

## **The Relationship Between Self-Concept and Aircraft Technician Performance**

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*Air transport has become an integral part of the structure of the world community, especially to the development of world economy in terms of trade and tourism, which is now very real. One of the human resources that have great contribution in the smooth airline is the aircraft technicians who in charge of preparing aircraft in order to fly with a predetermined schedule. The objective of this research is to test the hypothesis that the self-concept is associated with aircraft technician performance. The sampling frame was taken as many as 80 people, 30 people to test instruments and 50 people for the study sample. From the analysis proved that the concept itself has a significant relationship with the performance of the aircraft technician. The test results obtained value of 5.768 t count > t table 2.682 at significant level  $\alpha = 0.01$  so that it can be concluded that the correlation coefficient between self-concept and performance of aircraft technicians are highly significant. There is a positive relationship between self-concept and performance of aircraft technicians. This means more and better self-concept, the higher aircraft technician performance.*

**Keywords:** Self-concept, aircraft, technician, performance.

### **1. Introduction**

Air transport has become an integral part of the structure of the world community, especially to the development of world economy in terms of trade and tourism, which is now very real. Given the increasing flow of human traffic between countries and regions, the ease and speed of reaching a variety of places to have an increasingly important role in an increasingly global world. Air travel is not just moving people and goods from one location to another, but it gives a very broad impact on economic development, social and cultural rights. This is what causes the transport of persons or goods by air has an enormous influence on trade and tourism.

Garuda Indonesia is the Indonesian airline engaged in air transport service for passengers and goods from one place to another as well as State-Owned Enterprises (SOEs), which took on the task, namely: 1).National duties as an integral tool. 2).International assignment as a flag carrier airline. 3).Commercial duty as a service company in the field of transportation. To carry out these tasks Garuda Indonesia must meet all the essential elements of the aircraft in flight, flight routes and network services to customers. Advanced technology that is used during flight is an important factor that is required. For every certain period of repair and rejuvenation of the aircraft is always done. Another element is the determination of routes tailored to the needs of customers. Garuda always set the frequency and purpose of the flight in accordance with community needs and services to customers, to fulfill the tasks in the field of commercial air transportation.

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In performing their duties as a commercial enterprise in the field of air transport services, Garuda must be created as a public trust of customers or end users. Public confidence in an airline a lot depends on the impression created by the overall performance of the company. General terms of performance are things that can cause a good impression and experience on self-customers (passengers) for the overall service received. Characteristics of which include air quality, safety (security), schedule punctuality (the accuracy of the flight schedule), promptness (arrives at the destination speed), comfort, fitness for use (fit with customer needs), and sociality.

At each service companies whatever the subject is most preferred in terms of his service to the customer. Similarly with the Garuda is the largest aviation services company in Indonesia, also rely on the quality of service the service user of this flight. Overall quality of services enjoyed by airline passengers is not free from the condition of the aircraft itself. The aircraft can fly safely when supported by human resources (HR) is a reliable and well trained. One of the human resources that have great contribution in the smooth airline is in charge of preparing the aircraft technicians in order to fly the aircraft in accordance with a predetermined schedule.

The technicians who perform aircraft maintenance and repair of aircraft owned Garuda currently under the auspices of Garuda Maintenance Facility (GMF) Aero Asia's spin-off (break away) from Garuda since August 2003. GMF Aero-Asia was established in August 2002 with 99% ownership by Garuda Indonesia and the remaining one percent by Aerowisata who is also a subsidiary of Garuda. GMF Aero-Asia is a subsidiary of Garuda Indonesia, which concentrate on the business of maintenance, Repair and Overhaul (maintenance and repair as a whole) plane.

The main problem faced by airlines is how to attract as many passengers and passengers into loyal customers. Making passengers as a loyal customer is not an easy way because the service must be able to provide aviation services that impressive implication from passengers buying tickets to arrive at their destination safely and comfortably and quickly receive a trunk and its contents intact. In the aviation industry of the services provided to the user community has flight services indicators agreed upon by the entire aviation industry in the world. In regard to service delivery cannot be separated from the moment of truth in which time and place, when and where the producer services are produced to customers concerned; therefore it is as well known as a moment of opportunity. If time has elapsed, the customer has left the place it is no longer an easy way to add value to perceived service quality. Albrecht was quoted as saying by Grönroos (1992, p.42) give some examples of the moment of truth happened in the airline business, among others: (a) The customer calls the airline for information, (b) customer books the flight with the airline representative, (c) customer arrives at the airport counter, (f) the ticket agent's payment processes ticket issues, (g) customer goes looking for the departure gate; (h) gate agent Welcomes customer to the flight, validates boarding pass; (i) the customer waits in the departure lounge for flight to depart; (j) boarding agent takes a customer's ticket and invites customers on board;(k) customer boards airplane, is greeted by flight attendant; (l) customer looks for his / her assigned seat; (m) customer looks for a place to carry-on luggage Stow, (n) customer takes his / her seat; (o) Etc., etc.

One of the key requirements in the aviation business that transports passengers from one place to another and be a factor intense competition for the airline industry is aviation safety. In the context of aviation safety for an airline rules about things that

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should be followed to achieve uniformity in the handling of passenger safety set by the Agency or International Institutions such as the ICAO (International Civil Aviation Organization) which is then translated into more specific rules in accordance with the conditions country concerned. For Indonesia the rules regarding aviation safety is being managed by the Directorate General of Air Communication (DGAC) and set forth in the regulation of civil aviation safety is the Civil Aviation Safety Regulation (CASR).

Flight safety supports of the airline business objectives. So the flight safety will be the primary consideration in aviation. "To be safe" is not a business airline. Airline business is transporting passengers or cargo from one place to another with the purpose of profit. However, without the flight safety is most likely not get a lot of passengers or a large profit in the long run. "World Trade Center Event" has proved a tremendous impact for the deterioration in the world of business aviation.

In Asian countries most accident involving a local airline, which indicates that the problem lies in crew training and equipments or local regulatory standards. In Indonesia, only 5 of 97 crashes since 1960 that involved a foreign airline (Philippines 5 of 71 accidents). While for some countries such as India (15 of 93); Japan (13 of 41); Vietnam (14 of 35) showed the proportion of larger foreign airline. This indicates the presence of untruth in the system of ATC (Air Traffic Control), navigation / ground systems or a problem of communication / language.

Indonesia ranks first in number of 97 accident, including 56 fatal accident, and caused 1350 people have died since 1960. This means there are about one crash every 9 months. (Accident Garuda experienced the most fatal in the event of September 26, 1997 in Medan by plane Airbus A-300 B4, which killed all 234 people on board, amounting to the plane including crew). Because most accident occurred on the operators or third-world developing countries where rapid traffic growth combined with a large accident rate, then it can be presumed that the increase could have a dramatic accident will happen if the accident rate is not suppressed. The main cause of the accident was human error in industry due to lack of care or "**human factors**". About 80% is due to a person made a mistake which is not always pilot error, as can occur in the ground, such as aircraft engineers or air traffic controller.

Aviation safety is a subject matter that must be met by the airline to operate aircraft that carry passengers from one place to another. To fulfill the above, then Technicians as one of the Human Factors in aviation industry is one important element that can realize the safety of the flight with an aircraft preparing to excellent condition. Aircraft Technician contribution to aviation safety embodied in the behavior during the performance of the work and perform in the field of aircraft maintenance and repair. Answering the demands of customer service to aviation safety is a must for aviation service providers.

Many factors can affect the expected performance of aircraft technicians in performing their duties in order to improve and maintain the aircraft in top condition to fly. These factors can be derived from itself in the form of physical resistance or physical endurance in running the task with a time shift work, work climate in the GMF, organizational commitment, work culture, work skills, remuneration system, the active participation of technicians in the organization, a clear career path, superior leadership, self-concept of the technicians in carrying out its functions and duties,

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aircraft technician program learning achievement in gaining the knowledge and skills that can support their performance, experience, and others.

Of the various factors affecting the performance of technicians in the care and repair aircraft needed answers to complex questions such as those listed above. In this study the researchers focused only on the factor of self-concept aircraft technician who allegedly related to the performance factor of the technician.

The results of this study is expected to be input in improving the performance of aircraft technicians in preparing the aircraft so the aircraft in top condition, it also can be used as the basis for formulating a strategic conception of the variables associated with the object of research in improving the sensitivity of the technician in the performance demonstration.

Thus from the results of this study is expected to add to their repertoire of vocabulary performance measures on airline aircraft technicians, so that will enrich the scientific literature in the field of management.

Of the various factors that influence the performance of technicians maintain and repair the aircraft needed answers to complex questions such as those listed above. In this study, researchers focused only on the factor of self-concept, which is related to technical performance factors. Of restrictions on the issue, the researcher is defined the free variable is self-concept and dependent variable is the performance of aircraft technicians in performing their duties as follows:

### **Is there a relationship between self-concept and performance of the aircraft technician?**

This paper is supported by theories relevant to the study of self-concept and performance of aircraft technicians, research hypothesis, research methods, research instruments, analysis, findings and summary of research results and conclusions.

## **2. Literature Review**

### **Self-Concept**

Within an organization or company that has a number of employees with backgrounds as diverse social life, certainly not free from problems associated with these individuals. But with the introduction of the purpose of an organization or company, the personal variety that should have a common goal to achieve corporate objectives. The concept itself is thought to have a role to support the expected performance by the company. Many studies of self-concept had found, but there was not found the study which was specifically examined the relationship between self-concept with aircraft technician performance.

Self concept is what we understand about ourself. It is not the same as self image or self consciousness. It includes: our social character or abilities, our physical appearance and our body image, our thinking. ([http://www.more-selfesteem.com/self\\_concept.htm](http://www.more-selfesteem.com/self_concept.htm)) Our self concept can change because we see and understand things differently depending on our feelings, beliefs and attitude. Self awareness is a two-way process as our feelings and beliefs affect our self concept

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and the opposite is also true. Awareness means becoming aware of what is actually true about oneself and this is important because we probably believe we are as we see ourselves but others may see us quite differently. Awareness is the process of moving our own view closer to the truth.

Many theories of personality that discussed the concept of self, as proposed by Baron and Byrne (1991, p. 499) who said that self-concept describes the most important aspect of the whole personality of a person. He added that people concentrate more on themselves than on others, and women have a tendency to do so more than men. According to Baron and Byrne, a lot of research on individual differences in self-concept is more concentrated on how people judge themselves or called self-esteem. Self-esteem depends on how close a person's judgment of himself is in accordance with the characteristics of the concept of an ideal self. Behavior of the self is probably the most important thing as it pertains to one's judgment of himself if he was positive or negative. Self-esteem can serve as a trait (the nature or character), which is consistent in every person is different to the assessment itself. Baron and Byrne (1994, p.175) also stated that if someone wants to illustrate the concept of self, which will be given the information about physical appearance, traits, goals and motives underlying their behavior. In other words the concept of self is a complex information about a person. This is consistent with the concept of self, that the views and feelings about oneself that is self-perceptions of psychological, social and physical.

Aronson, Timothy and Achert (1994, p. 86) say the whole concept of self is one's knowledge about oneself, including the identity, capabilities and roles that should be run. It is associated with the stability of the concept itself, it can be said he has a positive self-concept. Self-concept refers to the characteristics of a person's beliefs about themselves and how relevant evaluate the quality of self.

Positive and negative ratings have different effects on low self-esteem and high self-esteem. Humans who have low self-esteem are less concerned with the value itself, in addition to reacting to the positive feedback and insulted by the negative feedback. In contrast a person with high self-esteem can accept both kinds of feedback properly and also better social skills. The stability of self-esteem also result in behavior, for example, temper and hostility is mostly done by someone who has high self-esteem but is unstable and very little done by someone who has a stable high self-esteem. In general, a person with high self-esteem to function better in the situation of human relations in comparison with the low self-esteem.

Self-esteem is also affected by certain situations, although in general self-esteem is stable but may someday become worse or better. As it is known that a positive experience gave the tendency to increase self-esteem, whereas negative events tend to lower self-esteem. However, a person with high self-esteem still able to keep his condition in a positive perspective on the negative circumstances. While a person with low self-esteem have a negative perception. Thus indicated that a person with low self-esteem and a person with high self-esteem to process information in different ways.

Baron, Byrne (1991, p. 505) added that one of the elements of every concept of human dignity is a constellation of beliefs or faith and expectancies about the ability of a person related to the tasks are completed effectively. Component of a person's self-

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concept is called self-efficacy. If low self-efficacy result is a negative condition. If self-efficacy is associated with the performance, then a person with high self-efficacy will have the best performance. Referring to the concept of self that is associated personally effective, then the rest of the company should have effective private.

Latif, Ardiyanti, Sulistiyaningsih ( 2003) says, the concept of self as a person's ability to do the teaching or the ability to provide consultation to the environment. Indication for the man who has such self-concept is to prepare yourself well to deal with a variety of activities and provide support to the environment, specifically selected work-related capabilities, to measure yourself and determine the people in the neighborhood who may be involved in such work.

The concept itself developed from the experiences of one of the things about him since he was small, especially with regard to the treatment of others towards him. The concept of a person initially form the feeling if he was accepted and desired by the family's presence. Through repeated treatment and after encountering certain attitudes of the father-mother-brother and sister or anyone else in the scope of his life, it will be developed the concept of a person. Self-concept originally comes from not feeling valued or appreciated. Feeling that is the cornerstone of view, the assessment of a person or a shadow of itself collectively referred to as self-concept. In psychoanalytic theory explain the process of formation of the ego, the ego is a healthy ego to control and direct the primitive needs (boost libido) to be equivalent to the encouragement of the super ego and the demands of the environment.

To develop the ego or self which is healthy by providing adequate and affection by showing the attitude of parents receiving child with all the advantages and drawbacks, especially in the first years of its development. In this regard, the self-concept develops through five stages, namely:

- The development of a "sense of trusts vs. sense of mistrust", the child age of 1.5 - 2 years. Through a relationship with her parents the child will get the impression the basis of whether their parents are those who can be trusted or not. If he believes and feels that her parents can provide protection and security for himself the child's self-confidence will arise in adults, which will develop a variety of feelings that are positive.
- The development of a "sense of shame and doubt vs. anatomy", in children aged 2-4 years. Which is mainly developed rapidly at this age is motor skills and language, both of which allow children to become more independent (autonomy). When children are given the opportunity to do everything according to his ability, though his ability is limited, without too greatly helped especially reprehensible, it will be formed independence. Instead he often felt embarrassed, and hesitant if not get a chance to prove his ability.
- Developments of the "sense of initiative vs. sense of guilt". In children aged 4-7 years always showed him curiously, so did the attitude to explore, to experiment. When children are too often punished for certain acts are driven by curiosity and explore before, the courage to take the initiative will be reduced. Which later developed it is fear and guilt.
- The development of a "sense of industry versus inferiority", at the age of 7-11 years or 12 years. This is the child wants to prove the success of

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- his business. They compete and try to demonstrate achievement. Repeated failures can be demoralizing and lead to feelings of inferiority.
- The development of a "sense of identity diffusion", in adolescents. Adolescents are usually very great interest in themselves. Usually want to get answers about who and how he really is. In finding the answer they will collect information related to the concept of its former self. When the reality of information, feelings and experience of the self cannot be integrated to form a complete self-concept, adolescents will continue to falter and do not understand about himself.

Added by Allen, Guy and Edgley (1980, p. 176 )who argued that there are three elements of self-concept, namely: (1) Imagination appearance to others, (2) Imagination justification appearance, (3) feelings about appearance such as pride or unpleasant. In the end, Allen et al. (1980, p.178) mean that self-concept can be explained only by the social standards (social term).. The concept itself is not just a descriptive overview, but also judgments about themselves, so there are two components of self-concept is called the cognitive self-concept self-image and affective self-concept called self-esteem.

According to Carlson (1979, p. 543) self-concept is a person against his own judgment about the personality and ability. Meanwhile, in the writings of Bandura Carlson developed a concept of themselves as self-efficacy (benefit himself or herself that effective), it says that a person strongly believes if a person's success in completing the work has been planned in advance. Hoge and Renzulli (1993, p. 543) say usefulness of self is a combination of the two highlights of the social learning theory is the concept of self and self-control Every man is basically good and have a desire to showcase the best of her or called self-actualization. The problem occurs when a person's concept of self-ideal begin to differ in substance to the concept of its real self. Deviation occurs when a person fails to pay attention to the assessment of himself on his self-concept, or even accept his judgment of others. These misconceptions lead to conflict and self-made unhappiness and dissatisfaction. So it can be said that self-concept consists of: (1) ability (competence), (2) Feelings have meaning for others (significance to others), (3) Virtues, (4) The strength (power).

In contrast, those who engage in downward identification will have a lower self-efficacy and poorer performance, as they will assume that the situation of unsuccessful others represents a possible self for themselves (Buunk, Collins, Taylor, Van Yperen, & Dakof, 1990; Buunk, Ybema, Gibbons, & Ipenburg, 2001). Indeed, there is evidence that observing similar others' fail may lower observers' judgments of their own efficacy and may undermine their efforts, probably because one identifies with such others (Vrugt, 1994; Vrugt & Koenis, 2002; Vrugt, Oort, & Zeeberg, 2002). Comparing oneself to others from a contrast perspective means that one takes an antagonistic stance and views the other as a competitor. This process implies that one responds with frustration and resentment when one perceives a successful other (upward contrast). This will be associated with a lower self-efficacy and poorer performance. In general, there is evidence that a strong competitive focus will hinder successful performance because individuals focus on the fact that they are not as good as others, rather than on how to improve their own performance (e.g., Van Yperen & Janssen, 2002).

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Of the various terms and theories above and aircraft technicians associated with PT Garuda Indonesia that became the target of this research, it is the concept of self is the assessment of aircraft technicians to itself which is used in thinking and acting which includes: (1) the view against their own abilities associated with the company's goal is the ability to execute the task, (2) feelings about the meaningfulness of himself in the work environment, (3) feelings about him have a good attitude, and (4) the feeling of power to achieve success according to the demands of the job.

### Performance

Term performance derived from the root "to perform" means: (1) perform, execute, (2) meets or obligations, (3) implement or enhance your responsibilities, (4) doing something expected by a person or machine. In accordance with the rules of the English language a word "performance" means a noun, meaning that one is "done thing" means anything from the results that have been done. It comes to understanding human behavior in the workplace, where in the world of work a person is registered as an employee of organization or a company is required to perform work in accordance with the functions and duties.

In order to produce some good, or provide service, there are four essential functions that the organization must perform. (1) The good or service must be developed. (2) Something of value must be created. In the case of the business organisation this might be the production or manufacturer of a product; in the case of the public sector organisation the provision of a service. (3) The product or services must be marketed. They must be distributed or made available to those who are to use them. (4) Finance is needed in order to make available the resources used in the development, creation and distribution of the products or services provided. (Laurie J. Mullins, 2007, p.571). These essential functions of developing the good or service, manufacturing the good or providing the service, marketing them, and financing the organisation, are referred to as the "task" functions. These are the basic activities of the organisation that are related to the actual completion of the productive process.

Meanwhile, Donald L. Kirkpatrick (2006, p.37) wrote that the performance from the standpoint of improving employee performance through appraisal and coaching is the conditions that will exist when the job segment is done in an acceptable manner. Although the difference between "well done" and "acceptable" seems to be slight, the difference is very significant. Behavior in the work will be directed towards the achievement of organizational goals if there is clarity of responsibility. These responsibilities will be seen by the job description as a contract of employment for a person.

Here is described a variety of expert opinions regarding the performance; Kreitner and Kinick (2003, p.185) said the performance depends on the right combination of effort, ability and skills. Efforts can be made to improve the behavior is identified lack of resources as well as fix, intimacy and attention to employees to encourage subordinates to redouble efforts. Performance results may vary with the following possibilities: (1) high behavior / high result, (2) high behavior / low result, (3) low behavior / high result, (4) low behavior / low result or other possibilities such as: (1) high skill / high behavior, (2) high skill / low behavior, (3) low skill / high behavior, and (4) low skill / low behavior. And Bacal (2002, p.4) agrees that performance needs to be done collaboratively and cooperatively by using performance management, is a



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way to prevent poor performance and how to work together to improve performance. Monday (2010, p.94) claimed that employees should be evaluated in terms of how well they accomplish the duties specified in their job description and any other specific goals that may have been established. A manager who evaluates an employee on factors not clearly predetermined is left wide open to allegations of discrimination. Mondy (2005, p.94) also said the body of the job description delineates the major duties to be performed. Usually, one sentence beginning with an action verb such as receives, performs, establishes, or assembles adequately explains each duty.

The performance is also associated with self-confidence and ability to negotiate. Confidence and ability to negotiate is an important factor in achieving success in various situations. When a person works a performance, it is not always someone able to produce the performance in accordance with the demands of the organisation. A worker may be at peak performance where the peak performance is characterized by a full personal ability, energetic and full of vitality to the challenge, and always looking for opportunities to grow. Behavior of people in work would be directed to the attainment of organizational goals when there is clarity of responsibility. Clarity of responsibility will be seen by the description of duties as a contract of employment for a person. This is confirmed by Garratt (2000, pp. 108-111) said that the description is nice, because the job description relating to what should be done by a person in accordance with their position in the organization so as to know clearly the work and responsibilities not only with respect to what to do, but also in respect what not to do.

In general, the theories described above suggest that the same elements of the definition of performance that is as a person's behavior in performing tasks to achieve the goals of the organization or company that has been established. Thus the performance of an employee of a company such as aircraft technicians can be measured from behavior in carrying out the functions and duties of his duty. Someone who works as an aircraft technician is required to have knowledge and skills that can support that person can do the job. Although the aircraft technicians have little input to decision makers in business, they are extremely important for airplane repair business (Gail F. Butler, Martin R. Keller, 2000, p. 245). Technical expertise is needed so that the aircraft can continue flying after experiencing problems associated with everything about airplanes. In support of his duties a technician must have a basic knowledge of aircraft engineering and adequate skills in the repair of aircraft. Basic knowledge of aircraft engineering has a charge of the basic concept of an aircraft and on systems that support it. Broadly speaking, the basic concept of truth based on the questions of how and why the aircraft was made, how and why airplanes fly on air and flight safety procedures.

Understanding the underlying causes of aircraft capable of air contained in the *morphology* and type of aircraft; aerodynamics which is a phenomenon of gravity; flying mechanism: the forces that appear in phases of different airlines, the formulation characteristics of the aircraft fly. Knowledge of how the aircraft in the air contained in the characteristics of an airplane wing, fuselage, tail, a landing gear, propulsors, flight controllers. (*Aerospatiale* Group, 2000 , P.1)

Aspects of analysis, synthesis and evaluation is a demand for professionals. As said by Koehn (2000, P. 75) there are five conditions that must be met to become a professional person, ie: getting permission from the state to perform certain actions, are members of the same actors, having knowledge or skill, have autonomy in doing

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their jobs, and vows to provide relief to the needy. Therefore, the profession has a body of systematic theory, the skills and expertise achieved through a relatively long learning process. In the learning process is directed to carry out the "trouble shooting", which is a problem-solving training that requires careful study enough.

Therefore, knowledge of aircraft engineering is the combination and application of highly complex knowledge, the mastery of knowledge and understanding they require a long process, and not everyone has the ability to absorb it "versatile". Such that the received knowledge and technological development is the tendency of specialization. Aircraft engineering specialized knowledge possessed by the Aircraft Maintenance Experts in various fields. In this study the tasks performed by technicians ensure the sustainability of airworthiness of the aircraft are aircraft including methods and procedures for the overhaul, maintenance, inspection, repair, modification (components and aircraft equipment) in accordance with the methods listed in guide books and standards set by the airworthiness trials (Daryl Koehn, 2000, P. 17).

Departing from some of the terms and theories mentioned above and connected with the subject are being targeted in this study, so-called aircraft technician is someone who has knowledge of terms, facts, principles, theories, structures, aerodynamics, aircraft frame (airframe), machine (engine), the equipment used in aircraft (electronics, instruments, refrigeration systems and electrical systems), the basic rules of safety of aircraft engineering and knowledge have the skills to operate in accordance with the demands of the job.

The hypothesis on this study is that there is a positive relationship between self-concept of aircraft technician with aircraft technician performance. Positive self-concept will lead to improved performance aircraft technicians.

### 3. The Methodology and Model

This study focuses on the relationship variable of self-concept and a variable aircraft technicians performance. Assessment of the above factors through an instrument developed by the researchers to determine self-concept and the aircraft technician performance with a set of questionnaires. From data such as the amount of each variable statistical testing prior to further analysis. So that operational research was conducted with the aim to obtain an overview of the empirical; The relationship between self-concept and performance of aircraft technicians. This study uses survey with correlational approach and examines two variables, namely the concept of self as independent variables and employee performance as the dependent variable.

#### Study Constellation



The experiment was conducted at the Garuda Maintenance Facility (GMF) AeroAsia of PT Garuda Indonesia Jakarta. While the instrument test conducted in December 2003 to the end of January 2004. Having tested the validity and reliability calculation instrument, the research was conducted in March 2004 to collect field data.

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The target population in this study is the whole PT Garuda Indonesia aircraft technicians located in Jakarta, while the population covered as many as 202 people sampling frame Base Maintenance technicians. From the sampling frame was taken as many as 80 people, 30 people to test instruments and 50 people for the study sample to fill out the questionnaire. Determination of the sample conducted by researchers in simple random sampling. In order to test our hypothesis, we have conducted an empirical study and we have covered 50 aircraft technicians. The education of the respondents are equal. The technicians who perform aircraft maintenance and repair of aircraft owned Garuda currently under the auspices of Garuda Maintenance Facility (GMF)

Data collection for this study included two variables: (1) the performance of the aircraft technician, and (2) self-concept.

Measurement of performance variables aircraft technicians using instruments based on the grille and indicators of the theoretical framework. Furthermore grille and indicators set out in the form of a statement items. Before instrument is used as a data collection tool, first tested the validity and reliability of the instrument.

To find out the validity of the instrument to see the grain size  $r_{xy}$  is obtained compared with the critical price  $r$  - Product Moment on  $n = 30$ . If  $r$ -count greater or equal to  $r$ -tables, grains are used to capture data. Conversely, if  $r$  is calculated  $< r$ -table, the items are not used to capture research data. In the table of critical  $r$ -table prices Product Moment was found 0.361 for  $n=30$  with  $\alpha=0.05$ .

Measurement of performance variables carried by the aircraft technicians shaped instrument rating scale developed by researchers and filling out the questionnaire carried out by the direct supervisor of the research respondents.

Conceptually, self-concept is a technical assessment of the plane to itself which is used in thinking and acting which includes: (1) the views of his own abilities associated with the company's goal is the ability to execute the task, (2) feelings about the meaningfulness of himself in the work environment, (3) feelings about him have a good attitude, and (4) the feeling of power to achieve success according to the demands of the job.

### Instrument

Aircraft Technician Performance instrument development process begins with the development of indicators in the form of factual data that refers to the construct of Aircraft Technician Performance and form five alternative answers to the statement of 24 items. Each item statement is based on indicators of Aircraft Technician Performance as shown in Table 1 below.

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**Table 1: Aircraft Technician Performance Indicator and Sub Indicator.**

No	Indicator	Sub Indicator
1.	Problem identification	<ol style="list-style-type: none"> <li>1. Identify the damage.</li> <li>2. Collect and process information.</li> <li>3. Preparing manuals, spare parts, and equipment.</li> <li>4. Recording.</li> <li>5. Carry out tests and rectification.</li> </ol>
2.	Monitoring	<ol style="list-style-type: none"> <li>1. Looking for information on aircraft registration, estimated time of arrival or departure, parking lots, and the current overall condition of the aircraft.</li> <li>2. Monitor the arrival and departure of aircraft using a hearing aid/ headset.</li> <li>3. Preparing worksheets, and other work equipment.</li> <li>4. Overseeing aircraft modification process.</li> <li>5. To coordinate with related units(such as the spare parts and so on) according to the type of task.</li> <li>6. Make observations on the flight test aircraft.</li> </ol>
3.	Maintenance	<ol style="list-style-type: none"> <li>1. Install and remove safety devices.</li> <li>2. The maintenance of aircraft.</li> <li>3. Perform duties under the supervision of the direct supervisor.</li> </ol>
4.	Reporting	<ol style="list-style-type: none"> <li>1. Conduct briefings with the cockpit crew.</li> <li>2. Conduct briefing with technicians who act as team work.</li> </ol>

Self-concept instrument development process begins with the development of indicators in the form of factual data that refers to the construct of self-concept and form five alternative answers to the statement of 27 items. Each item statement is based on indicators of self-concept as shown in Table 2 below.

**Table 2: Self-Concept Indicators.**

No	Indicators
1.	This view of his own abilities associated with the company's goal is the ability to execute the task.
2.	Feelings about the meaningfulness of the work environment itself.
3.	Feelings about himself have a good attitude.
4.	Feelings about himself have the power to achieve success according to the demands of the job.

The next stage of the instrument then tested on 30 respondents drawn from the framework of a random sample and simple. Calibration process is done by analysing the trial data to test the validity of the instrument, in this case the validity of indicators, namely internal validity (criterion validity) using the correlation coefficient between scores points with a total score of the instrument. Whole grains draft instrument tested the validity and reliability testing. The formula used is the Pearson Product Moment. To find out the validity of the instrument to see the grain size  $r_{xy}$  is obtained compared with the critical price of the Product Moment  $r - n = 30$ . If  $r$ -count greater or equal  $t$  or-tables, grains are used to capture data. Conversely, if  $r$  is calculated  $<$   $r$ -table, the

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items are not used to capture research data. In the table of critical r-table prices Product Moment was found 0.361 for  $n = 30$  with  $\alpha = 0.05$ .

Based on the results of calculations obtained 27 test instruments are valid points about the reliability level instruments with 0.890.

### 4. The Findings

As the formulation of the above study, that the study is to determine whether there is a positive relationship between self-concept and performance of aircraft technicians. Based on calculations from a simple regression analysis of the data variable self-concept and performance of aircraft technicians produced the regression  $b$  of 0.788 and a constant of 0.094. Thus the form of the relationship between two variables and can be described by the regression equation  $Y = 0.094 + 0.788 X$ .

From the analysis proved that the concept itself has a significant relationship with the performance of the aircraft technician. Then, the strength of the relationship between self-concept variables with the performance of the aircraft technician is shown by the Product Moment correlation coefficient of  $r = 0.640$  and  $y^2$ , t-test correlation coefficients obtained t count rates of 5.768. The test results obtained value of 5.768 t count  $>$  t table 2.682 at significant level  $\alpha = 0.01$  so that it can be concluded that the correlation coefficient between self-concept and performance of aircraft technicians are highly significant. Thus, there is a positive relationship between self-concept and performance of aircraft technicians. This means more and better self-concept, the higher performance aircraft technicians.

These findings conclude that the hypothesis of a positive relationship between self-concept and performance of aircraft techniques tested the truth. The next is the coefficient of determination is the square of the correlation coefficient between X and Y, ie  $y^2 r^2 = 0.409$ . This suggests that the contribution of self-concept variables on the performance of the aircraft technician for 40.9%.

The results showed that self-concept was related to performance, supporting Hypothesis. That is, the more aircraft technicians were able executed the task, felt meaningful of the work environment, felt have a good attitude and felt have the power to achieve success in response to company's goal and demands of the job, the higher their self-concept was. Apparently, the higher their self-concept the higher their performance. This finding is in line with Hypothesis and it is a new finding as there was not previous study which was specifically examined self-concept associated with aircraft technician performance.

### 5. Summary and Conclusions

The analysis found a positive relationship between self-concept and performance of aircraft technicians. This condition suggests that if the self-concept aircraft technicians more positive will increase performance. Instead it can be said as well when more negative self-concept will lower the performance. The results showed that there is a positive relationship between self-concept and performance of aircraft technicians. This illustrates that the increase in concept themselves into a more positive direction will improve the performance of the aircraft technician. To improve self-concept in order to have a positive self-concept, it is necessary to increase the business by

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developing a positive self-concept that has existed within the aircraft technician becomes aware of an attitude which should always be performed continuously in the work environment. All individuals who are born have the instinct to do good, it needs to be strengthened with the environment to hone the things that are good in every individual.

In the work environment, positive self-concept that we want to be communicated intensively to all components of the company so that a positive self-concept can be a culture of aircraft technicians in particular behavior. Culture of positive behavior will encourage engineers to push the aircraft to a minimum negative self-concept. According to Burns (1993, pp. 279-280)., a person who has low self esteem will have an effect on the self-concept A person suffering from feelings of low self esteem and no self-esteem often show such behavior: First, it is very sensitive to criticism because criticism is seen as something that shows their inferiority. Second, they show very critical attitude in order to maintain a shaky self-image and redirect attention to the shortcomings of others as compensation for his own shortcomings. Third, rarely can admit mistakes herself for a personal weakness. Fourth, responding to excess of flattery by trying to hard to get it. Fifth, people with negative self-esteem is likely to alienate himself, shy and not interested in competition.

Based on the above thoughts and self-concept theories reviewed above, efforts to enhance positive self-concept for aircraft technicians can be done by:

**First**, it gives credence to the aircraft technicians on duty and responsibility in carrying out the work in full. Supervision and guidance can be performed by a supervisor or leader without reducing the confidence of aircraft technicians. Giving credence to the aircraft technicians can grow and improve his self-confidence which in turn will improve performance.

**Second**, each unit leader from the smallest to the highest may receive full and thoughtful any shortage of qualified aircraft technicians. It is intended to enhance and maintain self-esteem aircraft technician although there were differences in talents and specific properties of the technicians as well as insensitivity to the needs of other aircraft. For one's self-esteem is a priority, given the self-esteem is what drives a person to appear in full with all the potential in him. If management and the company leadership to appreciate and properly manage that every individual has a sense of pride even though they have differences, then this will cause a positive impact on improving performance. That's necessary for facilities that can accommodate these differences so as to make its own power for the company's business continuity.

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