

# PESTLE Analysis of Indonesian Family Planning Board (BKKBN)'s Strategic Planning on Implementing Family Planning Program in Indonesia

Nathaniel Viandy Dondokambey, Valda Aqila Afranovka, Yola Lista Valentina and Laras Safitri

Industrial Engineering Department  
Universitas Indonesia  
Depok, Indonesia

[nathanieldondokambey@gmail.com](mailto:nathanieldondokambey@gmail.com) [valdaqila@gmail.com](mailto:valdaqila@gmail.com) [yolalista5@gmail.com](mailto:yolalista5@gmail.com)  
[larassftr@gmail.com](mailto:larassftr@gmail.com)

## Abstract

Indonesia has become the fourth most populated country in the world after China, India, and the United States with a total of 270.2 million people by 2020. Many problems in different fields such as social, economic, health, education, and environmental could arise due to high population growth. One of the solutions that the Indonesian government provides is the family planning program which is covered by the National Population and Family Planning Board (BKKBN). The institution is now facing the limitations caused by the global COVID-19 pandemic and is working harder to ensure the completion of BKKBN's strategic planning. The PESTLE analysis methodology is used to help analyze issues under political, economic, social, technology, legal and environment factors and their impact on this matter. Our findings show that BKKBN could reach their success through several external factors, although may find challenges from some, and need to make crucial decisions towards several factors. Though managed to assess BKKBN's success factors, quantitative future research needs to be conducted.

## Keywords

Indonesian Family Planning Board, PESTLE, Strategic Planning.

## 1. Introduction

Indonesia is the fourth most populous country in the world. According to the population census conducted by the Central Bureau of Statistics (BPS) in 2020, the population of Indonesia has reached 270.2 million people. This number has increased by 32.56 million people from the previous population census in 2010. This indicates population growth in Indonesia increases every year. High population growth leads to many problems in different fields such as social, economic, health, education, and environmental problems that need to be handled immediately.

The government has made various efforts to overcome problems related to population growth. One of their solutions is a family planning program aimed for couples of childbearing ages by the use of contraceptives. Indonesia was also one of the pioneers among developing countries in the establishment of a comprehensive family planning program (Hatton et al. 2018). The use of contraceptives enables people to understand their rights to freely and responsibly decide whether, when, and how many children to have. The increasing use of contraceptive methods has led not only to changes in health results such as decreased maternal mortality and infant mortality (Arthur et al. 2012; Chola et al. 2015; World Health Organization 2019; Samat et al. 2021), but also to changes in education and financial results, particularly for women (Gustavo et al. 2005; Karen et al. 2015; Zeynep et al. 2017; Sultan 2018).

In Indonesia, the family planning program is covered by the National Population and Family Planning Board (BKKBN) which was established in 1970. Through BKKBN, policy was designed to slow population growth and to improve health particularly that of women and children (Hull 2003; Lubis 2003; Hatton et al. 2018). Family planning (FP) programs in Indonesia have been applied for 40 years. The country has tried to meet the needs of reproduction health, even to the population in hard-to-reach areas.

By the end of 2019, BKKBN introduced the term KKBPK Program to become the Family Development, Population and Family Planning Program or abbreviated as *Bangga Kencana*. This program has become their strategic plan in the period of 2020 to 2024. A measure of the success for all priority programs and activities is carried out in the form of

strategic targets. All Strategic Targets are formulated in order to achieve the Vision, Mission and Objectives of the BKKBN.

Although successful in reducing Indonesia's total fertility rate from 5.6 in the mid-1960s to 2.6 in the mid-1990s, the institution faced slow progress afterwards. Indonesia's total fertility rate is now reaching 2.3, which still needed some more work to hit the replacement level of 2.1. The success is far from the institution's grasp, however, as the institution is now facing the limitations caused by the global COVID-19 pandemic, which heavily restricts the institution from implementing family programs. Unable to conduct direct counseling sessions, as well as facing a great potential of "pandemic baby boom" as quarantine goes on, the institution now works harder than ever to ensure the completion of their strategic planning.

Increasing capabilities and implementing appropriate strategies could increase competitiveness (Kocoglu et al. 2012; Yang 2013; Nurcahyo et al. 2019). The PESTLE analysis methodology is used to identify and examine the key political, economic, social, technology, environment, and legal factors and their impact on this matter. This method helps analyze issues under each factor. The result of this method can be used to guide strategic decision-making.

### **1.1 Objectives**

BKKBN is not a profit-making institution. However, it endeavors to deliver a range of services in line with its constitutional obligations. In order to deliver these services effectively and to make sure BKKBN reaches its targets, this research aims to analyze the surrounding influence of BKKBN's strategic planning stated in the BKKBN's Strategic Plan 2020-2024 period for its success.

## **2. Literature Review**

### **2.1 Family Planning**

According to the International Conference on Population and Development (ICPD) Programme of Action (PoA), family planning program enables couples and individuals to decide freely and responsibly the number of and spacing between their children, to ensure informed choice, and to make a full range of safe and effective methods available (ICPD POA 1994). The World Health Organization (WHO) states that it is achieved through use of contraceptive methods and the treatment of involuntary infertility.

Well-built national family planning programs have certain key characteristics, such as providing a variety of high-quality family planning, counseling and contraceptive options, as well as support from multi-sectoral governmental and private sectors. Successful programs also have rights-based quality assurance measures in place to ensure voluntary and well-informed uptake of family planning (Hardee et al. 2014). Sharp national policies are the key to support national family planning programs. Regular monitoring and evaluation, training, supervision, and logistic support then will help family planning programs to be sustained. Effective programs use mass media programs, social marketing or community-based distribution as strategies to serve the general population and those who are difficult to be reached because services and methods should be accessible to the entire population.

Family-planning (FP) programs are done on purpose to decrease maternal, infant, and child mortality (Amran et al. 2019). However, these programs continue to face challenges in developing countries, including Indonesia because these programs have different levels of effectiveness. Some government activities in Indonesia aimed at promoting family planning began in 1968, but the present program was officially launched in 1970. The family planning program in Indonesia has three basic strategic aims: expansion of program coverage, promotion of continued use by contraceptive acceptors, and the institutionalization of family planning practice and low fertility in society.

The family planning program cannot be understood outside the economic, social, and political context of Indonesia. Those aspects have influenced both client demand and the possibilities for field implementation, but the results obtained are achieved through program interventions. Family planning may likewise have helped certain aspects of development. The Government of Indonesia has committed to strengthening the integrated approach for rights-based family planning programming at the sub-national level. To operationalize the program, the Ministry of Health has developed the Rights-Based Family Planning Strategy and its Costed Implementation Plan (2017-2019) in coordination with BAPPENAS (Ministry of National Development Planning) and BKKBN (National Family Planning Coordination Board).

### **2.2 Contraceptive Technology**

Contraceptive methods are not only important for individuals and families, but play an essential part in population regulation and deserve an important place in the science of reproductive medicine (Giudice et al. 2011). Despite the availability of safe and effective forms of contraception, contraceptive use is complicated and is accompanied by

challenges, whether they are related to facility, policy, provider or legislation (Speizer et al. 2000). To develop a method that is safe, effective, without side-effects, non-intercourse related, reversible and cheap is almost impossible. To increase the use of contraceptives, effective management of these challenges needs to be done. The provider needs to know why and how people make contraceptive choices to fulfill its effective implementation and sustained usage (Belfield 1998).

High rates of unintended and unwanted pregnancies contribute to the population growth. To minimize unintended pregnancies, the method's effectiveness and user's maximum satisfaction will help. The ability to control fertility through the use of effective contraception has become an essential component of preventive medicine, resulting in planned pregnancies and optimal health.

The contraceptives available today may not be acceptable to all users (Sitruk-Ware 2006). There is a need to expand the currently available contraceptive choices through improving their safety and acceptability, developing approaches to improve adherence, convenience and access to contraceptives, understanding what non-contraceptive health benefits of contraceptives are valued by users, more effectively communicating those benefits, developing additional benefits based on end-user desire and developing programs to increase successful contraceptive use in order to achieve actual efficacy. Expanding the acceptability of, and access to, contraceptives could also be done by the introduction of new methods (Sitruk-Ware et al. 2013).

### **2.3 PESTLE Analysis**

PESTLE is an analysis framework of macro-environmental factors. This concept is used as a tool by companies to figure out the environment they're operating in. The framework helps to analyze the policy, economic, social, technology, legal, and environmental factors of a company's environment. The analysis examines the impact of each of these factors and their interplay with each other on the business. It provides a "satellite view" of the whole environment from many different angles (Ward and Rivani 2005). The results can be used to take advantage of opportunities and to make precautions for threats when preparing business and strategic plans (Byars 1991; Cooper 2000). The use of PESTLE analysis can be effective for business and strategic planning. PESTLE also ensures that a company's performance is aligned positively with the powerful forces of change that are affecting the business environment (Porter 1985). The use of PESTLE helps to get rid of unconscious assumptions and helps to effectively adapt to the realities. PESTLE becomes more useful and relevant, not only for larger and more complex business or propositions, but even for very small local businesses.

The political external factor of PESTLE is defined as how government policy affects a field. Economic factors of PESTLE are identified as employment opportunities, fiscal implications, and costs of materials. The social factor of PESTLE is defined as the social environment of an organization or field. Technological factors of PESTLE are defined as any technological invention or development that impacts the organization. Environmental factors of PESTLE are defined as how sustainability and the ecological environment are impacted by the topic of study. The legal factors of PESTLE are identified as any topic relating to health and safety, as well as any restrictions, and regulations put in place by an organization (Oxford College 2016).

### **2.4 Indonesian Family Planning Board**

The National Population and Family Planning Board (BKKBN) is the Indonesian government agency responsible for managing national family planning programs. BKKBN has to carry out government duties in the field of population control and organizing family planning. Its vision is to be a reliable and trusted institution in actualizing a balanced growing population and family with a certain level of quality. This vision will be actualized through the implementation of several missions, which are prioritizing population-oriented development, organizing family planning and reproductive health, facilitating family development, developing partnership networks in population management, family planning and family development, and also by building and implementing a consistent organizational work culture.

BKKBN doesn't work alone, it is also involved with ministries, non-governmental organizations, and community organizations or institutions. In Indonesia, the family planning program is covered by the National Family Planning Coordinating Board (BKKBN) which was established in 1970. Through BKKBN, policy was designed to slow population growth and to improve health particularly that of women and children (Hull 2003; Lubis 2003; Hatton et al. 2018).

### **2.5 Performance Measurement for Government Institution**

To measure the institution's success in achieving its strategic objectives, each institution should measure its performance both qualitatively and quantitatively in terms of achieving a goal (Bourne et al. 2000; Kennerly & Neely

2003; Zakaria et al. 2011; Nurcahyo et al. 2015). The framework includes effectiveness and efficiency in optimizing the use of available resources so that the institution can strive to improve its performance (Zakaria et al. 2011; Nurcahyo et al. 2015).

The government institutions have different characteristics than profit-oriented organizations. Their main task is to perform the function of government and in running their activities they always refer to the government rules and policy, including BKKBN. The government institution has two types of performance measurements which are rated by the public directly as the institution is in charge of serving the people and rated by the national government (Nurcahyo et al. 2015). These performance measurements then will have implications on the development of strategic planning.

### 3. Methods

Strategic planning is an essential part in running a program (Nurcahyo et al. 2019). This study was conducted using PESTLE analysis to see the implications of external factors on the strategic plan and targets by focusing on BKKBN strategic planning. The strategic planning data is obtained through the publication of the official BKKBN 2020-2024 strategic plan document. The preparation of this analysis is descriptive analysis. Descriptive analysis method is a method or way to systematically describe a situation, problem, phenomenon, service or program, or provide information about the living conditions of a community or describe an attitude towards a problem from the point of view of an observer or writer based on the results of a literature review (Goundar, 2012). Literature review databases such as SCOPUS, ScienceDirect, Emerald Insight, JSTOR, and Google Scholar were searched for our analyses, using related terms for our PESTLE analysis.

#### Step 1: Identification of the issue

Due to BKKBN 2020-2024 strategic plan document, various strategic issues that are developing in Indonesia today and necessary receive attention in formulating policy directions, strategies, as well program/activity policies in the 2020-2024 BKKBN strategic plan, among others is demographic bonuses, aging population, family life planning, one population database, high death rate of mother and baby, increase of mCPR, low understanding of teenagers, unmet need, high stunting prevalence, low understanding of family function and child marriage.

#### Step 2: Data collection

The process of collecting data for the research is study literature extracted from BKKBN 2020-2024 strategic planning document. Data collection shown in sub chapters 4.

#### Step 3: Determine the implications

The implication using PESTLE analysis that will be determined in this part, which are (Rahman et al. 2016): 1) Political - What are the political factors that are likely to affect the strategy? 2) Economic - What are the economic factors that are likely to affect the strategy? 3) Social - What sociological or cultural aspects are likely affect the strategy? 4) Technology - What technological changes may affect the strategy? 5) Legal - What current and impending legislation will affect the strategy? 6) Environment - What are the environmental considerations that may affect the strategy?

### 4. Data Collection

Data needed for the research extracted from BKKBN's official 2020-2024 strategic planning document. We took: i) strategic issues faced by BKKBN; ii) BKKBN's strategies which grouped in 5 policy directions and iii) BKKBN's strategic target (BKKBN 2020). All are stated in the document. To ease our analysis, we then put the strategies into codes (Table 1), according to their policy direction groupings. We finally connect the related issue, strategy, and target (Table 2). The data connecting is done through thorough analysis to check whether the aspects are correctly matched.

Table 1. Policy Direction and the Strategy

Policy Direction	Strategy	Code
Improve the resiliency and welfare of a holistic and integrative	Strengthen the understanding of 8 family functions	A1
	Optimization of parenting and companionship of toddlers and children and character building through family	A2

family according to the life cycle and strengthen character building in the family	Improve the parenting and teenager accompaniment, quality and character improvement of teenagers, and preparation of family life	A3
	Improve the family economic independence, with specific targets	A4
	Improve the resilience and independence of susceptible families	A5
	Strengthen the elderly friendly services through 7 firm elderly dimension and long-term accompaniment for the elderly	A6
	Strengthen the family building partnership	A7
Strengthen the integration and synchronization of the population control policy	Develop the Population Building Grand Design	B1
	Strengthen the population control policy synergy	B2
	Improve the capacity and capability of the institution	B3
	Increase the synchronization and usage of the population data/information	B4
Increase access and quality of comprehensive KBKR execution based on location and focus on target segmentation	Strengthen the health facilities capacity and KBKR service networking	C1
	Improve the KBKR service quality partnership	C2
	Improve the KBKR service reach in specific areas or targets	C3
	Improve the male contraception	C4
	Strengthen the promotion and counseling based on life cycle, unwanted birth and postpartum family planning service	C5
	Increase the childbearing aged couples' independence on family planning	C6
Increase the advocacy and movement of the program based on regional characteristics and target segmentation	Improve the spread of communication and education materials of Program Bangsa Kencana following the targets and areas segmentation	D1
	Improve the counseling workforce work and utilization of civilians through related PICs	D2
Strengthen the integrated family information system	Improve the quality and usage of regional information technology data	E1
	Improve the Smart Technology/Smart Program	E2

Table 2. Alignment of Strategic Issues, Strategy, and Target

Issue	Strategy	Target
Demographic bonuses	A2, D1	Decrease in age specific fertility ratio (ASFR) for 15-19 years old to 25 per 1000 births in 2020 and 18 per 1000 births in 2024
Aging population	A5, A6	
Family life planning	A1, A4, A5, A7	Increase in family building index (iBangga) to 53.57 in 2020 and 61.00 in 2024
One population database	B4, E1, E2	
High death rate of mother and baby	C1, C2, C3, C4, C5, C6	Decrease in total fertility rate (TFR) to 2.26 in 2020 and 2.1 in 2024
Increase of mCPR	C1, C2, C3, C4, C5, C6	Increase in modern contraceptive prevalence rate (mCPR) to 61.78 percent in 2020 and 63.41 percent in 2024
Low understanding of teenagers	A3	Increase in family building index (iBangga) to 53.57 in 2020 and 61.00 in 2024
Unmet need	C1, C2, C3, C4, C5, C6	Decrease in unmet need to 8.6 percent in 2020 and 7.4 percent in 2024
High stunting prevalence	C1, C2, C3, C5	Increase in family building index (iBangga) to 53.57 in 2020 and 61.00 in 2024
Low understanding of family function	A1, A4	
Child marriage	A3, D1	Increase in first marriage age median (MUKP) from 21.9 in 2020 to 22.1 in 2024

## 5. Results and Discussion

### 5.1 Political Implication

Family planning (FP) programs mostly made by governments. Not only to control the population, but it also aims in increasing the wellbeing of the population itself. As this is a governmental program, thus the success relies heavily on the civilians. This is not easy, however, to gain civilian's trust towards family planning programs. The population board should provide a great way to communicate the objectives of the programs, to prevent the rise of anxieties and wrong perceptions towards the people. Pakistan, and other Muslim countries, give example on how civilians tend to reject the family planning programs, as they fear that the objective of the family planning program is to reduce the population of a specific society (Ataullahjan et al. 2019). BKKBN, as a government body, faced a great challenge. Since its introduction in the 1960s, and brought by BKKBN themselves in the 1970s, the implementation of the family planning program has never been an easy feat. The program faced many challenges, not only from the targeted civilians, but also groups with other interests. Family planning program is therefore, not only a scientific issue, but also political (Shiffman and Quissell 2012). Moreover, the family planning program is prone to corruption. Family programs held masses of procurement of contraceptives, which was able to be a corruption field. The example can be seen in 2017, as BKKBN Chief of that time, Surya Chandra Surapaty, did corruption to BKKBN's 2014-2015 budget. The corruption aspect could reduce the trust of the population. Ataullahjan et al. (2020) shows how depleting civilian trust due to governmental corruption in Pakistan increases resistance to the family planning (FP) programs. Moreover, corruption will affect the accommodated family planning services, both in quality and quantity.

Political decentralization helps the government to reach the regional targets for family planning programs. Especially for the areas that are harder to access, decentralization through the regional government was meant to ease that reach, in terms of both counseling (Purwaningsih 2012) and health facilities supply (Kumar and Prakash 2017). Indonesia's political decentralization system puts their regional governments in having their own responsibilities in the family planning program. However, it seems like it draws only a few commitments of the regional government, as the family planning program did not give significant impacts for economic return (Purwaningsih 2012). Take an example of the case of South Konawe regency, South Sulawesi, where decentralization is unable to decrease the regency's TFR significantly, as the annual budget allocation is relatively low (Mustakim et al. 2016). BKKBN should gain and utilize the trust of the population in order to ensure that the communication and education could spread on target. Also, by avoiding corruption in their own body and helping in decentralized program implementation could effectively ensure the success of implementation. Not only that, the political factors, if correctly utilized, could bring positive implication to increasing family program participants, and also supply access in terms of facilities and communication. Table 3 explains the implication of political factors to the strategy and targets.

Table 3. Political Factors, Strategy Impacted and the Implications.

Political Factor	Strategy Impacted	Implication for Strategy	Implication for Targets
Civilian trust	B2, D1	Influences ease of program communication	Influences family planning program participants
Corruption	B1, C1, D1, D2, E2	Reduces quality and quantity of FP facilities	Reduces mCPR and increases unmet needs
Decentralization	C1, C3, D1	Improve focus on regional FP program targets	Influences regional TFR

## 5.2 Economy Implication

Special allocation funds for the health sector are funds given to certain regions in Indonesia which are intended for financing the health sector in accordance with national health development priorities for the success of the implementation of stable, affordable and quality health services by the central and regional governments (Apriliani and Khoirunnurrofik 2020). Numerous have been conducted in several countries, some of these show that fiscal decentralization and increases in health spending reduce infant mortality (Anton and Onofrei 2012; Joanna et al., 2013; Jimenez-Rubio and Garcia-Gomez 2017). Other research in Indonesia found that there was no significant impact between fiscal decentralization and public spending on improving public health or spending on the health system (Heywood and Choi 2010; Rosalia and Kagungan 2017).

Studies looking at family planning access during and after other disasters and instabilities have found mixed effects. Following the disaster and instabilities economy, studies found more women not using contraceptives or reporting trouble accessing birth control. Most studies found that the need for family planning rose after a crisis or instability economy, the need for family planning decreased during a crisis or economic instability due to an increasing number of women who do not use contraceptives or difficulty in accessing contraceptives (Bietsch et al. 2020). Based on the design 2021 policy in pandemic conditions for COVID-19, during the COVID-19 pandemic, it's prone to unwanted pregnancy. The impact of unwanted pregnancy is abortion, increase the rise of maternal and child mortality, malnutrition in pregnant women and fetuses, premature baby and lack of love and care because unwanted children. Because of the pandemic situation, there is a difference between the standard year input costs budget with standard fees applicable in regional regulations in regencies and cities then an adjustment is made to the volume or frequency of activities in accordance with unit price prevailing in regional regulations. BKKBN has to harmonize the allocation fund in the district and cities to improve the public health or the health system. BKKBN have to see another thing related to economic factors implication that shown in table 4.

Table 4. Economy Factors, Strategy Impacted and the Implication

Economy Factor	Strategy Impacted	Implication for Strategy	Implication for Targets
Different	C1, C2	Reduce operation and distribution	Reduce the percentage of family

price and cost		capacity of facility and service quality	planning services
Decentralized fundings	C1, C3	Decentralization had no specific impact to the FP program	Influence the percentage of family planning services
Economic instability	C5	Economic instability reduces contraceptive usages	Increase TFR and decrease the percentage of family planning services
Economic stability	C5	Economic stability increased FP and contraceptives usage	Reduce TFR and Increase mCPR

### 5.3 Social Implication

Family planning is part of the conscious efforts of married couples and individuals to plan and have the number of children and to regulate the time of their birth. 19 % of married men tend to refuse to use contraception or reject family planning programs (Mboanne and Bhatta 2015). Male partner stated that perceptions that reproductive health was a woman's domain due to gender norms (Imtishal and Mohammadnezhad 2021). Improving reproductive health is a major challenge for Indonesia and there is great potential for family planning to contribute to this goal. Women's social interactions and social norms have an influence on shaping the understanding and choices of family planning in ways that generally tend to limit rather than improve their productive health. the limitations of health literacy are combined with intergenerational norms and beliefs and social strength of family members such as husbands, parents and parents-in-law. The results found that family social strength affects the lack of involvement of women in postpartum health care (Spagnoletti et al. 2018). Research on women's empowerment and unmet needs for family planning in Indonesia (Utami and Samosir 2021) show that unmet needs were 10.6 percent. unmet needs are factors causing unwanted pregnancy, which can cause maternal morbidity and mortality. The results show that Level of unmet need for women with a career background is lower because of the needs of the working conditions. Family planning is one of the policies in Indonesia related to the issue of population and family development that has been widely considered as successful. Considering beliefs and views that contradict the family planning program, the study from (Wilsonyudho 2020) suggests that the salafi movement contributes to declining trend in practice of family planning. Most members of this group have more than two children. Many of them hope to have many more children in the future. Information has expressed his dream to have more than five children as he believed that it is suggested by the Quran and Sunnah. BKKBN must have concern with women's social interaction, social norms, social strength of family, cultural beliefs and religious fatalism to shape understanding, choices of family planning program. the implicated family planning program shown in Table 5.

Table 5. Social Factors, Strategy Impacted and the Implication

Social Factor	Strategy Impacted	Implication for Strategy	Implication for Targets
Career background	C6	Woman with career background independence on family planning	Reduce unmet need and TFR
Perception on health care	A1, C4, D2	Social strength of family increase perception on reproductive health care	Increase iBangga and mCPR
Cultural beliefs	D1	Cultural beliefs in having more children reduce advantage of FP services	Increase TFR
Religious fatalism	D1, D2	Religious fatalism reduce FP program and contraception usage	Increase total fertility rate and reduce mCPR

### 5.4 Technology Implication

Current technology development should be a catalyst to the ease of the distribution and usage of contraceptives. Information technology, especially for telemedications, should help in increasing the number of counseling and communications regarding contraception. Stifani et al. (2020) in their study of telemedication for contraceptive

counseling in America proved that telemedicine gives positive experience. Especially during the COVID-19 pandemic situation, people are unable to do face to face counseling. Thus, digital counseling through telemedicine increases the possibilities in arranging sessions (Stifani et al. 2020). Device ownership, as simple as mobile phones, could be a great help in increasing the family planning program participation through digital reach (Jadhav and Weis 2020). More advanced technology like monitoring systems helps in assessing contraceptive introduction through national data (Stout et al. 2018). BKKBN themselves already engaged to the digital mobile world, with the application 'klikkb'. BKKBN could focus on its development, In hope of increasing spread of education and communication, as well as creating a smart contraceptive system It also helps increase the usage of modern contraceptives thus reduces unmet needs.

Current research of contraceptives managed to provide modern contraceptive products. They are easier to install, yet provide more effectiveness. Hormonal contraception and controlled release system, for example, allow lower usage of hormonal doses and reduce intervention of using/providing parties, which increase the quality of female contraception (Sivasankaran and Jonnalagadda 2021). Furthermore, the broader range of contraception options should be a good potential for BKKBN to address the mCPR and unmet need problems. BKKBN should consider investing more on the supply of these kinds of modern contraceptives to increase the success of family planning programs. Also, there should be research which also covers the improvements of current methods, in terms of health benefits (Sitruk-Ware et al. 2013), which BKKBN should consider to take part of. Table 6 explains the implication from technology factors.

Table 6. Technology Factors, Strategy Impacted and the Implication

Technological Factor	Strategy Impacted	Implication for Strategy	Implication for Targets
Information access	D1, E2	Increase the FP program reach of communication and education	Increase mCPR and decrease unmet needs
Devices ownership	D1, E2	Increase the FP program reach of communication and education	
Monitoring system	C1, C3, E1, E2	Increase the FP program reach of communication and education	
Research and development	C1, C3, E1, E2	Increase options in mCPR usage	

### 5.5 Legal Implication

Not many leaders and policymakers accept the idea that rapid population growth can damage a country's development prospects and consequently high fertility rates that need to be reduced through better quality access to family planning with modern methods, improved education and women's empowerment (May 2021). It is necessary to strengthen coordination in all aspects of family planning programs by focusing on planning, programming, monitoring, training and procurement. Aspects of the quality of healthcare and system should be the main focus areas for ensuring the success of family planning programs. It is very important for the government of a country to be able to ensure the family planning priorities as one of the national development agendas because family planning is very important for the achievement of sustainable development goals (Muttreja and Singh 2018). BKKBN as a governmental institution could participate in the policy and framework making, in order to satisfy their need of legal support (Table 7).

Table 7. Legal Factors, Strategy Impacted and the Implication

Legal Factor	Strategy Impacted	Implication for Strategy	Implication for Targets
Public policies	B2, B3	Policy helps in FP success	Increase iBangga index
Rights of women	B2, B3	Legal framework for women reproductive rights	Increase determination the policy of family planning program

### 5.6 Environment Implication

Since 1980, the green revolution and continued population growth have become a serious problem worldwide. The United nations (UN) estimates that the total human population worldwide will reach 9 billion by 2050 and possibly 11.2 billion by the end of this century. A number of scientists have warned against the dangers of atmospheric levels of greenhouse gases produced by human activities that can cause global warming and climate disruption (Anderson 2019). The Environment faced by mankind today is human overpopulation, too many humans use too many resources and deplete available resources each year at an accelerating rate. Increasing the need for resources to sustain a growing human population is one of the threats to the environment that is exacerbated by climate change. Generally, the biggest cause is the absence of clear and direct awareness and responsibility of the importance of protecting the environment, the first step that can solve the problem of the environmental threats is to be responsible for the number of human population growth (Yi and Borzée 2021). BKKBN direct awareness and responsibility for the importance of saving the environment from global warming and avoiding limited natural resources is one of the driving forces for the implementation of the family planning program (Table 8).

Table 8. Environment Factors, Strategy Impacted and the Implication

Environmental Factor	Strategy Impacted	Implication for Strategy	Implication for Targets
Population growth problems	B2, C1, C2, C3, C4, C5, C6	Population decreases to save the environment	Increase TFR and reduce population issue
Resources needs	B1, B2, C5, D1, D2	Population decrease to reduce resource needs	Increase TFR and reduce population issue

### 6. Conclusion

The purpose of this paper is to analyze the external influences on the success of the BKKBN strategic planning as outlined in the BKKBN strategic planning for the 2020-2024 period. Analysis of the barriers or support from political, economic, social, technology, legal and environment factors is done to see the possibility of success in the BKKBN strategic plan for the 2020-2024 period. These factors have been shown influencing the family planning programs, not specifically in Indonesia, but throughout the world. The success of BKKBN’s family planning programs should be seen through the implementation of the strategies and completion of targets.

The findings of our research indicate that BKKBN has many positive future possibilities in implementing its strategies, as well as completing its strategic targets. In order to ensure the success of its strategy implementation for target achievement, BKKBN should put an effort in utilizing this supporting nature in implementing family planning programs. Some factors, however, could challenge BKKBN’s success. BKKBN should address threatening factors like corruption in their own body, economic instability, as well as more social challenges like religion and cultural beliefs. Current population problem could be a meaningful threat as well to BKKBN’s success. Other remaining factors are very dependable on how BKKBN could address them. Factors such as civilian trust, as well as political and economic decentralization could be a great boost in the success of family planning programs arranged by governmental bodies like BKKBN. But, just like a double-edged sword, they could be a major threat for this success. Ataullahjan et al. (2019) has shown how deteriorating civilian trust could put family planning programs into busts.

This study managed to assess the potential supports and barriers to BKKBN’s strategy implementation and target completion. However, this paper faces limitations on sources, as many of the sourcing research papers are focusing on the family planning matters outside, not inside Indonesia, which is the base of BKKBN’s operation. The sources available also limited the coverage of our researched strategies, thus unable to see the implications of BKKBN’s whole strategies, even when we managed to cover all the targets. Since this paper has qualitatively analyzed the barriers or support for the success of the program, future researches may work on the quantitative analysis of the factors influencing.

### References

Amran, Y., Nasir, N. M., Dachlia, D., Yelda, F., Utomo, B., Ariawan, I., and Damayanti, R., Perceptions of contraception and patterns of switching contraceptive methods among family-planning acceptors in West Nusa Tenggara, Indonesia, *Journal of Preventive Medicine and Public Health*, vol. 52, no.4, pp. 258-264, 2019.

- Anderson, D. J., Population and the environment — time for another contraception revolution, *New England Journal of Medicine*, vol. 381, no. 5, pp. 397-399, 2019.
- Anton, S., and Onofrei, M., Health care performance and health financing systems in countries from Central and Eastern Europe, *Transylvanian Review of Administrative Sciences*, vol. 8, pp. 22-322, 2012.
- Apriliani, A., and Khoirunurrofik, K., The impact of special allocation fund (DAK) for health on achievements of health development performance in Indonesia, *Journal of Economics*, vol. 8, no. 72, pp. 1-15, 2020.
- Ataullahjan, A., Mumtaz, Z., and Vallianatos, H., Family planning in Pakistan: a site of resistance, *Social Science and Medicine*, vol. 230, pp. 158-165, 2019.
- Ayuningtyas, D., and Oktaviana, W., M., Factors contributing to unmet need for contraception in Nusa Tenggara Barat, Indonesia, *Journal of Reproduction and Contraception*, vol. 26, no. 4, pp. 239-248, 2015.
- Badan Koordinasi Keluarga Berencana Nasional (BKKBN)/National family Planning Coordination Board. Available: <https://www.mhtf.org/organization/badan-koordinasi-keluarga-berencana-nasional-bkkbnational-family-planning-coordination-board/>, Accessed on April 20, 2021.
- Bietsch, K., Williamson, J., and Reeves, M., Family planning during and after the West African ebola crisis, *Report of Studies in Family planning*, vol. 51, no. 1, pp. 71-86, 2020. Available: <http://www.djpk.kemenu.go.id/?p=16166>. Accessed on April 30, 2021.
- BKKBN, Available: <https://www.bkkbn.go.id/>, Accessed on April 20, 2021.
- Family Planning 2020, Available: <https://www.familyplanning2020.org/indonesia>, Accessed on April 21, 2021.
- Goundar, S., *Chapter 3 : Research Methodology and Research Method*, 2012
- Hardee, K., Kumar, J., Newman, K., Bakamjian, L., Harris, S., Rodríguez, M., and Brown, W., Voluntary, human rights-based family planning: a conceptual framework, *Studies in Family Planning*, vol. 45, no. 1, pp. 1-18, 2014.
- Hatton, T. J., Sparrow, R., Suryadarma, D., and Van der Eng, P., Fertility and the health of children in Indonesia, *Economics Human Biology*, vol. 28, pp. 67-78, 2018.
- Heywood, P., and Choi, Y., Health system performance at the district level in Indonesia after decentralization, *BMC International Health and Human Rights*, vol. 10, no. 3, pp. 1-12, 2010.
- Imtishal, M., and Mohammadnezhad, M., Male partners and medical staff's perception on contributing factors of family planning (FP) in Fiji, *Research article of Heliyon*, vol. 7, pp. 1-7, 2021.
- Ippoliti, N. B., and L'Engle, K., Meet us on the phone: mobile phone programs for adolescent sexual and reproductive health in low-to-middle income countries, *Reproductive Health*, vol. 14, no. 1, 2017.
- Jadhav, A. and Weis, J., Mobile phone ownership, text messages, and contraceptive use: is there a digital revolution in family planning? *Contraception*, vol. 101, pp. 97-105, 2020.
- Jiménez-Rubio, D., and García-Gomez, P., Decentralization of health care system and health outcomes: evidence from natural experiment. *Social Science and Medicine*, vol. 188, pp. 69-81, 2017.
- Joana, A., Peralta S., and Perelman J., Efficiency and equity consequences of decentralization in health: an economic perspective, *Revista Portuguesa de Saude Publica*, vol. 31, pp. 74-83, 2013.
- Kumar, S., and Prakash, N., Effect of political decentralization and female leadership on institutional births and child mortality in rural Bihar, India, *Social Science and Medicine*, vol. 185, pp. 171-178, 2017.
- Kurniawan, D., and Suparti, S., Classification accuracy on the family planning participation status using kernel discriminant analysis, *Journal of Physics: Conference Series*, vol. 1025, 2018.
- May, J. F., The politics of family planning policies and programs in sub-saharan Africa, *Population and Development Review*, vol. 43, pp. 308-329, 2017.
- Mboanne, R., and Bhatta, M. P., Influence of a husband healthcare decision making role on a woman's intention to use contraceptives among Mozambican women, *BMC Women's Health Reprod*, vol. 12, pp. , 2015.
- Mustakim, Dewa, M. J., Baheri, Nasrul, Ginting, S., and Yuniar N., Analysis of decentralization and implementation of demography and family planning policy over fertility rate, *The International Journal of Engineering and Science*, vol. 5, no. 2, pp. 1-7, 2016.
- Muttreja, P., and Singh, S., Family planning in India: the way forward, *Indian Journal of Medical Research*, vol. 148, pp. 1-11, 2018.
- Nurcahyo, R., Wibowo, A. D., Robasa, R., and Cahyati, I., Development of a strategic manufacturing plan from a resource-based perspective, *International Journal of Technology*, vol. 10, no. 1, pp. 178, 2019.
- Nurcahyo, R., Wibowo, A. D., and Putra, R. F., Key performance indicators development for government agency, *International Journal of Technology*, vol. 6, no. 5, pp. 856, 2015.
- Oxford College, What is PESTEL analysis? Retrieved from <https://blog.oxfordcollegeofmarketing.com/2016/06/30/pestel-analysis/>, 2016.
- Purwaningsih, S. S., The decentralization of the family planning program: challenges and issues, the West Kalimantan Province case, *Jurnal Kependudukan Indonesia*, vol. 7, no. 2, pp. 109-125, 2012.

- Rahman, A., Salleh, M., Najib, A., and Lun, V., A descriptive method for analysing the kra canal decision on maritime business patterns in malaysia, *Journal of Shipping and Trade*, vol. 1, no. 13, pp. 1-16, 2016.
- Rosalia, F., and Kagungan, D., The effect of decentralization on health services: the experience of Pesarawan district, Lampung province, Indonesia, *The social Sciences*, vol. 12, pp. 2164-2168, 2017.
- Samat, N. A., Sapri, N. A., Mahmud, A., Rajak, N. A., and Mustaffa, N. A., Contraceptive use: Patterns and preferences among new acceptors in malaysia, 1990 to 2018, *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, vol.12, no. 3, pp. 503-509, 2021.
- Shiffman, J., and Quissell K., Family planning: a political issue, *Lancet*, vol. 380, pp. 181-185, 2012.
- Sitruk-Ware, R., Contraception: an international perspective, *Contraception*, vol. 73, no. 3, pp. 215-222, 2006.
- Sitruk-Ware, R., Nath, A., and Mishell, D. R., Contraception technology: past, present and future, *Contraception*, vol. 87, no. 3, pp. 319-330, 2013.
- Sivasankaran, S., and Jonnalagadda, S., Advances in controlled release hormonal technologies for contraception: a review of existing devices, underlying mechanisms, and future directions, *Journal of Controlled Release*, vol. 330, pp. 791-811, 2021.
- Smith, C., Gold, J., Ngo, T. D., Sumpter, C., and Free, C., Mobile phone-based interventions for improving contraception use, *Cochrane Database of Systematic Reviews*, 2014.
- Sultan, S., The effects of education, poverty, and resources on family planning in developing countries, *Clinics Mother Child Health*, vol. 15, no. 1, 2018.
- Spagnoletti, B. R. M., Bennett, L. R., Kermode, M., and Wilopo, S. A., I wanted to enjoy our marriage first... but i got pregnant right away: a qualitative study of family planning understanding and decisions of women in urban Yogyakarta, Indonesia, *Research Article of BMC Pregnancy and Childbirth*, vol. 18, no. 353, pp. 2018.
- Stifani, B. M., Avila, K., Levi, E. E., Telemedicine for contraceptive counseling: An exploratory survey of US family planning providers following rapid adoption of services during the COVID-19 pandemic, *Contraception*, vol. 103, pp. 157-162, 2021.
- Stout, A., Siri, W., Namagembe, A., Kaboré, A., Siddo, D., and Ndione, I., Designing a global monitoring system for pilot introduction of a new contraceptive technology, subcutaneous DMPA (DMPA-SC), *Evaluation and Program Planning*, vol. 68, pp. 185-193, 2018.
- Utami, D. A., and Samosir, O. B., Women's empowerment and unmet needs for family planning in Indonesia, *Journal of Environment Science and Sustainable Development Symposium*, vol. 716, pp. 1-10, 2021.
- Wilonoyudho, S., Salim, L. A., and Muhtaram, A., The perspective of Puritan Moslem on the family planning program: The case of salafi movement in Semarang, central Java, Indonesia, *Indian Journal of Forensic Mediciene & Technology*, vol. 14, no. 4, pp. 3452-3456, 2020.
- Yi, Y., and Borzée, A., Human population and efficient conservation: are humans playing ostriches and rabbits?, *Journal of Asia-Pacific Biodiversity*, vol. 14, no. 1, pp. 144-145, 2021.

## Biographies

**Nathaniel V. Dondokambey** is a second-year postgraduate student at University of Indonesia, Depok, Indonesia, majoring in Industrial Engineering, minoring in Industrial Management. He earned his B.Eng (S.T.) in Mechanical Engineering at University of Indonesia, Depok, Indonesia. His research interests are population and strategic management.

**Valda A. Afranovka** is a third-year student at Universitas Indonesia, Depok, Indonesia, majoring in Industrial Engineering. Her research interests include (but not limited to) strategic management and human factors.

**Yola Lista Valentina** is a second-year postgraduate student at Universitas Indonesia, Depok, Indonesia, majoring in Industrial Engineering, minoring in Industrial Management. She earned Bachelor of Engineering degree in Industrial Engineering from Universitas Sumatera Utara, Indonesia. Her research interests are in strategic and procurement management.

**Laras Safitri** is a second-year postgraduate student at University of Indonesia, Depok, Indonesia, majoring in Industrial Engineering, minoring in Industrial Management. She earned Bachelor of Engineering degree in Metallurgy and Material Engineering at University of Indonesia, Depok, Indonesia. Her research interests are in strategic management and human factors.