The Civic Technopreneurship in Creating A Student Self-Reliance Character

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**ABSTRACT**

In the 20s, everything was still conventionally based, and the competition was not much and stiff. But in the 21st century, it is more massive and productive. As a form of development, planting awareness has the character of independence. Of course, it needs new breakthroughs that are in line with the times, namely learning based on Etnopreneur Technology (Technopreneurship). This study aims to describe and analyze the creative results of senior high school in Bandung City students, as a vehicle for the formation of students' independent character, which is carried out through a technopreneurship learning approach. The research method uses a qualitative descriptive approach. Data collection techniques were carried out by observational studies, documentation, and interviews. While the respondents are those who have relevance and expertise in these activities. The results obtained in the study were that students were able to create applications as a breakthrough as an effort to build student character with learning innovations that utilized technology. This breakthrough is an optimization of the character of independence in dealing with life's challenges during a pandemic and the provision of knowledge after graduation in order to develop one's own business with the provision of knowledge of innovative technology. The implication is that students are able to think creatively and innovatively, take responsibility. The impact of student responsibility is an effort to create applications that utilize digital technology as a means of building entrepreneurship as a form of student independence in building businesses.

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1. **INTRODUCTION**

The goal of national education stated in Republic of Indonesia Law Number 20 of 2003 Concerning the National Education System (hereinafter the National Education System) is to make a complete human being, have broad insight, be intelligent, critical, and dynamic, so that they become human beings who always have faith and fear Allah SWT. Meanwhile, the principle that rules in Indonesian education is Pancasila (Hendri, Herdiawanto, et al., 2022). In Pancasila, there are norms that are not owned by other countries, and Pancasila must function as a source of policy, one of which is Indonesian education (Sutono, 2015). Therefore, the education system in Indonesia cannot be separated from the values that reflect the nation's character. This means that the education system in Indonesia is oriented...
towards focusing on the nation’s character (emotional) rather than intelligence (intellectual). Because good character is the embodiment of the intelligence of the human brain (Komalasari & Saripudin, 2017). Meanwhile, Indonesian people are known for their culture of courtesy, virtue, religion, hard work, independence, and upholding differences. This is conveyed in the fourth precept, "just and civilized humanity" (Hendri et al., 2018). The message from the fourth precept is a form of behavior manifestation in upholding the values of justice, civility, courtesy, and manners in life.

The message from the goals of national education above shows how important the role of education is in human life and how it shapes the character of a nation. Because a good nation is not only those who obey the law (Sapria & Wahab, 2011), but also those who are ready to face the challenges of the world (Budimansyah, 2010), which are marked by technological developments. It cannot be denied that the Indonesian nation must be able to survive and compete with others, not only with people outside the country but also with the people of our own country. Therefore, the character of independence must exist in every individual Indonesian society as one of the provisions for developing in global competition (Udin Winataputra & Budimansyah, 2012).

The education system in Indonesia, in response to global competition discourse, has strengthened character education, in which there are several values that are targeted by the government as priority values, one of which is the value of independence (Hendri, Siti, et al., 2022). Independence character education is the government's effort to improve and build the critical, innovative, and creative values of the community and students in seeing the future through opportunities and careful preparation with advances in digital technology (Falah, 2018). The educational process is carried out in order to present values, internalize values, and instill and develop good values from various worlds of values so that they are actualized in the good behavior of students at school.

School is a formal educational institution that is one of the three educational centres mapped by Ki Hajar Dewantara (besides outside and community). It not only acts as an institution for imparting knowledge to students but also as an institution responsible for preparing a capable generation to produce a value that is useful for oneself, especially for others (Ghozali & Mubarak, 2013). An independent attitude must be instilled and even owned by all students as the millennial generation in today’s digital era. Independence is behaviour whose activities are directed at oneself and do not expect the focus of assistance from others. An independent person will try to solve problems on his own without asking for help from others, while an independent person will not be realized as long as he does not have the character of independence and learns to be an independent person (Maryono et al., 2018). An independent person himself has several characteristics, such as a good mental attitude, courage, and enjoyment of the process. Independence is a thing or condition that can stand alone without depending on others in any case, one of which is preparing oneself as a human being who can see and prepare for the future with an established future (Falah, 2018). Especially in this digital era, all processes work quickly and massively. Big competition to seize the market is increasingly inevitable. Technological developments make humans increasingly uncontrollable to do things that are different from before (Marti’ah, 2017). The basis needed to deal with all of this is self-awareness in the era of competition. If you do not have the character of independence, then other countries will take advantage of the world’s potential, especially the State of Indonesia.

Considering Indonesia's economic potential, it is estimated that it will grow rapidly, given the abundant potential of natural resources (hereinafter SDA). This is both a potential and an opportunity to create a market that can drive the economy. Apart from relying on natural resources, Indonesia's growth is also supported by large domestic consumption. In the future, the growth of the new middle class will continue. Of course, Indonesia's potential will have an impact on the life of the Indonesian nation. McKinsey Global Institute predicts that in 2030, Indonesia will experience a growth in the consumer class to 135 million from 45 million people who currently have an income of USD 3,600 per
capita per year. Indonesia also has the potential and opportunity to become a major world economic power (Rofiq, 2015). For this reason, what the Indonesian people need is awareness about facing and welcoming Indonesia’s progress. The meaning of awareness is not to deny the potential wealth possessed by the Indonesian state, but rather to prepare to become a human being who is volatile with the potential of his country (Setiawan & Sitorus, 2017). Besides that, with the development of time, we must be able to provide fortification to the nation’s generation, one of which is at school. Seeing that in the 21st century, technology has become human mobility to achieve success and a tool to make things easier, especially to compete in entrepreneurship using technology (technopreneurship).

BPI 1 Bandung High School is a formal educational institution that implements digital-based education, which is expected to be able to provide an increase in the economic growth of the city of Bandung. It is seen that Bandung has a strong magnet as a city centre that is undergoing significant urbanization as well as being one of the city centres of exchange and growth economies (K.M. Tarigan et al., 2016). Whereas obtaining it requires optimal work productivity, increasing productivity requires increased knowledge, skills, and strong motivation in human resources because the development of human resources has a positive impact on work productivity and economic development (Putra & Sobandi, 2019). Therefore, the researcher felt it was appropriate to take SMA BPI 1, located in the city of Bandung, as a research locus because SMA BPI 1 is one of the leading schools, which is believed to bring fresh air to the growth and progress of the city of Bandung, as well as being a motivation for other schools to do better.

Technology-based business learning (technopreneurship) is expected to be able to form independent, creative, and innovative characters. Technopreneurship learning as an effort to build self-sufficient character is a follow-up to the role of the citizenship education teacher (hereinafter PKN) in improving and building a citizen economy (Economic Civic) through technopreneurship education (Alawiyah & Taryana, 2017). In this research, it is more about the impact of technopreneurship learning on building students’ independent character in schools. While the impact is that students are able to think creatively and innovatively, they also take responsibility. A form of student responsibility is being able to create applications that utilize digital technology as a means of building student independence.

2. METHODS

This study uses a qualitative approach with a descriptive design. This research was conducted at SMA BPI 1, Bandung City, West Java. SMA BPI 1 is an excellent school that has potential and achievements and is designed with advances in technology, both in learning and in the environment and school facilities. The stages of research start with observation, and the aim is to see problems in the field, then follow up with research and formulate problems to be solved. Qualitative was chosen because this research focuses on a deep understanding of social phenomena. Data collection techniques were carried out using observation, documentation, and interview techniques. Informants in the study were obtained from parties who had links and relationships as well as information in this study, namely: school principals, vice principals, students, teachers, and also the students themselves (Muchtar, 2015). Then the results of the three are processed and analyzed in depth to achieve validity through data reduction, data presentation, and verification. After that, the data that was successfully obtained must go through a validation process. Meanwhile, to obtain valid information, researchers use triangulation techniques for accurate data sources according to the needs of the research (Creswell, 2010).
3. FINDINGS AND DISCUSSION

3.1. Senior High School Self-Reliance in a Character Education Perspective

The purpose of character education is consistent with the 1945 constitution (followed by the law), chapter 3: "Governments are attempting and organizing a system of national education that promotes noble faith, observance, and morality in order to enhance national life, governed by legislation." In article number 20 of the 2003 national education system, it is stated that "national education is aimed at developing the potential of learners to become human believers, noble, healthy, competent, creative, self-sufficient, and democratically responsible citizens." Whereas the function of national education is defined as "to develop abilities and establish the dignity of national character and civilization in order to reflect nation life."

Based on such commitment, the general purpose of character education can be formulated as follows: (a) to build and develop character learners on every path, type, and level of education in order to internalize and practice the high values according to the religious teaching and the noble values of each article; (b) to improve the quality of the arrangements and results of education that lead to the achievement of the noble character and moral education of the student audience as a whole, united, and balanced (Chairiyah, 2014). Whereas the character education function is to grow fundamental learners' ability to think smart, behave morally, and do something good to benefit themselves, their families, and their communities (Dalyono & Lestariningsih, 2020). Not at this point, as a form of emerging consciousness is not only formed but can also be externalized with its own self-sufficiency as a vehicle to monitor environmental change (Falah, 2018).

Self-reliance is an internalizing form of awareness carried out by learners (Andriani, Arifin, & Nurabadi, 2018). Such awareness is the product of the management of the heart and mind toward activities, more on its own, without having to involve anyone else (Atmaja, Dewantara, & Utomo, 2020). The presence of the character is contingent upon the stimuli presented by the diverse array of roles. One of the proposed initiatives for improvement at the educational institution. The government also promotes the implementation of educational initiatives that foster the cultivation of self-reliant learners through character education. These initiatives are designed to enhance learners' awareness and provide them with direction in developing their talents (Satria, 2018).

The concept of self-reliant character education refers to the word character itself. These words of character have several synonyms, among other things: mental, moral, or ethical traits that distinguish one from another; Attitude; Temperament. His cynicism is respectful. His cynicism is an inner human trait that affects our whole mind and conduct. His culture is his attitude: sexual, moral, A mental condition that keeps people courageous, energetic, zealous, and disciplined. His mental synaptics are mind and character. Mentality refers to the state of being and activity of the soul (inner), mindfulness, and compassion (Maryono et al., 2018).

The definition can be referred to in the argument by AL Gazali (Komalasari & Saripudin, 2017) that the lacerations of a sexual approach are present. It means that what the human does is the result of what influences it, so the form it takes on something does not need to be considered. Character is the mental or moral state of a person, participant, community, nation, and so forth. The mental or moral qualities that make up one person, nation, and so forth differ from others (Silkyanti, 2019).

The definition of the term "independent" in the English language pertains to its ability to exist without reliance on external factors or entities. The term "self-reliance" refers to the ability of entities or situations to function independently without relying on external support or assistance. The terms "standing on one's own two feet" and "relying independently without assistance from others" might be considered as synonymous with the concept of self-reliance (Falah, 2018). So do Komalasari and
Saripudin (2017), who argue that the virtue of a self-reliant character is an act or attitude performed by an individual without having to sit back and hold on to others by rendering all the ability, mind, time, and energy to achieve something desired. To achieve that would require patience, hard work, leverage, courage, responsibility, and the will to improve—learning hard without having to be limited by something that makes things worse (Rachmah, 2013).

The argument of some of the views from the foregoing suggests that independent character education is an education that shapes men’s character and mentality so that their lives are independent or dependent on others, independent of the help of others (Taufik, 2014). The education of independent character aims for those who believe in themselves when doing things. Self-sustaining character encourages and spurs a person to solve the problems of his or her own life, so he is motivated to take the initiative, create, innovate, be proactive, and work hard (Maryono et al., 2018). Self-education spurs on the courage to act or react, to not submit and freeze, and to remain dynamic, energetic, and optimistic toward the future.

“...At SMA BPI, we integrate independent learning into the curriculum in various ways. One way is by giving students independent projects or assignments, in which they need to manage their time, plan, and complete assignments independently. In addition, we also encourage students to take responsibility for extracurricular activities, such as keeping the school environment clean or organizing social events...(Airin, 15/10/2022).

Universally, the independence of students at SMA BPI 1 Bandung can run well through an independent character education approach that is packaged with various approaches and facilities provided by the school and then developed by the teacher into new knowledge for students at school (Alawiyah & Taryana, 2017). In Sealin, the concept of independence of BPI 1 High School students is shown with a great sense of responsibility (Komara, 2018), concern, and knowledge updates that become a place for student creativity in school. Then, the form of responsibility is shown by conscious efforts that utilize the development of technology as a means and infrastructure for helping the community by developing businesses through the digital applications they develop (Jailani, Rochman, & Nurmila, 2019). Because one of the impacts of the character of independence is to have a sense of responsibility not only to himself but also to his nation (Satria, 2018),

“...In my opinion, developing independence in education is very important because it gives students the skills and confidence to face challenges in everyday life. Independence allows them to learn independently, take initiative, and manage their own responsibilities. This is an important foundation for future success. (Tatang, 20/10/2022).

Students of SMA BPI 1 Bandung One form of optimization of the application of the discipline of learning character education independence is the existence of a program that leads students to have creative innovations that become a superior system in the school (Hartono, 2011). The system was developed in the form of an entrepreneur (entrepreneurship) developed by teachers and learners themselves, the aim is to equip the learners after graduation later in making, shaping and managing something with utilizing the development of digital technology (SMA BPI 1 Bandung in addition to having and providing good facilities, also provides technopreneurship). Besides providing opportunities to use all these facilities, the school also gives full responsibility to teachers and participants to develop them.
3.2. The Concept of Technopreneurship Learning Senior High School

Referring to the digital age, where the role of technological science is highly demanding for life to achieve sustained life (Hermawan, Sadiah, Rexsa, Yuliza, & Maulana, 2021). Besides, because technology at present is so global, Indonesia’s economic potential is still growing (Sutrisno, 2021). With the help of technology, there is so much competition that everything can be made easier and faster. This access could also be used as a field in a profanation. Using it is an undertaking for schools as an innovation in improving the quality of education, one of which helps improve student self-reliance and education integration. Building up the soul in self-employed innovation built on technology needs to be done by schools as a school effort to prepare graduating students to live on their own. Therefore, to compete with and expect bad things from the Indonesian people for a breakthrough in forming a sense of independence. It can be done with educational innovation about entrepreneurs using technology for empowerment, also known as technopreneurship.

It should be noted that the word technopreneurship comes from a combination of “technology” and “entrepreneurship,” meaning technology and entrepreneurship. So technopreneurship is a synergistic process combining the strong capabilities of technology mastery with a comprehensive understanding of entrepreneurship concepts. Even from the two words, it would not only provide a conclusion to its efficacy in science, but rather say experts are applying and developing a technological ability into entrepreneurship (Marti’ah, 2017). In the national age of Hartono (2011), the term technopreneurship refers to the harnessing of information technology for entrepreneurship development. It means empowering technological progress as a means and even an infrastructure for entrepreneurial progress. It has also been defined as a process and a new venture that involve technology as their basis in hopes that the creation of appropriate strategies and innovations will one day make technology a factor in developing the national economy (Aknolt Kristian Pakpahan, 2020).

In the concept of technopreneurship, the basic entrepreneurial development based on high-tech technologies is the application of human work, such as accounting, economic order commodities, and online marketing.

That statement harmonizes with the 1945 chapter 28 c, chapter 1, that “everyone has the right to develop himself through self-fulfillment of his basic needs, the right to education, and the right to benefit from the science and technology of the arts and technology of the world to improve his quality of life and the welfare of mankind.” This is called technopreneurship, two systems in collaboration between the application of technology as instruments and innovation and self-sustaining entrepreneurs as needs and awareness in the development of self-reliance characteristics.

According to Soegoto (Mopangga, 2017: p. 327), the creation of entrepreneurs is an alternative to solutions to threats and problems in communities and even countries, such as poverty and social inequality, increasing productive age unemployment, and diminishing energy supply reserves, all of which call for creative and innovative action. More than just academic intelligence, brain management to reach scientific reason and productive-producing skills but also to the dynamic spirit of capturing, facing challenges and risks later on, and transforming them into potential opportunities for economic growth. The existence of self-awareness of entrepreneurial character, in addition to creating whole self-reliance, is preparatory to a prepared attitude to bring the future to the level of prosperity, both in individuals, in social societies, and even in the economy of Indonesia (Kemendiknas, 2011).

Optimizing entrepreneurial development is certainly more accurate when driven by the evolving systems of the digital age. That is, the demands of the community and the development of the age with technological science can easily be met. Entrepreneurs supported by tools or technological science are increasingly making room for success in business, such as in marketing a product, without having to make a big deal out of cutting and cutting. By utilizing technological development, our product can expand and prosper through social applications, networks, and efforts more effectively than by having
to store through door to door. As technology grows larger and has become a basic necessity, Indonesia is no exception (Sumarno, Gimin, Haryana, & Saryono, 2018).

Inculcating the entrepreneurial soul is not an easy matter, as it relates to the two complex things that need to be implanted: technological awareness and the entrepreneurial spirit. These two have specific characteristics in each developmental stage (Alawiyah & Taryana, 2017). Thus, to form the two points, the writer divides them into three stages:

![Figure 1 Concept of Technopreneurship](https://www.academia.edu)

Technopreneurship encompasses the process of introducing novel ideas, products, or services into the market. The invasion is a novel innovation designed with the objective of enhancing convenience in daily living. Innovation refers to the process by which market mechanics acquire and integrate new ideas or technologies. There exist two distinct categories: 1) The phenomenon of invasion and invention. 2) The invasion and innovation of processes.

The inventions and innovations generated by technopreneurship are not only beneficial in the development of large and sophisticated industries (Apriani, Sari, & Suwandi, 2017). Technopreneurship can also be directed to benefit communities with weak economic capabilities and improve their quality of life. Thus, technopreneurship is expected to support sustainable development (Alawiyah & Taryana, 2017).

According to Hartono (2011), these technopreneurship types are not only limited to information technology entrepreneurs, such as vendors, web hosting, or web design, but to all types of businesses, such as furniture, restaurants, agriculture, retail, or craft. The use of information technology referred to here is the use of the Internet to market their products, such as e-commerce, a special-program program to cut production and other operations costs. One form of growing technopreneurship at school is the best one. This best one represents a group of technopreneurs who developed and made a breakthrough at BPI 1 Bandung High School. This system began to be developed at BPI 1 High School in February 2016, was adopted by Dr. Gatot h., and applied to high school seniors at BPI 1 through the principal reunified as a form of "producing 1000 jus (school age) programs." The best application can be downloaded through the Google Play Store and is the first-eever purchase application built by students at Southeast Asia High School (Alawiyah & Taryana, 2017: p. 78).
In this application, some products are sold based on the results of Bandung BPI 1 high school students' creations. Products on sale include food, clothing, and a wide variety of attractive products. Packed with the best food, the best fashion, and the best events. Not only that, Bestone (BPI One Entrepreneur Store) undertakes many products via the Android app with good guarantees, the work of the nation's children.

3.3. Technopreneurship Learning as a Solution in Creating a Student Self-Reliance Character

The results of onopreneurship and technopreneurship interviews at BPI 1 Bandung High School have changed significantly for pesk-based education to develop what was being done at BPI 1 Bandung High School. With good facilities, students can develop entrepreneurs at school in the form of convenience stores and market them on social media, as indicated above. Through this technopreneurship education program, learners not only build self-reliance characters but also, as the government hopes, produce productive, critical, and moralist generations. Such results may also open up big business opportunities after graduation, as well as as much employment as possible. The attainment of what has been acquired in schools provides opportunities and preparedness for this 21st-century era, and it is expected to contribute to the implanting of a character of self-reliance in communities and families that are basically life skills in the age of technological development.

"... If we don’t train and familiarize students, then it is very doubtful because learning is essentially already obtained through media outside of school. For example, the soul and business insights are obtained from traders outside the classroom, their technology media already exists, which is raging with digital technology every day..(Joko, 15/10/2022)

According to Ermayani (2015), such character has three interrelated parts of life skills (the life skills) that can be revealed to all households with teenage children and to all high schools through information centers and counselling activities. Character education is essentially enhanced with life skills because it contains the same concepts and principles as life skills.

When seen in the context of life, humans and other men truly synergize with one another. However, the concept of self-reliance does not create man’s dependence on other humans but rather builds a high-capacity perspective on things without waiting for others. So it is man who flees with another human being to develop his potential, which sometimes requires constructive motivation, example, guidance, and encouragement (Normina, 2016). That is, sometimes man needs reference when

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Figure 2. Application BestOne which is developed by Student of SMA BPI 1 Bandung
Sumber: https://play.google.com/store/apps/details?id=luwakdev.bestonestore
executing or creating a self-sufficient consciousness. Therefore, learners who have obtained entrepreneurial development education will enable technologies to be implemented and taught to society in the future. So that the result of technopreneurship learning in schools is not only to create a character sense of student self-reliance, but it can also motivate society to raise self-awareness through the student (Hadi, Dazrullisa, Susantini, & Kuntjoro, 2022).

Bandung BPI 1 High School’s character awareness is under control. But what has to be noted is how creative the student can develop in society and can compete in the market, which requires support and cooperation with other students, which means it must also influence another level of awareness to form self-reliance through technopreneurship learning. It is only fair that the government accept it as its creative success in reducing poverty, with new jobs opening up to Indonesians. One is to facilitate progress when learners are going to tackle and develop this creation later. This creation is an extension of the form of self-reliance of a Bandung high school learner at BPI 1 through technopreneurship learning developed at BPI 1 Bandung high school.

4. CONCLUSION

The character of independence of students at senior high school in shaping the character of independence of technopreneurship students is the impact of the student’s own awareness and responsibility on its position as a generation of intellectuals who have a big role in determining the future. It is also related to the government’s goal of incorporating the value of independence into character education, in addition to self-awareness for individuals as well as others. The purpose of independence here is in the context of motivation to build a spirit of independence so as not to be dependent on others but also full of humanity, justice, honesty, and a sense of responsibility. Through learning, technopreneurship produces big results by creating applications or markets. Technology-based entrepreneurship was developed at SMA BPI 1 Bandung. This became one of the conscious efforts and then became a stepping stone for other schools to be more massive in increasing awareness of independence. So that the resulting generation output can be relied on to develop the Indonesian state.

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