CULTURAL INTELLIGENCE IN THE DIVERSITY OF SCIENCE

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Abstract: The purpose of this paper is to conceptually and empirically analyze cultural intelligence from a variety of perspectives. Intensive conceptual and empirical studies of the trends in the dynamics of cultural intelligence in the perspective of the fields of psychology, sociology, and organization are the research methods used. This paper is expected to contribute to the development of science in the field of multicultural services, especially cross-cultural guidance and counselling services. This paper is then expected to be one of the treasures of developing multicultural competencies in the implementation of guidance and counselling services.

Keywords: Cultural Intelligence, Cultural Attributes, Self Adjustment.

INTRODUCTION

The dynamic life of the world community in response to the 4.0 era leads to the heterogeneity of the order of life of the world community. This is the impact of infrastructure development, modernization, and high accessibility as an effort to meet the needs of life so that the more colourful and complex the figure of the individual human being and the world community. Efforts to meet the needs of life, infrastructure development, modernization, and high accessibility impact on life activities that are more competitive with the real impact of human interaction across locations, across disciplines, and cross-cultural in meeting the needs of life (Sahin & Gurbuz, 2014).

Judging from the increasingly competitive dynamics of life that require individuals to be effective and superior in interacting (Cheng, 2007; Sahin &

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Gurbuz, 2014), we need a variable within the individual that can be used to adjust to the environment of competitive cultural diversity, so that the variables needed it is cultural intelligence. Cultural intelligence in the context of interaction helps the individual as a bridge of adaptation and adaptation to the environment in order to achieve his life goals (Stallter, 2009; Sahin & Gurbuz, 2014; Barnes, et al. 2017). Furthermore, cultural intelligence is also a pathway to individual self-success to become effective individuals to be able to adapt to other cultures (Brislin, 2006; Ang, 2007; Dutta & Dutta, 2013; Sahin & Gurbuz, 2014, Jyoti & Kour, 2015; Sharma & Hussain, 2017).

Based on the results of these studies direct the position of cultural intelligence as a bridge for individuals to adjust and adapt to the environment effectively. The results of previous studies lead to an understanding that individuals who effectively interact with the environment are individuals who have cultural intelligence. This understanding needs to be tested for its validity by conducting a deeper study of the position of cultural intelligence in individuals from various viewpoints in the field of science. This paper examines the direction of the tendency of cultural intelligence in individuals since it was introduced by Early & Ang (2003) to the present which directs cultural intelligence to be studied more from perspectives in the fields of psychology, sociology and organizational management, so that cultural intelligence from three perspectives This knowledge is the scope of the study in this paper. The method used in this paper is a comparative analysis of trends in the dynamics of cultural intelligence over the past decade. The objects, methods and results of empirical studies, as well as the concept of cultural intelligence over the past decade, are aspects that are used as comparative material in this paper.

LITERATURE REVIEW

Cultural Intelligence Diversity In The Perspective Of Sciences

Cultural intelligence has been empirically examined from various perspectives in concept, measurement of cultural intelligence, its correlation with the individual development, and the development of cultural intelligence in individuals. Empirical evidence over the past decade shows variations in the development of cultural intelligence in individuals. The following 3.1 matrix describes the dynamics of the development of cultural intelligence over the past decade.
Matrix 3.1
The Dynamics of Cultural Intelligence Development

<table>
<thead>
<tr>
<th>No</th>
<th>Aspect</th>
<th>Range Of The Year</th>
<th>2008-2011</th>
<th>2012-2015</th>
<th>2016-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Object</td>
<td>Kc's contribution to inclusive education, kc as a tactical value in cultural attributes, kc as a dynamic view capability, kc as a problem-solving model, kc measurement, kc comparisons with other types of intelligence, kc as an international leadership competency, kc is developed using the experience approach as a source learning.</td>
<td>Kc's contribution to personal global spirit, pedagogical approach to kc development, training approach to kc development, kc contribution to the development of cultural diversity education, kc was developed through the supervision of diverse cultures, kc was developed using the experience approach of individual attributes, kc contribution to expatriates, kc contribution to the cultural diversity of expatriates, the historical contribution to the individual, the relevance to the transformative leadership, the relevance to intrapersonal intelligence, to the effective communication, the comparative to the other types of intelligence, to the adaptation of expatriates, to the development of intrapersonal intelligence, to the effective communication, the comparative to other types of intelligence, to the adaptation of expatriates, to the development of intrapersonal intelligence in leadership, kc is developed based on personality factors, validity and reliability of the kc measuring instruments, kc aspects in Asian cultural texts.</td>
<td>Kc is developed through consumer experience, kc is predicted as an adjustment activity, kc's latest status, kc's relevance to creative individuals, kc has an impact on problem-solving performance, kc has an impact on job satisfaction, the contribution of a country's conditions to kc, kc's impact on group creativity, impact kc in the world of tourism, damages to the education of expatriate students, kc's contribution to understanding cultural diversity and innovative work behavior, kc's contribution to conflict handling, kc's contribution to expatriate careers, kc was developed through personality dimensions and degrees of task completion performance.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Method</td>
<td>Concept analysis, correlation and development of measuring instruments</td>
<td>Concept analysis, correlation, measurement instrument development, and model development</td>
<td>Concept analysis, correlation, measurement instrument development, and model development</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Result</td>
<td>The probability of applying kc conceptually, the kc relationship model, and kc measurement tools are validated in various parts of the world.</td>
<td>The probability of applying kc conceptually, the kc relationship model, the latest kc measuring instrument, and the kc development model.</td>
<td>The probability of applying kc conceptually, the kc relationship model, the latest kc measurement tool, the kc development model in a contemporary manner, and the kc development model recommendation through local cultural values.</td>
<td></td>
</tr>
</tbody>
</table>

Matrix 3.1 describes the dynamics of cultural intelligence tendencies empirically and conceptually that lead to cultural intelligence tendencies examined by three fields of science namely psychology, sociology and organization. Cultural intelligence in the field of psychology studies starts from the analysis of the nature, history, development and correlation of the
field of psychology studies. Cultural intelligence is essentially (Early & Ang, 2003; Ang & Dyne, 2008; and Livermore, 2010) as an individual's capability to function and organize themselves effectively and efficiently while interacting with diverse cultures in the country, ethnicity, institutions and organization. In addition, in a construct, the general intelligence culture of intelligence studied by Early & Ang is centered on Schimidt & Hunter's thinking (Early & Ang, 2003, Ang; Dyne, 2008) which views intelligence in general as the ability to understand and reason precisely through abstraction (concept) in problem solving. In addition, cultural intelligence (Early & Ang, 2003), refers to the theory presented by Sternberg & Detterman about intelligence that emphasizes the ability to understand concepts and problem-solving in the educational area (cognitive academic). But besides that, according to him, there has been an increase in understanding about intelligence which sees intelligence can be used outside the classroom/academic (Wu in Supriatna, 2010 and Zhao, 2013) or referred to as practical intelligence. Increased attention to the "real world", intelligence has been identified as a new type that focuses on several dimensions of human life such as social intelligence introduced by Thorndike & Stein, emotional intelligence introduced by Daniel Goleman. Based on the presentation of several studies (Sternberg, 1986; Gardner, 1993; Goleman, 2009; Supriatna, 2010; Latif, 2017) intelligence at this time refers to the capability of an individual to think, feel, and behave accordingly and appropriately in responding to various dimensions life as a manifestation of the meaning of human being.

The essence of intelligence presented by these experts points to one keyword, namely ability. Ability is defined as the quality, strength, power, competence, skills, expertise, skills, ability and so on, which enables a person to perform a certain performance (action) at a certain time (Reber & Reber, 2002; Sobur, 2016). Furthermore, Qizilbash (2007) describes the purpose of capabilities in the context of social interaction as follows, "... A person's 'capability' refers to different collections or 'n-tuples' of 'beings' and 'doings' or 'functionings' which make up the lives from which she or he can choose one."

Based on the definition of the term capability that has been described can be interpreted that what is meant by ability is a power possessed by an individual to take an action. Furthermore, within the framework of cultural intelligence, the intended ability is the intact power within the individual to make adjustments effectively and efficiently with a diverse cultural
environment. Furthermore, interpreting Qizilbash's statement that the ability in a social context within an individual reflects the power to freely choose and act. The power to choose and act in the context of cultural intelligence is based on the suitability of individual needs in interacting with the environment. The power of individuals to adapt to environmental conditions is an indication of the functioning of individuals in a normative, effective and efficient manner (Moon, 2010). Behave quickly and effectively is one indicator of a prosperous individual (Synder & Lopez, 2002). This can be interpreted logically if the individual experiences minimal psychophysical clashes, it can be predicted that the quality of his life will be prosperous holistically. Besides cultural intelligence (the process of adjustment therein) indirectly builds the development of individual self-esteem (Coopersmith, 1967) acts as a way of looking at the condition of self and the conditions of other individuals, so that we respect ourselves as we are respected and adjust to these conditions, so that it is a valuable experience in helping individual self-image. Furthermore, cultural intelligence (Ott, 2016 & Sharma, 2016) correlates with personality and can predict cultural intelligence variables that are inherent in individual self. The prediction lies in five main aspects (the aspect of big five personalities) or abbreviated as OCEAN which was formulated by Lewis R. Goldberg in 1981 (Sharma, 2016). OCEAN formulated by Goldberg is a simplification of personality aspects of personality theory (Sharma, 2016) cognitive Paul T. Costa, Jr., the influence of personality on mental health of Robert R. McCrae, the influence of psychophysical systems on G. Alport's personality, and the influence of factors self traits to Raymond B. Cattell's personality. Based on the formulation of the five main aspects of personality, cultural intelligence is significantly correlated with the aspect of openness which has a tendency to the imagination, creative, broad-minded, intelligent and adventurous with the environment in which individuals interact. These things are a form of psychological adjustment or psychological adjustment of individuals in response to the environmental conditions encountered.

Sternberg & Detterman's understanding (Ang & Dyne., 2008) adopted by Earley and Ang in 2003 was used to build cultural intelligence viewed from a multidimensional view of intelligence. The multidimensional view proposes four complementary pathways to conceptualize intelligence consisting of metacognitive, cognitive, motivational and behavioural dimensions. Metacognitive knowledge and control of cognition such as individual processes using accuracy and knowing understanding. Cognitive is knowledge
and knowledge structure. Motivational is a mental capacity that focuses on the determination of the amount and direction of energy. Behaviour focuses on the capacity of individuals in the level of action that individuals think about. So metacognitive, cognitive, motivational involve mental functions while the behavior is the capacity to show actual behavior.

The multidimensional view of intelligence, in general, is the basis for the construction of cultural intelligence constructs including metacognitive cultural intelligence that reflects mental strength to precisely and understand cultural knowledge, cognitive cultural intelligence reflects the power to manage general knowledge about culture and the structure of knowledge about culture, motivational cultural intelligence that reflects the power to direct energy towards learning and self-functioning in intercultural situations, and cultural intelligence behavior reflects the power of individuals to demonstrate the suitability of both verbal and nonverbal actions in the interaction of diverse cultures (Ang & Dyne, 2008; Dyne, et al, 2012; Sharma & Husain, 2016). Operationally (Ang & Dyne, 2008; Livermore, 2010; Dyne, et al, 2012; Sharma & Husain, 2016) the dimensions of the construct of cultural intelligence can be described as follows.

1. Metacognitive, this dimension reflects the level of individual awareness of cultural awareness during the individual's cross-cultural interaction. Individuals with a high level of metacognitive cultural intelligence ask consciously about their own cultural views, which are reflected during the interaction process, and adjust the cultural knowledge that individuals have during the interaction process. Individuals with high cultural intelligence metacognitive are predicted to use strategies and the accuracy of their cultural knowledge while interacting with diverse cultures so that adjustment is effective and efficient. The metacognitive dimension in cultural intelligence is a critical component because this dimension requires that individuals think actively to determine the appropriate strategies and forms of adaptation. Metacognitive leads to constant planning, monitoring and revising mental models of existing cultural norms to suit the needs of the new cultural environment.

2. Cognitive, this dimension focuses more on the process of high-level cognitive regularity that reflects knowledge of norms, practices, and habits in different cultures obtained from education and self-experience. Besides this dimension focuses on the knowledge which
includes the level of cultural knowledge or cultural environment knowledge. Knowledge of culture includes knowledge of one's own culture and the culture of others so that the cognitive dimension of cultural intelligence leads to general cultural knowledge as well as knowledge of cultural diversity. Furthermore, the cognitive dimension is a critical component because this dimension influences individual thoughts and behaviours to better appreciate the specific forms of systems and cultural patterns in a cultural group.

3. Motivational, reflecting the drive to direct attention, energy and expectations towards learning and functioning in situations of diverse cultural character. This dimension focuses on the control of feelings used when interacting across cultures. The motivational dimension in cultural intelligence is a critical component because this dimension is a source of encouragement to direct effort and energy towards the functioning of individuals in a diverse cultural environment.

4. Behaviour, the suitability of actions verbally and nonverbally when interacting with individuals with diverse cultures. Behaviour leads to the power of individuals to demonstrate actions both verbally and nonverbally that are appropriate to be applied in a new environment.

Presentation on nature, construct history, development of cultural intelligence and its correlation to the whole human figure lead to an understanding that cultural intelligence is an integrated effort within individuals to function in accordance with diverse cultural environments with metacognitive, cognitive, motivational, and behavioural aspects. Functioning accordingly is carried out in a normative, effective and efficient manner so that it can help achieve its life goals without any psychophysical collisions. Cultural intelligence is a new implication of general intelligence that is practised (practical intelligence) by individuals in the process of adjusting to the normative cultural diversity environment within the frame of "human beings", effective and shown by thinking, feeling and behaving quickly and appropriately.

Other fields of study that examine the variable of cultural intelligence are sociology and organization. The sociology perspective views cultural intelligence as focusing more on adaptive behaviour and performance in an atmosphere of cultural diversity. While in the organizational point of view, cultural intelligence focuses on adjusting individuals to the world of work. The sociology viewpoint views cultural intelligence as a variable in the interaction
Cultural Intelligence in The Diversity of Science

and adaptation of expatriates. The results of studies of expatriates (Huff, et al., 2013; Gumundsdottir, 2015; Presbitero & Quita, 2016) show that cultural intelligence helps them to survive in new environments, especially in the workplace. In addition, the study of cultural intelligence developed into the world of education with the background of the issue of cultural diversity in education (Oliver, et al., 2011; Cheng, 2007). Cultural intelligence in these conditions has a role in helping groups of culturally minority teenage students and immigrant teenage students to perform academically optimally. Cultural intelligence helps individuals including minority teenagers (expatriates) in solving life problems, especially regarding cultural diversity issues (Brislin, 2006; Ag & Dyne, 2008; Engle, 2016; Hampden, 2006; Thomas, 2008; Andresen & Bergdolt, 2016; Bogilovi, 2017; & Bernando, 2017).

For teenage expatriate students, cultural intelligence bridges them in the process of interaction with the new environment. Interaction of adolescent students with the environment indirectly brings psychophysical attributes in the form of culture, so that the cultural attributes involved in the interaction of adolescent students need to be addressed deeply so that there is no problem of cultural adjustment in social contexts in adolescents (Galambos & Leadbeater, 2000; Yu & Patterson, 2010; Hoglund & Hosan, 2012 & Sahin & Gurbuz, 2014). Cultural intelligence in an organizational perspective was first used as an adjustment literature in the realm of organizations, business and management as a part of interactions between business clients or business colleagues who are multinational and multicultural (Ang, et al., 2007; Sahin & Gurbuz, 2014; Sharma & Hussain, 2017; Kubicek, et al., 2017), so cultural conflicts are very likely to occur.

Furthermore, Early & Ang (2003); Ang & Dyne (2008) and Livermore (2010) define cultural intelligence in the field of organizational science as an individual's capability to function and organize themselves effectively and efficiently in diverse cultural conditions in the country, ethnicity, institutions and organizations. Barnes et al. (2017) also explained that cultural intelligence is the capacity of an individual to establish relationships with other individuals and cooperate effectively. Besides cultural intelligence is seen as a natural ability of an individual to understand differences in behaviour as a form of manifestation of a culture that is owned by individuals. Agree with the understanding of Stallter (2009) which states that cultural intelligence is the natural ability of an individual to understand different cultural behaviours. It
can be interpreted that cultural intelligence can be seen as an innate potential or a talent to interpret and accommodate cultural diversity.

RESULTS AND DISCUSSION

Based on the view of sociology and organization, it leads to the understanding that cultural intelligence is a mediator of harmony toward collectivism and cultural encapsulation. Low understanding of collectivism and cultural encapsulation has an impact on a limited worldview so that it triggers a negative cultural reaction with indicators of lack of appreciation, respect and recognition of the worth of an individual. It can be interpreted that cultural intelligence is an individual's psychophysical activity to acknowledge, respect and appropriately respect self-worth and the value of other individuals. Respect (Rewakowski, 2018) is an act of giving or showing concern for, for or with an individual, while verbally respecting is a feeling of high appreciation for an individual. Respect is a tendency of an individual's psychophysical response to the value of another individual which is built from two main components namely understanding and respectful actions carried out by an individual towards the valuation of another individual. The component of understanding directs individuals to know and understand that other individuals have distinctive fundamental values, while the component of action is a manifestation of an individual's actual actions respecting other individuals in daily life. Respect for the valuation of an individual will emerge when there is a psychophysical gap between individuals (Crouch, 2012), but this needs to be a condition in the individual namely empathy and high tolerance in the individual. This is in line with the thinking of Schirmer, et al (2012), Rossi (2013), Khomyakov (2013) and Robbins & Judge (2014) that an individual is able to respect other individuals if the individual has a high empathy attachment and tolerance towards individual diversity.

In addition, respect is one of the factors forming character (Peterson & Seligman, 2004) and also one of four factors that contribute to the development of self-esteem in individual self (Coopersmith, 1967). As one of the character-forming factors (Peterson & Seligman, 2004), respect has a role as an individual's psychophysical ability to explore all phenomena that exist and vary in their developmental environment. Through the variable respects the individual to process thought, taste, and behaviour before responding to the diversity of environmental phenomena faced so that the form of the
response becomes a characteristic of the individual. Respect in the
development of self-esteem (Coopersmith, 1967) serves as a way of looking at
the condition of self and the conditions of other individuals so that we respect
ourselves as we are respected and that is a valuable experience in helping
individual self-image.

Understanding to respect, respect and harmony in carrying out life in
diversity correlates with aspects of cultural intelligence in the ideological view
of Asian culture (Sew, 2015, and Ryan, et al. 2011) where Asian society
highly respects individual values as indicated by respect and respect for
harmony. In Indonesia, understanding to respect, respect and harmony
carry out life in diversity (contained in several ancient manuscripts whose
teachings were developed from generation to generation. Among them is Tata
Salira Sundaya which is contained in Jendra Hayuningrat Pangruwating
Diyu's Literature manuscripts (Sunyoto, 2012) and Pikukuh Tilu in the
teachings of the Religion of Java/Sundanese Java (ADS / AJS) (P.
Sundaya is one of the ancient archipelago manuscripts that teaches one of the
teachings of living in harmony with the diversity of humanity with the unity of
the individual human being as the focus of his teachings, as well as the
teachings of Pikukuh Tilu, in which the teachings of human individuals (P.
Djatikusumah in Muttaqien, 2012 and Suhaenah, et al. 2017) are formulated in
3-2-4-5-lilima-6. Mandep ratu-raja (3) or facing perfection is Tri Daya Eka
Karsa which is the moment between creativity, taste and human initiative,
mandep ratu-raja (2), namely the law of balance and pairing in life, mandep
ratu-raja (4), namely the activity of both hands and both feet as manifesting
abilities, mandep ratu-raja (5) namely five pancaran daya sukma salira which
in its form in human creativity, taste, and initiative through the five senses that
form the character and characteristics of human welas asih, manners, undak
usuk, budi daya, budi basa and wiwaha yuda nagara. The ways of the nation's
appearance, customs, language, script and culture. Lilima is the emission from
the interaction of the five senses and mandep ratu raja (6) which is the
authenticity of humans. Cultural intelligence in the context of Indonesian
culture has actually been contained in the teachings of virtue that had been
formulated by the ancestors. The teachings on respect, respect, compassion,
harmony and peace have been taught by the ancestors in anticipation of their
predictions of the dynamics of human life.
Based on the analysis the fundamental value of an individual will be high if the respect gained by the individual is high through recognition, understanding and appreciation of individual self-worth in a community organization. This is in line with the presentation of Darwall (2010), Rogers & Ashforth (2014) and Robbins & Judge (2014) who explained that respect is an individual's ability to recognize the value of other individual's psychophysical attributes called "me" in a social organization. It starts with the recognition of valuation so that a positive "we" variable is built up in a community organization.

Respect as a connecting variable between the gap of recognition, understanding and appreciation is one of the real manifestations of the individual in adjusting to the individual or environment being faced. Adjustments effectively and efficiently to the gap of cultural attributes holistically can be bridged through cultural intelligence. Respect is one of the real attitudes of cultural intelligence possessed by individuals. In a relationship that varies cultural intelligence acts as a mediator in the relationship between individuals, this is reinforced by the statement of Presbitero (2016) who views that cultural intelligence in an interaction acts as a mediator of various relationships.

The presentation of cultural intelligence from various viewpoints in the field of science that has been presented narrowed the understanding of cultural intelligence. Cultural intelligence, namely the power of psychophysical efforts to function in accordance with environmental conditions with metacognitive, cognitive, motivational, and behavioural aspects characterized by understanding, respect, appreciation, creativity, and self-action when interacting with the environment. Cultural intelligence is the implication of the individual's psychophysical potential in responding to a variety of environmental diversity. Through the individual cultural intelligence variable, it is facilitated by its existence in meaning as a human.

CONCLUSIONS
Based on the results of the study, shows the diversity of perspectives on cultural intelligence and its attributes. The perspective of the field of psychology views cultural intelligence as a whole effort in the individual to function in accordance with the environment. The field of sociology and organization views cultural intelligence as behavioural and adaptive performance in an atmosphere of cultural diversity is the capability of
individuals to function and organize themselves effectively and efficiently in diverse cultural conditions in the country, ethnicity, institutions and organizations.

Limitations in this research are, first, this research only examines from three viewpoints in the field of science, so that the diversity of viewpoints and the generalization of the implications of cultural intelligence in the dimensions of individual life are not optimal. These conditions direct further research to examine the cultural intelligence of several dimensions of individual life. Secondly, this research still needs to be strengthened by qualitative data in the form of studies of practice perspectives in various dimensions of life regarding the implications of cultural intelligence, so that future research can respond to these conditions in order to perfect the cultural intelligence variable in the lives of human individuals. This research acts as a profile of the tendency of cultural intelligence dynamics so that this research is expected to be able to contribute to the development of individuals in an atmosphere of cultural diversity, especially multicultural guidance and counselling services.

REFERENCES


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