Implementation of Innovation Strategy, Intellectual Capital in Efforts to Increase Financial Performance

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***Abstract**:*
The purpose of this study is to analyse the influence of innovation strategy and intellectual capital on organizational performance in the context of developing countries. The sample consists of 41 managers of manufacturing companies in the steel industry in the province of Banten, Indonesia. Data were analysed by partial least squares–structural equation modelling. This study provides empirical evidence that the three components of intellectual capital produce a positive and significant effect on firm performance. Structural capital is the component that has the most influence on performance. It also shows a positive and significant relationship between innovation strategy and intellectual capital. Structural capital is also the component most influenced by the innovation strategy. This research uncovers limitations for the future. First, the work uses as the only source of information, consulting at the highest level of the company. Second, this study only covers manufacturing industry companies. The results may have important practical implications for stakeholders and managers and offer a vision of the influence of intellectual capital on the innovative capacity of organizations. The value of work lies in the importance of intellectual capital in a developing country like Indonesia, given the low level of knowledge in this field.

Introduction

Today, organizations face challenges as the business environment changes. Management must be more professional in managing its resources to improve organizational performance (Xiao et al., 2012). Organizational performance is multidimensional because it includes financial and non-financial performance. Meybodi, (2015) shows that managers in every organization place more emphasis on strategic performance measures. Financial and non-financial performance must be "harmonious" to make the organization achieve comprehensive performance (Sacristán-Navarro et al., 2011). Competitive advantage is indicated by returns above the average competitor and can be achieved by implementing a competitive strategy (innovation strategy). An organization needs to develop innovation formally and have a comprehensive strategy. Alignment of strategy with the business is an important strategy to improve the company's superior performance (Bag et al., 2018). This strategy expresses organizational goals in innovation, namely the explanation and planned management of an innovation. The innovation strategy dimension consists of leadership orientation, process, innovation, product innovation, internal source of innovation, external source of innovation, implementation of innovation, and level of investment. The successful implementation of the innovation strategy will have a significant impact on organizational performance.

This research breaks down intellectual capital into three dimensions, namely human capital, structural capital, and relational capital. where most research does not break down intellectual capital into three dimensions. The study of intellectual capital activity, in a broad sense, is a field that examines the world of objects or ideas, materials or others created by humans (Simon, 2019). All individuals have a natural ability to design and create an idea, through a combination of three skills: critical thinking, creativity, and practical thinking. Therefore, intellectual capital is recognized as a form of thought and behaviour, which may be applied to many people, professions, and situations. Krippendorff, (2005) states that the practice of professional intellectual capital is different from design in everyday life, because it is supported by expertise, methods, and organized forms of language or design discourse. Buchanan, (2015) states that there are four broad areas where intellectual capital is explored by professional and amateur managers: symbolic design and visual communication; material object; complex systems for living, working, recreation; and learning environments and activities and services.

This study investigates how the innovation strategy provides value to the organization on the grounds that the design is the intellectual capital of the business. The combination of a natural innovation strategy and professional ability in business practices strives to produce a superior organization. Intellectual capital is considered important for stakeholders because intellectual capital is a benchmark for stakeholders in assessing the value of a company, disclosure of intellectual capital reflects the importance of disclosing information on the company's condition (Nurhayati & Uzliawati, 2017). Disclosure of intellectual capital can reflect good corporate governance (Uzliawati & Djati, 2015). The novelty of this research is to present the dimensions of intellectual capital into three

dimensions. the importance of the division of dimensions in intellectual capital because intellectual capital is an intangible asset that is functionally very important in an organization. The importance of building intellectual capital for every company is a reflection of the company's ability to carry out supervision, as was done by Uzliawati et al., (2014) in its research on the relationship between disclosure of intellectual capital and the characteristics of the audit committee.

Friedman, (2016) has studied the application of innovation strategy in organizations developing themes such as innovation management, design, and business as well as innovation strategy. This trend has shown that incorporating innovation in business results in benefits for companies and society at large. Junginger, (2015) states that innovation strategy is part of business DNA because there are three innovation heritages that have organizational components: tradition or practice (applied design methods), approach (individual-focused, process-oriented, problem resolution or cost minimization) and goals. organization (vision, mission, and strategic goals). These design legacies, in certain cases, become flawed or inadequate, as they must be coordinated, visualized, and dedicated to achieving tangible organizational change. Basically, the legacy elements of business design refer to what, how or why design is important to the organization.

As a result, innovation strategy is the application of design in organizations, particularly at the strategic level for business management, which goes beyond the creation of physical artifacts. The purpose of this article is to demonstrate, based on the literature, the contribution that strategic design makes to business intellectual capital, according to the following objectives: confronting and solving complex problems, generating value for business and society in general and increasing the use of design in internal organizational processes, going beyond the line research classics. The purpose of this article is to demonstrate, based on the literature, the contribution that strategic design makes to business intellectual capital, according to the following objectives: confronting and solving complex problems, generating value for business and society in general and increasing the use of design in internal organizational processes, going beyond the line research classics. This research emphasizes more on incremental innovation. Incremental innovation is essentially a conceptualization activity, as well as the idea of solving problems by bringing economic value to the company and social value to society. So incremental innovation departs from something that already exists, then is given an increase in added value. Incremental innovation starts from something that seems simple by opening your eyes and ears to listen to the aspirations or complaints of consumers, employees, the environment, and society. The subject of the application of incremental innovation itself can be individuals, groups, or companies. This means that within a company there is a brilliant and innovative individual or group that is ideal for turning the company into an institutionalized place for people to gather to exploit new ideas.

The development of accounting can be seen not only as a response to new needs but rather as constitutive of them (Loft, 1995), Accounting, as an information system, plays an integral role in the development of organizations because of the greater uncertainty they

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face. IC elements can be understood as organizational characteristics that are affected by contingencies arising from the operational environment, it is assumed that the availability of internal intellectual capital information adjusts to contextual or contingent factors. Although some empirical results (Wang & Chang, 2005) prove that Intellectual capital in general has a positive influence on firm value and financial performance, such studies have focused on external information and value. Several studies have systematically conceptualized and explained the relationship between the operational environment (context) and internal intellectual capital information.

Contingency theory supports the relationship between innovation strategy and financial performance by stating that organizational design will be effective only under certain conditions (Otley, 2019). Possibility Theory is used in this study because the theory explains organizational design effectively and is universally applicable under certain conditions. Different conditions make design differences. In short, organizational design is only suitable for certain conditions. innovation strategy is one of the contingent factors that affect financial performance intensely in competitive conditions (Zigan & Zeglat, 2010). Innovative solutions obtained through the process can be applied to policy makers, researchers, and practitioners (Shrotriya & Dhir, 2018). Intellectual Capital is a set of knowledge and information in a company or organization that helps increase the value of the company's or organization's products and services through intelligence not only using financial capital. In fact, Intellectual Capital represents the total intangible assets known as knowledge assets. On the other hand, innovation strategy is considered as the beginning of success to create products and services that provide customers with added value (Zerenler et al., 2008). Therefore, the use of the company's Intellectual Capital as a lever and a requirement to create innovation (Chahal & Bakshi, 2015). In this regard, (Narvekar & Jain, 2006) investigate the role of Intellectual Capital in organizational innovation processes. They find that innovation increases the growth curve of many firms and opens new markets. These are the essential elements that bring growth, wealth, and success to innovative companies. Thus, organizations can use managerial interventions, which increase their Intellectual Capital, to create approaches that encourage innovation (Dumay et al., 2013).

Innovation strategy requires strong incentives that can produce innovative results by placing the right people alongside the right culture. Understanding the drivers of innovation and creating an environment to promote innovation and technology is focused by development managers (Mahmoudi Maymand & Kiarazm, 2016). Today's businesses recognize that they can create sustainable innovation through Innovation Strategies, and that their success is highly dependent on their ability to manage these valuable assets (Buenechea-Elberdin, 2017). The specific economic conditions of companies cause their innovations to no longer be based on tangible assets. Economic development demands effective knowledge management and continuous emphasis on key factors of knowledge assets such as Intellectual Capital (Agostini et al., 2017). New market features are associated with rapid technological developments, rapidly changing social conditions and customer needs, and reduced product life cycles. Therefore, companies should consider strategies to

increase innovation (Zerenler et al., 2008). If an organization lacks systems and procedures, Intellectual Capital will never reach its maximum potential, while an organization with strong intellectual capital will be supported by an entrepreneurial organizational culture that will enable people to take innovative actions (Costa et al., 2014).

To have a better innovation strategy, organizations need to pay attention to how they handle intangible resources including how they manage their Intellectual Capital. Intellectual Capital is considered an important organizational resource for its performance and capacity to innovate, generate, and maintain competitive advantage (Cabrilo & Dahms, 2018). In an organization, there are three modalities that facilitate its innovation: namely human capital, structural capital, and relational capital (Chahal & Bakshi, 2015). Therefore, an innovation strategy includes knowledge outcomes that enable organizations to competitively cultivate valuable competencies. Furthermore, in today's environment, organizations that wish to continuously increase their Intellectual Capital can maintain their competitive advantage. In addition, the development of Intellectual Capital accelerates the formation of an innovation strategy, and this will consequently increase the learning capabilities of members of the organization.

Innovation strategy requires knowledge, skills, and abilities of human resources (Subramaniam & Youndt, 2005). Human capital has explicit and implicit knowledge through interactions between other employees, leaders, technology, material, and other organizational resources, these individuals continue to gain and improve their knowledge through interactions and learning experiences by doing their tasks, and social interactions network with various individuals inside and outside the organization. Knowledge, skills, abilities, and experience are components of human capital that form effective ideas and knowledge from the results of the innovation strategy (Han & Li, 2015). In addition, human capital is one of the unique and distinguished assets that make organizations advantage competitive differences because of their specialized knowledge, which contributes to Innovation Strategy and Intellectual Capital which has an impact on leadership style and performance of developing new ideas, products, and services, which is difficult. to be imitated and imitated by other organizations (Obeidat, 2016). The diversity of expertise, skills, ideas, and experiences is a great source of innovation.

The inability to use experienced and skilled staff can prevent organizations from further innovating, trained staff with distinctive skills, talents, and experience to support the development of new products and services. Human capital with good skills is very important, so support management with trained human resources helps organizations develop procedures to develop and implement new ideas and innovations (Varadarajan, 2018). Innovation strategy depends on any changes in products, services, or processes, and therefore depends on knowledge spreading throughout the organization (Sivalogathasan & Wu, 2015). Enterprise knowledge plays an important role in innovation strategy, where knowledge is present in many sites and is widely distributed within the company and is available in information systems, databases, and patents. Knowledge of this organization is known as organizational structural capital (Obeidat et al., 2016). Structural capital is the

structural elements that refer to the processes, learning elements, and practices that demonstrate an organization's ability to acquire, share, and exploit external knowledge. If the organization wants to achieve its goals and strategies (Mohammed et al., 2017), it cannot separate human capital from structural capital; This is because structural capital incorporates knowledge acquired by employees. This allows for the transformation of ideas into innovations. Structural capital forms the organizational infrastructure where human capital can create an innovation strategy.

Relational capital refers to the establishment and development of relationships with external parties or partners associated with the organization. Thus, it includes diverse factors, cooperation with external partners, and marketing capacity (Mohammed et al., 2017). The efficiency of information exchange, and the process of combining producers and customers depends on the skills and expertise of team members in the process of determining the form of innovation strategy, this means that companies with strong human resources are better able to collect and store market information through relationships with customers and external parties. From a human capital perspective, contact with customers is very important for research and development of innovation. In addition, organizational capacities change and become exploited (such as customers, suppliers, and competitors) to generate new knowledge and creative ideas (Kumari et al., 2014). Better communication process leads to information and knowledge exchange within organizations to scan their environment for new innovative technologies to promote innovation strategy, which is enhanced with customers and suppliers to address risks related to innovation development (Mention & Bontis, 2013). Based on the description above, the following hypothesis can be formulated:

H^{1a}: *There is a significant positive effect of innovation strategy on human capital in manufacturing companies in Banten Province.*

H^{1b}: *There is a significant positive effect of innovation strategy on structural capital in manufacturing companies in Banten Province.*

H^{1c}: *There is a significant positive effect of innovation strategy on relational capital in manufacturing in Banten Province.*

In this study, company performance is defined as the company's performance in running its business and success in competing with other companies. the company's performance of a company is reflected in the company's internal and external performance. The higher the performance, the higher the company's ability. The main purpose of establishing a company is to increase the value of the company through increasing the prosperity of the shareholders. In increasing the value of the company, the company does not only pay attention to equity, but also pays attention to financial sources such as debt and preferred stock. The value of the company for investors is very important because the value of the company is used as an indicator to assess the overall value of a company. Resource-Based View Theory (RBV) is a theoretical concept that was born from research by economists around the world, where this theory is believed to be able to provide answers in creating competitive advantage for a company (Barney & Clark, 2007). This RBV can be used

to identify the company's resources and capabilities as a source of sustainable competitive advantage. RBV asserts that ownership and control over strategic assets determines a company will benefit and position a competitive advantage compared to other similar companies.

Sources of sustainable competitive advantage have become a research theme in strategic management. Since the 1960s, the framework used to achieve sustainable competitive advantage has been to implement a strategy that maximizes internal strengths through exploiting opportunities in the external environment, neutralizing threats from the external environment and minimizing the company's internal weaknesses. Most strategy research revolves around opportunities, threats, strengths and weaknesses and the fit between the four. However, most research emphasizes the analysis of opportunities and threats of the external environment rather than the analysis of the companies internal. According to García, (2009), performance is defined as a measure of productivity, where: the resources given to a business ensure its sustainability and growth, thereby, generating value for investors. Growing resources, enabling increased investor interest, is the goal of every company (Ittner & Larcker, 2003). Therefore, the measurement of company performance becomes relevant, with several indicators for this. The indicators used in most studies (Molina-Parra et al., 2017), according to them are effectiveness or productivity, such as return on assets (ROA) and Return on Equity (ROE).

These indicators measure the ability to generate profits, considering three important factors: the amount of assets, their nature (operational or total) and rights to own resources (equity). However, the intangible nature of some resources or assets makes it difficult to measure the performance of companies using these resources, with Intellectual Capital being one of them. Given that this asset is not reflected in the financial statements of the business, the accuracy in its measurement is very important to analyse its effect on the company's financial performance. The model developed to measure intangibles focused on the economic aspects of business performance shows a lack of studies analysing the effect or impact of intellectual capital on business financial performance (Chu et al., 2011). Sufficient evidence exists on the use of the VAIC model in the finance and banking sector, measuring the impact of intellectual capital on business performance (Al-Musali & Ismail, 2014) and its use is limited in other sectors, except the study conducted by Zeghal and Maaloul, (2010) applied in the high-tech sector in the United Kingdom and the only one conducted by Guo, Shiah-Hou and Chien, (2012) applied to the biotechnology sector, these two studies investigate the impact of Intellectual Capital on a company's Financial Performance. Villegas González, Hernández Calzada and Salazar Hernández, (2017) also use the financial returns model, and apply it to the Mexican Industrial Sector business, as the main human resource of Intellectual Capital and a value creator. It yields similarities with other studies applied in the financial sector (Mondal & Ghosh, 2012).

The impact of the Intellectual Capital component and business financial performance, using financial performance as a study variable which states that there is a positive relationship between financial performance indicators (Villegas González et al., 2017). While

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other studies Ghosh and Mondal, (2009), did not show convincing results about the positive relationship. The use of financial performance indicators is useful for comparative financial analysis between businesses from the same sector, making it possible to see the financial value of intangible assets in the scenario: accounting and financial standards that have been set. Based on the description above, the following hypothesis can be formulated:

H^{2a}: *There is a significant positive effect of human capital on firm performance in manufacturing companies in Banten Province.*

H^{2b}: *There is a significant positive effect of structural capital on firm performance in manufacturing companies in Banten Province.*

H^{2c}: *There is a significant positive effect of relational capital on firm performance in manufacturing companies in Banten Province.*

Research Method

This research is a type of quantitative research by testing the hypothesis. The source of data in this study is primary data and comes from respondents who are willing to provide information about the actual conditions that occur in the company through answers to questionnaires that have been distributed by researchers. The population used in this study is the manager of a steel manufacturing company located in the province of Banten, Indonesia. In this study, the respondent's position consisted of respondents who were responsible as accounting managers as many as 3 respondents, Business Development managers as many as 1 respondent, Corporate Secretary managers as many as 2 respondents, Finance managers as many as 6 respondents, HC & Finance Directorate managers as many as 6 respondents. respondents, Human Capital managers were 6 respondents, Internal Audit managers were 2 respondents, Land managers. Acquisition of 3 respondents, Land manager. Administration is 3 respondents, Legal & Risk Management (GCG) manager is 3 respondents, Procurement manager is 2 respondents, SABM manager is 2 respondents, Strategic Planning manager is 3 respondents.

The data analysis method used to test the data collected in this study used Partial Least Square (PLS) software. PLS is an application that can provide clear output results. Data collection was carried out using a Structural Equation Model (SEM) approach using Partial Least Square (PLS) software. PLS is a component-based or variant-based structural equation model (SEM). PLS is an alternative approach that shifts from a covariance-based SEM approach to a variance-based approach. Covariance-based SEM generally tests causality/theory, while PLS is more of a predictive model. PLS is a powerful analytical method because it is not based on many assumptions. For example, the data does not have to be normally distributed, the sample does not have to be large. Besides being used to confirm theory, PLS can also be used to explain whether there is a relationship between latent variables. PLS can simultaneously analyse constructs formed with reflexive and formative indicators. This cannot be done by covariance-based SEM because it will be an unidentified model.

The advantage of PLS is that it could map all paths of analysis to many dependent variables in the same research model and can analyse all paths in the structural model simultaneously at the same time. At the measurement model level, PLS estimates item loading and covariance. At the structural level, PLS estimates the path coefficients and correlations between Latent Variables, along with the individual R2 and AVE (Average Variance Extracted) of each latent construct. The T-values of the paths and loads are then calculated using one of the bootstrap methods. Good model fit was established with a significant path coefficient, an acceptable high R2 and internal consistency (construction reliability) above 0.70 for each construct. Although Partial Least Square is used to confirm the theory, it can also be used to explain whether there is a relationship between latent variables. Partial Least Square can analyse simultaneously constructs formed with reflexive and formative indicators and this is not possible in the Structural Equation Model (SEM) because an unidentified model will occur. PLS has two indicator models in its description, namely: the Reflective Indicator Model and the Formative Indicator Model.

Based on the description that has been described in the introduction and literature review as well as an explanation of the variables used in this study. The variables in this study consist of 3 variables, namely Innovation Strategy, Intellectual Capital, and Firm Performance. Innovation Strategy which has 3 indicators, namely New Products, New Distribution Channels, New Markets. Intellectual Capital, in this study Intellectual Capital is divided into 3 dimensions, namely Human capital which has 4 indicators, namely Skills, Creativity and Intelligence, the ability to develop new ideas and experiences, the second dimension of intellectual capital, namely structural capital with 4 indicators, namely Information systems, work facilities, Documents and databases, maintenance funds and the last dimension is relational capital with 4 indicators, namely external relations, customer loyalty, problem solving, cooperation. The last variable in this study is firm performance with 4 indicators, namely learning and growth, Business process, Customer satisfaction, Revenue target. Each indicator contained in each variable is translated into a statement to make it easier for respondents to answer the questionnaire that was distributed. The measurement of indicators uses an ordinal scale (scale 7) with 1 point for the description of the indicator with bad condition, 4 points for the description of the indicator with sufficient condition and 7 points for the description of the indicator with good condition.

Results and Discussion
Data Test Results

Based on the results of the smartPLS output in table 1, the AVE value of the Innovation Strategy, Human Capital, Structural Capital, Relational Capital, and Firm Performance variables. The AVE value of the Innovation Strategy variable is 0.937688 where the AVE value for this variable has a value of more than 0.5. This shows that each indicator in the Innovation Strategy variable has a good validity value and each indicator used to describe the Innovation Strategy variable is declared valid. The AVE value of the Human Capital variable is 0.898632 where the AVE value for this variable has a value of more than

0.5. This shows that each indicator in the Human Capital variable has a good validity value and each indicator used to describe the Human Capital variable is declared valid.

The AVE value of the Structural Capital variable is 0.947032 where the AVE value for this variable has a value of more than 0.5. This shows that each indicator in the Structural Capital variable has a good validity value and each indicator used to describe the Structural Capital variable is declared valid. The AVE value of the Relational Capital variable is 0.923537 where the AVE value for this variable has a value of more than 0.5. This shows that each indicator in the Relational Capital variable has a good validity value and each indicator used to describe the Relational Capital variable is declared valid. The AVE value of the Firm Performance variable is 0.913150 where the AVE value for this variable has a value of more than 0.5. This shows that each indicator in the Firm Performance variable has a good validity value and each indicator used to describe the Firm Performance variable is declared valid.

Table 1
Average Variance Extracted (AVE)

	AVE	Composite Reliability	Cronbachs Alpha
INNOVATION STRATEGY	0,937688	0,963762	0,943603
HUMAN CAPITAL	0,898632	0,983657	0,977820
STRUCTURAL CAPITAL	0,947032	0,986210	0,981347
RELATIONAL CAPITAL	0,923537	0,979719	0,972356
FIRM PERFORMANCE	0,913150	0,976769	0,968209

Based on the results of the smartPLS output in table 1 the Composite Reliability value of the Innovation Strategy, Human Capital, Structural Capital, Relational Capital, and Firm Performance variables. The Composite Reliability value of the Innovation Strategy variable is 0.963762 where the Composite Reliability value for this variable has a value of more than 0.7. This shows that each indicator in the Innovation Strategy variable has a good reliability value and each indicator used to describe the Innovation Strategy variable is declared acceptable. The Composite Reliability value of the Human Capital variable is 0.983657 where the Composite Reliability value for this variable has a value of more than 0.7. This shows that each indicator in the Human Capital variable has a good reliability value and each indicator used to describe the Human Capital variable is declared acceptable. The Composite Reliability value of the Structural Capital variable is 0.986210 where the Composite Reliability value for this variable has a value of more than 0.7. This shows that each indicator in the Structural Capital variable has a good reliability value and each indicator used to describe the Structural Capital variable is declared acceptable. The Composite Reliability value of the Relational Capital variable is 0.979719 where the Composite Reliability value for this variable has a value of more than 0.7. This shows that each indicator in the Relational Capital variable has a good reliability value and each indicator used to describe the Relational Capital variable is declared acceptable. The Composite Reliability value of the Firm Performance variable is 0.976769 where the Composite Reliability value for this variable has a value of more than

0.7. This shows that each indicator in the Firm Performance variable has a good reliability value and each indicator used to describe the Firm Performance variable is declared acceptable.

Based on the results of the smartPLS output in table 1, cronbach's alpha value of the variables Innovation Strategy, Human Capital, Structural Capital, Relational Capital, and Firm Performance. The value of cronbach's alpha of the Innovation Strategy variable is 0,943603 where the value of cronbach's alpha for this variable has a value of more than 0.7. This shows that each indicator in the Innovation Strategy variable has a good reliability value and each indicator used to describe the Innovation Strategy variable is declared acceptable. The value of cronbach's alpha of the Human Capital variable is 0.977820 where the value of cronbach's alpha for this variable has a value of more than 0.7. This shows that each indicator in the Human Capital variable has a good reliability value and each indicator used to describe the Human Capital variable is declared acceptable. The value of Cronbach's alpha from the Structural Capital variable is 0.981347 where the Cronbach's alpha value for this variable has a value of more than 0.7. This shows that each indicator in the Structural Capital variable has a good reliability value and each indicator used to describe the Structural Capital variable is declared acceptable. The value of Cronbach's alpha from the Relational Capital variable is 0.972356 where the Cronbach's alpha value for this variable has a value of more than 0.7. This shows that each indicator in the Relational Capital variable has a good reliability value and each indicator used to describe the Relational Capital variable is declared acceptable. The cronbach's alpha value of the Firm Performance variable is 0.968209 where the cronbach's alpha value for this variable has a value of more than 0.7. This shows that each indicator in the Firm Performance variable has a good reliability value and each indicator used to describe the Firm Performance variable is declared acceptable.

The value of the Coefficient of Determination (R-Square) on the human capital variable is 0.902370, this shows that the innovation strategy variable (independent/independent variable) has an influence of 90.237% on human capital (dependent/bound variable). While the remaining 9.763% is influenced by other variables not tested in the study. Here, information can be obtained about the magnitude of the influence of the innovation strategy variable on the human capital variable which is very strong. The value of the Coefficient of Determination (R-Square) on the structural capital variable is 0.933571, this shows that the innovation strategy variable (independent/independent variable) has an influence of 93.3571% on structural capital (dependent/bound variable). While the remaining 6.6429% is influenced by other variables not tested in the study. Here, information can be obtained about the magnitude of the influence of the innovation strategy variable on the structural capital variable which is very strong.

Table 2
Path Coefficients

	Original Sample (O)	T Statistics (|O/STERR|)
INNOVATION STRATEGY -> HUMAN CAPITAL	0,949932	189,400584

INNOVATION STRATEGY -> STRUCTURAL CAPITAL	0,966215	261,517418
INNOVATION STRATEGY -> RELATIONAL CAPITAL	0,961417	209,017524
HUMAN CAPITAL -> FIRM PERFORMANCE	0,130029	2,201849
STRUCTURAL CAPITAL -> FIRM PERFORMANCE	0,595215	6,694331
RELATIONAL CAPITAL -> FIRM PERFORMANCE	0,263216	4,054994

The value of the Coefficient of Determination (R-Square) on the relational capital variable is 0.924323, this indicates that the innovation strategy variable (independent/independent variable) has an influence of 92.4323% on relational capital (dependent/bound variable). While the remaining 7.5677% is influenced by other variables not tested in the study. Here can be obtained information about the magnitude of the influence of the variable innovation strategy on the variable relational capital is very strong. While the value of the coefficient of determination (R-Square) on the firm performance variable is 0.965306, this shows that the human capital, structural capital, and relational capital variables have an influence of 96.5306% on firm performance. While the rest that is equal to 3.4694% is influenced by other variables not tested in the study. Here, information can be obtained about the magnitude of the influence of the human capital, structural capital and relational capital variables on the firm performance variable which is very strong

The results of processing using SmartPLS can be seen in table 2 which shows the path coefficients for six analysis paths with six hypotheses. The first path is the path of the relationship between the innovation strategy variable and the human capital variable, hereinafter referred to as hypothesis one a (H^{1a}) has an original sample value (O) of 0.949932 with a T statistic value of 189.400584 where the T statistic value is greater than 1 ,96. Looking at the original estimate value and the statistical T value, then hypothesis one a (H^{1a}) can be accepted. The second path is the path of the relationship between the innovation strategy variable and the structural capital variable, hereinafter referred to as hypothesis one b (H^{1b}) has an original sample value (O) of 0.966215 with a T statistic value of 261.517418 where the T statistic value is greater than 1.96. Looking at the original estimate value and the statistical T value, then hypothesis one b (H^{1b}) can be accepted. The third path is the path of the relationship between the innovation strategy variable and the relational capital variable, hereinafter referred to as hypothesis one c (H^{1c}) has an original sample value (O) of 0.961417 with a T statistic value of 209.017524 where the T statistic value is greater than 1.96. Looking at the original estimate value and the statistical T value, the hypothesis one c (H^{1c}) can be accepted.

The fourth path test is the path of the relationship between the human capital variable and the firm performance variable, hereinafter referred to as the second hypothesis a (H^{2a}) has an original sample value (O) of 0.10029 with a T statistic value of 2.201849 where the T statistic value is greater than 1.96. Looking at the original estimate value and the statistical T value, the hypothesis two a (H^{2a}) can be accepted. The fifth path test is the path of the relationship between the structural capital variable and the firm performance variable, hereinafter referred to as the second hypothesis b (H^{2b}) has an original sample value

(O) of 0.595215 with a T statistic value of 6.694331 where the T statistic value is greater than 1.96. Looking at the original estimate value and the statistical T value, then the second hypothesis b (H^{2b}) can be accepted. The sixth path test is the path of the relationship between the relational capital variable and the firm performance variable, hereinafter referred to as the second hypothesis c (H^{2c}) has an original sample (O) value of 0.263216 with a T statistic value of 4.054994 where the T statistic value is greater than 1.96. Looking at the original estimate value and the statistical T value, the second hypothesis c (H^{2c}) can be accepted.

Discussion

The results of hypothesis testing using smartPls show that the first result of the relationship between the innovation strategy variable and the human capital variable, hereinafter referred to as hypothesis one a (H^{1a}) is acceptable, the second relationship between the innovation strategy variable and the structural capital variable, hereinafter referred to as hypothesis one b (H^{1b}).) is acceptable and the third is the relationship between the innovation strategy variable and the relational capital variable, hereinafter referred to as hypothesis one c (H^{1c}) is acceptable.

Acceptance of all hypotheses of the first group is in line with Narvekar and Jain, (2006). In this regard, find that innovation increases the growth curve of many firms and opens new markets. These are the essential elements that bring growth, wealth, and success to innovative companies. Thus, in line with the research of (Dumay et al., 2013) organizations can use managerial interventions, which increase their Intellectual Capital, to create an approach that encourages innovation strategy requires strong stimuli that can produce innovative results by placing the right people beside the right culture. Understanding the drivers of innovation and creating an environment to promote innovation and technology focused by development managers. Today's businesses recognize that they can create sustainable innovation through Innovation Strategies, and that their success is highly dependent on their ability to manage these valuable assets (Buenechea-Elberdin, 2017).

The specific economic conditions of companies cause their innovations to no longer be based on tangible assets. Economic development demands effective knowledge management and continuous emphasis on key factors of knowledge assets such as Intellectual Capital (Agostini et al., 2017). New market features are associated with rapid technological developments, rapidly changing social conditions and customer needs, and reduced product life cycles. Therefore, companies should consider strategies to increase innovation (Zerenler et al., 2008). If an organization lacks systems and procedures, Intellectual Capital will never reach its maximum potential, while an organization with strong intellectual capital will be supported by an entrepreneurial organizational culture that will enable people to take innovative actions (Costa et al., 2014). Knowledge of this organization is known as organizational structural capital (Obeidat et al., 2016). Structural capital is the structural elements that refer to the processes, learning elements, and practices that demonstrate an organization's ability to acquire, share, and exploit external knowledge. If

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the organization wants to achieve its goals and strategies (Mohammed et al., 2017), it cannot separate human capital from structural capital; This is because structural capital incorporates knowledge acquired by employees. This allows for the transformation of ideas into innovations. Structural capital forms the organizational infrastructure where human capital can create an innovation strategy. Relational capital refers to the establishment and development of relationships with external parties or partners associated with the organization. Thus, it includes diverse factors, cooperation with external partners, and marketing capacity.

The efficiency of information exchange, and the process of combining producers and customers depends on the skills and expertise of team members in the process of determining the form of innovation strategy, this means that companies with strong human resources are better able to collect and store market information through relationships with customers and external parties. From a human capital perspective, contact with customers is very important for research and development of innovation. In addition, organizational capacities change and become exploited (such as customers, suppliers, and competitors) to generate new knowledge and creative ideas (Kumari et al., 2014). Better communication process leads to information and knowledge exchange within organizations to scan their environment for new innovative technologies to promote innovation strategy, which is enhanced with customers and suppliers to address risks related to innovation development (Mention & Bontis, 2013).

The results of hypothesis testing using smartPls show the results to test the hypothesis of the relationship between the human capital variable and the firm performance variable, hereinafter referred to as the second hypothesis a (H^{2a}) which concludes that the second hypothesis a (H^{2a}) is acceptable, the relationship between the structural capital variable and the firm performance variable. hereinafter referred to as the second hypothesis b (H^{2b}) which concludes that the second hypothesis b (H^{2b}) is acceptable and the relationship between the relational capital variable and the firm performance variable, hereinafter referred to as the second hypothesis c (H^{2c}) which concludes that the second hypothesis c (H^{2c}) is acceptable.

The results of the acceptance of the hypothesis in this study are in line with García, (2009), the resources given to a business guarantee its sustainability and growth. Therefore, the measurement of company performance becomes relevant, with several indicators for this, according to its effectiveness or productivity, such as return on assets (ROA) and Return on Equity (ROE). These indicators measure the ability to generate profits, considering three important factors: the amount of assets, their nature (operational or total) and rights to own resources (equity). However, the intangible nature of some resources or assets makes it difficult to measure the performance of companies using these resources, with Intellectual Capital being one of them. Given that these assets are not reflected in the financial statements of the business, the accuracy in its measurement is very important to analyse its effect on the company's financial performance. The model developed to measure the

intangibles is focused on the economic aspects of business performance. in business financial performance (Chu et al., 2011).

This research is also in line with Al-Musali and Ismail, (2014) measuring the impact of intellectual capital on business performance and its limited use in other sectors, then this research is in line with Villegas González, Hernández Calzada and Salazar Hernández, (2017) investigates the impact of Intellectual Capital on the Financial Performance of companies also using the financial profit model, and applying it to business, as human resources the main source of Intellectual Capital and value creator. Generates common ground with other applied studies in the financial sector. The impact of the Intellectual Capital component and business financial performance, using financial performance as a study variable which states that there is a positive relationship between financial performance indicators. While other studies (Ghosh & Mondal, 2009), did not show convincing results about the positive relationship. The use of financial performance indicators is useful for comparative financial analysis between businesses from the same sector, making it possible to see the financial value of intangible assets in the scenario: accounting and financial standards that have been set.

Conclusion

Based on the results of data processing, hypothesis testing and discussion of the results of hypothesis testing that have been described in the previous chapter, it can be concluded that the Innovation strategy has a significant positive effect on human capital in BUMN companies in Banten Province. The innovation strategy has a significant positive effect on the structural capital of BUMN companies in Banten Province. Innovation strategy has a significant positive effect on relational capital in BUMN in Banten Province. Human capital has a significant positive effect on firm performance in BUMN companies in Banten Province. Structural capital has a significant positive effect on firm performance in BUMN companies in Banten Province. Relational capital has a significant positive effect on firm performance in BUMN companies in Banten Province.

This research can prove that the innovation strategy can improve the performance of intellectual capital. This study divides intellectual capital into three dimensions, namely human capital, structural capital, and relational capital. The biggest influence of the innovation strategy variable on intellectual capital occurs in hypothesis one b (H^{1b}) the effect of innovation strategy on structural capital. The biggest influence of intellectual capital variable on firm value occurs in hypothesis two b (H^{2b}). This suggests that structural capital is at the forefront of intellectual capital development in the firms in this study.

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