Abstract—The 4.0 industrial revolution presents challenges and opportunities for every layer of life. In the world of education, these challenges and opportunities must be able to be answered through the education system implemented. Islamic boarding school education with special characteristics must be able to answer this challenge. Independence which is one of the characteristics of education in Islamic boarding schools must be realized and embedded in every santri in order to be able to become human beings who are able to take advantage of opportunities and conquer challenges in the industrial revolution 4.0. The aspects of santri independence that must be embedded in a santri in the Industrial Revolution 4.0 include 1) emotional independence: the attitude of being in dealing with others, being tolerant and sympathizing with fellow human beings; 2) independence acts: has the capacity to make choices and make decisions and form a fortress on oneself so as not to be carried away by negative influences from outside; and 3) Independence of values: having an independent attitude and trust in spirituality, politics and morals.

Keywords—indpendence of santri; industrial revolution 4.0

I. INTRODUCTION

The 21st century marked by technological advancements in almost all areas of life will certainly affect lifestyle and human interaction. The technological progress known as the industrial revolution 4.0 has changed the way humans in their activities. Therefore, humans must be able to face the challenges and opportunities posed by the existence of the 4.0 industrial revolution.

Facing the challenges and opportunities that arise along with the revolution 4.0, education is also required to be able to accompany and follow the developments that are in accordance with progress and not left behind by change. Every existing educational institution will not be able to avoid these changes. This includes Islamic boarding schools. Islamic boarding schools as Islamic educational institutions must be able to adapt to existing changes in order to continue to exist while maintaining the characteristics in particular as Islamic educational institutions that have their own characteristics.

One special character in the delivery of education in boarding schools can be seen from the scientific spirit of the pesantren. Zuhry said that in addition to having special characteristics, Islamic boarding schools take a role in the framework of educating the nation that has been carried out for generations without stopping [1]. In history and in fact, pesantren have been able to print free people and can enter every field of life. Ali asserted that the implementation of the best education system is an education system that follows Islamic boarding schools [2].

Amid the progress of science and technology which has become the driving force of modernization, many people today doubt the existence of Islamic boarding schools. This doubt was motivated by the tendency for some Islamic boarding schools to be closed to changes in their surroundings and to be conservative in responding to modernization.

As a religious education institution as well as a part of the world community that upholds religious moral values, pesantren are required to address the reality of life as a matter of humanity. In other languages, boarding schools are required to find solutions to solving life's problems [3].

In the life of Islamic boarding schools, there are values, ethos, and cultural religions which are really appropriate for building santri with noble Islamic characters. As explained by Muhamim et al. that values that are the pillars of the culture of a school / madrasah must be prioritized including innovative, adaptive, hardworking, caring for others, discipline, honesty, initiative, togetherness, responsibility, a sense of belonging, commitment to the institution. Mutual understanding, the spirit of unity, motivating glue, bagging and guiding [4]. Suprayogo asserts that the values developed by pesantren for example the values of monotheism, humanity, justice, honesty, social care, discipline, independence, unity and so on that reflect religious culture in the lives of students in a pesantren [5].

II. RESEARCH METHODOLOGY

A. Research Approach

This study uses qualitative methods and approaches through case studies of students who are in the boarding school environment regency who have high commitment and carry out quality management coaching that synergizes with Islamic boarding schools in an effort to create competent graduates in terms of science and technology and in science religious knowledge.
B. Research Location

The basis for the determination as a research location is:

Based on data from the local community that the Islamic boarding school is a very superior [quality] boarding school from other boarding school, as evidenced by some santri who are active, creative and superior, they can live independently, whether they are students who are still in residence or those who have graduated. Some graduates from the boarding school continue to higher education and there are also those who can open a boarding school and own business. The community's trust in sending their children to school and boarding at the boarding school is very high. Islamic boarding schools located in the midst of cities that can develop quality management of development so as to produce independent of santri.

III. DISCUSSION

A. Santri

In the Big Indonesian Dictionary, santri means people who study Islam. Whereas the origin of the word "santri" in Nurcholish Majidj's view can be seen from two opinions. First, the opinion that "santri" comes from the word satri, a Sanskrit word which means literacy. This opinion according to Nurcholish Majidj seems to be based on santri is a literary class for Javanese people who try to explore religion through books of poetry and language Arabic, on the other hand. Zamakhysari Dhofir argues that the word santri in Indian means people who know holy book books, religious books, or books about science, secondly, opinions that say that santri words actually come from Javanese, from the word "cantrik", which means a person who always follows a teacher where the teacher goes and stays [6,7].

From the explanation above, it can be concluded that santri are someone who studies religious sciences through books taught by a cleric or who represent them in Islamic boarding schools.

Santri is an important element in an Islamic boarding school. However, according to the pesantren tradition [6], there are 2 groups of santri:

Santri mukim are students who come from areas far and settled in the pesantren group. The santri mukim who stay the longest in the pesantren are usually a separate group that holds the responsibility of managing the daily pesantren's interests. They also bear the responsibility of teaching young santri about basic and secondary books.

Santri kalong are students from villages around the pesantren, who usually do not settle in boarding schools. To take their lessons at the pesantren, they go back and forth (nglajo) from their own home. Usually the difference between large pesantren and small pesantren can be seen from the composition of santri kalong. The bigger the pesantren, the greater the number of Muslim students. In other words small Islamic boarding schools will have many santri kalong than santri mukim.

There are various reasons why santri stay in a boarding school [8], namely:

- He wants to study other books that discuss Islam more deeply under the guidance of the clerics who lead Islamic boarding schools.
- He wants to gain life experience of boarding schools, both in the fields of teaching, organization and relationships with famous boarding schools.
- He wanted to destroy his studies at the pesantren without being preoccupied with daily obligations in his family's home.

B. Independence

Steinberg says that the term independence comes from the word independence which means independence or freedom [9]. Conceptually, independence refers to the capacity of individuals to treat themselves. The concept of independence explains that children who have reached are able to carry out or carry out life activities independently of the influence of other people's control.

Desmita in his writing states that independence is a condition where a person is able to take decisions and initiatives in overcoming the problems at hand [10]. Independence is also accompanied by a sense of responsibility for what is done.

Based on some of the above meanings, it can be concluded that what is meant by independence is the capacity of individuals to treat themselves, carry out their own life activities, be able to make decisions and initiatives in overcoming problems faced with a sense of responsibility.

C. Independence of Santri in Commemoration Industrial Era of Revolution 4.0

Technological advancements allow for automation in almost all fields. New technologies and approaches that combine the physical, digital, and biological worlds will fundamentally change patterns of life and human interaction [11].

Industry 4.0 as a technological revolution phase changes the way human activities operate in scale, scope, complexity, and transformation from previous life experiences. Humans will even live in global uncertainty, therefore humans must have the ability to predict a rapidly changing future. Each country must respond to these changes in an integrated and comprehensive manner. The response involved all global political stakeholders, ranging from the public, private sector, academia, to civil society, so that the challenges of industry 4.0 could be managed as opportunities [12].

According to Tritularsih and Sutopo said in the 2017 IDEC National Seminar "... the role of humans has been shifted by technology, this is also a problem of the industrial revolution that will fundamentally change the way work works and works with one another” [13]. Impact on the next generation which needs to develop itself in order to be able to survive in the era of industrial revolution 4.0 [14].

In this case santri as students need to have various abilities to be able to face the era of industrial revolution 4.0. The thing that needs to be considered is how to make the students'
abilities develop according to the challenges of an ever-changing era, but the santris remain with their stance not to let go of the typical values of the pesantren. One of the basic things needed is the existence of an independent attitude of santri.

The characteristics of learning independence in eight types, namely: 1) being able to think critically, creatively and innovatively, (2) not easily affected by the opinions of others, (3) not running away or avoiding problems, (4) solving problems with deep thinking, (5) if they encounter a problem solved themselves without the help of others, (6) do not feel inferior if they must be different from others (7) try to work diligently and discipline, and (8) are responsible for their own actions [15].

Ikhwantoro in his research stated that in forming the independence of santri namely by providing independence programs, supervising the independence program, and providing independence support activities [16]. The independence program in the form of convection, cooperative and canteen, laundry, giving hours of work for santri, the application of compulsory education hours and the use of cash. Supervision of the independence program is carried out by caregivers directly or through boarding schools. Supporting activities provide include training, maintaining cleanliness and bahtsul masail activities. Supporting factors for the efforts of pesantren caregivers in shaping the independence of santri are the closeness between caregivers and santri, students who are disciplined and honest, and the strong will of the santri. While the inhibiting factors are limited time and energy and the existence of santri who are less consistent including the presence of sleepy, tired students and the unstable mood of santris.

Students are often faced with problems that require students to be independent and produce a good decision. Adopting Steinberg’s opinion that the independence of santri in the industrial revolution 4.0 consists of several aspects, namely [17]:

- Emotional independence: Emotional independence is related to emotions, personal feelings and how we relate to people around us. The industrial revolution 4.0 with its characteristic endless changes and competition in all aspects, so emotionally a santri must be able to be independent. Emotional aspects emphasize the ability of individuals to escape from the dependence of parents in fulfilling their basic needs. There are 4 aspects of emotional independence, namely:
  1) Ability to de-idealized parents. Individuals must be able to understand that there are no perfect or ideal people, including their parents. This makes individuals able to be independent by no longer relying on their parents.
  2) The ability to see parents as people or parents as people in general. This ability makes individuals able to interact with their parents, not just relationships between children and parents, but interact as two individuals.
  3) Non-dependency or a degree where the individual depends on himself, not on other people or their parents. Individuals are able to control emotions and are able to delay the desire to request emotional support from the surroundings.
  4) Individuated or individualized. Individuals are able to see differences in views with their parents but are able to bring responsible behavior.

- Independence acts: Independence of behavior is the capacity of individuals to make choices and make decisions. Especially in this 4.0 industrial revolution where the flow of information and globalization becomes limitless, then advice and advice from other people who according to him is suitable as a comparison and alternatives to consider in making decisions is very important. The ability to behave is also indicated by the ability to take action after decision making. There are 3 aspects of behavioral independence, namely:
  1) Ability to make decisions: Be aware of the risks of their behavior, choose alternative solutions to problems based on their own considerations and other people, responsible for the consequences of decisions taken.
  2) Having power over the influence of other parties: Not easily affected by situations that require conformity, not easily influenced by peer pressure and parents in making decisions, entering social groups without pressure.
  3) Having self-confidence (self-reliance): Feeling able to meet their daily needs at home and at school, feeling capable of fulfilling responsibilities at home and at school, feeling able to overcome their own problems. dare to put forward ideas or ideas.

- Independence of Value: Independence of values means that individuals have an independent attitude and trust in spirituality, politics and morals. The independence of values in young individuals means that they are able to get conclusions from values regarding right and wrong, obligations and rights, important or not important according to their principles and not only accept and follow the values of peers. Individuals are able to resist the pressure to follow the pressure of others about differences in beliefs and values. There are 3 aspects of the development of value independence, namely:
  1) Belief in abstract values;
  2) Values increasingly lead to the principle (Principle belief): Thinking in accordance with the principles that can be accounted for in the field of values, acting in accordance with the principles that can be accounted for in the field of values, behaving in accordance with their own beliefs and values;
  3) Confidence in values is increasingly formed in the individual not only from the value system given
by parents or other adults (independent belief): Individuals begin to evaluate the beliefs and values received from others, think according to their own beliefs, behave according to one’s own beliefs.

IV. CONCLUSION

In welcoming the Industrial Revolution 4.0 santri as students with religious-based educational backgrounds are indirectly required to answer the challenges of the times. Where the Industrial Revolution era 4.0 conditions with technology and globalization. The thing that needs to be considered is how to make the students’ abilities develop according to the challenges of an ever-changing era, but the santris remain with their stance not to let go of the typical values of the pesantren. One of the basic things needed is the existence of an independent attitude of santri.

The independence of the santri in welcoming the Industrial Revolution 4.0 can be applied with all three aspects of independence, namely 1) Emotional Independence: Even though it is in the midst of rapid technological and global development, students are expected to have a way to deal with someone older, contemporary and younger and applying tolerance limits and sympathy for fellow human beings; 2) independence acts: the capacity of individuals to make choices and make decisions and form a fortress on themselves so as not to be carried away by negative influences from outside; and 3) Independence of values: Santri have an independent attitude and trust in spirituality, politics and morals.

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