

## Integration of Faith and Piety with IPTEK of Islamic Education According to Bj Habibie

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### Abstract

*This study aims to find out the concept of integration of imtaq and science and technology according to BJ. Habibie. The method used is the character study methodology with library research. The primary data source comes from books written by BJ Habibie as well as documentation in the form of his video shows. Meanwhile, secondary data sources come from books that are related to the research topic. The results of this study: His concepts and ideas regarding the need for integration between imtaq and science and technology in Islamic educational institutions to answer the backwardness of Muslims in the fields of science and technology, but still have a strong foundation of faith and piety. According to Habibie imtaq is a positive synergy of cultural elements and religious elements from the acculturation process in the family. While science and technology are the result of the educational process that is pursued by humans. The educational process that combines imtaq and science and technology will give birth to humans who are able to think analytically, systematically, deeply and long term. The result will be born science. Science will give birth to technology. These two dimensions must be synergized to form a superior human being.*

**Keywords:** *Integration, Imtaq, Science and Technology, Bachruddin Jusuf Habibie*

### Abstrak

*Penelitian ini bertujuan untuk mengetahui konsep integrasi IMTAQ dan IPTEK menurut BJ. Habibie. Metode yang digunakan adalah metodologi studi karakter dengan riset kepustakaan. Sumber data primer berasal dari buku BJ. Habibie, dan sumber sekunder dari buku yang berkaitan dengan topik penelitian. Hasil penelitian: Konsep dan pemikiran menjawab keterbelakangan umat Islam dalam IPTEK, dan tetap memiliki landasan IMTAQ yang kuat. IMTAQ merupakan sinergi positif unsur budaya, agama dari proses akulturasi keluarga. IPTEK merupakan hasil proses pendidikan yang ditempuh. Proses pendidikan yang memadukan IPTEK dan IMTAQ melahirkan manusia yang berpikir analitis, sistematis, mendalam, dan jangka panjang. Kedua dimensi ini harus disinergikan untuk membentuk manusia unggul.*

**Kata Kunci:** *Integrasi, IMTAQ, IPTEK, BJ. Habibie.*

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## **INTRODUCTION**

Integration of faith with science and technology (IPTEK) is a concept that describes how faith (religiosity) can coexist and support each other with advances in science and technology. Concrete examples of the integration of faith and science and technology can be found in efforts to protect the environment, where religious values about protecting God's creation can strengthen science efforts in nature conservation. Likewise, in the health sector, ethical principles rooted in faith can guide the use of medical technology in a responsible and humane manner. (Azyumardi Azra, 2019 : 57)

However, unfortunately the condition and reality of Islamic education still has various problems from various aspects ranging from management, curriculum, teaching staff, and graduates. Thus, the contribution of Islamic educational institutions still does not meet the expectations of society. According to Abuddin Nata, explained that one of the problematic aspects of Islamic education today is the attitude of knowledge dichotomy. Like accepting religious knowledge but rejecting general knowledge in the curriculum. The loss of the spirit of demanding and developing knowledge is part of the ideology of Islamic education. (Abuddin Nata, 2020 : 103)

BJ Habibie, former President of Indonesia and a leading scientist, has deep views on education, including Islamic education. The following are some of his views regarding the problems of Islamic education and their solutions:

1. **Integration of Faith and Science:** Habibie really emphasized the importance of integrating faith with science and technology. He believes that Islamic education must be able to produce a generation that not only masters religious knowledge, but also has expertise in the fields of science and technology. According to him, national progress can be achieved by combining strong faith and mastery of science.
2. **Quality Education:** Habibie often emphasizes the importance of quality education for all citizens, including in the context of Islamic education. He considers that one of the main problems is the lack of adequate facilities and

resources to provide quality education. Therefore, improving infrastructure and teaching quality is the key to improving the education system.

3. **Character Education:** According to Habibie, education is not only about transferring knowledge, but also about character formation. Islamic education, in his view, must be able to form individuals with noble character, honesty and integrity. These values must be taught and internalized from an early age.
4. **Relevant Curriculum:** Habibie emphasized the importance of a curriculum that is relevant and in line with current developments. Islamic education must continue to adapt to global changes and technology, without ignoring basic Islamic values. This means there needs to be innovation in teaching methods and materials taught.
5. **Cooperation and Synergy:** Habibie believes that to advance Islamic education, there needs to be cooperation between the government, educational institutions and society. The synergy between these various parties will create an environment conducive to learning and development.
6. **Improving Human Resources:** Habibie also emphasized the importance of investing in human resources. Teachers and educators must receive adequate and continuous training to improve their quality. Thus, they can provide better education to students..(Azyumardi Azra, 2019 : 59)

The adjustment of Islamic education to the situation and development of the times really needs to be done as an effort to maintain existence. In fact, the prospect of reforming Islamic education in the future will be even higher. With the threat of damage to the morale of the younger generation caused by the impact of globalization. However, the great public interest in Islamic education has not met the expected expectations. The community paradigm expects that through Islamic education it can provide a strong moral and noble character base accompanied by mastering adequate knowledge and skills to continue higher education.(Abuddin Nata, 2020 : 40)

Seeing the reality of the current condition of Islamic education, efforts are needed to deconstruct a new paradigm, in order to resolve the backwardness of Islamic education in Indonesia. Therefore, efforts are needed to modernize Islamic

education, so that it can adapt to the current situation. Thus, it can meet the needs of a developing society without losing the identity of the values of Islamic education.

The problems of Islamic education above also present various ideas and thoughts of Muslim scholars to express their ideas by designing Islamic educational institutions that combine aspects of faith and piety (Imtaq) as well as science and technology (science and technology). This concept is an effort to improve Islamic education so that it remains relevant to the times and responds to the needs of Muslims. One of the Muslim scholars as well as the leader of the Indonesian nation who put forward the concept of his thinking was Bachruddin Jusuf Habibie or who is often called BJ Habibie. BJ Habibie is a figure known as an expert in technology development, especially in the field of aviation. But he also has the power of strong spiritual values. Thus, he had time to pay attention to designing a model of Islamic education that combines the values of imtaq and science and technology. The presence of BJ Habibie's idea of modernizing Islamic education had a major impact on the progress of Islamic education. The steps to modernize Islamic education carried out by BJ Habibie are an attempt to reconstruct Islamic education from its various aspects so that it is adapted to the times, but does not eliminate spiritual values.

Through a study approach through identifying problems, collecting written material, selecting and classifying to produce a concept of integration of imtaq and science and technology BJ Habibie After that, conducting analysis with various approaches ranging from historical, sociological and philosophical makes the idea of integrating imtaq and science and technology BJ Habibie has implications for development Islamic education system in Indonesia.

By paying attention to the various developments that have occurred in the world of Islamic education, it will indirectly provide an overview of the prospects for the modernization of Islamic education in the present and the future which is quite bright. The modernization of Islamic education is not seen as coercion or obligation, but rather as a necessity that cannot be ignored. (Abuddin Nata, 2020 : 43) This literature research will attempt to explore the form of the integration

concept of imtaq and science and technology by B.J Habibie and its implications for the development of Islamic education in Indonesia.

### **Imtaq concept**

Faith and piety (imtaq) are important dimensions of human beings that need to be optimized. According to Bachruddin Jusuf Habibie imtaq is a positive synergy between elements of religion and culture from the results of the acculturation process that is formed and fertilized from the family environment. The level of the quality of human imtaq will depend on the extent to which parents instill it in their children. If parents always instill imtaq values in their children, they will produce high imtaq. Thus, the role of parents greatly influences the acculturation process to support the personal added value of each child.(Afif Habibi, 2015)

The process of acculturation carried out by parents must be positive with religion. Such as, displaying good behavior, reading the Koran, praying five times a day or fasting. This effort is made to produce a strong imtaq. As a result, the child will have a solid foundation without having to worry about where he is. Because there has been a sense of awareness in carrying out religious teachings as a result of the acculturation process carried out.(Beritasatu, 2019: 20)

Imtaq formation is the result of a positive synergy between cultural and religious elements. Cultural elements that first existed around 200,000 years ago compared to religion which only existed around 1400 years ago.(Nugroho Purnomo, 2017) Both must complement and strengthen each other without any inequality. Thus, producing noble human behavior and benefiting oneself and others.(Beritasatu, 2019: 21)

Cultural elements according to B.J Habibie are defined as the identity or character of a nation. Culture will be a differentiator of a country's society which is reflected in the form of behavior. Through culture becomes a unifying tool of the nation. Because society will not question differences in religion, ethnicity or race. Through this cultural element the results will produce cultured humans. Thus, it will produce obedient human beings in the state.

While the religious element is defined as a process of transformation or human formation based on religious teachings. Thus, the result will form a devout

human being in religion. The process of imtaq formation cannot rely solely on religion or culture alone. But there needs to be a positive synergy between the two.

Based on the description that has been presented, the meaning of imtaq according to BJ Habibie can be described as above. That imtaq is produced from a process of positive synergy between religion and culture. Religion will produce religious people. While culture will produce cultured human beings. Thus, BJ Habibie views imtaq not only from a religious perspective but also gives a broader meaning by combining cultural elements.

### **Science and technology concept**

According to Bachruddin Jusuf Habibie, science and technology (science and technology) is the result of an educational process that is pursued by humans. From this educational process will give birth to humans who are able to think analytically, systematically, deeply and long-term. The result will be born science. Science will give birth to technology. (Habibie, 2020 : 114)

The science and technology development process, according to BJ Habibie, needs to include two processes, namely, the preparatory process and the refinement process. The preparatory process is an educational process that starts from elementary education to tertiary education. In this process, a rational and effective education system is needed to train the interaction between the five senses, the brain and their environment. The success or failure of this process will be greatly influenced by: curriculum and educational equipment, economic conditions, social environment, philosophy of life, religious and state life.

After that, the refinement process is part of the process of actualizing skills, potential and abilities so that they become superior in their field of expertise. Both related to implementing and integrating technology or managing the application and integration of technology. So he must work to develop his expertise in their respective fields. (Makka, 2010 : 122-123)

The application and mastery of science and technology is closely related to the development and productivity of human resources. Technology is a way to achieve this goal. Therefore science and technology is as important as nutritious intake. When nutrition is not fulfilled the body will become thin. In this case it

means that there is a gap in the quality of human resources. This gap will have an impact on the wider poverty gap. This condition further slows down the country's competitiveness.(Makka, 2016 : 45)

Science and technology is one of the keys to building human resources. Therefore, Indonesia does not only rely on natural resources.(Susanto Sastraredja, 2018 : 60) Therefore, the Indonesian people need to pay attention to the development of science and technology. If not, it is feared that the Indonesian nation will be left behind by other world nations. There needs to be an effort to increase the level of becoming a nation that is able to utilize natural and human resources.(Susanto Sastraredja, 2018 : 52)

From the presentation of science and technology concepts according to BJ Habibie, a visualization of the concept scheme can be made as above. That science and technology can be formed from the results of the educational process achieved by humans. The educational process includes two aspects including the preparatory aspect and the perfecting aspect. The preparatory aspect is carried out as the first step to provide a scientific foundation. While the improvement aspect is carried out as a forum for exploring the knowledge and skills that have been obtained. Thus, human beings are formed which increase added value.

### **Biography of Bachruddin Jusuf Habibie**

Bachruddin Jusuf Habibie, who is fondly called BJ Habibie, is a figure familiar to the Indonesian people. He was born in Pare-pare, South Sulawesi, on June 25, 1936. His father was Alwi Abdul Jalil, who was born on August 17, 1908 in Gorontalo. He is a descendant of the Makassar Bugis tribe.(Makka, 2008 : 11-16) Meanwhile, BJ Habibie's mother was named R.A (Raden Ajeng) Tuti Saptomarini Poespowardjo, born March 23, 1909. She came from a family with a Javanese Yogyakarta background.(Jonar T.H Situmorang, 2017 : 21-23) From a series of genealogies, BJ Habibie was born into a family that has a combination of genetics between educated people who prioritize science and the genetics of religious people, there is a combination of imtaq and science and technology. The imtaq lineage comes from the father and the science and technology lineage comes from the mother.(Makka, 2008 : 21)

Bachruddin Jusuf Habibie started his basic education at the People's School in Pare-pare. Besides that, BJ Habibie also studied religious education with Hasan Alamudi. After completing his basic education, Habibie continued his education at the HBS Concordante. As a result of the crisis the school was closed. Habibie then sailed to Jakarta to enter the Carpentier Alting Stichting (CAS) school equivalent to junior high and high school. However, due to Jakarta's overcrowded and hot conditions, it disrupted his study activities. Habibie continued his trip to Bandung. (Jonar T.H Situmorang, 2017 : 40)

Once in Bandung, Habibie continued his studies at the Christelijk Lyceum, but it was closed. Then BJ Habibie entered a transitional high school organized by the Protestant Christian Foundation. (Jonar T.H Situmorang, 2017 : 43-44) After graduating from a Christian high school for six months, Habibie continued his studies at the Bandung Institute of Technology (ITB) majoring in Mechanical Engineering. Then, he continued to Rhenisc Wesfalische Tehnische Hochschule, Aachen, Germany in 1955 by majoring in Aviation Engineering with a specialization in Aircraft Construction. After that, he continued his studies to earn a doctorate at the Technische Hochschule Die Facultaet Feur Maschinenwesen Aachean. (Atma, 2017 : 23)

Bachruddin Jusuf Habibie is known as the father of Indonesian technology. His contribution in developing technology in Indonesia is enormous. The results of his work in the field of aircraft technology CN-235 and N-250 and shipping Craka Jaya and Palwo Bowono. Also, his idea was to establish science and technology institutions, the Agency for the Assessment and Application of Technology (BPPT), the Science Research Center Laboratory (Puspiptek), the National Research Council (DRN), and the Indonesian Academy of Sciences (AIPI). (Makka, 2016 : 77)

BJ Habibie has a visionary style of thinking. The ideas and concepts can only be understood and realized after arriving at the time. This can be seen from BJ Habibie's desire to create aircraft for Indonesia when people were not familiar with technology. This has been proven today that airplanes are the ideal form of



transportation in an archipelagic country. BJ Habibie's thoughts are often not used by the Indonesian people, but are used by other nations.(Makka, 2010 : 5)

Apart from being known as a scientifically intelligent figure, IA also has strong religious adherence. This can be seen from BJ Habibie's family background which emphasizes religious education. Spiritual practices are often carried out, such as Monday-Thursday fasting and five daily prayers. Thus, it can be seen from the knowledge obtained is used for good. The combination of intellectual intelligence and being based on a strong spiritual will greatly influence his style of thinking.(Atma, 2017 : 14-15)

BJ Habibie's thoughts lead to the functionalization/implementation of Islamic teachings with the current situation and conditions. Especially those related to the problems of Muslims in Indonesia and in the world, through improving human quality to achieve a prosperous life. Because according to BJ Habibie Islam has given a warning that stupidity will have an impact on weak human resources. Later it will affect poverty which will lead to disbelief.(Amar Makruf, 2004 : 67-68)

Therefore, BJ Habibie emphasized that Muslims should not only focus on improving imtaq. However, science and technology provision is needed to improve the welfare of life. The concept of balance between imtak and science and technology is obtained from the results of acculturation instilled from the family with their intelligence. Thus, superior and productive human beings are born.

## **METHODS**

In carrying out the scientific research process, of course, a method is needed to obtain valid data with the aim of being able to find, develop, and prove it. Thus, the research method as an effort to understand, solve and anticipate a problem. The methodology used in the preparation of this thesis is the character study methodology. This methodology seeks to carry out a systematic study of the thoughts/ideas of thought leaders which include internal and external backgrounds, developments of thought, thoughts of the figures, as well as contributions to their era and the future.(Syharin Harahap, 2011 : 6)

This type of research uses library research (Library Research). Because the library research process is included in the type of qualitative research, the results of

this thesis research emphasize more on gaining an understanding of meaning and finding theories that are descriptive in nature, not numbers. Library/literature research (library research) focuses on scientific studies of literature that has relevance to the theme of the panel.

The research approach uses a historical-philosophical approach. Reasons The historical approach is used to make it easier to carry out research on events that have occurred, then re-recorded using primary data in the form of testimonies from historical actors, if any, incidental testimonies, notes or written document records, and historical relics.(Nana Syaodih Sukmadinata, 2005 : 63) This approach is used by the author to look at actual and authentic biographies, works, experiences of BJ Habibie to study and analyze.

Second, a philosophical approach. The reason a philosophical approach is used is to facilitate the discovery of theory and meaning, a process of analyzing it is necessary to analyze as far as possible the thoughts that are expressed to the basis that underlies these thoughts.(Achmad Charis Zubair Bekker, 2011 : 74) This approach includes the angles of ontology, epistemology and axiology. The ontology angle tries to present BJ Habibie's natural biography according to the data obtained, the epistemological point of view looks at BJ Habibie's background, meanwhile, the axiology looks at BJ Habibie's contribution to the development of society and science.(Syharin Harahap, 2011 : 7)

## **RESULTS AND DISCUSSION**

### **The Importance of Imtaq and Science and Technology Integration According to Bachruddin Jusuf Habibie**

BJ Habibie first implemented the idea of integrating imtaq and science and technology in Indonesia. This idea is present due to the condition of the development of science and technology in the education system in Indonesia, it seems that it is still running on its own even though there is already a discourse on religious knowledge that is aligned with general science and technology. Because the integration of imtaq and science and technology according to BJ Habibie is the main requirement in forming productive and efficient human beings for a nation.

Because the two have to go hand in hand. If one is not there, then life will feel empty.(Ade Ma'ruf, 2014 : 71)

Science and technology cannot be separated from human resources. Only humans who have skills in science and technology are able to increase their capacity so that they are able to compete.(Makka, 2011 : 165) However, in the current era of globalization, one does not only have to master science and technology, it needs to be balanced with faith and piety to produce renewable human resources.(Makka, 2016 : 29) Hence BJ. Habibie once conveyed in a general lecture the XII Lemhannas RI Short Education Program (PPSA) regarding the importance of combining imtaq and science and technology.

"People who are great in imtaq but do not know science and technology will not be able to help themselves. On the other hand, people who only have science and technology without impact, danger, he will justify all the Ways ".(Habibie, n.d.)

BJ Habibie, with his broad views and experience, often emphasizes the importance of balancing Faith and Taqwa (IMTAQ) with mastery of Science and Technology (IPTEK). This quote reflects his belief that these two aspects must go hand in hand to create a balanced and efficient individual and society.

Dangers of Science and Technology Without IMTAQ: Justify All Means: On the other hand, people who are knowledge able about science and technology but do not have a strong moral and ethical foundation may be tempted to use their knowledge in unethical ways. They may pursue progress and profit without paying attention to negative impacts on humans and the environment, so that they can justify any means to achieve their goals.

Balance and Synergy: The Importance of Integration: Habibie emphasized that the balance between IMTAQ and IPTEK is the key to achieving sustainable and beneficial progress for all parties. Education and self-development must include these two aspects so that individuals can develop holistically and make positive contributions to society.

Application of Moral Values in Science and Technology: Ethics in Technology: With the integration of IMTAQ, the use of technology can be directed for the common good and benefit. Technology must be used wisely and benefit.

Technology must be used wisely and responsibly, always considering its impact on society and the environments.

BJ Habibie's view is relevant in the context of developments in an era that is increasingly complex and requires balance between various aspects of life. In Islamic and general education, teaching the importance of moral and ethical values along with technical and scientific knowledge is very important to produce a generation that is not only intelligent but also has noble and responsible character.

Humans who have high imtaq quality will seek innovation to seek to improve the quality of life for themselves and society and obey the laws and provisions of religion. Meanwhile, science and technology will help people increase added value and standard of living. (Habibie, 2020 : 66) Because the wealth of natural resources will be managed properly. Although mastery of science and technology without the support of abundant natural resources is not an obstacle. (Bachruddin Jusuf Habibie, 2015 : 18)

The development of human resources in line with imtaq and science and technology will generate added value. The added value in question has two meanings, namely an economic meaning and a non-economic meaning. The economic meaning produces people who are productive and have high economic value. This meaning is determined by the utilization of technology, management, and level of professionalism and skill. Meanwhile, non-economic/human meanings position human beings as more noble in humanity, namely human beings who are cultured, have faith and are pious. (Makka, 2016 : 686-687)

The development and progress of science and technology that is not matched by imtaq will not produce added value and will not provide benefits for the welfare and good of the people and nation. Because it will only give birth to humans who are very clever and skilled. However, they do not apply their knowledge for the benefit of society in the cycle of improving human living standards and improving the quality of science and technology. Apart from that, the imtaq element also influences the extent to which science and technology can be used efficiently or not, productively or not and produces luxuries that have no value or are wasteful in form that wastes energy and resources, which will later damage the life of the nation

and state. On the other hand, the imtaq element which is not accompanied by science and technology elements will produce people who are very polite and have good morals, but do not have the ability to carry out a decisive role in the formation of society, determine the level and quality of everyday life because they do not have the skills.(Makka, 2010 : 272)

Thus, the imtaq element will strengthen the character of the nation's generation in the current era of globalization. Through instilling a strong imtaq element, control will become like being able to control oneself against excessive desires and understand the consequences of all actions taken. In this case imtaq becomes a stronghold in the face of science and technology advances. While science and technology makes it easy for humans to do something.(Iis Uum Fardiana, 2015 : 65)

In addition, the integration of imtaq and science and technology is needed in education based on four reasons, including:

1. Science and technology provides the value of blessings and benefits for the benefit of human life when accompanied by a basis of faith and piety to Allah SWT.
2. Science and technology, which is the source of modernism, has presented a new lifestyle in society that is materialistic, hedonistic, and secularistic, which is contrary to Islamic values.
3. Human life does not only require physical nourishment, but also requires spiritual nourishment.
4. Imtaq is the most solid foundation that brings human life to pleasure.(Hikmah, 2019 : 177)

Therefore, BJ Habibie positioned imtaq and science and technology as different sides of the same chip. Imtaq gives birth to humans who have good personalities, are religious and live up to the values of cultural diversity. Meanwhile, science and technology produce intelligent, skilled and qualified human beings.(Habibie, 2020 : 143) This means that the development of human resources needs to pay attention to the fact that as God's creatures, humans have feelings, religious values, ethics, aesthetics, traditions and culture. When this is

neglected in the educational process a huge cost. (Bachruddin Jusuf Habibie, 1995 : 11)

According to BJ Habibie, faith and piety (IMTAQ) play an important role in forming people who have good personalities, are religious, and respect the values of cultural diversity. The following are several points that explain how IMTAQ can produce individuals with these characteristics:

**Building Good Character: Moral and Ethical Values:** IMTAQ instills strong moral and ethical values in individuals. These include honesty, fairness, compassion, and responsibility. These values become the basis for daily behavior, forming individuals with integrity and trustworthiness.

**Solid Religion: Enhanced Spirituality:** IMTAQ encourages individuals to strengthen their relationship with God. A strong faith provides inner peace and motivation to live life according to religious teachings. Individuals who believe tend to have a clear moral compass and are firm in facing various challenges.

**Respect for Cultural Diversity: Tolerance and Respect:** IMTAQ teaches the importance of respecting differences and diversity. Individuals who understand and practice religious teachings correctly will be more open and tolerant towards different cultures and beliefs. This is important to create harmony in a multicultural society.

**Social Justice:** IMTAQ also teaches the importance of justice and equality, so that believing individuals will be more sensitive to social issues and try to overcome injustice in society.

**Positive Contribution in Society: Social Responsibility:** Individuals shaped by IMTAQ values feel responsible for making positive contributions to society. They are encouraged to be involved in social and humanitarian activities, help others, and actively participate in community development.

**Adaptation in the Era of Globalization: Strengthening Identity and Flexibility:** In the era of globalization, IMTAQ helps individuals to maintain their cultural and religious identity while remaining flexible and open to global influences. This creates individuals who can adapt to change without losing their identity.

BJ Habibie believes that the combination of IMTAQ and mastery of science and technology will give birth to a generation that is not only intelligent and competent but also has noble, tolerant and responsible character. This is essential for creating a peaceful, just and prosperous society.

### **Integration of Imtaq and Science and Technology according to Bachruddin Jusuf Habibie in Islamic Education**

Efforts to produce human resources that have integration between imtaq and science and technology can be carried out in the world of education. Through a curriculum design that combines elements of imtaq and science and technology, it is hoped that it will give birth to spiritually and intellectually intelligent people. Thus, they can compete in the era of globalization without dissolving religious values. This generation is the hope for improving the condition of Muslims and the Indonesian nation.

In compiling and designing the curriculum, it includes a balance between the elements of imtaq and science and technology, both at the elementary, secondary and tertiary education levels. If the development of imtaq elements in an educational institution in the form of religious education is still felt to be lacking, there is a need for additions. Meanwhile, if the development of science and technology elements in an educational institution, especially in Islamic education in the form of Islamic boarding schools, is still relatively minimal, it is necessary to add science education in the form of biology, mathematics, physics and chemistry. Thus there will be a balance between the two elements. This is a major part in developing the elements of imtaq and science and technology to improve the standard of human life in society. (Makka, 2010 : 275)

Curriculum design with an integral model is able to balance religious knowledge and general science. As well as, making general knowledge correlated with religious values. Conversely, religious knowledge is enriched by general knowledge. Thus, students will understand science comprehensively and are encouraged to practice it. Therefore, in carrying out the learning process the teacher must touch the cognitive, affective and psychomotor domains. (Heru Setiawan, 2016 : 66)

Development of human resources through the educational process in order to generate added value. The added value meant has two meanings, namely an economic meaning and a non-economic meaning. The economic meaning produces people who are productive and have high economic value. This meaning is determined by the utilization of technology, management, and level of professionalism and skills. Meanwhile, non-economic/human meanings position human beings as more noble in humanity, namely human beings who are cultured, have faith and are pious. (Makka, 1996 : 686-687)

Thus, through a combination of the dimensions of imtaq and science and technology, BJ Habibie has encapsulated the goals of Islamic education. According to Abdurrahman Saleh, the purpose of Islamic education must include three components, namely physical (jismiyah), reason (aqliyah), and spiritual (ruhaniyah) proportionally. Furthermore, when these three components can be maximized it will produce a comprehensive personality both in the form of interaction with himself and his environment. (Lutfi Rachman, 2019 : 208)

## **CONCLUSION**

imtaq according to Bachrudin Jusuf Habibie defines a positive synergy between religion and culture from the results of the acculturation process formed and nurtured from the family environment. The religious dimension produces people who are devoutly religious. Meanwhile, the cultural dimension produces cultured humans. Meanwhile, science and technology is the result of the educational process that is pursued by humans. This educational process gives birth to humans who are able to think analytically, systematically, deeply and long-term. The result is science. Science will give birth to technology.

According to BJ Habibie, faith and piety (IMTAQ) play an important role in forming people who have good personalities, are religious, and respect the values of cultural diversity. The following are several points that explain how IMTAQ can produce individuals with these characteristics:

1. Formation of Good Character.
2. Strong Religion.
3. Respect for Cultural Diversity.



- a. Tolerance and Respect.
- b. Social justice.
4. Positive Contribution in Society.
5. Adaptation in the Era of Globalization.

## REFERENCES

- Abuddin Nata. (2020). *Pendidikan Islam di Indonesia*. Jakarta: Kencana.
- Achmad Charis Zubair Bekker. (2011). *Metodologi Penelitian Filsafat*. Jakarta: Rajawali Press.
- Ade Ma'ruf. (2014). *B.J Habibie Guru Terbesar Saya Adalah Otak Saya*. Yogyakarta: Ar-Ruzz Media.
- Afif Habibi, B. H. (2015). -SDM yang unggul untuk kemajuan indonesia. Retrieved May 26, 2023, from <https://www.youtube.com/watch?v=mEcb8U0Gyss&t=2765s>
- Amar Makruf. (2004). *Dimensi Pemikiran Keislaman BJ Habibie dalam Mengembangkan Sumber Daya Manusia (Studi Komparasi dengan Ismail Raji al-Faruqi dengan Pergerakan Islam Kultural Indonesia)*. Universitas Indonesia.
- Atma, W. S. (2017). *Kisah Perjuangan dan Inspirasi B.J. Habibie*. Sleman: Checklist Media.
- Azyumardi Azra. (2019). *Pendidikan Islam, Tradisi dan Modernisasi Menuju Millenium Baru*. Jakarta: Logos Wacana Ilmu.
- Bachruddin Jusuf Habibie. (2015). *Ilmu Pengetahuan, Teknologi & Pembangunan Bangsa Menuju Dimensi Baru*. Jakarta: CIDES (Centre for Information and Development Studies).
- Beritasatu. (2019). Inspirasi Ramadan: Mencetak Manusia Unggul. Retrieved May 26, 2023, from <https://www.youtube.com/watch?v=hT7-RJ5UdOo>.
- Habibie, B. J. (n.d.). Iptek Saja Tanpa Imtaq, Bahaya... Retrieved May 26, 2023, from <https://nasional.kompas.com/read/2017/09/28/07090341/habibie-ipitek-saja-tanpa-imtaq-bahaya?page=all#page2> Kompas.com website:
- Habibie, B. J. (2020). *The Power of Ideas*. Jakarta: Republika Penerbit.
- Heru Setiawan. (2016). Integrasi Imtaq dan Iptek dalam Pengembangan Pendidikan Islam. *Nidhomul Haq*, 1.
- Hikmah. (2019). Quizlet: A Digital Media for Learning Informatics Term. *International Journal of English Education and Linguistics*, 1.
- Iis Uum Fardiana. (2015). Keselarasan Imtaq dan Iptek. *Al-Adabiya*, 10.

- Jonar T.H Situmorang. (2017). *B.J. Habibie Si Jenius: Sehimpun Cerita, Cita, dan Karya*. Yogyakarta: iRCiSoD.
- Lutfi Rachman. (2019). Konsensus Pendidikan Islam di Nusantara (Studi Integrasi IMTAQ dan IPTEK dalam Pendidikan Islam). *Jurnal Pendidikan Islam*, 8.
- Makka, M. (2016). *60 Tahun BJ Habibie*. Jakarta: Pustaka Cidesindo.
- Makka, M. (2008). *The True Life of Habibie: Cerita dibalik Kesuksesan*. Surabaya: Pustaka Liman.
- Makka, M. (2010). *Jejak Pemikiran B.J. Habibie: Peradaban Teknologi untuk Kemandirian Bangsa*. Bandung: Mizan Pustaka.
- Makka, M. (2011). *Habibie: Kecil Tapi Otak Semua*. Depok: Edelweiss.
- Makka, M. (2016). *Habibie: Totalitas Sang Teknosof*. Solo: Metagraf.
- Nana Syaodih Sukmadinata. (2005). *Metode Penelitian Pendidikan*. Bandung: Remaja Rosada Karya.
- Nugroho Purnomo. (2017). BJ Habibie Memberikan Pesan Penting Untuk Para Pelajar. Retrieved May 26, 2023, from <https://www.youtube.com/watch?v=3Oumnx4o18A>.
- Susanto Sastraredja. (2018). *Jangan Pernah Berhenti (jadi) Habibie*. Solo: Tiga Serangkai.
- Syharin Harahap. (2011). *Metodologi Studi Tokoh dan Penulisan Biografi*. Bandung: Kencana.