

Adolescents' Entrepreneurial Orientation in terms of Perceived Self-Temperament

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Entrepreneurial orientation is an important construct that usually affects performance, profit, product growth and innovation in a company. Some successful entrepreneurs have shown this character since adolescence. Therefore, it would be better if this entrepreneurial orientation is implemented early on. Researchers are interested in looking at the relationship between entrepreneurial orientation and personality, especially personality that is nature, referring to The Theory of Humours by Hippocrates (460 BC) and Galen (2 AD). Based on the results of the One-Way ANOVA test, it was found that there were significant differences from the four temperaments in the dimensions of innovativeness, risk taking, proactiveness and autonomy ($p < 0.05$). Whereas in the competitive-aggressiveness dimension it is known that there are no significant differences in the four temperaments ($p > 0.05$). Overall, entrepreneurial orientation variables, obtained results that there are significant differences in entrepreneurial orientation from the four temperaments ($p > 0.05$).

Keywords: *entrepreneurial orientation, perceived self-temperament, innovation, especially, risk taking, proactiveness, autonomy*

JEL Classification: L26, M10, M50

1. Introduction

Entrepreneurial orientation has proven to be an important attribute that leads a company to have a high performance (Lim and Envick, 2011). Johan and Dean (2003) wrote that entrepreneurial orientation is an important construct that usually affects performance, profit, product growth and innovation in the company. Covin and Lumpkin (2011) state that entrepreneurial orientation is a construction that is useful for understanding the company's ability and is able to maintain the performance of the company's performance.

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Some successful entrepreneurs have shown this character since teenagers. More systematic evidence from the retrospective report also supports the view that the success of business founding entrepreneurs comes from entrepreneurial activities and characteristics since adolescence (Rodermund, 2004). Rodermund (2004) also writes that there is a relationship between the quality of an individual's early life in the development period and the individual's work performance in the future. Santrock (2012), said that adolescence is a time when emotional struggle in self-recognition and self-discovery takes place, where self-knowledge will determine the direction and purpose of life in the future. Self-knowledge is needed so that teenagers are able to determine where to go. Bronwell (2015) investigated, that teenagers who know themselves well, will have more goals in life when compared to teenagers who do not know themselves. Bronwell (2015) also revealed that the introduction of self-characteristics with career clarity is directly proportional, the more a person is able to recognize and understand themselves will make the individual have a clear direction towards the department and career to be achieved. Based on the explanation of the data above, it would be nice if entrepreneurial orientation had been developed early, especially in adolescence.

There are various kinds of factors that influence entrepreneurial orientation. One factor that influences it is represented by personality factors. Bolton and Lane (2012), writes that personality factors affect all dimensions in entrepreneurial orientation, namely innovativeness, risk taking, proactiveness, competitive-aggressiveness and autonomy. So far, many studies have linked entrepreneurial orientation with several aspects that support personality, such as big five theory and locus of control. Bronwell (2015) writes that there is a significant difference between personality and dimensions of entrepreneurial orientation, referring to the big five theory. Lumpkin and Erdogan (2004) suggested that locus of control influences the proactiveness dimension and aggressive-competitiveness in entrepreneurial orientation. Researches on entrepreneurial orientation and personality have focused more on environmental influences than genetic influences. All of the research that has been done, focusing on the formation of the environment rather than genetic elements. Whereas personality cannot be separated from genetic factors (Santrock, 2012).

Personality theory which is viewed from the function of genetics, is a temperament theory of self. The theory says that congenital or genetic dispositional can influence the way a person acts (Stelmack and Stalikas, 1991). This temperament theory says that disease, character and human behavior are influenced by the four main fluids contained in the body, namely blood, yellow bile, black bile and phlegm which are inherited into four temperaments, namely sanguine, choleric, melancholic and phlegmatic (Stelmack and Stalikas, 1991). The influence of body fluids shows genetic function in personality that can have an impact on entrepreneurial orientation.

As to the knowledge of the authors, there is no research on entrepreneurial orientation in terms of genetic functions in personality or the type of temperament. This study aims to prove the differences in entrepreneurial orientation based on personality that refers to the theory of self-temperament.

2. Literature Review

2.1. Entrepreneurial Orientation

Entrepreneurial orientation in a person becomes a driving force for entrepreneurial activity for him. Entrepreneurial orientation refers to someone's drive to find new opportunities, innovation and courage to face measurable risks. According to Covin and Wales (2012), entrepreneurial orientation is the firm's degree of proactivity in its product and its market and his willingness to innovate and create new offers. Lumpkin and Dess (1996) say entrepreneurial orientation is processes, practices and decision-making activities that lead to new entry as characterized by one or more of the following dimensions: "a propensity to act autonomously, a willingness to innovate and take risks and a tendency to be aggressive toward competitiveness and proactive relative to marketplace opportunities. More recent opinions about entrepreneurial orientation are expressed by Pearce, Fritz and Davis (in Covin and Wales, 2012) which is a set of distinct but related behaviours that have the qualities of innovativeness, proactiveness, competitiveness-aggressiveness, risk taking and autonomy.

The dimensions of the Entrepreneurial Orientation stated by Lumpkin and Dess (1996) are innovativeness, risk taking, proactiveness, competitive-aggressiveness and autonomy. Innovativeness is the tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services or technological process (Lumpkin and Dess, 1996). Innovativeness is an important component of EO because by the willingness to innovate, firms pursue new opportunities. Risk taking involves actions of courage by penetrating unknown areas, borrowing lots of funds and allocating significant resources in order to penetrate into an unknown environment (Lumpkin and Dess in Rauch et al, 2009). In a more general sense, Miller and Friesen (Lumpkin and Dess, 1996) defined risk taking as the degree to which managers are willing to make large and risky resource commitment and those have a reasonable chance of costly failure.

Proactiveness is an opportunity-seeking, forward-looking perspective characterized by the introduction of new products and services ahead of competition and acting in anticipation of future demand. Proactiveness may be a crucial component of EO together with innovativeness because it suggests a forward-looking perspective. It is an anticipation of future needs, changes or problems. Competitive aggressiveness refers to a firm's propensity to challenge its competitors to achieve entry or improve position in order to outperform industry rivals in the marketplace (Lumpkin and Dess, 1996). The fifth component of EO is autonomy, which refers to independent perspectives by entrepreneurial leaders or teams directed at bringing together new ventures and seeing to fruition (Lumpkin and Dess in Rauch et al, 2009).

2.2. Perceived Self-Temperament

Temperament is a congenital dispositional characteristic that influences the way a person acts (Stelmack and Stalikas, 1991). Theories concerning human temperament come from The Theory of Humours by Hippocrates (460 BC) and Galen (2 AD). This theory says that disease, character and human behaviour are influenced by the four main fluids in the body, namely blood, yellow bile, black bile and phlegm (Stelmack and Stalikas, 1991). Blood represents air which is hot and moist, making people with dominant blood character sanguine. Yellow bile represents fire that is hot and dry, making people with a dominant yellow bile fluid a choleric character. Phlegm represents water that is cold and moist, making people with dominant phlegmatic characters. And black bile represents a cold and dry earth that makes people melancholic.

Table 1 describes the characteristics of the four temperaments mentioned.

Table 1. Characteristics of the Four Temperaments Types

Temperament	Characteristics
Sanguine	Cheerful, sociable, optimistic, disorganized and too talkative
Choleric	Goal oriented, born as a leader, confident, bossy and insensitive
Melancholic	Thinking, contemplating, being organized, being negative, often depressed
Phlegmatic	Fun, sociable, adaptable, doubtful and unmotivated

Source: Littauer and Sweet, 2011

This paper will discuss differences in entrepreneurial orientation in terms of the subject's perceived self-temperament.

3. Research Methodology

This research represents a quantitative research. This research aims to determine differences in entrepreneurial orientation in terms of one's perceived self-temperament. Therefore, this research is comparative. The population in this study were junior and senior high school students from Surabaya, Semarang and Yogyakarta. The sampling technique used is convenience sampling or sampling based on subject availability (Gravetter and Forzano, 2012). The number of subjects in this study was 186 people.

Data collection using the Entrepreneurial Orientation questionnaire compiled by researchers used five-points Likert scale, with range 1 = very rarely until 5 = very often. The items in the Entrepreneurial Orientation questionnaire are constructed based on five dimensions of entrepreneurial orientation according to Lumpkin and Dess (1996). The five dimensions of entrepreneurial orientation are innovativeness, risk taking, proactiveness, competitive aggressiveness and autonomy. Innovativeness explains how often teenagers explore opportunities, bring up creative ideas and apply innovations in their daily activities. Risk taking explains how often teenagers dare to act in order to achieve a positive goal in an uncertain situation and contain a risk of loss to him. Proactively explains how often teenagers bring personal initiatives, take roles, encourage, and voice changes in their environment. Autonomy explains how often teenagers strive independently in carrying out an activity. We modified competitive aggressiveness dimension with personal development competitive by Ryckman, Hammer, Kaczor and Gold (1996) to be more suitable for adolescence or high school students. The dimension measures how often teenagers exhibit competitive behaviour whose main focus is to obtain competitive experiences that facilitate their personal development and not to win.

The results of the trial questionnaire have been carried out, it is known that the CICT validity value of the innovativeness dimension is between 0.393 - 0.665 with Cronbach alpha reliability of 0.812. The risk taking dimension of CICT validity value is the innovativeness dimension between 0.289 - 0.593 with Cronbach alpha reality of 0.745. The proactivity dimension of the CICT validity value is between 0.232 - 0.614 with Cronbach alpha reliability of 0.744. The autonomy dimension of CICT validity value is between 0.275 - 0.601

with Cronbach alpha reliability of 0.704. The competitiveness dimension of CICT validity value is between 0,250 and 0,632 with a Cronbach alpha reliability of 0,723.

To determine self-perception, respondents are asked to choose a temperament tendency within themselves, this is measured by giving a question to reflect the inner temperament. Item is in the form of a sentence like this: Mention the traits that are more appropriate to yourself and have four answer choices, namely: "cheerful but lacking discipline" to express sanguine, "likes to lead but angry" to express choleric, "want to be perfect but easily offended" to express melancholic, "calm but timid" to express phlegmatic.

4. Analysis and Results

4.1. Characteristics of Research Respondents

This research was carried out in three cities, namely Surabaya, Semarang and Yogyakarta. Respondents who live in Surabaya are 60 people, who are domiciled in Semarang as many as 61 people and who are domiciled in Yogyakarta as many as 65 people. This study is divided into 89 junior high school students and 97 high school students. 82 male students and 104 female students. Students who perceive themselves as sanguine are 98 people, 28 people as melancholic, 37 people as choleric and 23 people as phlegmatic. Below is a table of characteristics of the research respondents (Table 2).

4.2. Difference in Entrepreneurial Orientation in term of Perceived Self-Temperament

Table 2 shows the differences in the average entrepreneurial orientation in terms of the perceived self-temperament.

Based on the average comparison of the score of entrepreneurial orientation and each dimension in terms of temperament, it was found that choleric had the highest score in entrepreneurial orientation and all dimensions, compared to the other three temperaments. In other words, choleric temperament has the highest level of entrepreneurial orientation from the other three temperaments.

The lowest score on the dimensions of innovation is owned by the melancholic temperament. The lowest score on risk taking, proactive and competitive dimensions is owned by the Phlegmatic temperament. The lowest score on the dimension of autonomy is owned by Sanguine. While the lowest score on the entrepreneurial orientation variable is owned by Phlegmatic. That is, phlegmatic temperament has the lowest level of entrepreneurial orientation of the other three temperaments.

Table 2. Mean and Standard Deviation Data

	Temperament	Mean	Standard deviation
Innovativeness	Sanguine	35.6224	5.56224
	Choleric	36.7027	6.41987
	Melancholic	32.6429	6.90794
	Phlegmatic	33.3478	6.44282
Risk-taking	Sanguine	37.0204	5.78655
	Choleric	38.9730	7.44045
	Melancholic	35.6786	6.22452
	Phlegmatic	31.3043	6.29888
Proactiveness	Sanguine	35.5204	5.95556
	Choleric	37.8378	7.06129
	Melancholic	32.5000	7.51049
	Phlegmatic	28.7391	6.05443
Autonomy	Sanguine	31.9082	4.84201
	Choleric	35.2432	5.07940
	Melancholic	33.5357	5.82766
	Phlegmatic	32.0870	6.43084
Competitive-aggressiveness	Sanguine	39.6633	5.56673
	Choleric	41.8919	6.45404
	Melancholic	39.8929	6.70732
	Phlegmatic	39.2174	5.41846
Entrepreneurial Orientation	Sanguine	179.7346	22.21384
	Choleric	190.6486	27.96050
	Melancholic	174.25	25.35178
	Phlegmatic	164.6956	24.90242

4.3. One-Way ANOVA Test Results on Entrepreneurial Orientation in terms of Perceived Self-temperament

Table 3 shows the result of One-Way ANOVA test that reflects differences of Entrepreneurial Orientation in terms of Perceived Self-temperament.

Table 3. Differences of Entrepreneurial Orientation in terms of Perceived Self-temperament

	F	Sig.
Innovativeness	3.279	.022
Risk-taking	7.563	.000
Proactiveness	11.091	.000
Autonomy	3.925	.010
Competitive-aggressiveness	1.492	.218
Entrepreneurial Orientation	5.898	.001

Based on the results of One-Way ANOVA test, it is known that there are significant differences from the four temperaments in the dimensions of innovation, risk taking, proactive and autonomy ($p < 0.05$). Whereas in the competitive-aggressiveness dimension it is known that there are no significant differences in the four temperaments ($p > 0.05$). And as a whole or on entrepreneurial orientation variables, the results show that there are significant differences in entrepreneurial orientation from the four temperaments ($p < 0.05$).

5. Discussion and Conclusion

The results of data analysis show that there are significant differences from the four temperaments, this shows that the perceived of self-temperament influences entrepreneurial orientation. The comparison results of the entrepreneurial orientation score shows that the choleric personality type has the highest score in entrepreneurial orientation and on all dimensions in it. Choleric temperament itself is a goal-oriented personality type, born as a leader, confident, bossy and insensitive (Littauer and Sweet, 2011).

Autonomy is an independent condition in working and making decisions, which aims to find the right solution in advancing its business (Lumpkin and Dess, 1996). When viewed from the definition of self-autonomy, this is also in accordance with the characteristics of choleric personality where there are characteristics of easy decision-making for themselves and others, as well as being independent in work, he has a tendency not to be involved in activities that have no purpose (Mujono and Bualendung, 2011). There is a significant score in this dimension, seen because there is a suitability of autonomy with choleric personality traits.

The next dimension is the dimension of risk taking, this dimension emphasizes the process of exploring new unknowns, borrowing money and the process of allocating significant resources for business development in uncertain situations (Lumpkin and Dess, 1996). A person who has a choleric personality, also has strong-willed characteristics, has an optimistic outlook, and has thoughts that are full of ideas, plans and goals (Mujono and Bualendung, 2011). Scherer, Brodzinski and Wiebe (2006) conducted a research that showed that individuals who have a choleric personality are the most daring individuals to try new things in their lives. This presentation is reinforced by a significant score between the dimensions of risk taking and the choleric personality.

The explanation of the above characteristics is also a reference for the type of choleric personality character with a comparison of the third dimension, namely the proactive dimension. The third dimension is the proactive dimension, where this dimension shows the anticipatory action of a person towards problems and needs that will occur in the future, the person is able to see new opportunities and can adjust to existing changes (Lumpkin and Dess, 1996). Where in this dimension, showing an optimistic character and thoughts that are full of ideas by the choleric personality, becomes a strong basis for someone to act proactively.

The fourth dimension is innovative, the innovative dimension itself reveals the tendency of individuals to engage themselves creatively, and often conduct experiments through the introduction of products, services, and the development of the latest research (Lumpkin and Dess, 1996). It is a characteristic of someone who has a choleric personality that is having a strong will when reaching something, this causes him to tend to bring up an aggressive response in acting and seen an ambitious response (Bronwell, 2015). This response also forced the choleric personality to be an innovative person in the face of the challenges ahead. This is also in accordance with the fourth dimension of entrepreneurial orientation which is innovative.

In addition, based on the results of data processing, other personality types indicate the position of the entrepreneurial orientation under the choleric personality, with the sequence of sanguine, melancholic and

phlegmatic. In the sanguine personality itself, you can see the dimensions that show the position below the second order, namely the dimension of autonomy. In accordance with its definition, the autonomy dimension prioritizes independent conditions and is able to make decisions about the problems faced (Lumpkin and Dess, 1996). Mujono and Bualendung (2011) wrote that sanguine personality is an individual who prioritizes feelings compared to logic when making decisions, as well as friendly relationships with people around him makes him less independent and tends to often ask for opinions when he will issue an action. This shows that this personality type has an external locus of control, which itself is still less independent in deciding the problem.

The lowest score on the dimensions of innovation is owned by Melancholic. Littauer and Sweet (2011) writes that Melancholic itself has the characteristics of thinking, meditating, being organized, being negative, often being depressed. This shows that individuals who have Melancholic characteristics have enough consideration when thinking or doing an action, this will prevent him from thinking innovatively. While innovative itself involves itself creatively, and often conducts experiments through the introduction of new products, services, and research development (Lumpkin and Dess, 1996).

The last temperament characteristic is phlegmatic, where this characteristic has the lowest score on the entrepreneurial orientation variable. This shows that the phlegmatic temperament has the lowest level of entrepreneurial orientation than the other three temperaments. Littauer and Sweet (2011) wrote the phlegmatic temperament of bringing themselves as doubtful and unmotivated individuals. He tends to act in a comfort zone to protect himself so he remains in a safe position.

In the dimension of competitive-aggressiveness, there is no significant difference in the four temperaments. This is because in measuring the entrepreneurial orientation itself, especially in the dimensions of competitive-aggressiveness, the main dimension is the focus on the development of their personal development and not to win (Ryckman, Hammer, Kaczor and Gold, 1996). This dimension makes adolescents who have melancholic character more able to utilize their temperament to reflect and develop themselves in the future. Yahin (2009), writing down melancholy personality types has the characteristics to get feedback in every activity he does. Always want to know the reasons why you have to do something and will ask repeatedly to ensure there is no error (Yahin, 2009). Therefore, he will reflect on the activities or thoughts that he does, and then make further improvements. While the phlegmatic temperament has a character that does not like to stand out, where he is able to make self-improvement without interfering with others and not realized by others (Okal et al., 2012). Where the understanding of this dimension will benefit the phlegmatic character, which is enough against itself without fighting others. Therefore, all characters benefit from this dimension.

Santrock (2012) also wrote that the characteristics of permanent personality consist of two factors, namely genetic factors and environmental factors. This also relates to other dimensions of the variable entrepreneurial orientation. Kandler (2012) writes that both genetic and environmental factors contribute to continuity and personality change, but genetic factors influence changes in rank order only in the decades of younger life, while environmental influences appear to represent lifelong sources of inter-individual differences in personality development. For some temperament characters who have a score not too high on certain dimensions, it can still be balanced by providing training both in the realm of education in schools and parenting at home (Setyowati, 2013).

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