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ENHANCEMENT OF PERFORMANCE AND COMPETENCY-BASED ON OPTIMIZATION OF INTELLECTUAL CAPITAL MODEL: THE CRITICAL THINKING ANALYSIS

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ABSTRACT

The era of globalization of the industrial revolution 4.0 was also marked by rapid economic, social, scientific, and technological developments. Currently, the company was demanded to maximize all its potential to compete with other companies. For this reason, it was hoped that companies could understand the importance of knowledge management-based intellectual capital through outreach, externalization, internalization, and combinations that had implications for improving employee performance and competency. This study was to identify and describe the enhancement of performance and competency-based on the optimization of the intellectual capital model in terms of critical thinking analysis. This study used a qualitative approach with critical thinking analysis through literature study methods. The findings results of this study were to improve performance and competency were the basic measurement models of intellectual capital, new intellectual capital measurement models in empirical studies, intellectual capital measurement models with bottlenecks, and environmental-based intellectual capital models. This study concluded that intellectual capital measurement should be determined as accumulation and interpretation in the proposed model for a company that was an applied subject with a qualitative intellectual capital index system, to provide a good tool for companies to managed intellectual capital.

Keywords: Intellectual Capital, Intellectual Capital Model, Performance, Competency, Critical Thinking Analysis

INTRODUCTION

Intellectual capital is now widely discussed and is considered important by many practitioners. Intellectual capital is now recognized as a factor influencing the progress of an organization. The era of globalization of the industrial revolution 4.0 is also marked by rapid economic, social, scientific, and technological developments (Suaedi & Trisliatanto, 2020). Currently, the company is demanded to maximize all its potential in order to compete with other companies. This is consistent with the opinion that the existence of economic development in the era of globalization can trigger competitive competition where companies begin to change the way they do business by prioritizing knowledge-based business through information technology, skills, and knowledge from employees (intangible assets) compared to tangible assets (Ramadan, et. al., 2017).

Recognizing that global competition is getting tougher and tougher, it is necessary to change the paradigm from initially relying on resources-based competitiveness to knowledge-

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based competitiveness that can take the form of techniques, methods, methods of production, as well as equipment or machinery used in a production process. Flamholtz's theory by the Committee on Human Resourced Accounting in 1973 stated that each individual carries certain attributes into the organization, the ability to understand such as intelligence, personality to achieve an achievement (Rehman & Rehman, 2015). This individual attribute is a source of determinants of determining value related to working, in this case, included as the goodwill of a company and its ability to be used in the research and development department. The application of knowledge-based business run by the company aims to increase competitive advantage and provide added value to the products and services offered by the company (Sokół, 2017).

Intellectual capital is also believed to be a force for companies to gain success in the business world and is often a major factor in achieving a company's profit (Zeglat & Zigan, 2014). The implementation of intellectual capital will be very useful in increasing the relevance of annual financial statements so that transparency and reduction of information asymmetry between companies and investors will be better and ultimately able to increase the value of the company going forward (Wang & Chen, 2013). In fact, there are still many companies, especially in Indonesia that reporting about intangible assets by not including intangible assets in their financial statements so that many companies in Indonesia still tend to use conventional based concepts in building their business, this, of course, causes products produced less innovative so that it does not meet customer needs. For this reason, it is hoped that companies can understand the importance of knowledge management-based intellectual capital.

According to Hussinki, *et al*. (2017) if knowledge management is managed effectively and efficiently, there will be a knowledge conversion from tacit to tacit or explicit through socialization, externalization, internalization, and combination which has implications for improving the performance and competency of employees. Without that shared knowledge and experience, there will be no increase in the performance and competency of anyone among them. If the latter happens, then what appears is mere ignorance, even though each person might claim that they are knowledgeable. Improved company performance can improve the performance and competency of human resources because it is interrelated with each other (Uzoma, Ugwoke, & Rita, 2017). In the United States, research and development intensity has a significant positive effect on the value of the company, where companies that invest primarily in intangible assets, such as research and development activities, will be able to create competitiveness that will impact long-term corporate value, which is greater the higher the investment value of the company (Harlow, 2018).

The research gap which is the basis of the problem in this study is the absence of optimization of an intellectual capital model that is able to improve the performance and competency of existing human resources in a company to have competitiveness beyond its limits (out of the box). Industrial companies in various sectors in Indonesia have strong potential relevance in various aspects of life both human resources aspects or in industrial activities. As it is known that aspects of human resources and aspects of industrial activities cannot be separated from one another. This study aims to identify and describe enhancement of performance and competency based on optimization of intellectual capital models in terms of critical thinking analysis.

LITERATURES

Intellectual Capital: Meaning and Characteristics

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Gupta, Massa & Azzopardi (2016) said that intellectual capital is an intangible asset that is able to provide value to companies and the public which includes patents, intellectual property rights, copyrights, and franchises. Chang & Lin (2015) explained that intellectual capital as a driver of competitive advantage and a liaison for the company's ability to manage and utilize the knowledge of the company (Chien, Yuan & Hsiung, 2015). Intellectual capital is the knowledge, experience, and abilities of employees, as well as sources of knowledge stored in databases, systems, workflows, culture, and management philosophy in the organization (Abualoush, et. al., 2018). According to Hashim, Osman & Alhabshi (2015), intellectual capital is knowledge that provides information about a company's intangible values that can affect its resilience and contribute to a company's competitive advantage.

Meanwhile, Suaedi & Trisliatanto (2020) said that something is called intellectual capital if it meets the following characteristics, including 1.) Assets that give the company market power (trademarks, customer loyalty, repeat business, etc.); 2.) Assets that represent property based on intellectual property ideas such as patents, trademarks, copyrights, and so on; 3.) Assets that give the organization internal strength, such as corporate culture, management, and business processes, the strengths generated from information technology systems, and others; 4.) Assets are generated from individuals working in the company such as their knowledge of competencies, networking skills, and so on.

Performance: Definition and Its Influenced Factors

Performance is the result of a systematic assessment and is based on a group of activity performance indicators in the form of indicators of inputs, outputs, results, benefits, and impacts, which are used as a basis for assessing the success and failure of the implementation of activities in accordance with the objectives and objectives has been established in order to realize the vision and mission (Hashim, Osman & Alhabshi, 2015). From this definition, performance measurement is a process of evaluating company progress based on indicators that have been determined to determine success and failure in accordance with the objectives in realizing the vision and mission (Wang & Chen, 2013).

According to Tastan & Davoudi (2015), there are several factors that affect a performance, including 1.) Individual variables, which include: abilities, skills, job satisfaction, background, characteristics/demographics (age, gender, marital status, years of service, and education); 2.) Psychological variables, which include: perceptions, attitudes, personality, learning, and work motivation (both internally and externally); 3.) Organizational variables, which include: leadership, compensation, working conditions, and supervision.

Competency: Essences, Aspects, and Characteristics

Mirkamali & Slajeghe (2014) stated that competence is a skill, a skill, an ability that refers to the characteristic attributes of a person that makes him successful in his work. According to Dahiyat (2015) mentions competence comes from English competency which means skills, abilities, and authority. So competence is a performance that leads to the achievement of objectives completely towards the desired condition. Sangiorgi & Siboni (2017) said that core competency is the main value of a company/organization in the creation of expertise and capabilities that are spread through various production or business lines.

Malkawi, Omari & Halasa (2018) explained that there are several types of competency characters that can be explained as follows competency of planner, competency of influencer, competency of communicator, competency interpersonal, competency of think-tank, competency

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of organizatorist, competency of human resource manager, competency of leader, competency of client servicer, competency of businessman, competency of self-manager, competency of specialist/operator.

METHOD

Research Approach and Design

This study used a qualitative approach with critical thinking analysis through literature study methods with the following criteria: a.) Determine general ideas about the research topic being studied; b.) Looking for supporting information related to the results of relevant research; c.) Reinforce the focus and organize reading material; d.) Reorganization of materials and making research notes; e.) Enrich literature material; f.) Reorganization of scientific research journal materials and start compiling research reports (Styron Jr., 2014).

Setting

The method of critical thinking analysis according to Hapsari (2016) directed and measurable method that produces interpretations, analyzes, evaluations, and conclusions, as well as an explanation of factual, conceptual, methodological, criterological, or contextual considerations on which the assessment is based. This critical thinking analysis has two dimensions, namely the cognitive dimension and the affective disposition dimensions (Puspita, Kaniawati & Suwarma, 2017). Changwong, Sukkamart & Sisan (2018) defined that critical thinking statements begin with an understanding of critical thinking into goals and self-regulatory assessments that produce interpretations, analyzes, evaluations, and conclusions as well as an explanation of the evidence, conceptual, methodology, and criteria as contextual considerations in the literature, books, analysis of company report documents and relevant scientific journals.

Data Collection and Analysis Technique

Data collection techniques in this study are based on the ability to analyze and evaluate information obtained from observations, experiences, reasoning, and communication to decide whether the information can be trusted so that it can provide rational and correct conclusions (Trisliatanto, 2020). Data analysis techniques in this study depend on reflective thinking processes that require careful decision making through a series of procedures to analyze, test, and evaluate evidence and be done consciously (Hapsari, 2016).

RESULT AND DISCUSSION

The Mapping Analysis of Performance and Competency

A performance mapping analysis can be carried out to suppress undue behavior and to stimulate and enforce undesired behavior through timely performance feedback and rewards, both intrinsic and extrinsic. Table 2 follows the factors that influence the analysis of performance mapping and all its assessments:

Table 2. The Mapping Analysis of Performance

Subject Component	Objectivity Item	Description
Performance Improvement	Employee	Form the right activities to improve and improve performance in the future
	Supervisor	
	Manager	
	Human Resource Specialist	

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Subject Component	Objectivity Item	Description
Compensation Adjustment	Stakeholder CEO Accounting and Financial Manager	The decision to increase payments in the form of wages, bonuses or other forms based on a particular system implemented by the company
Placement Decision	Employee	Job promotion or demotion can be based on performance
Training and Development	Employee	Indicates a need for retraining so that each employee should always have the ability to develop themselves
Career Planning and Development	Employee	Feedback about the career specifications that should be held and their suitability for the position held
Staffing Process Deficiencies	Human Resource Department	Identify the strengths and weaknesses of employees
Informational Inaccuracies	Accessibility Information of Job Needs and Analysis	Identify the poor performance of employees and their impact on the company
Job Design Error	Employee	Diagnosis of symptoms from the incorrect or incorrect design of work
Feedback to Human Resources	Human Resource Department	Optimal implementation of Human Resource Department functions

(Source: Primary Data, 2020)

Based on Table 2, an explanation of the mapping analysis of performance can be elaborated by companies according to what Camfield, Giacomello & Sellitto (2018) said, among others:

1.) Performance improvement talks about feedback on performance that is beneficial to employees, managers, supervisors, and human resources specialists in the form of appropriate activities to improve performance in the future.
2.) Compensation adjustment, where the performance appraisal factors that help in making decisions who should receive payment increases in the form of wages, bonuses, or other forms based on a particular system.
3.) Placement decisions, related to promotion activities or job demotion can be based on past performance and are anticipatory, such as in the form of appreciation for employees who have performed well on previous tasks.
4.) Training and development, if there is poor performance, it indicates a need to retrain so that each employee should always have the ability to develop themselves to be in line with current job demands.
5.) Career planning and development, where performance feedback is very helpful in the main decision-making process about the specific career of the employee.
6.) Staffing process deficiencies, related to the merits of performance, have implications in terms of strengths and weaknesses in the placement procedure in the human resources department.

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7.) Informational inaccuracies, regarding the existence of poor performance, can indicate an error in job analysis information, human resource planning, or other matters of the human resource management system.
8.) Job design error, where poor performance may be a symptom of incorrect or incorrect job design. Through performance appraisals, these errors can be diagnosed.
9.) Feedback to human resources, if there are good and bad performance throughout the company indicates how well the human resource department functions are implemented.

Competence is a basic characteristic of a person that allows employees to produce superior performance in their work. Competency refers to an individual's knowledge, skills, abilities, or personality characteristics that directly influence job performance (Dahiyat, 2015). These characteristics underlie a person related to the effectiveness of individual performance in his work or basic characteristics of individuals who have a causal relationship or as a cause and effect with criteria used as a reference, effective or excellent or superior performance at work or in certain situations (Mirkamali & Slajeghe, 2014). Table 3 is the mapping analysis of competency-based on indicators and character types:

Table 3. The Mapping Analysis of Competency

Subject Indicator	Specification Item	Description
Knowledge	Science	Knowing and understanding knowledge in their respective fields
	Insight	
	Information	
	Rules	Knowing knowledge related to new regulations, procedures, techniques in company organizations
	Policy	
	Procedure	
	Technic	
	Method	
Skill	Ability	The ability to communicate well in writing
	Endurance	
	Communication	Ability to communicate clearly verbally
	Organizational Learning	
	Adaptability	
Attitude	Creativity	The ability to be creative at work
	Mindset	
	Behavior	Good behavior and high morale
	Spirit at Work	
Planning competency (competency of planner)	Goal Setting	Relating actions to achieve goals
	Risk Value	
	Behavioral Development	
	Consideration	
Influence competency (competency of influencer)	Impact Action	Perform certain actions or make certain decisions, and inspire work
	Decision Making	
	Inspire Work	
	Speaking/Conversation	
	Learning	

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Subject Indicator	Specification Item	Description
Communication competency (competency of communicator)	Writing	Relating to communicating both verbally and non-verbally
	Listening	
	Debate	
	Discussion	
Interpersonal competency (competency interpersonal)	Empathy	Related relationships with other people
	Consensus Building	
	Networking	
	Persuasion	
	Negotiation	
	Diplomacy	
	Conflict Management	
	Respect for Others	
	Become a Team Player	
Thinking competency (competency of think-tank)	Strategical Thinking	Relating to thoughts, ideas, and ideas needed for self-development
	Analytical Thinking	
	Organizational Commitment	
	Cognitive Ability	
	Link Identification	
	Innovation Thinking	
Organizational competency (competency of organizatorist)	Work Plan Ability	Relating to corporate organizations
	Organize Resources	
	Ability of Measure and Calculate Risks	
Human resources management competency (competency of human resource manager)	Team Building	Related to many things related to human management strategy
	Social Participation	
	Talent Development	
Leadership competency (competency of leader)	Self-Positioning Skill	Relating to the ability to lead oneself, lead others, and be led by others
	Organizational Development	
	Managing Transitions	
	Strategic Innovation	
	Building Vision	
	Future Planning	
	Mastering Change	
	Pioneering	
Client service competency (competency of client servicer)	Analyze of Customers	Relating to services and partnerships
	Service and Delivery Orientation	
	Follow Up Action	
	Partnership	
	Commit to Quality	
Business competency (competency of businessman)	Financial Management	Relating to business management and the
	Business Decision Making Skills	

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Subject Indicator	Specification Item	Description
	Work System	organizational life cycle of a company
	Sharpness Intuition	
Self-management competency (competency of self-manager)	Self-Motivation	Directly related to employee self-development
	Confidence	
	Learning Management	
	Flexibility	
	Initiative	
Technical/operational competency (competency of technician/operator)	Job Specification	Relating to the task expertise and procedural techniques of the work performed
	Job Characteristic	
	Technology	
	Tools and Technic	
	Professionalism	

(Source: Primary Data, 2020)

Based on Table 3, it can be explained several things about the mapping analysis of competency that shows skills or knowledge as a characteristic of professionalism in a particular field as described by Li & Yu (2018), with indicators including:

1.) Knowledge, where the indicator is related to work which includes: a.) Knowing and understanding knowledge in their respective fields; b.) Knowing knowledge related to new regulations, procedures, and techniques in company organizations.
2.) Skill, where the indicator is related to the ability of individual work which includes: a.) Ability to communicate well in writing; b.) Ability to communicate verbally.
3.) Attitude, where the indicator is related to the behavior and mind-set of individuals at work which includes: a.) Having the ability to be creative at work; b.) There is high morale.

The mapping analysis of competency-based on the type of individual characteristics described in Table 3 is following the explanation from Malkawi, Omari & Halasa (2018), including:

1.) Planning competency, competencies associated with certain actions such as setting goals, assessing risk, and developing a sequence of actions to achieve goals.
2.) Influence competency, competencies associated with actions such as having an impact on others, forcing certain actions or making certain decisions, and inspiring to work towards organizational goals.
3.) Communication competency, competence related to the form of the ability to speak, listen to others, written, and non-verbal communication.
4.) Interpersonal competency, competence related to empathy, build consensus, networking, persuasion, negotiation, diplomacy, conflict management, respect for others, and become a team player.
5.) Thinking competency, competence related to strategic thinking, analytical thinking, committed to action, requires cognitive abilities, identifies links, and generates creative ideas.
6.) Organizational competency, competence related to the ability to plan work, organize resources to get work done, measure ability, and take calculated risks.

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7.) Human resources management competency is the ability in the field, team building, encouraging participation, developing talent, seeking performance feedback, and respecting diversity.
8.) Leadership competency, competence includes the ability to position themselves, organizational development, managing transitions, strategic orientation, building vision, planning for the future, mastering change, and pioneering workplace health.
9.) Client service competency, which is a competency in the form of identifying and analyzing customers, service and delivery orientation, working with customers, following up with customers, building partnerships, and committing to quality.
10.) Business competency, which is a competency that includes financial management, business decision-making skills, working in the system, using business acumen, making business decisions, and generating revenue.
11.) Self-management competency, competence is related to being self-motivated, acting with confidence, managing one's own learning, demonstrating flexibility, and taking initiative.
12.) Technical/operational competency, competence related to doing office work, working with computer technology, using other equipment, demonstrating technical and professional expertise, and getting used to working with data and numbers.

Enhancement of Performance and Competency Based on Optimization of Intellectual Capital Model

The method of measuring intellectual capital according to Obeidat, *et al*. (2017) could be grouped into two categories, namely monetary measures and non-monetary measures. Furthermore, according to Obeidat, *et al.* (2017), there is a list of monetary-based intellectual capital measures including a.) The Balanced Scorecard; b.) Brooking's Technology Broker method; c.) The Skandia IC Report method; d.) The IC-Index; e.) Intangible Asset Monitor approach; f.) The Heuristic Frame; g.) Vital Sign Scorecard; h.) The Ernst & Young model. According to Gogan, *et al.* (2016), while the IC valuation model based on non-monetary is as follows: a.) The EVA and MVA model; b.) The Market-to-Book Value model; c.) Tobin's method; d.) Public's VAIC ™ model; e.) Calculated intangible values; f.) The Knowledge Capital Earnings model. This research focuses on identifying the intellectual capital models to improve performance and competency as described below:

1.) Basic Intellectual Capital Measurement Model

According to Gogan (2014), the most important measurement model for intellectual capital is presented in Table 4 by considering several criteria: intellectual capital model, profit, loss, and implementation in an organization. Table 4 provides a comparative picture of the measurement models discussed with a summary of each measurement model given together with a comparative analysis of its strengths and weaknesses:

Table 4. Measurement Analysis of Intellectual Capital Model

Model	Advantages	Weaknesses
	Pay more attention to the needs of stakeholders	Financial analysis has many weaknesses

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Model	Advantages	Weaknesses
Balance Scorecard (BSC)	Consider matters relating to finance	There is no flexible model
Skandia Navigator	Combining financial elements	It is difficult to apply the same methodology for various types of intellectual capital model relationships
	Can be adapted for several companies	Not analyzing synergy between areas
Intangible Assets Monitor	Provides a comprehensive picture of intellectual capital	Does not provide numerical values for intellectual capital calculations
	Having calculations in the relationship between suppliers and other key stakeholders	There are possibilities or difficulties in choosing the appropriate indicator

(Source: Gogan, 2014)

All of the above measures of intellectual capital contribute a lot to measuring intellectual capital from various perspectives, but unfortunately, intellectual capital measurement methods are slow to develop. The basic measurement model of intellectual capital is represented by three components: human capital, structural capital, and customer capital. Each component corresponds to the specific indicator shown in this Figure 1:

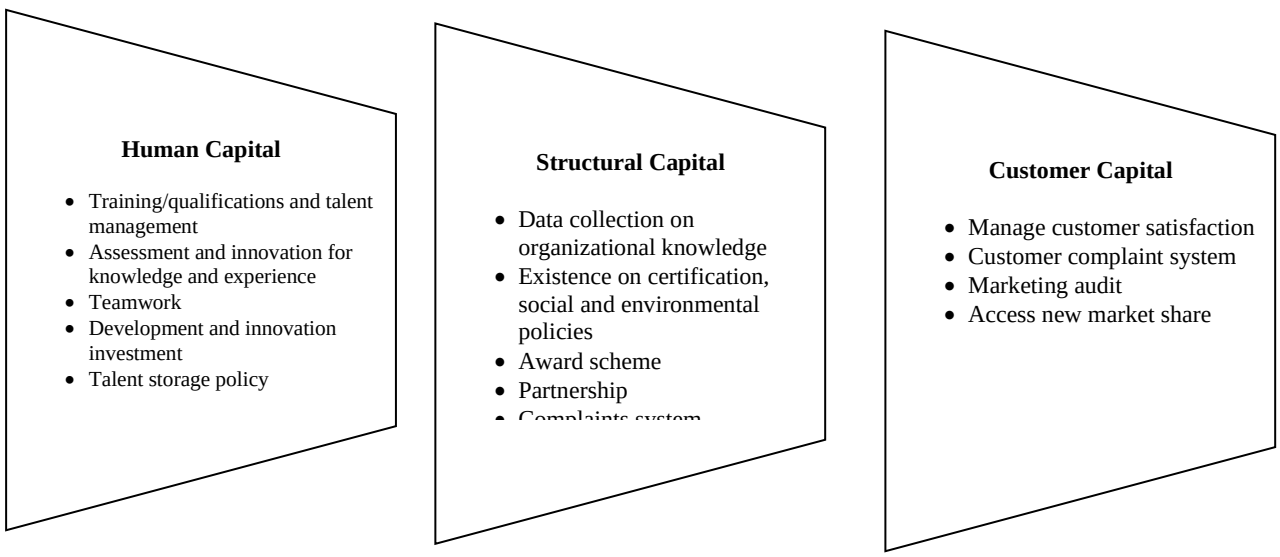

Figure 1. Proposed Basic Model for Intellectual Capital Measurement
(Source: Gogan, 2014)

2.) New Intellectual Capital Measurement Model in Empirical Studies

Secundo, *et al.* (2015) explained that the foundation of management and measuring intellectual capital can attract a lot of attention from academics and practitioners. Based on a review of several intellectual capital measurement models proposed by western researchers, intellectual capital is classified into human capital, structural capital, innovation capital, and customer capital, then the qualitative index system for the four

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elements of intellectual capital is designed through content analysis. Therefore companies must manage and increase their intellectual capital from an integrative perspective according to Figure 2:

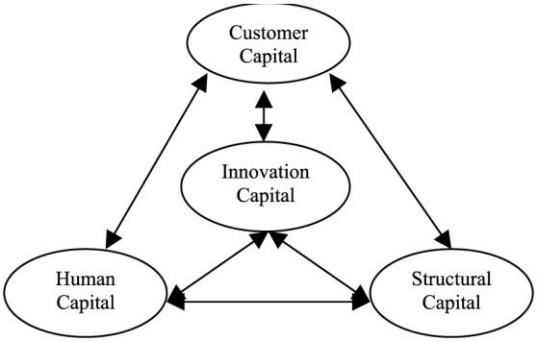

Figure 2. New Measurement of Intellectual Capital Model
(Source: Secundo, et. al., 2015)

3.) Intellectual Capital Measurement Model with Bottlenecks Method

According to Hejase, *et al.* (2016), measuring intellectual capital has been identified as one of the most important issues for business success today. Many methods of measuring intellectual capital can be found in business literature. New methods emerge in the theory of intellectual capital continuously as a model of measuring intellectual capital using bottlenecks. Some of them are applied in business practices, others remain as important theoretical suggestions for further subject research. But apart from that, general views about measuring intellectual capital still do not exist as explained in Table 5:

Table 5. Measurement of Intellectual Capital Model with Bottlenecks Method

Bottlenecks Method	Recommendation
Unspecified measurement problems and measurement backgrounds	The initial situation must be checked. The problem of measuring intellectual capital must be identified and explored.
Unspecified intellectual capital measurement	Clear targets for measuring intellectual capital where the process must be defined.
Targets as well as things that are the targets of the measurement process	The possibility of measuring intellectual capital must be considered based on measurement requirements
Ignores direct state measurement but explains how to analyze the state of measurement	Restriction
It makes no sense methodologically the measurement process and how the measurement process should be regulated	The measurement technique meets the initial situation and the measurement target must be chosen. If such measurements

(Source: Uziene in Hejase, et. al., 2016)

The results of the comparative analysis of intellectual capital measurement methods are discussed and the main obstacles to the methodology of intellectual capital measurement are revealed in the study. Based on the results of research that have been

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done, the proposed model of intellectual capital measurement of the organization with the bottleneck method is as follows:

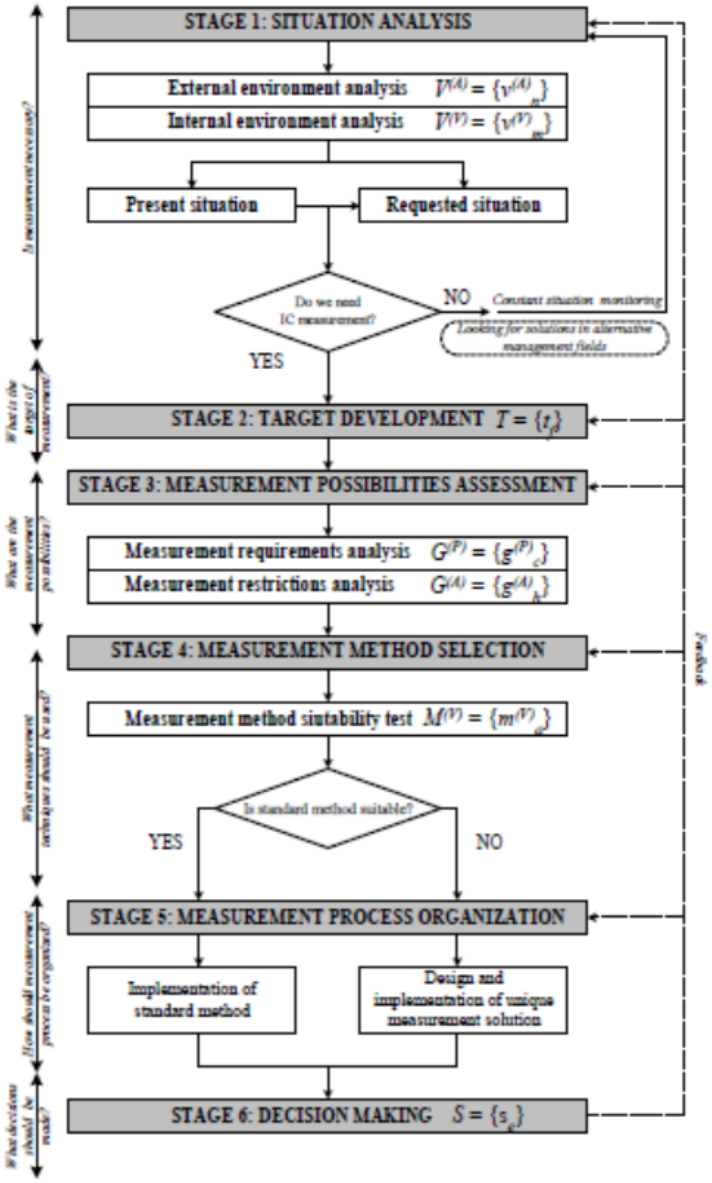

Figure 3. Measurement of Intellectual Capital Model with Bottlenecks Method
(Source: Uziene in Hejase, et. al., 2016)

The six stages of the intellectual capital measurement process are formalized where this model is proposed to summarize intellectual capital measurement knowledge to help managers understand the whole process of intellectual capital measurement and implement the deliberate and series of intellectual capital measurement solutions (Sivalogathasan & Wu, 2015). Table 6 shows the different scenarios of the intellectual capital measurement model with the bottleneck method:

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Table 6. Scenarios Differentiation Measurement of Intellectual Capital Model with Bottlenecks Method

Model Stages	Measurement of Intellectual Capital for the Company's Internal Management Objectives	Intellectual Capital Measurement for the External Purpose of Company Management
Situation Analysis	The effectiveness of intangible resources and the value creation process are analyzed. The external environment is examined as much as it is important for the identification and management of organizational success factors.	Disclosure information traditions and best practice cases play an important role. A detailed analysis of stakeholder needs was carried out. The advantages of competitive organizations are analyzed.
Development Target	Intellectual capital measurement targets regarding operational strategy and management are developed. Trying to meet the requirements of strategic management and the security of certain intangible effectiveness of resources is primary.	Intellectual capital measurement targets for disclosure of external information developed. Striving to meet the needs of one or several stakeholders is primary.
Measurement of Probability Rating	The benefits of intellectual capital measurement for the organization are emphasized.	The balance between the price of information disclosure and stakeholder satisfaction needs is weighed.
Measurement Method of Choice	The method that meets the measurement targets is best chosen. Priority is given to measuring certain types of intellectual capital.	Priority is given to the diversity of types of intellectual capital (human, relationship, and structural) and the use of standardized methods.
Measurement of Organizational Process	The measurement process is permanent. The importance of feedback is emphasized.	The measurement process is terminative. The result of the measurement process is intellectual capital information disclosure (report).
Decisions Made	Direct and indirect intellectual capital management decisions are made. The effect is monitored.	Alternative decisions regarding disclosure information are made.

(Source: Uziene in Hejase, et. al., 2016)

4.) Environmental-based Intellectual Capital Model

The Environmental Capital or External Capital also consists of two branches namely environmental knowledge and environmental sensitivity (Harlow, 2018). The first branch is environmental knowledge consisting of relationships with stakeholders. They are customers and dealers, suppliers, shareholders, the closest educational institutions, regional and national government agencies, allies, partnerships, and so forth. Environmental knowledge also includes databases related to markets, market requirements, competitors, other trademarks, service companies, and others. The second branch of environmental capital is related to Environmental Sensitivity.

This element includes policies dealing with stakeholders, customers, competitors, market research, dealing with new technologies, and organizational commitment to local, regional, and national communities (Pirozzi & Ferulano, 2016). It should be noted that

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environmental knowledge increases the market value of an organization in the short run, while environmental sensitivity increases market value in the long run according to Figure 4:

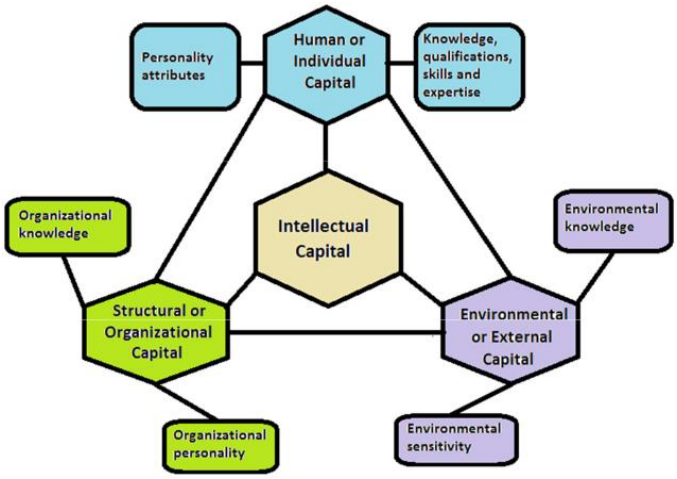

Figure 4. Environmental-based Intellectual Capital Model
(Source: Harlow, 2018)

CONCLUSION AND FINDINGS

The results of this study conclude several things, including 1.) Performance mapping analysis can be done to suppress undue behavior and to stimulate and enforce the behaviours that should be desirable through timely feedback of performance results and rewards, both intrinsic and extrinsic in nature; 2.) Competency mapping analysis refers to individual's knowledge, skills, abilities or personality characteristics that directly influence job performance where the characteristics underlying a person are related to the effectiveness of individual performance in their work or basic characteristics of individuals who have causal relationships or as causation with criteria which is used as a reference, effective or superior or superior performance in the workplace or in certain situations; 3.) Identification of intellectual capital models to improve performance and competency are basic intellectual capital measurement models, new intellectual capital measurement models in empirical studies, intellectual capital measurement models with bottlenecks, and environment-based intellectual capital models.

The findings in this study explain that intellectual capital measurement should be determined as a multi-stage process of information accumulation and interpretation in the proposed model for a company that is an applied subject with a qualitative intellectual capital index system, so as to provide a good tool for companies to manage intellectual capital they. The importance of this intellectual capital measurement model lies in its ability to provide the information needed in a timely manner to company managers, thereby allowing it to modify their intellectual capital management strategies according to specific situations, to gain and utilize knowledge fully, and to achieve long-term competitive advantages.

RECOMMENDATION AND LIMITATION

There are several recommendations that can be submitted to several company organizations or industries in various sectors related to the results of this study where the optimization of the intellectual capital model to improve performance and competency that can be proposed has the

following characteristics: 1.) Relevant to the end-use of a growing company rapid; 2.) Providing useful management information; 3.) Quality operational management; 4.) Easy to understand for all employees; 5.) Refers to the cognitive area of the operating system's strategic importance. This research has significant limitations because it still uses analysis on secondary data (literature studies) in the form of scientific journals and company documents, which is due to the coronavirus pandemic (COVID-19) at this time.

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