quantify because they include many organisational and individual variables. Human capital, structural capital, and capital employed are three types of IC (Edvinsson and Sullivan, 1996).

The development of intellectual capital in Indonesia began with the publication of Financial Accounting Standards (PSAK) Number 19 on Intangible Assets. In PSAK No. 19, intangible assets are defined as non-monetary assets that cannot be physically seen or identified and are used to produce or deliver goods or services to third parties for administrative purposes (Indonesian Accounting Association, 2007). Intellectual capital contributes to creating company value to achieve a competitive advantage.

Company performance appraisal can be evaluated based on two variables or indicators. This variable serves as the foundation for evaluating the performance of the company in question. This assessment can be carried out by analysing and evaluating the financial statements so that the financial statements can predict the company's (issuer's) financial position and performance in the banking sector.

Today, technology can create useful innovations in many aspects of life rather than just producing specific products. Banking companies are one sector that uses technological advancements to implement innovation. It can be concluded that innovation can motivate the banking sector to support a country's economic growth. The goal of a company's innovation is to increase productivity and performance in its operational activities. At the start of development, the company must spend more money to increase technological innovation and support the company's activity process.

Digital financial innovation can be applied in the banking world by updating financial instruments to increase value in the banking sector by involving the digital ecosystem. Banking financial institutions, for instance, have made innovations to improve their customer services. The banking industry has issued various forms of financial innovation, such as Automatic Teller Machines (ATM), Internet Banking, and Mobile Banking services. These innovations are expected to improve banking performance to provide better services to customers.

According to data from financial institutions and the government, global economic conditions in 2022 will be 5.2% better than in 2017 and 5.1% better than five years ago. The performance of banking companies contributes to Indonesia's increased economic growth. The banking sector is one of the economic sectors that has a significant impact on the Indonesian economy. The banking sector is regarded as the primary pillar of any system.

According to data from the Financial Services Authority (OJK) on Indonesian banking statistics, state-owned banks have the highest profits for the Indonesian economy as of February 2022. Compared to other bank groups, the increase in profits of state-owned banks is the largest. The increase in profit of state-owned banks was supported by an increase in income and an increase in bank credit. Furthermore, the role of human resources in the company contributes to the company's increase in profits. In this particular instance, the role of intellectual capital in increasing company profits is viewed as factual.

Therefore, this article aims to determine the effect of intellectual capital, which includes Human Capital (HC), Structured Capital (SC), Capital Employed (CE), and innovation on the performance of SOEs in the Banking Sector in Indonesia.
2. Literature review

Previous literature confirmed the importance of intellectual capital and innovation (Dost et al., 2016; Obeidat et al., 2017), as a driver of organisational performance (Gogan et al., 2016; Gracioli Camfield et al., 2018). Thus, the current study aims to determine the effect of intellectual capital, which includes Human Capital (HC), Structured Capital (SC), Capital Employed (CE), and innovation, on the performance of the company (issuer) of state-owned banks in Indonesia (SOEs). So far, there are yet empirical works that look into the influences in the Indonesian context. Moreover, the study derives its importance from being conducted in the banking sector in Indonesia. For this reason, all potential opportunities need to be captured and exploited to achieve better organisational performance.

2.1. Intellectual Capital

The definition of intellectual capital can vary. Intellectual capital refers to capital in the form of non-physical or intangible information which contains human knowledge and understanding and technology that supports such knowledge and understanding. Intellectual capital is created from several human factors, processes and customers that encourage humans to compete in a company (Simarmata, 2015).

Intellectual capital is usually used by companies that operate based on knowledge orientation and information technology development. Intellectual capital is knowledge or understanding applied in performance to obtain the expected value or results (Williams, 2001). In addition, intellectual capital is also needed to be combined with intangible assets that can support the company (Brooking, 1996).

Intellectual capital is a source of knowledge contained in the company's body so that companies can obtain high-value assets and prosper the economy in the future for the company (Stewart, 1997).

Intellectual capital is also defined as intellectual material that contains knowledge, information, experience, and intellectual property to create wealth (Sangkala, 2006). So, broadly speaking, intellectual capital is defined as an asset of great value that is utilised by all its resources, both physical and non-physical, to obtain value or wealth for the company. Intellectual capital plays a vital role in knowledge management, employee empowerment, and utilisation of organisational structure to make it more efficient. In addition, in today's modern era, intellectual capital plays a significant role in business competition. This is because intellectual capital is classified as the primary resource that supports the entire performance of the company, so intellectual capital can be used as a determinant of company strategy.

2.1.1. Human Capital

(HC) is a source of company innovation and improvement owned by company employees. HC will increase if the company can develop and utilise the knowledge, competencies, and skills of its employees. HC can create value within the company (Tan et al., 2007).

2.1.2. Structure Capital

Structural Capital (SC) is the ability possessed by the company to manage the company's activities supported by a support structure so that employees can work optimally as a whole. SC can influence the formation of firm value (Tan et al., 2007).

2.1.3. Capital Employed

Capital Employed (CE) are funds or physical capital owned by the company and used to add value to the company (Wiradinata and Siregar, 2011). If the company can take full
advantage of CE, then the value obtained by the company and in the eyes of the community will be better (Tan et al., 2007).

2.2. Innovation

Innovation is defined differently by several experts, including innovation is the centre of all company activities, so innovation plays a vital role in the sustainability of the company to form ideas, develop technology, processes, and others (Trott, 2008).

In addition, innovation is also considered a tool owned by the company to take advantage of and explore changes that can be used as opportunities to create new businesses (Drucker, 2012).

In short, innovation is defined as a change in a company or organisation that includes the creation of new products, ideas, processes, or services that exist within and outside the organisation (Ellitian & Anatan, 2009).

Innovation arises from new ideas. To create innovation, creativity is needed; where without creativity, innovation will never be formed. This is because they are related (Stamm, 2008).

2.2.1 Purpose of Innovation

The following are the goals of innovation based on four different views (Makmur & Thahier, 2015), namely:

- Financial perspective, where innovation is created to find new ways to maximise the company's budget spending, however, with many results in return.
- Customer perspective, where the company innovates in providing the latest services to serve customers well.
- Internal business management perspective, where innovation can form conducive conditions in a company so that all company activities can take place optimally.
- The perspective of growth or expansion of business fields, where innovation can be utilised by companies to improve their business fields.

2.2.2 Types of Innovation

The following are some types of innovation according to Susanto & Putra (2010), namely:

- Product Innovation includes new services or products.
- Process Innovation includes production and delivery processes.
- Source Innovation, innovation changes the source of product inputs from the market, delivered to consumers.
- Marketing Innovation can be seen in the evolution of the latest market methods, such as product design, packaging, promotions, and so on.

2.2.3 Innovation Principles

Innovation has several principles, according to Kuratko & Hodgetts (2007), including

- Innovators must always be active in generating new ideas, opportunities, and sources of innovation.
- Creating products or services and a series of processes that are easily understood by others.
- Get used to starting everything from small, then develop it and allow it to grow on planning promptly.
• An innovator must have a definite goal to get what he is aiming for in his search for success and position in the market.
• Always try, develop and process according to the existing rules.
• Always learn from mistakes or failures to create innovations.

2.2.4 Kinds of Innovation
According to Gupta (2007), innovation is divided into three models, namely first, by simply modifying the product but not eliminating its original nature. Secondly, creating new products with a uniqueness that is different from existing products, as well as creating new products with new and different properties from the existing product. Lastly, it must be a completely new product from before.
In addition, innovation is also grouped into four types according to Abernathy & Clark (1985) and Tidd (1993):
• Architectural Innovation, meaning that the formation of a product must establish techniques and various other procedures that can be used for further development.
• Market Niche Innovation, meaning that innovation has great potential in new market opportunities by utilising technology.
• Regular Innovation, meaning that innovation always changes technical or production capabilities.
• Revolutionary Innovation, meaning that innovation can create technical and production establishments but must be applied to pre-existing markets and customers.

2.3. Bank
According to Law Number 10 of 1998 concerning Banking, Banks are defined as business entities that have the task of collecting funds from the public in the form of deposits and returning them in the form of credit or other forms to improve people's welfare.
Banks are business entities that carry out the task of financial intermediary institutions between parties who have more funds and those who have fewer funds at a certain time (Lukman Dendawijaya, 2003).

2.3.1. Types of Bank
2.3.1.1. Based on Function
• Commercial banks
In Law Number 10 of 1998 concerning Banking, Commercial Banks are banks engaged in conventional and sharia business activities to provide services in payment traffic. Following are the activities of commercial banks: collect funds from the public in the form of deposits in the form of demand deposits, time deposits, certificates of deposit, and savings; give credit; issue a debt acknowledgement letter.; buying, selling, guaranteeing its own risk and interests and on the orders of its customers; and transferring money either for its own interest or for the customer's interest.
• Rural Bank (BPR)
According to Law Number 10 of 1998 concerning Rural Banks (BPR), it is defined as a bank whose task is to carry out conventional and sharia business activities, not to provide services in payment traffic.
2.3.1.2. Based on Ownership
• Government Owned Bank
Namely, a bank whose entire capital and deed of the establishment are owned by the government.

- **Private Owned Bank**
  Namely, a bank whose entire capital and deed of establishment is owned by a private party.

2.3.1.3. Based on Status

- **Foreign Exchange Bank**
  Namely a bank that carries out its duties conventionally and sharia in the service of domestic and foreign payment traffic with the permission of Bank Indonesia.

- **Non-Foreign Exchange Bank**
  Namely a bank that has not obtained a licence from Bank Indonesia to provide traffic services for domestic and foreign payments.

2.3.1.4. Based on Price Determination

- **Conventional Bank**
  This type of bank applies conventional principles in setting interest as a price and uses fees in a certain percentage to earn profits.

- **Islamic Bank**
  This type of bank applies sharia principles or rules according to Islamic law in financing based on the principle of profit sharing (mudharabah), equity participation (musharakah), the principle of buying and selling goods for profit (murabahah), financing of pure rental capital goods (ijarah).

2.3.2. Purpose of Bank

The specific functions of a bank are Agent of Trust, Agent of Development, and Agent of Service (Sigit Triandaru & Totok Budi Santoso, 2006).

2.3.2.1. Agent of Trust

The function of the bank is to collect funds from the public who have advantages and to be channelled back to those in need. For this function to be carried out properly, trust is needed. Therefore, banks need to give a sense of trust to the public.

2.3.2.2. Agent of Development

Namely, the bank is tasked with collecting and distributing funds needed to carry out the tasks of developing the community’s economy, such as production, distribution, investment and public consumption activities.

2.3.2.3. Agent of Service

Namely, the bank offers banking services to the public, for example, money transfer services, collections, credit, money market, and so on.

2.3.3. Source of Funds

Sources of funds are divided into three types (Lukman Dendawijaya, 2003), namely:

2.3.3.1. Personal Funds or First Party Funds

Namely funds sourced from shareholders or bank owners, which include: paid-in capital, backup funds and retained profit.

2.3.3.2. Loan Funds or Second Party Funds

That is the second fund sourced from outside the bank. The following are included in the Loan Fund, namely:

- Other bank loans, which are obtained from other domestic banks when there is an urgent need.
• Overseas Bank or Financial Institution loans, which are obtained from financial institutions from abroad and require approval from BI as a foreign credit supervisor (PKLN).
• Non-Bank Financial Institution (LKBB) loans, which are obtained in the form of securities which are traded before the maturity date.
• Bank Indonesia loan, which is obtained from Bank Indonesia by fulfilling certain requirements.

2.3.3.3. Community Funds or Third Party Funds

Namely, funds obtained by banks that come from the community, both individually and in institutions using savings products owned by banks. The following are included in the Community Fund, including
• Giro (Demand Deposits), third-party bank deposits, are withdrawn by check.
• Time Deposits, which are long-term deposits by banks and can only be withdrawn within a predetermined period of time.
• Savings, namely bank deposits issued by banks and can only be withdrawn by the provisions stipulated by each bank.

2.4. SOEs (State-Owned Enterprise)

State-Owned Enterprises (SOEs) were established before the proclamation of Indonesian independence, which was established to fill the void left by the Dutch. At first, the name SOEs was first known since the issuance of Government Regulation (PP) Number 3 of 1983 concerning Procedures for Guidance and Supervision of Bureaucratic Companies (Perjan), Public Companies (Perum), and Limited Liability Companies (Perser). It was later revoked and replaced with PP. Number 13 of 1998 concerning Public Companies (Perum).

According to Law Number 19 of 2003 concerning State-Owned Enterprises, SOEs are business entities whose capital is partly or wholly owned by the state with direct participation or separated state assets.

3. Research framework, research hypotheses and methodology

3.1. Research Framework

Based on theoretical studies and the results of previous research, the framework was developed, and it is shown in Figure 1. The framework includes how the three categories of capital intellectual: a. human capital (HC); b. structural capital (SC); c. capital employed (EC), and innovation in product and services affects the performance of state-owned bank companies (SOEs).
3.2. Research Hypotheses

Researchers have widely recognised the critical role of intellectual capital and innovation in improving organisational performance (Lo et al., 2020). Several researchers have emphasised the importance of intangible assets' impact in driving organisational growth (Li et al., 2020). This study supports the argument that intellectual capital (human capital, structural capital, capital employed) and innovation affect the performance of state-owned bank companies (SOEs). Therefore, based on the description of the theory and previous research mentioned above, the following hypotheses are proposed:

H1: Intellectual capital has a positive influence on company performance
H1a: Human Capital has a positive influence on company performance
H2a: Structural Capital has a positive influence on company performance
H3a: Capital Employed has a positive influence on company performance
H2: Innovation has a positive effect on company performance

3.3. Methodology

This study uses research data from previous researchers and other secondary data from journals and books.

4. Discussion

This study aims to determine the effect of intellectual capital, which includes Human Capital (HC), Structured Capital (SC), Capital Employed (CE), and innovation, on the performance of banking sectors in Indonesia (SOEs). The Indonesian banking industry is regarded as one of the essential industries of the Indonesian economy. The Indonesian banking industry is differentiated by various innovative financial services, premium knowledge creation and new innovations. For these reasons, it has drawn the focus of administrative scholars and practitioners to the significance of innovation in this industry.

The study yielded several significant findings. H1, H1a, H2a, H3a, and H2 are accepted. The results demonstrate that intellectual capital, including human capital, structural capital, and capital employed, positively correlates with organisational performance in the banking sector. The findings also bolster the contention that innovation played an essential role in banking sector organisational performance.
3.2.1. The Relationship of Intellectual Capital on Company Performance

The first research into the relationship between performance and the effectiveness of intellectual capital was conducted by Bassi and van Buren in 1999. There were 500 US-listed companies in the sample. They discovered a favourable correlation between IC and financial results. Value-added position as a gauge of IC and its impacts on the firm's financial, economic, and stock market performance were investigated by Zéghal and Maaloul in 2010. Of the 300 companies listed on the UK stock exchange, they used the VAIC approach. The results demonstrated that IC has a favourable effect on financial and economic performance.

Therefore, based on the description of the theory and previous research mentioned above, the hypotheses proposed in this study are as follows:

H1: Intellectual capital has a positive influence on company performance and has been proven
H1a: Human Capital has a positive influence on company performance and has been proven
H2a: Structural Capital has a positive influence on company performance and has been proven
H3a: Capital Employed has a positive influence on company performance and has been proven

3.2.2. The Relationship of Innovation on Company Performance

The impact of product innovations and newly obtained patents on business performance in several U.S. and Canadian industries was investigated in the longitudinal study by Artz et al. (2010). They discovered that the performance of firms was significantly impacted by product innovation. Therrien et al. (2011) examined the relationship between innovation and company success in several service sectors. The findings show that companies must join the market first or release novel products with a high level of novelty if they want to increase sales through innovations. Through an empirical study involving manufacturing firms in several industries, Gunday et al. (2011) investigated the effects of innovations in products, processes, organisations, and marketing on various elements of firm performance, including accomplishments in production, marketing, and finance.

Therefore, based on the description of the theory and previous research mentioned above, the hypotheses proposed in this study are as follows:

H2: Innovation has a positive effect on company performance and has been proven

Following are the results of similar research conducted by several well-known experts on the influence of intellectual capital and innovation on company performance.

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<tr>
<th>No.</th>
<th>Author</th>
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<th>Dependent Variable</th>
<th>Results</th>
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</table>
Structural capital does not affect financial performance.


3. Yuskar and Novita (2014) Analysis of the influence of intellectual capital on firm value with financial performance as an intervening variable in banking companies in Indonesia. Financial performance, firm value VAIC affects financial performance VAIC has no effect on firm value VAIC has an effect on firm value with financial performance as an intervening variable


5. Indrajaya (2015) The influence of intellectual capital on firm value The value of the company VAIC affects firm value

Table 1. Previous Research by well-known Authors

5. Conclusion
Research findings indicate that intellectual capital, including Human Capital, Structural Capital and Capital Employed, is positively related to organisational performance in the banking sector. The results also support the argument that innovation plays an important role in organisational performance in the banking sector.

The implications of this study limit its generalisation because it is limited to the influence of intellectual capital and innovation on the performance of companies (issuers) in BUMN in the Banking Sector. While the practical implications- this research provides insight and knowledge for investors before making financial decisions, such as investment decisions and other investment instruments, to minimise possible risks.

This research is expected to be used as a source of information and learning to measure the performance of the company (issuer) and to improve the quality of the company so that it is effective and improves the welfare of the company and its customers. It is hoped that this
research can be used as a source of reference and consideration as well as theories for further research.

References


